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W. M. JARDINE
SECRETARY

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1925 Yearbook Committee

The Yearbook has been prepared under the general supervision of a committee consisting of L. C. Corbett, H. P. Gould, W. R. Beattie, J. H. Beattie, W. F. Callander, and L. B. Flohr. A. P. Chew served as editorial secretary. E. C. Powell gave editorial assistance.

Foreword

This volume is the fifth and last of a series of yearbooks dealing primarily with the economic aspects of agriculture. The series was started under the direction of the late Henry C. Wallace, who was Secretary of Agriculture from March 5, 1921, until his death on October 25, 1924. In the preceding volumes articles have appeared on grains, livestock, fibers, dairy products, tobacco, forestry, forage resources, land utilization and land tenure, highways, credit, taxation, the poultry industry, and weather forecasting. In the present volume the fruit and vegetable industry is discussed. The Secretary's annual report to the President is likewise published, as well as a comprehensive collection of agricultural statistics.

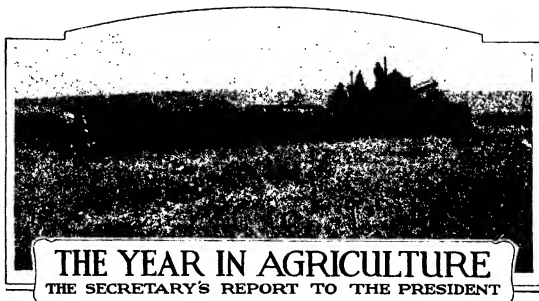
The articles on fruits and vegetables include historical material relating to fruit and vegetable growing in this country, in addition to the present status of the fruit and vegetable industry, its marketing problems, its geographical distribution, its cultural methods, and the economic factors that determine its development. Considerable space is devoted to plant pests and diseases and to methods of combating them. Recent progress in drying, canning, and pickling is recorded, and attention is given to the problem of utilizing surpluses and by-products of fruits and vegetables. Methods of financing the industry are described and discussed. While not comprising a textbook of the fruit and vegetable industry, the articles are comprehensive and detailed.

In the five years covered by the series of yearbooks now concluded, American agriculture has been harassed with economic problems, never before. Not since the price decline of 1920 has income from agriculture sufficed to allow both a commercial return on invested capital and a fair reward for the farmers' labor, risk, and management. Farmers have been handicapped by disparities between the prices of the things they have had to sell and the things they have had to buy. They have been faced with urgent crop readjustment problems, and with difficulties occasioned by overstocked and demoralized markets. The economic studies contained in this series of yearbooks were expressly intended to assist farmers in coping with such problems and difficulties. There is reason to believe they have accomplished this object. Although the present volume deals with a branch of agriculture that has been less affected than some other branches by the postwar depression, the fruit and vegetable industry is not without pressing economic problems. I hope that this Yearbook may help it to deal with such problems effectively.

W. M. JARDINE,
Secretary of Agriculture.

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THE YEAR IN AGRICULTURE

THE SECRETARY'S REPORT TO THE PRESIDENT

WASHINGTON, D. C., *November 14, 1925.*

To the PRESIDENT:

Improvement in the agricultural situation, which became marked in 1924, has continued in moderate degree during the present year. Farmers have not yet reached an economic parity with other great groups of producers, but their position is, on the whole, now the most favorable since 1920.

The heavy net movement of rural population away from farms has been checked. Noteworthy progress has been made in the liquidation of indebtedness among farmers. Purchase of supplies and materials for farm use has been resumed over the country on a scale contributing measurably to general business prosperity.

Agricultural production this year has on the whole been well balanced. The successive surpluses of cattle, corn, hogs, wheat, and various minor crops which so depressed the markets during and following 1920 have been largely worked off. Prices of farm products have in consequence risen to higher levels. The tendency this season has been even toward some expansion in production among certain major enterprises like cotton, corn, spring wheat, and sheep. Indications are that the acreage of winter wheat recently sown substantially exceeds that sown last fall. We have traveled around a fairly complete cycle in agricultural production since 1920.

Measured in terms of income, the economic position of agriculture as a whole promises to be at least equal to, if not slightly better than, that of the last year. Considerable improvement over previous years was manifested by the income from agricultural production for the crop year 1924-25, particularly in the areas selling wheat and hogs. Gross income from grains amounted to approximately \$1,900,000,000, compared with \$1,400,000,000 in the crop year 1923-24. Gross income from meat animals amounted to approximately \$2,600,000,000 compared with \$2,200,000,000 in 1923-24. Taking into account all farm production, the crop year 1924-25

Norm.—When this report was written, the latest figures available were based on crop prospects November 1, 1925. They consequently differ somewhat from the figures given in the statistical section of this Yearbook, which were issued in December and include some revisions made on the basis of the preliminary total of the 1925 Census of Agriculture.

represented an advance in total gross income from \$11,300,000,000 to \$12,100,000,000, or an increase of 7 per cent. These incomes are well above those earned during the depression, but below the earnings of normal years. It is quite likely that the reduction in the wheat crop this year may not be sufficiently compensated by higher wheat prices. The smaller volume of livestock marketings, however, may be more than offset by higher prices, even to the extent of covering the reduction in the return from grain crops. For agriculture as a whole, at best only a moderate increase in income may be expected for the crop year 1925-26 above the \$12,100,000,000 gross income of the past season.

Farmers are receiving better prices for their products than at any time in the past five years. The average of all farm prices for October was 143 per cent of the pre-war average as compared with 138 per cent in October, 1924. The real significance of this improvement in prices is better indicated by the relation of this change in prices of farm products to the changes in the wholesale prices of nonagricultural products. The purchasing power of the prices of farm products in terms of the prices of nonagricultural products has risen from 66, the lowest point of the depression period, to 87 in October, compared with the pre-war average of 100.

The current crop season has, as usual, shown some contrasts. In some sections there is distress. In others, crops are good and prices higher than at any time since 1920. In the great area from northern South Dakota to the Rio Grande and west to the Rockies, drought seriously reduced crop yields. The same is true in the area extending from the Ohio and Potomac Rivers southeast to central Georgia and east to the Atlantic. In certain restricted portions of these areas, the drought broke all records and farmers face the difficulties that follow when practically all crops fail.

Outside of the 15 States chiefly affected by drought, crop yields in 1925 were good, but they were not quite large enough fully to offset the reduction in the drought-stricken areas. Because of this, yields in the country as a whole were slightly below the average during the last 10 years.

For the growers of winter wheat this has been a season of disappointment. A fairly large acreage was planted, but the area killed by unfavorable weather conditions during the winter amounted to nearly 10,000,000 acres, or 22.5 per cent of the area sown. With the exception of 1917, this is the heaviest abandonment on record. As many of the fields left for harvest had thin stands and the crop also suffered from lack of moisture in the spring, the final harvest averaged only 12.7 bushels per acre, the lowest average yield since 1904.

Spring wheat looked very promising at first, but a correspondingly heavy yield was prevented by injury from rust, and the harvest was 13.3 bushels per acre. This is about 1 bushel per acre above the five-year average, but 2.6 bushels per acre below the splendid crop of 1924. In comparison with last year, however, the reduction in yield was offset by the large increase in the acreage planted in the Pacific northwest, where spring wheat was substituted for the winter wheat killed by the unusual cold.

Of all wheat, winter and spring varieties combined, the country harvested a total of 697,000,000 bushels, or 175,000,000 bushels less than in the preceding year. The crop was the smallest since 1917.

In proportion to population it was the smallest wheat crop since 1890. Furthermore, of this year's crop nearly 67,000,000 bushels were durum, a variety which is rarely used for bread flours.

The corn crop of some 3,013,000,000 bushels was nearly one-fourth larger than that of the previous year and of much better quality, but was less than the average quantity harvested in the preceding four years. In the central portions of the Corn Belt and practically everywhere north of the Ohio and Potomac Rivers, an excellent crop was obtained, but corn was nearly a failure in the Southwest, and the average yield was low in nearly the whole of the Cotton Belt and in some of the States along the western border of the Corn Belt.

A total of 1,470,000,000 bushels of oats and 227,000,000 bushels of barley were harvested, these totals being respectively 11 per cent and 25 per cent above the average production of the past five years.

The hay crop of 1925 was only 98,100,000 tons, the smallest since 1918. Allowing for 15,700,000 tons on hand May 1, 1925, and for probable holdings of, say, 9,000,000 tons next May (chiefly in sections where the 1925 crop was good), the quantity fed will probably be about 105,000,000 tons. A year ago the crop was 112,500,000 tons and the quantity used was close to 110,000,000 tons.

The cotton crop of 1925 is expected to be 15,386,000 bales and ranks with the crops of 1911 and 1914 as one of the three largest on record. No crop since 1914 has approached it in size. A record acreage and lack of excessive moisture during the growing season, with accompanying slight boll-weevil damage, were important factors in producing this crop. Good yields were obtained generally throughout the belt with the exception of south-central Texas and the Piedmont areas of the Carolinas and Georgia. The quality of the crop was materially lowered by weather damage during the latter part of the picking season. Prices generally are lower than a year ago, but for the belt as a whole, this year's income from cotton seems likely to equal that of last year.

The flaxseed crop of 22,300,000 bushels is much below the quantity harvested last year because of sharp reductions in both acreage and yield, but the crop was about 50 per cent greater than the average production of the preceding five years.

Buckwheat was a fairly good crop, and rice production was not far below average. Rye, sugar beets, and clover seed all gave low yields.

The potato crop of 346,500,000 bushels was the smallest since 1919, and in proportion to population it was even smaller than the crop of that year. Although the 1925 crop was 24 per cent less than that of the previous year and was of unusually poor quality, the quantity actually utilized for food may not be proportionately decreased because the 1924 crop was greatly in excess of domestic needs and many million bushels were fed to stock or used for starch or other low-value purposes. The shortage has, however, been sufficiently great to cause a substantial increase in the price of potatoes and probably some increase in the demand for substitute foods. The low production was owing partly to a reduction in acreage following several years of excessive production and low prices as well as to severe losses from freezing which occurred before all the crop was dug.

The sweet-potato crop amounted to only 81,100,000 bushels. A large acreage was planted but on account of drought the yield was

only 80 bushels per acre. With the exception of last year the yield per acre was the lowest for 15 years or more and the production the lowest since 1916.

In the range States pastures and ranges are now very good, and the demand for both feeder and fat cattle has inspired greater confidence in the future. The prices of lambs and wool are relatively high. In practically the whole area west of the Rocky Mountains crops have been good, and conditions are vastly better than they were a year ago.

Certain sections that suffered losses in previous years have this year enjoyed much needed profits. Some Maine potato growers are hoping to pay off fertilizer bills of several years' standing. Louisiana and Mississippi and some of the Gulf coast sections of Georgia and Alabama will make up part of their recent losses from the boll weevil.

Fruit and vegetable production was, in general, very moderate, chiefly because of drought and a reduced acreage planted to vegetables. Car-lot shipments of fruits and vegetables were about equal to the very heavy movement of the 1924 season, and apparently an unusually large proportion of the crops was successfully marketed. Prices were generally higher than in the preceding season through the greater part of the shipping movement, although for certain products there were periods of oversupply and depression.

Foreign demand for apples, the leading fresh-food export, has been active in each of the last two seasons, the movement showing double the volume of preceding years. For the producers of fruits and vegetables as a whole the year was more satisfactory in a financial way than any other recent season.

The Wheat Situation

The most significant fact about our wheat situation is that with a large world crop the United States apparently has little more than enough wheat to meet domestic requirements. The wheat crop of the Northern Hemisphere, outside of Russia and China, is estimated to be 11 per cent greater than the 1924 crop. It is larger than the pre-war average of production in the same countries, but not equal to the record crop of 1923. Russia is reported to have some wheat for export. Although it is not expected that Russia will contribute as much wheat for export as before the war, it is possible that she will export more wheat this year than she has exported in any other year since the war. Prospects are also good for the wheat crop in Argentina, but a short crop in Australia may offset the prospective increase in Argentina.

The world's supply of rye is also an important factor in the wheat situation. The rye crop, too, is much larger than last year. Estimates in the Northern Hemisphere outside of Russia amount to 981,000,000 bushels, as compared with 711,000,000 bushels last year. Russia is reported to have a good crop of rye. The effect of a good crop of rye in Russia is to encourage exports of wheat and the effect of good rye crops in Germany and Poland is to reduce the import demand for wheat.

The influence of this increase in production of wheat and rye as compared with last year is offset to some extent, however, by lower stocks at the beginning of the year and by the location of the in-

creases in production. At the beginning of the year European stocks of old wheat were reported to be very low and the stocks in exporting countries as well as the quantity of wheat afloat were very much lower than at the beginning of last year. Most of the increases in production of both wheat and rye are in Europe, where increased production will cause some increase in consumption. Latest estimates indicate that the total European crop of wheat outside of Russia and a few unimportant producers not yet reported is 323,000,000 bushels greater than last year and that the total European rye crop outside of Russia and a few small producers is 281,000,000 bushels greater than last year. Records of past years indicate very clearly that the European import requirements will not be reduced nearly so much as this increase in production. The fact remains, however, that the world's supplies for the year appear to be somewhat larger than last year in relation to the world's demand.

The situation in the United States is markedly different from what it was last year. The total production of wheat is but slightly greater than the quantity utilized in the United States last year. Out of an estimated production of 873,000,000 bushels last year, the balance of exports amounted to 252,000,000 bushels, leaving 621,000,000 bushels in the United States. In addition to this balance about 44,000,000 bushels were drawn from stocks, indicating a total utilization in this country of approximately 665,000,000 bushels. Should the same quantity be utilized in the country this year, there would be only about 32,000,000 bushels of wheat for export without further reduction of stocks.

Considering the production of the various classes of wheat and the other conditions that affect the marketing of our wheat, it is apparent that we shall export, and we are exporting some wheat. More durum wheat has been produced than is needed in the country. There is also some wheat on the Pacific coast for export or for shipment to eastern States. It appears, on the other hand, that not enough good hard red winter and soft red winter wheats have been produced to meet the usual mill, feed, and seed requirements of these wheats. The mill demand for these wheats, as well as for the hard red spring wheat, is in part for flour exports. It seems, therefore, that we may export durum wheat, some of the soft wheat from the Pacific coast, and about the usual quantity of flour. There may be some exportation of other wheats in the beginning of the season which will have to be offset later by imports.

The shortage in supplies of several classes of wheat may place the United States on an import basis at least for a greater part of the year. The surplus of durum wheat will have to meet competition of wheat from North Africa and Russia in Mediterranean markets, and the price of that wheat has already fallen as low as \$1 per bushel in sections of North Dakota in the middle of August. The prices of other wheats are now too high compared with world markets to permit of exports on the basis of these prices. The prices of wheat for December delivery in Chicago, Minneapolis, and Kansas City are nearly on a par with the price in Liverpool and considerably higher than in Winnipeg. Canada is the nearest source of imports. Both the futures and cash prices for wheat delivered at Port Arthur are now considerably below prices in Chicago and Minneapolis. A

small quantity of wheat has been imported, but the margin is not yet sufficient to encourage heavy imports, duty paid. It is probable, however, that as high-grade milling wheat becomes scarcer in the United States, the price margins will widen. Canada has a large supply of hard red spring wheat and a small quantity of soft red winter wheat, so that the relation of prices in the United States to the world-market level may be worked out through the relation of Canada to the world-market level, plus approximately the tariff duty.

Farmers received for their wheat at the beginning of the season prices considerably higher than those of last year. Last year, however, on account of a small world crop, prices moved rapidly upward from the beginning of the season until February. We are facing a different situation this year in that the world crop is much larger. In many parts of the country the higher prices thus far received are not sufficient to offset the reduction in the crop yield, so that farmers may not receive as great a return from this year's crop as they received from last year's.

Looking ahead, according to the "intentions-to-plant" report, high prices have encouraged farmers to consider increasing the wheat acreage of the United States. In planning wheat production the situation both in the United States and in the whole world should be considered. Even with the same acreage as last year, a good average yield would place the United States on an export basis for most if not all classes of wheat. The trend of production in many countries that compete with the United States is upward. Production in European countries affected by the war is rapidly approaching pre-war status. Russia, a large exporter before the war, is recovering. The wheat-producing areas of Argentina, Australia, and Canada are now 53 per cent above pre-war average, and these countries have not yet reached their limit. Under these conditions, only poor crops in important foreign wheat-producing countries can result in a situation comparable to that of last year, when the farmers of the United States had a good crop which they sold at high prices.

The Cotton Situation

The 12 months ended July 31, 1925, brought to the world perhaps the best balance between cotton supplies and consumption since the outbreak of the war. Cash proceeds were well distributed throughout the Cotton Belt. The prospect is for a 1925 crop materially larger than that of 1924. Indications are that the grade of the crop will probably be very much lower, and that the cash proceeds, owing to sectional damage caused by drought, will be less generally distributed than in 1924.

From a production standpoint, the results of the 1924 crop were so encouraging that in the spring of 1925 more than 46 million acres were planted to cotton. This was the largest acreage in the history of the country. The increase was greatest in the extreme western part of the Cotton Belt, where large areas of range land have been broken up and devoted to cotton cultivation, and where drought prevented the seeding of the usual acreage of grains. Although growing conditions have been less uniformly good than in the previous year—drought having brought disaster to certain sections

of the Southeast and Southwest—they have been extraordinarily favorable in many sections and the third largest crop in the country's history is expected. The department's forecast on November 9, 1925, was approximately 15,386,000 bales.

At present prices this production would represent a total value about equal to that of 1924. Drought and generally dry weather caused early opening of bolls in many sections, and early rains have lowered the grade of much of the crop. This condition has been somewhat accentuated by a scarcity of picking labor in certain localities, because of which some cotton has remained exposed in the field.

The large crops of 1924 and 1925 have done much to allay fear that the boll weevil and other checks have curtailed the ability of this country again to produce an adequate supply of cotton. Occasional suggestions that it may produce a series of crops large enough to depress prices below the point of profit are tempered by a realization that the use of cotton in industry is increasing, that the world appears to be regaining its pre-war capacity to consume cotton and that in the present and preceding seasons weevil depredations have been unusually light. Our production of cotton is still somewhat less than it would have been had it followed the trend of the 30 years preceding the World War.

The increased crops of 1924 and 1925 have been coincident with increased cotton-consuming power in Europe, following stabilization of currencies and credit conditions. This improvement was shown in exports from the 1924 crop more than a third larger than the average of the preceding five years. Exports for the first months of the 1925 season were even larger than in 1924, though this may have been owing in part to the earliness of the season.

Domestic business conditions also showed improvement, being supported by general improvement in domestic agricultural conditions. Domestic mill consumption sharply increased toward the latter part of the season, and seems to promise a good domestic demand for the 1925 crop.

Satisfaction was expressed by manufacturers over the relief they obtained by the 1924 crop from an acute shortage of raw material, although world consumption of American cotton for the crop year was only about half a million bales less than the production. Stocks in this country, moreover, were only about 100,000 bales larger on July 31, 1925, than a year before, and this quantity at current rates of domestic consumption meant a difference of less than a week's requirements of our mills. With a crop of $15\frac{1}{3}$ million bales in 1925, it is possible that there may be some further restoration of stocks which as yet are considerably below pre-war quantities.

The anticipation of a crop in 1925 larger than the crop of 1924, together with the slight increase in supplies at the beginning of the season, has been naturally accompanied by somewhat lower prices. The average price for the 1924-25 season in 10 designated spot markets was 24.22 cents a pound. This price represented a reduction of 5 or 6 cents, or about 20 per cent from that of the preceding season. On the other hand, the purchasing power of cotton in terms of all other commodities was calculated for August, 1925, at 116 per cent of the average purchasing power in the five years

preceding August, 1914. Although this represents a reduction over the immediately preceding years, it is nevertheless a price that compares favorably with that of other crops grown in the South.

It should be noted, however, that production outside the United States has increased rapidly in the last two seasons, as a result, no doubt, of the stimulus of favorable economic and weather conditions rather than of concerted effort, though there has been much of the latter. A further increase of foreign production will bear careful study, since it may lead to a competitive situation in which the advantage will rest with the producer whose costs of production are lowest or who produces cotton of a quality most in demand. Under such conditions, the shorter staples grown in this country would probably feel the competition of cotton grown with cheap labor in India, China, and elsewhere.

The department is giving close attention to the possible competition which foreign cotton production may force upon our short staples. It is particularly concerned with cotton breeding and testing, so that a more general production of prolific cotton of high spinning quality may be facilitated. Studies have been made of production costs in 15 counties typical of as many distinctive areas in the Cotton Belt. Scientific investigation has been made of the less obvious properties of cotton fibers which contribute to their spinning value. The results of this work have been made available to breeders of seed and to other cotton growers. Spinning tests are being carried on to determine the relative waste content and the strength and evenness of yarns from cottons of various varieties, and from cottons of the same varieties grown under various conditions of soil and climate. Tests of the same sort have been made of cottons of different grades. These tests have demonstrated the relative superiority of higher grades over lower grades, from the standpoint of waste percentages and values, yarn strength and evenness, bleaching, finishing, and mercerization properties, and efficiency of machine operation.

Concurrently the work of quality standardization has been carried forward. New agreements have been negotiated with foreign markets within the year, which assure the use of the grade standards throughout the world, thus solidifying their establishment and adding to their usefulness in our own country. The staple standards have also been reviewed in the light of past experience and certain slight modifications projected in the physical representations, all of which are calculated to make them more workable and dependable as measures of length. There are few problems of an economic nature, either in cotton production or distribution, to which fixed and accepted standards of quality are not fundamental.

The Livestock Outlook

Livestock producers found themselves in a rather more favorable position this year. Hogs averaged more than 60 per cent higher in price during the first half of 1925 than in 1924. At times they brought nearly double the 1924 price. Top-finished and heavy-weight cattle sold up to \$16.35 per hundred pounds at Chicago. This was the highest price registered since 1920. The average price for

lambs in August was \$1.50 higher than in 1924. It was the highest for that month in six years; and three-eighths blood wool averaged more than 50 cents a pound. Lessened supplies were partly responsible for the advance in hog prices. The short corn crop of last year, however, compelled the feeding of relatively expensive grain, so that producers did not obtain an increased net income proportionate to the increase in hog prices. The supplies were not reduced relatively so much as the prices increased, and during a part of the year a decrease in the number of hogs marketed was offset to some extent by an increase in average weights.

Marketings of cattle, calves, and sheep were heavier during the first half of 1925 than in the corresponding period of 1924. Indications are that the total quantity of meat produced in 1925 will be nearly as great as in 1924, and the gross returns from its sale the highest since the speculative period of 1919.

One of the important developments of this year has been an advance in cattle prices. A gradual improvement has been shown in the cattle market since December, 1921, but at times this improvement was so slow as to be almost imperceptible. It took the rapid improvement of 1925 to convince cattlemen that the tide had definitely turned.

In parts of the range country there has been a marked tendency toward lower production. Some cattlemen have gone out of the business. Others are keeping fewer but better cattle. There is, however, no beef shortage as yet, although heavy runs of cattle and calves are tending to reduce basic supplies. Receipts of cattle and calves at public markets during August, 1925, were the heaviest on record for that month. Prices advanced in spite of increased marketing. Receipts at central markets have been increased by contributions from the dairy industry, which every year is supplying a larger proportion of our beef and veal.

Although top cattle prices at Chicago in August were \$2 higher than they were a year previously, the average of range-steer prices for the same month showed advances of only about \$1. Stocker and feeder prices in August were only 70 cents higher than in August, 1924. These facts may somewhat temper enthusiasm over the upturn in the cattle market. Higher fat-cattle prices, however, always stimulate the demand for feeders, and a good demand for feeders reacts favorably on the market for range cattle. It would seem, therefore, that eventually all branches of the cattle industry should feel the benefit of the better price situation.

Reduced hog marketing is helping the cattlemen materially. They have also been benefited by good forage conditions over most of the range country, although some sections have had severe drought.

Sharp curtailment of hog production resulted from the unfavorable relationship which existed between hog prices and corn prices in 1924. Fewer sows were bred in spite of a sharp upturn in hog prices last fall. As a result market receipts of hogs in August this year were 20 per cent less than in August, 1924. They were 15.6 per cent below the five-year August average. In the first eight months of 1925 hog receipts dropped 19 per cent from the total of the corresponding period in the previous year. Moreover, the average weight of hogs marketed in the early part of 1925 was below

normal. Later, however, advancing prices presumably influenced growers to market fewer hogs.

There is now a marked tendency toward feeding to heavier weights. If this continues, the reduction in pork produced will be much less than the decrease in the number of hogs. Although hog prices broke sharply in August, they were still considerably higher in September than in the same month of 1924. Our foreign trade in pork products, although less than during the peak war years, was fairly satisfactory. Altogether, the hog situation in 1925 was one of improvement.

For the last two years the sheep industry has been perhaps the brightest spot in the livestock situation. Sheepmen will close their books this year with a very favorable showing. This prosperity has naturally drawn to it many new producers, including some inexperienced sheep raisers. Sheepmen should bear in mind the tendency of their business to go from one extreme of production to the other and should guard against overexpansion.

The average price of lambs in August was \$1.60 higher than in the same month of 1924. For the first eight months of the current year the average price of lambs showed a net advance of \$1.13 over 1924. As a matter of fact, during the past two years lambs have sold at nearly double the pre-war price. They have almost equaled the average prices that ruled during and immediately after the war. Attention to scientific methods of production, and prudence in expanding the number of sheep on farms and ranches, should help to maintain the sheep industry in its present prosperous condition.

The efforts of the department to work out a standard system for classifying and grading both live animals and meat have found favor among representative stockmen and dealers. This is one important move in the direction of greater marketing efficiency.

The department has worked out a schedule of standards for meat covering beef, veal, lamb, mutton, and pork, which have been accepted to a gratifying extent by the wholesale and retail meat trade, and by the consuming public. It has also established a meat-grading service.

Wool

A 5 per cent increase in wool production and a million more sheep on farms in 1925 than in 1924 are proof of returning confidence in the wool-growing industry of the United States. The favorable position of the industry at the present time is likely to encourage further expansion during the coming year. Wool growers generally were seriously affected by the postwar depression of 1920 and 1921, but the relatively good prices obtaining during the years 1923, 1924, and 1925 have enabled them for the most part to recover or to complete the readjustments the depression necessitated.

The fall and winter of 1924 saw a remarkable rise in wool values, but wool growers, with the exception of those marketing their clip late in the season, benefited little at the time. The advance, however, did create a keen demand for the 1925 clip, and contracting for the wool at high prices was carried on with vigor and energy from six to eight months prior to shearing. Wool values declined rapidly in the early part of 1925, reaching their low point in May.

Nevertheless, the wool-growing industry of the United States should continue for some time on the substantial basis it now occupies, although fluctuations in prices during the coming year are not unlikely.

Dairying

The dairy situation is more favorable than it was a year ago. Production is less than last year, consumptive demand has been good, and the storing season closed without burdensome surpluses. Prices of all dairy products are higher and have followed a more normal trend.

Production in 1924 was heavy. It was stimulated by ideal weather and by some increase in the number of cows. Production in 1925 will be less. Prices are higher. On September 1, 1924, the normal peak date for storage holdings, butter stocks were at a record high mark. These stocks were cleared before the 1925 producing season began, yet they exerted a depressing influence throughout the fall and winter. September 1 this year found stocks on hand more nearly in line with prospective requirements. Fall production did not seem likely to be unusually large. The position, in short, was statistically more favorable to producers.

The foreign situation has strengthened domestic markets. Except for exports of condensed and evaporated milk, outlets for domestic production of dairy products are very largely confined to our own markets. There is always the possibility, however, of our domestic supply being supplemented by imports from Denmark and from countries in the Southern Hemisphere, which are forging ahead rapidly as sources of supply. The European demand has been sufficient this year to hold prices in European markets at levels which, together with our own tariff barrier, have prevented imports of any consequence.

Poultry

From the producers' viewpoint the egg situation this year has been fairly satisfactory. Apparently production has been about the same as last year, whereas egg prices, stimulated by the previous profitable storage season, were considerably higher during the spring and summer than a year ago and have continued higher as far as fresh eggs are concerned. Storage-egg prices, however, because of larger accumulations in the warehouses and an unsatisfactory movement during the early fall, are lower.

The widespread disease situation last fall and winter, with its attendant embargoes on shipments of live poultry, had a most disturbing effect on the poultry industry. Consumption was restricted and stocks of poultry in storage piled up to such an extent that the disposal of a considerable proportion at a profit was impossible. Poultry prices to producers have been fairly well maintained, however, and with consumption and storage stocks at a more normal level, the situation is considerably improved. There appears to be about a normal supply of poultry on farms this year.

Foreign Market Situation

Our agricultural exports for the year ended June 30, 1925, were 21 per cent greater in volume than in the previous year and 26 per

cent greater than the average for the five years just preceding the outbreak of the World War. The value of these exports was more than double the value of the agricultural exports of any pre-war year and greater than that of any year since 1921.

The increased demand was due in part to smaller crops, in part to increased purchasing power in foreign countries. A shortage in European wheat crops greatly increased the demand for overseas wheat. A shortage in the Canadian crop left the European market largely to us. Accordingly we were able to sell in the year ending June 30, 1925, more than 169,000,000 bushels of wheat, including flour, in Europe at prices considerably higher than the prices obtained for a much smaller quantity (69,000,000 bushels of wheat, including flour) the previous year.

On the other hand, exports of pork and lard fell below the previous year's figure. This decline was owing mainly to decreased production in the United States and increased production in Europe. Substitution of other products, such as Argentine beef for pork, and butter for lard, had also something to do with it.

The European market for Argentine beef has been strong. This has lessened the probability of Argentine shipments to the United States—an obvious benefit to our own beef-cattle industry. In like manner our domestic markets have been almost freed from foreign butter, chiefly as a result of increased exports of Danish butter to Germany. Our net imports of dairy products in the last year were the smallest in several years.

Foreign competition continues to grow stronger in some lines of farm production. The wheat area of Canada has increased from a pre-war average of 10,000,000 acres to 22,000,000 acres in 1925. There are still large areas in Canada suitable for wheat production. Australian wheat area has increased from a pre-war average of 7,600,000 acres to 10,800,000. Argentina reports having sown a record acreage. The wheat area of these three countries together is now about 53 per cent above the pre-war average. Dairy production continues to expand in the Southern Hemisphere. New Zealand and Australia have just finished a season of record output. The production of these two countries has expanded greatly since the war. They still have room for expansion. Argentine dairy production has also increased considerably since the war. The further development of the western Provinces of Canada and the recovery of Europe are adding to the world's supply. Siberia, a large exporter of dairy products before the war, is also recovering.

It is well to note that increased purchasing power in European countries may not always result in an increase in the demand for American farm commodities. As European agriculture recovers there will be a tendency for European countries to reduce imports of the crops that they produce. The larger crops of grain harvested in Europe this year will undoubtedly have this effect. The European market for cotton, however, will probably be maintained as long as business conditions in Europe remain good.

Our agricultural production this year will probably not provide for the year a volume of exports so large as that of last year. Of wheat, one of our most important items for export, we have at most only a small quantity in excess of our domestic requirements. Present indications are that the cotton crop will furnish for export more

than last year. The number of hogs has been so much reduced that the pork and lard exports are likely to remain low. Of some other products, such as tobacco, apples, and many minor items, we may continue to export about the same quantity as last year. It should not be overlooked, however, that the trend of exports of many of our products for the last 15 years before the war was downward. This was owing largely to the fact that our industrial population was increasing more rapidly than the production of many of our agricultural products. A reduction in our agricultural exports would therefore be in line with pre-war tendencies.

Farm Credit Situation

Good crops and increased prices have materially improved the financial position of our farmers. In some regions, particularly in the Corn Belt, where commitments for high-priced land and farm improvements reached heavy proportions, and in the cattle country, where livestock growers suffered almost unbelievable losses, large numbers are still confronted with financial problems, the solution of which will tax their best efforts.

Substantial progress has been made in improving the rural-credit situation through legislation setting up machinery for both short and long time credit. Much remains to be done, however, to make the new agencies effective; they must be brought to the farmer so that he can avail himself of their facilities. Particularly is this true of the intermediate credit bank system, its rediscounting privileges having been utilized, in most areas, only to a limited extent. The intermediate credit banks have assumed a very important rôle in financing cooperative marketing organizations, and there is every reason to believe that they may fill just as important a place in financing the individual farmer where local capital is inadequate.

There are many regions where the small farmer, particularly, is at a disadvantage. He is compelled to pay high interest rates for short-time loans, to which additional commissions are frequently added. Crop liens and chattel mortgages often interfere with the marketing of his products to best advantage. This is a situation which also affects the development of cooperative marketing. The organization of local agricultural-credit corporations to make available additional credit through the rediscounting facilities of the intermediate credit bank system, should materially improve these conditions. Where local banking facilities are adequate, the organization of new rediscount corporations should not be encouraged, as the new intermediate credit system was intended to supplement rather than compete with existing banking machinery.

The depression revealed weaknesses in our agricultural credit facilities which intensified the difficulties of farmers and stockmen. As agricultural conditions have improved, the credit problem has become less pressing. A sound credit structure, however, is no less important now than in the past. We should, therefore, devote ourselves to repairing and putting in shape our agricultural credit machinery so that it may be in a position to carry farmers through agricultural depressions that may come in the future.

It should be borne in mind, also, that in many regions a lack of confidence in agriculture has retarded expansion and farm improve-

ments. Farmers under these conditions have been devoting themselves to the liquidation of existing indebtedness rather than seeking additional loans. This, naturally, has led to a smaller demand for credit. With a renewal of confidence in farming conditions it is likely that weaknesses in local credit facilities will become apparent.

The credit situation in certain areas has been seriously complicated as the result of numerous bank failures. Impaired confidence in the banking situation and in the stability of agriculture has caused banks to maintain extremely high cash reserves and has resulted in a shift of banking funds from agricultural investments to Government and industrial securities. This is illustrated by the fact that in some rural communities the percentage of deposits represented by cash or Government obligations reaches 75 to 80 per cent of the total deposits. When confidence is again restored in these regions a more stable credit situation will follow.

II. Economic Problems of Agriculture

Agricultural Surpluses

Agriculture can not make its adjustments in production to demand as rapidly and accurately as can industry. It is handicapped by weather conditions, by animal and plant pests, by limitations of soil and climate, by fixed periods of growth, by slow turnover, and by other more or less uncontrollable influences. A great deal has been done and can be done toward adjusting production to anticipated market requirements. Nevertheless, surpluses of agricultural commodities will be produced from time to time, no matter how prudently farm crops and livestock may be regulated in accordance with forecasts of supply and demand. Nature will give us bountiful yields in some years, even though acreage may have been cut down. In short, nature may upset the best-considered plans for establishing a harmonious balance between production and consumption.

What can be done toward handling unavoidable surpluses, which are so disastrous to a stabilized agriculture, when they occur unavoidably? This is one of the major economic problems of the Nation. It is well known that small surpluses exercise a depressing effect on prices altogether disproportionate to their amount. Measures to regulate the movement of surpluses into consumption so that unnecessary price fluctuations can be avoided and speculative hazards lessened are urgently needed.

It is to the interest of the entire community that agriculture should not be periodically depressed by overproduction and low prices. Business, indeed, has almost an equal interest with agriculture in preventing undue fluctuations in farm commodity prices. Whatever benefit low farm-commodity prices may temporarily seem to bestow on the consumer are eventually offset by a movement the other way. Stabilized production and marketing of agricultural products are clearly in the public interest.

Perhaps an analysis of the surplus problem will help us to decide what the nature and the principles underlying these measures should be. In the first place, we should clearly recognize what the surplus is. It may be a useful and necessary carry over from one producing season to another, part of which is involved in the process of manu-

facture and distribution and part of which is the national reserve against fluctuating seasonal production. It may be overproduction beyond the domestic and world demand. From a purely practical point of view there is the possibility of developing marketing methods which will prevent the carry over from depressing prices to unfair levels.

In the field of production there is one important thing that Government agencies can do. They can furnish farmers with a background of economic information which will serve to guide intelligent programs of production. The Department of Agriculture is already undertaking to collect and disseminate accurate information on production, movement, prices, and consumption of farm products.

The department's work along these lines is being rounded out to a comprehensive service. It compiles and disseminates the data on intended plantings of both spring and fall crops. It makes careful pig surveys, indicating farrowings and the pig crops in expectation. It is beginning similar calf surveys and will shortly cover the whole livestock industry. It issues timely statements on the outlook for production in each of the important lines. This is not an academic service. It is a real stabilizing force. The department has been forecasting the corn-hog situation accurately for a considerable period. Those swine producers who heeded its warnings in the spring of 1923 and its encouragement in the fall of 1924 have made money both ways by doing so. Those potato producers who heeded its advice not to reduce acreage too much last spring have profited thereby. Next summer will come the danger again of too great a potato acreage. The wheat situation would give promise of greater stability next year if there were more general adherence to the cautions clearly sounded in this fall's outlook. In stabilized production and in avoidance of wide swings lies the greatest assurance of profitable adjustment to the markets.

The Department of Agriculture is vigorously developing this service of supplying farmers with basic information by which orderly production may be guided. Through its Extension Service and in cooperation with State agricultural departments and colleges of agriculture it is perfecting and localizing the machinery of dissemination. In time this program will contribute measurably to reduce the fluctuations of unbalanced production.

In the field of distribution, public agencies should—as they already do—help the surplus problem at many points. In this field, again, the Government can provide essential background information as a guide to orderly marketing. The Department of Agriculture's forecasts and estimates of crop and livestock production are already the accepted data of trade. Its market news service covers the movements and prices of every important farm product.

A comprehensive system of standards of grades for farm products should be set up. The Department of Agriculture has made considerable progress on this project. It has already secured establishment of standards and grades for a number of major crops. Its cotton standards are accepted in the world's markets. Such action reduces hazard in marketing and diminishes the margin between the farmer and the consumer.

Warehouses and terminal storage facilities should be made adequate and stored farm products given a credit status on a par with other commodities. The act permitting Federal licensing of warehouses illustrates what can be done. Cold storage and merchandising dependent thereon can be developed beyond present limits.

Many developments will be possible in the credit structure. The system of intermediate credit is a case in point. The intermediate-credit machinery, one of the greatest accomplishments for agriculture, still needs extension, however, to fit the needs of various perishable crops. Some phase of our credit machinery must be evolved that will permit much broader storage of nonperishable crops.

There are therefore manifestly two general avenues of approach to the surplus problem. One is through better management of production, and the other through marketing and distribution. In the latter field we have three major issues, the problems of storage of a given harvest pending consumption during the year or season, and the problem of storage for the carry-over. We have in all storage questions immediately the problem of credit. Beyond these two questions of storage and credit we have the third problem, and that is orderly control of the stream of supplies to the consumer. We can solve the first two of these issues by better provision of facilities, but we can only solve the third by collective action.

It should be stated, also, that the provision of storage and credit must be differentiated as to application in the different kinds of products. In order to approach the problem from a practical standpoint it is essential to distinguish between the situations which arise in the three great groups of perishable products, nonperishable products, and livestock. This it will be noted is a purely arbitrary grouping.

While there is a great deal that can be done in adjustment of production in perishables such as fruits, vegetables, and dairy products, there also is the enlarged opportunity of restricting the flow of current products into the market by better standards and grades and by the diversion of the surplus, which then will be composed largely of inferior qualities, into by-products. All this implies organization, which already has made great headway in these commodities. There is also the possibility of broadening consumption of certain foods with benefit to all concerned.

Similarly in the case of nonperishables, like grain and cotton, something can be done in the field of better organized production and in the provision of enlarged storage and credit facilities.

As for the third general group—livestock—the major emphasis should be on the production end, although something can be done in the distribution field. It is frequently impossible to gauge the situation perhaps years in advance, and in such cases the distributive machinery may be made to function more effectively than at present. While better direction of production offers definite possibilities in both perishable and nonperishable groups, it offers the most effective solution in the livestock problem.

In the problem of control of the stream of products to the consumer we enter upon our most difficult field, a field which, as I have said, requires collective action. I believe farmers through their organizations have a most powerful instrument to control the move-

ment of surpluses into consumptive channels. In my judgment the activities of Government agencies in connection with the surplus problem should supplement and assist rather than control and direct the efforts of the farmers themselves and their associations. To accomplish this may call for enabling legislation. It should be borne in mind, however, that any plan built around cooperative associations should be based upon the ability of the existing and potential cooperative associations to handle surplus crops. Otherwise their initiative and usefulness might be seriously impaired or destroyed.

It seems to me that there is plenty of room for action here without injuring the rights of the consumer by any development of trading practices in restraint of trade. Farm production is so extensive and varied, so dependent on nature, that restriction of it to the point at which the consumer's interests would be menaced is a remote possibility.

A measure of the progress already achieved in this direction is the fact, mentioned elsewhere in this report, that nearly one-fifth of our agricultural business, or \$2,500,000,000 worth, was done this year through farmers' business organizations.

Even if direct Government interference in the channels of trade were to be tolerated by the consuming public, it would, in my judgment, lead to heavier production and ultimately an aggravation of the whole problem. Government buying and selling, if successful, would smother the cooperative movement because it would eliminate the incentive for collective action. It does seem essential, however, that this issue should receive broad recognition as a problem of national importance and, second, that public agencies should make every proper effort to cooperate in sound workable programs looking to its solution. The discussion of the problem of surpluses is entering more and more upon common ground, and I look forward to an agreement upon the principles of a solution along the broad lines here suggested.

Agricultural Cooperation

The most distinct and significant movement in American agriculture in this decade is the almost universal trend toward cooperation in the marketing and distribution of farm products. It is in no sense a regional or sectional movement, for it exists in all sections and is participated in to some extent by producers of practically all kinds of farm products.

There has been some cooperation by farmers in the United States for many years, but within the last two decades, and particularly during the last decade, the movement has assumed proportions which indicate that it is a response to a fundamental and universal need of present-day American agriculture. It is highly significant from all points of view that the best minds in agriculture, without regard to region or commodity, are unanimous in the opinion that group action in marketing must be added to individual efficiency in production if the high standards of American farm life are to be preserved and agriculture is to maintain its proper place in our national life.

Vast problems are involved in the changes in agriculture and in commerce and industry which this movement is bringing about.

They are broader than any one class and vitally affect all classes, hence they are a proper concern of the Government.

It is the traditional policy of our Government to foster agriculture as the most essential of our industries, but without in anywise seeking to dominate or direct it. This policy must be our guide in dealing with these new problems.

Although cooperative marketing is a farmers' movement, it is not in any proper sense a selfish class movement and holds no menace either to consumers or other business interests. Agricultural production is essential to national welfare, and the only guaranty of an adequate and dependable supply of agricultural products is a prosperous and contented agricultural population. It is obvious to any thoughtful mind that this happy result can not be obtained by agriculture unless it avails itself of the efficiencies and economies of organization and specialization which characterize other industries in this day. Consideration alike of intelligent self-interest and public welfare must prompt other classes to support wise and intelligent efforts of farmers to place their important industry upon a basis of stability and prosperity.

Agricultural cooperation, as we understand it at the present time, is simply an extension of the principle of mutual helpfulness that exists between many groups engaged in industry, commerce, or agriculture. It is, however, a very definite extension of that principle. In a cooperative-marketing organization, the members do not contribute their services in the informal way in which one farmer may help another in harvesting or threshing. They take another step and contribute capital to finance a joint business enterprise, and enter into agreements which specify the duties of each member. When this occurs, cooperation takes on a more or less definite legal status, and meets problems similar to those of other business organizations. There are also special problems confronting cooperative organizations because they deal not only with marketing but with the farmers' production practices, as these practices affect marketing.

Business agriculture to-day demands that we bring about a better balance between production and distribution. American farmers can more effectively apply modern business methods to their business and effect integration in the production and distribution of agricultural products by banding themselves together in cooperative groups. In other words, I believe cooperative marketing to-day is an economic expression of group life in farming and is a natural development of business agriculture.

To place our agricultural production on a stable and profitable basis we must recognize the inseparable relation between production and marketing. The working out of a more efficient marketing system must go hand in hand with an intelligent adjustment of production to market demand in a more orderly manner so as to avoid periods of overproduction with great loss and periods of underproduction with prices unsatisfactory to the consuming public. That agricultural production may more readily become responsive to the market demands, the farmers will have to organize for marketing through the development of sound farmer owned and controlled cooperative associations.

I view cooperation in agriculture as a business agency serving the producers both as an intelligent guide in their production program and an effective instrument for merchandising farm products. Instead of thinking of cooperation among farmers as a producing proposition or as a selling proposition, we need to think of cooperation as a business form or organization that penetrates our whole agricultural industry. By this I mean cooperation, in an educational way, must reach back to production practices and forward through efficient business organization to marketing practices. It is from this concept that I look upon cooperation as a "business form or organization" adapted to the farming industry.

The chief aim of cooperative marketing is not to obtain for the producers the profits of independent merchants, but rather to contribute to and effect better merchandising methods than previously were employed in marketing farm commodities. Proper grading of farm products and standardization of grade and pack, which are essential to efficient merchandising, can be effected much more readily when farmers are organized into groups. Standardized grades facilitate trading, create confidence, and stabilize market conditions. These fundamental marketing functions, properly performed by producers, through cooperative action near the point of production, make it possible to reduce the cost of getting these commodities to market and are also a means for an intelligent use of supply, which will aid in stabilizing markets, avoiding gluts and reducing wastes.

The business transacted by cooperative buying and selling organizations will be, conservatively estimated, \$2,500,000,000 during 1925—approximately one-fifth of the total agricultural business. A movement of this magnitude, with its tremendous economic and social significance, must be analyzed and guided so that its highest possibilities may be realized. Cooperation, although firmly established, is in its infancy in this country, as compared with other economic and social institutions. This is another reason for analyzing and studying the cooperative methods and experiences accumulated to date. Actual experiences need to be collected and expressed in plain language in order that they may serve as guideposts for the future. This the Department of Agriculture has been doing since 1913, when it began some fundamental research in cooperative marketing.

The department's work to date indicates that during the past 10 years cooperation has been evolving from the local type of organization into associations and federations covering large areas and handling business totaling millions of dollars annually. Although 95 per cent of the cooperative associations are still local organizations, approximately one-third of the total business at the present time is carried on by 100 of the federations and regional organizations. They, from a business point of view, are the dominant factors in cooperative marketing.

The tendency toward combinations in the business world has had an influence on the creation of large cooperative marketing organizations. The average business of cooperative associations more than doubled between 1913 and 1922, increasing, for the organizations of which the department has record, from \$100,000, in round numbers, to \$216,000 per association. The business of tobacco marketing

associations increased from an average of \$141,968 in 1913 to \$7,606,125 in 1922; cotton associations, from \$191,112 to \$3,405,765; dairy marketing associations, from \$50,296 to \$166,683; and fruit and vegetable organizations, from \$153,336 to \$284,081. These figures do not take into account the business done by the federations of which many fruit and vegetable and dairy organizations are members.

This increase in volume of business has resulted in progress in methods of operation and merchandizing. It has brought about, on the whole, economies in operation, a greater insistence on standardized products, easier financing, and has encouraged capable executives to enter the service of cooperative associations.

Another important problem of cooperation is the development of a cooperative spirit or understanding throughout the rural communities. It will be of little value to set up large and efficient cooperative business organizations if they are not understood and supported by those whom they seek to benefit.

It is universally recognized that the future of cooperation depends upon the knowledge which the individual producer has of its possibilities and limitations. He must take a long-time view of the movement. The producer must learn to test his association, not by the price advantage it may offer him this year, but by the services through which it may contribute to the stabilization of production and distribution. Our agricultural colleges and other State and Federal institutions must broaden their curricula to include cooperative education—a form of education that will aid the members, officers, directors, and officials to a more thorough understanding of the function and meaning of cooperation.

There is also a real need for a better understanding and appreciation of the cooperative movement by the general public. Farmers cooperatives must find and fill their place in the agricultural, commercial, and industrial life of the Nation. To this end each interest must be brought to know, understand, and cooperate with the others.

Increasing Farm Efficiency

Let us not forget that after all the foundation of a prosperous agriculture must always lie in efficient and rightly adjusted production. Marketing can not be separated from production. Fitting production to the needs of the market, moreover, implies more than merely furnishing products in suitable volume. Consumers are interested in quality as well as quantity. Farmers lose millions by offering products that the market will take only at a discount. They many times lose by not maintaining a proper balance among their different enterprises, but not raising good types of livestock, by not sowing the best available seed, by not making a correct choice of crops, by not employing the right size and type of machinery, and by not managing their business to the best advantage. Probably the farmer can do more for himself on the farm than anyone can do for him off the farm.

Efficiency in farm production is a complex thing. It is not enough to produce crops at the lowest possible cost. Nor yet does it suffice to have various farm enterprises in their right relationship to one another. This may all be accomplished without insuring a profitable

agriculture. Efficiency in cutting costs and in keeping a proper balance among different farm enterprises frequently benefits the consumer more than it benefits the producer. This happens when increased facility in production leads to an increased volume of production irrespective of market needs. It is easy to see how this comes about. Not all farmers increase their efficiency at the same time and in the same degree. Those who are in the lead have an advantage over the rest. These men are of course tempted by their special profits to increase their output. As the general average of efficiency increases and production costs go down, agriculture as a whole tends to increase its production until the benefit of its lower costs is wiped out by lower prices. Obviously the only remedy for this difficulty is such an adjustment of acreage and of the output of animal products as will prevent increased efficiency from being immediately translated into increased volume of goods.

Decreasing Production Costs

One way in which producers can increase their effectiveness is by decreasing their costs of production. In every region there are some men producing at much less cost than the great majority of their neighbors, whereas others are producing at costs much above the average. The men who produce at low cost do so because they have learned just how to use their resources and their labor, and just what methods to use to produce most efficiently. Thus in the Corn Belt some men use 20 hours of man labor and 40 hours of horse time to produce 50 bushels of corn, whereas other men, who employ their labor more efficiently, obtain the same product with only half as much labor. The same variation in labor efficiency has been found among wheat growers, cotton growers, tobacco growers, and others. These differences are due not only to the use of labor-saving machinery, but to the fact that some men follow practices with regard to the use of fertilizer, improved seed, time of conducting operations, and methods and practices in production that make every hour of labor count.

In livestock production, too, there are equally great variations in efficiency from farm to farm, and equally great opportunities for cutting costs on many farms. Some men incur high costs by using inferior stock or feeding improperly. Others use good technical methods so far as feeding and care go, but incur extra expense by failing to adjust their rations to changing prices. The combination which is most economical at one time may be very expensive at another. Farmers need to be ever alert to make sure that they are using the most economical practices possible for each change in prices.

III. Legislation

In spite of all the improvements since 1921, conditions on the farms are not yet satisfactory. Much remains to be done to put agriculture on a prosperous basis. The purchasing power of farm products in October was still 13 per cent below its pre-war level. A 13 per cent decline in the buying power of farm products occurring suddenly in normal times would be a calamity. Agriculture is convalescent now after a severe illness. We must not focus all

our thought upon the improvement effective since the crisis of 1921. Part of our attention must be directed to further improvement.

I believe our national policy should reckon with the fact that agriculture is not yet restored to equality in the general economic situation. Whatever responsibility for this situation rests with public agencies must be fully recognized. Much helpful legislation has been passed during the last five years. More can be done.

Farmers have been helped tremendously by the Federal farm loan act, whereby mortgage money is made available to them on better terms than were ever granted before. They have been assisted by the agricultural credits act of 1923, which provides a system of intermediate credit tending to relieve commercial banks of a type of farm paper that they are not well adapted to handle.

They have been assisted in orderly marketing by the administration of the Federal warehouse act, which makes Federal warehouse receipts acceptable as loan collateral in the principal money markets.

Legislation passed in recent years has defined the rights and privileges of cooperative associations and promoted their development.

Tariff legislation has been useful, particularly to dairy farmers, fruit growers, and hard-wheat farmers, sheep raisers, flax raisers, and sugar beet and cane producers.

Conditions in the livestock trade have been improved by the administration of the packers and stockyards act.

Four subjects stand out prominently as suggesting a need for legislative or administrative action—freight rates, taxation, the utilization of the public domain, and cooperation. I will discuss each of these problems in more detail later in this report. Here I merely wish to point out that in two of them, freight rates and taxation, remedies for existing evils are absolutely dependent on action by Government authorities, and that the third subject, cooperation, offers very large possibilities for useful advisory action by Government agencies acting under legislative authority.

The expansion of our farm-land area may require legislative action. I am opposed to bringing new areas under cultivation until we have found a market for the products we are now producing. There are two things the Government may do to prevent injudicious expansion of farm land. It may regulate its own land-settlement projects wisely, and it may discourage undesirable private projects. There is a field here for useful and legitimate Government activity for the protection of agriculture and the promotion of the general welfare. I am as strongly in favor of such activity as I am against attempts to determine economic law by means of legislation.

Certain recent legislation will be of definite benefit to agriculture. One significant measure enacted during the last session of Congress was the Purnell Act, authorizing additional endowments for the agricultural experiment stations. This measure will mark a new epoch in the history of the experiment stations. It will eventually treble the Federal appropriations for their support, with a corresponding breadth of research conclusions along economic lines made available to farmers.

In addition to the amounts now received by the agricultural experiment station, the Purnell Act authorizes additional appropriations

of \$20,000 for the fiscal year ending June 30, 1926; \$30,000 for the fiscal year ending June 30, 1927; \$40,000 for the fiscal year ending June 30, 1928; \$50,000 for the fiscal year ending June 30, 1929; \$60,000 for the fiscal year ending June 30, 1930; and \$60,000 for each fiscal year thereafter. This money is to be paid to each State where experiment stations are now established, and is to be used only for research and experiment. Supervision of the work done under the Purnell Act is intrusted to the Department of Agriculture, which is fully alive to the opportunity thus afforded for close cooperation between research and extension forces in Federal and State organizations. Passage of the Purnell Act was recommended by the President's agricultural conference.

Another recommendation of the conference that was enacted into legislation was a proposal that the Federal farm loan act and the agricultural credits act of 1923 should be amended to give agricultural credit corporations chartered by the United States the same privilege to rediscount paper with the Federal intermediate credit banks that is now given to credit institutions chartered under State laws. This measure is expected to foster the organization, particularly in livestock territory, of properly capitalized agricultural loan companies. A larger number of soundly organized, adequately capitalized, and properly managed loan companies operating under Federal supervision and enjoying access to the rediscounting facilities of the Federal intermediate credit banks seems very desirable. Such institutions would greatly improve the credit facilities of livestock breeders.

A third recommendation made by the President's conference related to livestock grazing on the national forests. It urged that until a uniform plan of leasing is agreed on there should be no increase in the fees charged. Congress accepted the recommendation and passed an act authorizing the Secretary of Agriculture in his discretion to waive any part or all requirements in respect to grazing fees for the use of national forests in drought-stricken regions during 1925. Simultaneously, it was announced that there would be no increases in the grazing fees charged on the national forests for the years 1925 or 1926.

Measures were also passed amending the Clark-McNary Reforestation Act and facilitating the work of the Forest Service; authorizing a forest experiment station in California; providing for a general utility topography survey of the United States; and creating an Alaska game commission.

Freight Rates

I believe that we must have substantial readjustments in freight rates. High freight rates constitute one of the many causes that have contributed to the depression in farm prices, especially in areas distant from the market. It is generally conceded that the entire freight-rate structure needs overhauling. Freight rates the country over have grown up in a haphazard way and as a result of all sorts of local considerations. It is my opinion that a careful study should be made of the entire freight-rate structure. On the basis of such a study it should be possible to make rate adjustments that take into account the market value of farm products as reflected over a

reasonable period of years and likewise the influence of freight rates on the economic development of different regions and of the country as a whole. I realize that adequate income to the carriers must be fully reckoned with as a factor in rate making, because efficient and adequate railroads are indispensable to a profitable agriculture.

There have been only minor changes in the freight rates on farm products in the last year. Our index showing changes in freight rates of 50 representative agricultural commodities stood on January 1 at 158.2, or 58 per cent above the 1913 level. Since then there have been no changes great enough to affect the index.

The Hoch-Smith resolution, passed at the last session of Congress, directs the Interstate Commerce Commission to effect such lawful changes in the freight-rate structure as will promote the freedom of movement of agricultural products affected by the depression, including livestock, at the lowest possible rates compatible with the maintenance of an adequate transportation service.

In response to this order the Interstate Commerce Commission has initiated proceedings to determine among other things what products of agriculture, including livestock, are affected by the depression and what, if any, reductions may lawfully be effected in the rates of charges on products of agriculture.

Meanwhile the railroads have introduced a petition asking for a 5 per cent increase in all rates west of the Mississippi. These two cases are now being heard together, and one of the main points of contention is the farmer's ability to stand higher rates.

In relation to pre-war conditions, the prices of farm products are not yet on a par with freight rates. The level of farm commodity prices in September was 144 per cent of the pre-war average, whereas freight rates on agricultural commodities were 158 per cent of the pre-war average. Moreover, the prices of agricultural products fluctuate greatly from year to year, whereas freight rates are stable and are not frequently changed. The burden of the post-war increase in freight rates fell heavily on agriculture because the rates were increased just as agricultural prices started downward and remained high while agriculture was undergoing a very severe depression. The ability of agriculture to pay transportation charges should not be reckoned on the conditions of any given year, but on probable future conditions, unless freight rates can be made more flexible, being raised when prices are high and lowered when they decline, within reasonable limits.

The Farmer's Tax Problem

The recent general improvement in farm earnings has been accompanied by a slight reduction in farm taxes. Recent reductions in farm taxes seem insignificant, however, when compared with past increases. Farm-land taxes in Missouri averaged 8 cents per acre in 1881; in 1924 they were 40 cents. The average tax in North Dakota was 23 cents per acre in 1916 and 48 cents in 1924. Texas farmers paid 9 cents per acre in 1914 and 20 cents in 1923. Similar increases are found almost everywhere. They have been accompanied by better roads and schools and more efficient public service in all its branches. The essential nature of many of these services assures them of continued popular support at whatever cost to the public.

Presumably it is no more possible to bring about a return of the low taxes of even 10 years back than it is to stop progress in any other field. But unless a more equitable distribution of the tax burden can be brought about, the agricultural industry may expect recurring periods when taxes will consume an undue proportion of farm income.

It is now generally recognized that excessive taxation of industrial earnings slows down production, discourages investments in productive enterprises, and generally stifles the prosperity of the country. These effects are felt by the industrial portion of the country as the result of taxes which are levied largely on the basis of earnings, and which are lighter when earnings are least. Fifty-one per cent of the total taxes paid by construction companies in 1923 were income and excess-profits taxes paid to the Federal Government alone. The percentage for manufacturing corporations was 49 and for wholesale and retail concerns it was 46.

Farm taxes, on the other hand, are chiefly general property taxes, levied by the States and the local units on the basis of capital value, and they bear little or no direct relation to current farm earnings. Only 29 out of every thousand farmers paid any Federal income tax at all in 1923. Since farm taxes can seldom be shifted to the consumers of farm products in the form of higher prices of products sold, it must be clear that the taxes now being levied on agriculture are more capable of exercising a depressing effect than are the taxes on almost any other class.

Investigations by the department bear out this belief. In 1922 State and local taxes took 59.6 per cent of rents from 23 farms studied in Monroe County, Ind. In Wells County, N. Dak., taxes on 63 surveyed farms amounted to 85 per cent of the rents for 1923. It is a matter of common knowledge that during the disastrous period from the close of the war to 1924 there were many farmers in all parts of the country who failed to "make their taxes."

It is true that the same factors which lead to high ratios of taxes to farm rents in some years also cause extremely low ones at other times. The wide differences from year to year in the relation of farm taxes to the earnings of the taxed property illustrate the need of a closer relationship between property earnings and property taxes. If property is to continue to bear a large share of the taxes levied by the States and minor political divisions, greater consideration should be given to differences in earning power which exist between classes of taxable property when tax assessments are being made.

But there is no justification for taxing only property. The great volume of income from other sources, which now escapes taxation for State and local purposes in many parts of the country, could well be called upon to assume some part of the total tax load. Income and inheritance taxes, levied by some of the States, now reach many of these classes, although in varying degree. Other special forms of taxation have been devised to supplement further the property tax and to obtain a more even distribution of the tax burden over the whole people. Broadening of the sources of tax revenue is a matter of great concern to the farmer, although conditions within States vary so widely that no particular form of taxation could be considered of equal value in all places.

Supplementary tax revenues of the types referred to are usually applied to defray the ordinary expenses of the State central governments. Counties, townships, and other local districts, exclusive of incorporated places, on the other hand, obtained 97 per cent of their tax receipts from the property tax in 1922. It is difficult to explain why tangible property should bear almost the entire local tax burden besides contributing a substantial share to the general expense of the State governments. A few of the States have adopted the practice of returning a part of their income, inheritance, and other special taxes to the local districts in which they were collected. The State of New York, for example, returns 50 per cent of its income tax in this manner. Wisconsin has a similar practice. The further spread of this practice will prove particularly beneficial to those farmers who live in local districts which include a considerable scattering of urban wealth, and in which urban populations largely determine the types and standards of public service to be maintained.

One of the most important factors which contribute to the excessive taxation of agriculture is the tendency of many States to improve the public schools and public roads largely at the expense of the local districts. Indiana farmers paid 66 cents out of each tax dollar to the counties and townships for these uses alone in 1923. Investigations in Boone County, Mo., show that 56 per cent of all farm taxes went for the same purposes in that locality in 1925.

Both the highway and the public school have outgrown their early local surroundings. The motor vehicle has made a State and national problem of the public road. School standards have been pushed forward step by step in all of the States by means of general laws.

The time has come when the States should face the highway and school problems frankly, and determine upon methods of financing which are consistent with the benefits which those institutions confer upon the State as a whole.

The Government's Relationship to Cooperative Marketing

The relationship of the Government to cooperative associations may be loose and informal or close and authoritative. It may range all the way from a mere let-alone policy to one of thoroughgoing supervision and minute regulation. Neither extreme, of course, is within the range of practical policy. The Government is already performing services for cooperation that put the let-alone policy out of consideration.

On the other hand, it is not proposed in any responsible quarter that the cooperative movement should be hampered by Government regulations. Cooperation in the United States has developed from the needs and experiences of the farm people. The weight of experience in this country shows that it should begin as an economic movement of the rural communities and that it should be free to develop in accordance with their needs and the opportunities for service. The experience in European countries also points to this fact. It is improbable that the Danish Government, for example, at any time during the history of the cooperative movement in that country could have developed a plan of cooperation as admirably adapted to the needs of the Danish farmers as is the present system. Neither

is it likely that the Danish Government by decrees or regulations could have made cooperation the important part of the national life that it has come to be through spontaneous, untrammelled growth.

It seems obvious that supervision and control are not desirable. Cooperative associations are business concerns. Like other business concerns they must eventually stand or fall by themselves. They can not fairly be asked to accept a degree of regulation and control from which private distributing agencies are exempt. Removing responsibility for their actions from the cooperative associations themselves to the Government might be fatal to their efficiency. It would certainly not encourage men of executive ability to seek managerial positions in the movement. Efforts to regulate cooperation minutely by law or by administrative edict would cripple the initiative of the cooperative associations and force them into a rigid mold when their greatest need is flexibility. Excessive regulation might smother the movement.

What the department is already doing indicates the nature of the service it can give to cooperation. It is studying marketing problems and making surveys indicating what are the prospects of various cooperative projects. It is examining the causes of success and failure in cooperation, and giving counsel to association boards of directors and managers. It is helping by counsel and advice groups of farmers to develop effective organizations and to plan wise merchandising policies. It is popularizing the use of uniform and up-to-date accounting systems and office records among cooperative associations. It is analyzing marketing operations to reveal their strong and weak spots and assisting associations in developing their own methods of market analysis. It is aiding cooperatives to extend their markets at home and abroad. It is acquainting American cooperators with the experience of cooperators in other countries. It is furnishing market-news services, and establishing commodity grades and standards to facilitate trading. It is helping producers to correlate their production plans, so that the hills and valleys of production can be leveled out to some extent.

What the Government can do further to assist the cooperative movement depends upon the funds available for such work and the demands of the cooperative associations. The department stands ready to extend its services to the full extent of its present facilities, and to recommend such enlargements of its research work and services as shall appear advisable after consultation with the cooperative organizations and a careful survey of their needs. The direction which further services should take can best be indicated by considering the problems confronting cooperative associations at the present time.

The personnel of the Bureau of Agricultural Economics is studying the problem of marketing and distributing farm products. To put the information in a form in which it will be immediately available and useful to the cooperative organizations requires a type of extension workers which the bureau does not have at the present time.

One possible means of further service to the cooperatives, therefore, is the employment of commodity specialists, who would be

familiar with the needs of the cooperative organizations on the one hand, and with the research and service work of the department on the other hand. These men would form a contact between the associations and the department, and would disseminate current crop and market information, and information regarding price trends, conditions of supply and demand, and other useful information. At the same time, they would be instrumental in guiding the research work of the department toward a closer study of the special problems of cooperative associations.

The business organization and management of cooperative associations will always be of paramount importance. The business analysis studies that have been begun could be profitably extended. This is in line with the practice of large corporations which are devoting considerable sums to research in the fundamental problems of merchandising, production, financing, and management. If the cooperative associations are to reach the same plane of efficiency as private organizations, it is desirable that they have the advantage of similar studies. The department can not undertake to do this work for the cooperatives, but it can, very properly, outline the field and develop methods in this important and difficult undertaking.

A third problem, not the least important, is the dissemination of knowledge to farmers regarding the principles and aims of cooperation. This is important to forward the development of sound cooperation. The department can make an important contribution in this field. The employment of specialists in cooperative education, to work with State agricultural colleges, State boards of agriculture, and the cooperative associations in promoting the knowledge of cooperative principles and practices, should be helpful in developing a sound point of view toward the movement.

I have indicated only some of the larger problems in which the department can properly render assistance. There are others of almost equal importance and still others will arise as cooperation advances. It is hoped that the department's services to cooperative associations will establish a closer relationship between the organized farmers and the State and Federal agencies engaged in scientific research in the field of agriculture. These agencies can serve all producers by a special effort to make their services and the results of their research available to the organized groups.

Agriculture and the Public Domain

The existing policy with respect to land utilization on the public domain has had much to do with the troubles of western agriculture in the past few years. Permitting the public domain to be sporadically occupied by homesteaders in holdings of uniform size with little reference to the capacity of such a holding to maintain a family except as determined by the inexperienced settler, has added greatly to the unnecessary loss and misery attending the process of agricultural expansion, has contributed to the undue development of cereal production from which our established farmers have suffered, and has greatly complicated the problems of the range industry.

Furthermore, allowing the unappropriated and unreserved lands of the public domain to be used as a grazing commons has greatly

increased the instability of the livestock industry of the West. That portion of this great industry dependent upon the public domain, involving an investment of hundreds of millions of dollars, is engaged in a competitive struggle to obtain the limited grass on the public lands on the principle of "first come, first served." It is true that some of the stockmen have been so fortunate as to secure practically exclusive control of the use of certain areas of the public domain through the ownership of strategic locations for water supply, or through other favorable conditions, but the great majority have no such immunity from cut-throat competition.

Under such conditions there is a premium on destructive and wasteful use. Each man tries to get his stock on the young and tender grass ahead of his competitor and close-graze it till the last sprig is gone. It is impossible to maintain a reserve supply of forage against a dry season. It is equally impracticable to coordinate properly the seasonal use of the range on the national forests or other lands with that on the unreserved public domain.

As a result of these conditions the public range lands are steadily deteriorating in usefulness. While potentially a valuable national resource, the forage is being destroyed by improper use. Moreover, the denudation of the land has greatly increased erosion and has intensified the destructiveness of floods. Experiments, investigations, and practical demonstrations have shown that denuded range lands can be restored under a system of regulated grazing which will arrange for the right number and class of stock at the proper season of the year, provide for the even utilization of the range and permit the most valuable species of forage to mature seed. However, it is impossible to employ such methods of utilization on the 180,000,000 acres of unallotted and unreserved public domain under our existing land policy.

For a number of years interested persons and agencies have agreed that a far-reaching change of policy is imperative. Indeed, each year for the past two decades some form of legislation relating to this problem has been introduced in Congress, but because of the diversity of opinion owing to the varied conditions in different parts of the West, no far-reaching legislation has been passed. At the present time a congressional committee is giving the problem careful study, and it is for Congress to determine the exact form of policy which shall be developed. Indeed, the exact form of policy or the decision as to what agency shall be charged with its administration are comparatively unimportant provided that the problem shall be settled in such a manner as to promote an adequate utilization of the public domain and a stabilization of the range industry. In order to accomplish these purposes it will be necessary to recognize certain basic facts and principles:

1. It is uneconomic to permit homesteaders to take up land at random on the public domain. Such a policy works havoc in the established grazing industry, and at the same time encourages settlers to undertake a farming enterprise impossible of success. Much of the homesteading has been merely for the purpose of selling out to ranchmen, forcing the latter to increase their capitalization unduly, sometimes in the face of falling prices for livestock or credit strin-

gency. Careful selection should be made of such portions of the public domain as afford a reasonable promise of successful farming, not in scattered holdings where the possibilities of developing a satisfactory community life are remote. The remainder of the public domain should be definitely devoted to the range industry until such time as changing physical or economic conditions justify a different form of use.

2. In many localities the public domain is only one segment of the circle of year-round provision of feed for livestock. It must be adequately coordinated with the use of the summer pasturage of the national forests, as well as with the provision of winter feed on lands capable of raising crops. As my predecessor expressed it in his annual report for 1923: "Unregulated spring range has become the neck of the bottle. Winter feed and summer pasturage are available for more stock than can be subsisted during the interval unless the spring range on the open domain can be protected from overgrazing and utilized in a coordinated way with the other and stable factors in the round of the year." The economic stabilization of the livestock industry should be promoted by providing adequate reserves of pasturage against recurring years of drought by a reasonable degree of elasticity in grazing fees or in rentals, and by the utmost practicable stability of tenure consistent with the public interests involved.

3. The privilege of grazing based upon prior use and occupancy and the ownership of improvements on adjacent property employed in connection with the public range should be fully recognized and carefully conserved. Attention should also be devoted to providing sufficient pasturage for the requirements of homesteaders and other farmers in the vicinity of the range. Suitable provision should be made for necessary ingress and egress, and for the movement of livestock, also for prospecting, locating, developing, and patenting mineral resources.

4. So far as practicable the principle of local option should be observed in extending regulation over the public domain, and the policy of local self-regulation should be employed in developing a uniform program consistent with the larger public interests involved.

IV. The Department of Agriculture: General Administration

The business policy of the department is to insure value received to the taxpayers for every dollar spent for Federal activities. The cooperation displayed by members of the department in carrying out this policy is gratifying. Typical instances of economies effected, better business arrangements established, etc., during the year have been reported to the Budget Bureau and will be found in the annual report of the director of that bureau for 1925, pages 109-118.

An important reorganization of the central business administration of the department has been effected to concentrate authority and responsibility, establish better and more economical administration, and eliminate duplication of work and superfluous or overlapping procedure. Under the new arrangement an officer of the department has been designated as director of personnel and business administration, to supervise and coordinate all departmental business

activities, including personnel administration, budget, fiscal and accounting matters, purchasing of supplies and equipment, traffic, housing, etc.

As a part of this plan nine offices which formerly reported directly to the Secretary have been consolidated into one organization designated as the Office of Personnel and Business Administration. The branches consolidated were (1) the office of personnel; (2) the salary classification office; (3) the office of budget and finance; (4) the division of accounts and disbursements; (5) the office of accounts serving units under the office of the Secretary, office of publications, office of experiment stations, agricultural extension service, and bureau of home economics; (6) the division of purchases and sales; (7) the office of the traffic manager; (8) the office of personnel and fiscal inspection; and (9) the office of the chief clerk of the department, and subsidiary units, which include the mechanical shops, building maintenance, department post office, telegraph and telephones offices, section of mail and files, and similar units.

The new arrangement has been in operation a sufficient time fully to justify its establishment and to demonstrate its value in facilitating business. It has already resulted in a material saving in personnel and salary expense. Further improvements and reductions in such costs are in prospect.

Central Units Merged

In a similar manner the office of publications and the press service, the two central units of the department engaged in information and publication work, have been brought together in one organization which has been designated as the office of information and placed under a director of information, who is charged not only with the administration of this unit but also with the general supervision and coordination of the information and publication activities of all branches of the department. This arrangement has resulted in a much more efficient and satisfactory handling of the work and in a reduction in operating costs.

In connection with the reorganization of the central business administration of the department, assistance has been given during the year by the United States Bureau of Efficiency, which, at the request of the department, has assigned several members of its staff to make detailed studies of present methods of operation, with a view to suggesting such further changes as may be beneficial. It is necessary that the departments have an agency of this type which can be called on to furnish trained investigators for the purpose of conducting investigations upon which improvements in operation may be based.

On June 30, 1925, the department had on its rolls approximately 20,500 employees, of whom 4,800 were located in and 15,700 outside of Washington. The turnover in the personnel during the fiscal year 1925 was 11.49 per cent, or 2.32 per cent less than for the preceding year. The application of the salary classification act has brought about a material improvement in the employment situation in the department. Progress has been made in establishing more

uniform rates of pay for equal work, but some inequalities still remain which can not be satisfactorily adjusted until additional funds are made available for this purpose. The following, in so far as practicable, of the general policy of filling vacancies by advancement from within the ranks and the granting of a reasonable number of promotions on the basis of demonstrated efficiency and productive service has had a very salutary effect on the morale of the employees of the department as a whole.

Housing Situation

The housing situation of the department continues to be deplorable. More than 40 buildings widely scattered over the city of Washington are still occupied by departmental activities. This seriously interferes with the administration of the work of the department and is extravagant rather than economical. Aside from the better administration and supervision to be gained by properly housing the departmental activities material economies in guarding, cleaning, messenger service, and trucking service could be effected if the department were housed in fewer buildings more closely related to each other and to the central administration.

A committee headed by the Assistant Secretary, which I appointed to consider the problem, has reported in considerable detail upon the department's housing requirements, with specific recommendations for meeting the situation. The suggestions contained in this report are receiving my careful consideration, and it is hoped that they may prove of value not only in meeting the needs of the Department of Agriculture but also in connection with the general subject of Government housing in Washington. In brief, the report recommends the construction of the long-delayed central building connecting the two existing marble wings which were erected in 1908, and at the same time the erection of a large structure upon Government-owned land at the north end of the department's reservation. On the basis of meeting present needs it is believed that the adoption of these recommendations would provide adequate housing for the department.

V. The Department of Agriculture: Economic Research and Administration

The farm population of the United States decreased approximately 182,000 during 1924, according to the estimates based on a survey of 25,000 representative farms recently made by the department. This is a drop of 0.6 per cent during that year, the estimated farm population on January 1, 1925, being 31,134,000 compared with 31,316,000 on January 1, 1924. This estimate includes not only the agricultural workers, but all men, women, and children living on the farms on that date.

The movement from farms to cities, towns, and villages in 1924 is estimated at 2,075,000; the movement to farms was 1,396,000, making a net movement from farms of 679,000 persons, or 2.2 per cent. Births among the farm population during 1924 are estimated at 763,000 and deaths at 266,000, making a natural increase of 497,000,

which reduced the loss due to the cityward movement to 182,000 or 0.6 per cent.

A similar estimate made two years earlier for 1922 showed a loss in farm population of 460,000 as against 182,000 in 1924. The gross movement from farms to cities in 1922 was 2,000,000 compared to 2,075,000 in 1924, a slight increase. The gross movement back to the farms in 1922 was 880,000 compared to 1,396,000 in 1924, a very decided increase. The net movement from farms to cities in 1922 was 1,120,000 or 3.6 per cent and in 1924, 679,000 or 2.2 per cent.

Two geographic divisions, however, the New England and South Atlantic States, showed an increase in farm population for the year 1924, of 0.9 per cent and 0.2 per cent, respectively. All other divisions showed decreases, the Mountain States leading with a loss of 2.8 per cent.

The decrease in farm population due to the cityward movement, not taking into account births or deaths, was highest in the Mountain States, 4.3 per cent, followed by the Pacific and west South Central States. In all other divisions, except New England, the percentage of decrease due to the cityward movement was equal to or less than the average for the whole United States (2.2 per cent). New England alone showed a gain of 0.3 per cent, since more people moved from cities to New England farms than left farms for cities.

The movement from farms to cities was found to be at highest rate in the Mountain States, 13.8 per cent, followed by the Pacific, New England, Middle Atlantic, and east North Central States in order. In the movement to farms from cities, the Mountain States, again lead with 9.5 per cent, followed by the New England, Pacific, Middle Atlantic, and east North Central States.

Movements of population from the farm to the city and from the city to the farm are an important index of the agricultural situation. A glance at these movements during the last five years throws light on present tendencies.

Apparently in 1920 there was a net gain in total farm population of approximately 500,000. The total in 1919 according to the census had been 31,614,269. Unusual prosperity in 1920 apparently restrained the customary flow to the cities of young people between the ages of 20 and 25. Moreover the annual movement of prosperous retiring farmers to town was offset by the arrival of city people drawn to farming.

In the following year an opposite tendency was manifested. The collapse of farm commodity prices in 1921 was accompanied by an unusual movement of population to the cities. As a result, the net increase of farm population during the year was only 200,000.

In 1922, according to a survey made by the department, the net movement of persons to cities reached the 1,000,000 mark, and there was a net loss in the farm population of 460,000 persons.

The loss of farm population continued in 1923, causing a net decline equal to and perhaps exceeding that of the preceding year. Apparently, however, the movement reached its height in 1923.

As the figures above quoted show, a survey made in 1924 indicates that although the forces tending to drive people to the cities were still strong, opposing forces were sending back from the cities a

larger number than formerly, so that the net loss of farm population for the year was reduced to 182,000.

Opinions as to the make-up of the return movement of population to the country in 1924 are necessarily speculative. Doubtless the return flow included many farmers who had sold farms in recent years but had been obliged to take them back because the intending purchasers were unable to maintain their payments.

Others were probably farm owners who found after a year or so of trial that they could not afford to live in the city on the rents from their farms. Probably also there were many former farm tenants and laborers who had not found their expectations of city life fulfilled. It seems that the trend of farm population is now returning to normal.

In normal times there is a constant interchange of population between the country and the city. As farmers retire to cities, so city people retire to farms. Laborers move back and forth from farm to city and from city to farm. On the other hand, a stream of youth of both sections representing the farm-reared human surplus moves permanently from the country to the town. It would seem that all agencies working for the general welfare, whether rural or urban, should do what is possible to reduce to a minimum the inevitable dislocations caused by this interchange of population. There is a natural balance of population between the farm and the country which can not be violently disturbed without heavy loss in economic and human values.

The Farmer's Cost of Living

A study made of the cost of living among 3,000 widely scattered farm families indicated that the average total value of goods and services used per family in one year was \$1,504. Of this value, \$634 was furnished by the farm in food, fuel, and housing.

Among the several items of living, food took 41.2 per cent of the expenditure; clothing 14.7 per cent; housing 12.4 per cent; health 3.9 per cent; education, etc., 6.3 per cent; life insurance 2.3 per cent. Compared with about 12,000 industrial families these 3,000 farm families spent about 3 per cent more of their total expenditure for food and 1 per cent more for fuel and light, but they spent 2 per cent less for clothing and 1 per cent less for house rent.

Although some wide variations in family living costs were found among different groups in the same States, the average living cost per family by States did not vary much. It was found that farm families increased their proportionate expenditures for recreation, education, health, and advancement generally as their total expenditure increased.

Price Spreads in Distribution

Spreads between prices received by producers and those paid by consumers of agricultural products are of great interest and importance at this time. The most important factor in the creation of these large spreads is the cost of extensive services imposed upon the distribution structure as a result of present-day methods of living. Services multiply in the terminal markets. It is here that the greater portion of the difference between producer price

and consumer price is incurred. Studies conducted by the department indicate this fact. A total of 64 per cent of the difference between the price received by the producer and that paid by the Chicago consumer of Wisconsin potatoes during the 1922-23 season was absorbed in the movement through wholesale, jobbing, and retail agencies within the city. During the same season 72 per cent of the spread between the producer price and the price paid by the consumer of northwestern Winesap apples was taken up by marketing agencies in the New York port district. In 1920-21 a study of Connecticut onions sold in the Boston market shows that 79 per cent of the spread between producer and consumer was incurred within the city.

Study of city distribution margins and contributing factors has been carried out in some detail in the New York port district in cooperation with the port authority. Various phases of terminal distribution including jobbing and retail margins on 14 important fruits and vegetables sold within the port district during the February 1923-May 1924 period were studied. Although this study relates particularly to conditions existing in the New York port district facts of general importance have been brought out. The combined jobbing and retail margin for the 14 commodities was found to be about 47 per cent of the final retail price. About four-fifths, or 80 per cent, of this combined margin measures the size of the average retail margin for the 14 commodities.

Terminal handling costs, which consist mainly of freight-car movement within the terminal area and truck hauls to jobber and to retailer, amounted on the average to somewhat less than 10 per cent of the retail price. These costs for a sack of Michigan potatoes were greater for the terminal movement of about 15 miles than they were for the entire road haul of over 1,000 miles. The chief element of cost in terminal handling is that of trucking. An analysis of this item of expense indicated that of the average dollar paid as trucking charges on fruits and vegetables, 25 cents went to pay for idle time because of lack of work during trucking hours, 21 cents were necessary to meet the expense of unproductive work—delay at terminals, trips with part loads, and other partially wholly unproductive efforts—26 cents paid for operating expenses incurred during productive operation, 14 cents were required for loading expense, and 14 cents remained for the owner as salary and profit.

Thus 46 cents out of each dollar received from trucking charges were required to maintain facilities in idleness and unproductive service during working hours. Notwithstanding the extent of distribution inefficiency indicated by this analysis, there appears to be but slight possibility of any great saving in trucking costs with the present handicap of out-of-date receiving arrangement. New methods of handling and more modern receiving facilities are required before the cost of trucking can be materially reduced.

The largest scale single segment of the spread absorbed by any one agency is that required for retail service. That the consumer pays for increased services by higher prices is plainly apparent. Equal quantities of fruits and vegetables of similar grades were sold in New York cash and carry stores at prices which averaged 14 per cent under those charged in credit and delivery service stores.

The consumer also pays for the privilege of being afforded a variety of sizes and qualities of a particular commodity from which he may select the ones most suited to his needs and of being allowed to purchase in small quantities. In these circumstances the cost of storage space and the risk of spoilage which appears to amount to about 5 per cent are borne chiefly by the retailer.

It is surprising to note that, regardless of the variation in the average quantity purchased of each of the commodities included in the New York study, the combined jobbing and retail margin was about 12 cents on the average-sized purchase of each commodity. Since the average quantities purchased varied from $1\frac{1}{2}$ pounds for western to $6\frac{1}{2}$ pounds for old potatoes, it seems apparent that the distributing cost was occasioned by the making of the sale rather than by the size or value of the sale. Reduction of this expense, therefore, would appear to lie in an increased size of consumer purchase of each commodity. In bringing this about, the consumer has definite responsibilities in assuming a portion of the spoilage risk now borne by the retailer and in providing adequate storage space for increased purchases. Whether such changes in consumer purchasing habits are desirable or possible remains to be proved.

As a result of the studies in the distribution field, it appears that profits of the various distributing agencies are not of first importance in determining the wide spreads observed between producer prices and prices paid by consumers of certain agricultural products. Profits are of relatively small significance when expressed in terms of the retail price to consumers. It is the cost of services rendered by the various agencies of distribution which are of greatest importance in causing wide spreads.

The Farmer's Use of Market News

The increased interest and use of economic information by farmers is shown by direct requests to the department for facts concerning supplies, shipments, prices, stocks and market trends, and also by the calls for material by various news distributing agencies, particularly the press associations, newspapers, and radio broadcasting stations.

The extension services of the department and the States have assisted in the distribution of all types of economic information. A general quickened interest has been reflected by the extension workers in all subjects. Several States have developed well-organized plans for distribution of crop and market information before series of local meetings, to lists of leading farmers, through county agents, farm organizations, and local press. Special acknowledgment is due to the newspapers of the country for their cooperation in the department's campaign to get the facts of agriculture to farmers and all classes of traders who handle farm products.

The market news service organization has been conducted during the last year without material change in personnel but with a decided increase in the quantity of facts gathered and disseminated. The leased-wire system now includes about 7,300 miles of leased wire, reaching from coast to coast and into Northwest, Southwest, and Southeastern States, which transmits the basic information from the national markets, gathered and distributed through 30 branch

offices of the Bureau of Agricultural Economics. Practically every farm commodity is included in this service, although a complete price-quotation service is not maintained on all of them.

The news service on fruits and vegetables has been made immediately available to producers in numerous key producing areas by the maintenance of some 37 separate field stations during the shipping period of the commodities involved. In the subject of fruits and vegetables alone over 10,000,000 copies of mimeographed reports were distributed throughout the year directly to producers and tradesmen. The Grain Market News Service has been extended to the Pacific coast and now includes news on the western barley crop.

Foreign market news on important farm products gathered by our foreign agricultural commissioners or the International Institute of Agriculture has proved to be very useful to our producers of these products. The principal effort is to interpret the significance of foreign conditions in terms to aid farmers and others in making plans for market operations.

The Grain Futures Administration

The Grain Futures Administration during the last year has continued its activities in analyzing the character of the transactions in futures on the various grain exchanges designated as contract markets under the grain futures act. In addition to the reports received daily from the clearing members of the contract markets, a close supervision of the exchanges was maintained through the examination of books and records of the important commission houses, not only in Chicago but also in New York and other outside cities.

The volume of trading during the year was unusually large, owing to enormous speculative activities on the part of professionals as well as the general public. The total trading for all grains on the 10 contract markets amounted to 31,416,196,000 bushels bought, with an equal volume sold. Of this quantity 27,942,493,000 bushels, or 89 per cent, represents trading on the Chicago Board of Trade. The trading in wheat represented more than 60 per cent of the total for all grains, the volume being 18,875,971,000 bushels, of which quantity 16,587,110,000 bushels, or 88 per cent, represents transactions on the Chicago Board of Trade.

It is therefore clearly evident that the transactions in grain futures are governed almost exclusively by the activities at Chicago, where most of the hedges are placed, although the market is primarily speculative in character.

In connection with the trading at Chicago it is of interest to compare the actual deliveries on futures contracts with the total volume of trading, the total deliveries in wheat being 31,571,000 bushels and in corn 12,950,000 bushels. In each of these grains the deliveries were less than two-tenths of 1 per cent of the total sales for future delivery.

During the latter part of the fiscal year the grain futures administration was engaged in an exhaustive inquiry into the activities of professional speculators, especially in wheat. This inquiry was instituted because of the sensational character of the market, which was marked by wide daily fluctuations and by sharp advances and drastic advances and declines in prices.

Although the investigation carried on by the grain futures administration did not disclose such large individual accounts as were commonly reported, nevertheless lines of several million bushels of wheat futures, sometimes long and again short, held by individual professional speculators, were not infrequent during the first three months of 1925. During the life of the May future fluctuations of 5 cents or more occurred on 52 days. On 16 days the fluctuation was 8 cents or more and on 6 days 10 cents or more without any apparent reason other than heavy speculative activities.

The largest long interest discovered in any one future was slightly in excess of 7,000,000 bushels and the largest individual short interest at any one time was nearly 5,000,000. The investigation revealed only eight speculative accounts that reached a net position of 2,000,000 bushels or more, either long or short, and some of these changed frequently from one side to the other, moving the market in line with their operations unless counteracted by a similar force. In 80 per cent of the cases where such transactions involved a change in net position of 2,000,000 bushels or more the price movement was in the same direction, with an average change in price of 5½ cents.

At the request of and in cooperation with this department, a number of the central markets have voluntarily set up administrative machinery for the purpose of preventing unwarranted price fluctuations. Committees on business conduct have been appointed, whose members are pledged not to speculate for their personal account. Broad powers over the business conduct of members of the exchanges are to be exercised by the committees. They are also authorized to limit daily fluctuations in the market prices of grain during emergency periods. The Chicago board also adopted a suggestion that it should establish a modern clearing house. Probably no more progressive and far-reaching steps were ever taken by the exchanges to insure prices accurately reflecting supply and demand conditions. I believe they will be effective. The adoption of these plans makes it possible for the department to cooperate with the exchanges in furthering the objects of the grain-futures act. Laws are most effectual when met by sensible, sound cooperation on the part of everybody concerned.

The Packers and Stockyards Administration

The Packers and Stockyards Administration is a separate unit of the department, organized to carry out, under the direction of the Secretary, the purposes of the packers and stockyards act, passed August 15, 1921. Within the period of less than four years during which the administration has functioned, its activities have involved all the important phases of livestock marketing. The guiding policy of the organization is to carry out the spirit as well as the letter of the law as nearly as possible in accordance with its purposes, which, in a general way, are to promote fair, impartial, open, and competitive conditions in the livestock and meat-marketing process of the country. In doing this, the administration endeavors to cooperate fully with all other factors in the industry and to coordinate its own efforts with theirs in whatever way seems best for the welfare of the industry and the public.

It has been found that the functions of the administration can be performed in many instances to best advantage by proceeding

in an informal manner, and this plan is followed in all instances in which the requirements of the act can be met in this way. There are cases, of course, which can only be handled through formal procedure. There are numerous matters which require regular attention by the administration, such as registration by market agencies and dealers, filing of tariffs by market agencies and stockyard companies, posting of new stockyards coming within the jurisdiction of the act, the regular auditing of books and records of persons subject to the act, the classification and tabulation of information contained in periodical reports, and similar activities. In addition to these regular functions, of course, the necessary attention is given to the irregularities which the law is intended to prevent.

Through an amendment to the general rules and regulations promulgated under the act, effective September 1, 1923, bonds were required of commission men covering funds handled by them in a fiduciary capacity. Through a rider in the acts making appropriations for this department for the fiscal years 1925 and 1926, the authority of the Secretary was extended, authorizing him to require bonds of all market agencies and dealers for the purpose of securing payment for all livestock purchased by them at the public markets, and the general rules and regulations of the administration were amended accordingly, effective November 1, 1924. There are numerous instances in which these bonds have afforded protection to shippers and others interested in livestock marketing amounting to several thousands of dollars.

The matter of suitable scales and proper weighting of livestock has received additional attention during the fiscal year. The administration has two weight supervisors, who devote their attention to the weighing facilities. Satisfactory progress is being made in the installation of more adequate methods for the testing of scales.

There are local supervisors stationed at 20 of the leading markets. In addition to their usual duties of observing the general marketing operations and bringing about improvement along lines indicated by the packers and stockyards act, the supervisors have given special attention during the year to the weight and quality of feed fed in the stockyards. As a result of this special effort, material improvements were made in the character of the service rendered in connection with the feeding of livestock.

At the close of the fiscal year there were 76 public stockyards, approximately 1,200 market agencies, more than 4,000 dealers, and approximately 850 packers subject to the law. It was estimated at the close of the fiscal year ended June 30, 1924, that approximately 500 packers were subject to the law. Although this estimate was based on the best information available at that time, it has been found to be too low. The change in the estimated number of packers subject to the law from 500 to 850 is due to a revision of the estimate and not to an increase in the number of packers.

The Armour-Morris Merger

The complaint of the Secretary of Agriculture against Armour & Co., of Illinois, Armour & Co., of Delaware, North American Provision Co., J. Ogden Armour, and Morris & Co., issued February 17,

1923, was dismissed without prejudice September 14, 1923. This complaint was filed as the result of the acquisition by Armour & Co. of the physical properties, business, and good will of Morris & Co., the basis of the complaint being section 202, subdivision (e) of Title II of the packers and stockyards act, which reads as follows:

It shall be unlawful for any packer to engage in any course of business or do any act for the purpose or with the effect of manipulating or controlling prices in commerce or creating a monopoly in the acquisition of buying, selling, or dealing in any article in commerce or of restraining commerce.

Extensive hearings were held at the principal markets. My conclusion was that there is nothing in the act which specifically prohibits the purchase by one packer of the physical assets of another. Therefore the purchase was not illegal unless it was made with the intent of manipulating or controlling prices in the buying of livestock in commerce or in the sale and distribution of livestock products, or of creating a monopoly in the acquisition of buying, selling, or dealing in such articles in commerce or of restraining commerce. The purchase was made for the purpose of effecting economy in the conduct of the business of Armour & Co., by reducing overhead expenses and increasing the volume of sales of the finished products.

The effect of this purchase has not been unduly or arbitrarily to lower prices to the shipper or increase the price of livestock products to the consumer or otherwise to manipulate or control price in commerce. The evidence shows that competition in the purchase of livestock and in the sale of meat and meat food products in interstate commerce has not been diminished or materially lessened by reason of the purchase, and consequently the acquisition of the Morris properties by Armour has not had the effect of creating a monopoly. Furthermore, there has been a marked growth in the independent packing industry in recent years, and competition has been keen and active.

Aid to Produce Growers

The fruit and vegetable business is now a billion-dollar concern. A million cars were required to transport the last crop to market, exclusive of large shipments by motor truck and wagon. The distribution of this tremendous volume of perishable foodstuffs has become a problem of increasing complexity. Rounding out a decade of effort in this field shows the marketing services of the department as an integral part of the industry. The news service, with offices in 18 large markets, also maintains 37 field stations in important regions of production. A total of nearly 11,000,000 reports were issued during the year. Producers are now operating with a greater knowledge of crops, shipments, market receipts and prices than was available to the largest distributors prior to the inauguration of the service. The dissemination of this information has been further augmented through the cooperation of the press and by radio broadcasting. Through certain economies it has been possible, without added appropriations, to increase the number of market reports distributed by 27 per cent. Also, the cost of assembling carlot shipment information has been reduced one-fourth through a consolidation of telegraphic reports.

The value of the market news service is generally recognized. This has been shown through many commendatory letters from the trade. Better proof is shown in the voluntary contributions from the shippers to support additional field stations. These temporary stations operate in important producing areas during the shipping season only. Current prices in the large centers, supplies on hand, the tone of the market, and shipments from competing points are reported. Such an office has been operated in Brawley, Calif. It costs about \$2,000 annually. Half of this amount is subscribed locally. From this area 13,000 cars of cantaloupes are moved in 10 weeks. At a daily meeting a Federal representative presents on a large chart a report for the day, and a schedule of distribution is then worked out through the cooperation of the shippers. The market supplies of the country are stabilized, alternate gluts and famines avoided, all to the mutual advantage of the growers and the consuming public. At the close of the season the department's representative was given a ring and his assistant a watch as a mark of the shippers' appreciation of this service.

The inspection of perishables which was extended to points of production in 1922 won instant recognition. This service, conducted in most cases in cooperation with State marketing agencies, provides for the certification of the grade, quality, and condition of the product, on the voluntary request of financially interested parties. As the work is supported almost entirely by the fees assessed, it has not become a burden on the taxpayers. The certificates are invaluable as a basis for long-distance trading and in the settlement of transportation claims. During the past fiscal year certificates were issued on over 130,000 cars of fruits and vegetables, in addition to 30,000 cars which were inspected in the terminal markets. Effective distribution has been encouraged through a steady supply of standardized products.

The possibility of the department offering its services in connection with the arbitration of trade disputes is a promising development. Since the close of the United States Food Administration there has been a continuous demand for a means of settling such controversies without the delay and expense of the usual court procedure. I believe that there is a real opportunity here to remove one of the greatest causes of waste in distribution, and at the same time to reduce the costs of marketing. The sums of money involved in such disagreements are usually relatively small in any single transaction, but the aggregate economic losses in time, telegraphic expense, costs of diversions to other markets, and in the deterioration of the products are enormous. In 1922-23, 15 per cent of the apple shipments of Washington State, totaling nearly 30,000 cars, were involved in disputes. The season was unusual on account of the disrupting effect of a strike on the transportation systems, but such situations do arise periodically. Further, this was but a small fraction of the three-fourths of a million cars of fruit and vegetables shipped that year.

Following preliminary conferences with individuals in the trade, I submitted a basis for the standardization of trade terms, trade practices, and methods of adjustment at a conference of representatives of the industry in May. This proposal has been discussed at a number of national trade conventions and has now won widespread

support. Plans are under way to handle a sufficient number of voluntary requests for arbitration to test the feasibility of the project under actual commercial conditions.

Range Beef-Cattle Production

A study of beef-cattle production in the Western States has been made by the department to assist producers in keeping their production adjusted to the demands of the market and in determining the least-cost methods of production under present and prospective conditions. The study was also designed to show the comparative advantages and disadvantages of the different types of livestock in the different areas and the probable market demand for them.

The findings of the investigators are being made the basis of the livestock-extension program in the northern Great Plains. They justify a firm belief in the future of the beef-cattle industry in the region. Ranchmen there have cut their operating costs to a minimum, and conservative ideas prevail as to values and results of grazing lands.

Since practically all of the public land in the area has passed into private ownership, there is need of a readjustment whereby the poorer classes of homesteaded land and other grazing lands can be consolidated into ranch units such as to allow a size of business which will result in high efficiency of production and a good standard of living for the ranch family. The tendency on the specialized beef-cattle ranch is toward a unit which maintains at least 150 breeding cows. The number of cattle and not the area of land determines the size of the ranch business. There is universal agreement among ranchmen that control by the individual of the land he grazes and proper valuation of that land for grazing purposes are absolutely essential. Overvaluation of grazing land has been an important cause of failure in ranching.

Developing Local Markets

Studies of areas around growing cities have been made to determine how far farmers are meeting the needs of their local markets and to obtain an economic basis for production and marketing programs. Investigations of the kind have been completed at Lebanon, Pa.; Roanoke, Va.; Macon, Ga.; Atlantic City, N. J.; Keene, N. H.; and Lima, Ohio. They have been helpful in pointing out market requirements as regards both quantity and quality of farm products. It was found that changes in transportation costs necessitated many adjustments in farm production.

Around Lebanon, Pa., where the sale of whole milk furnishes the major cash income, it was found that producers were not meeting the quality and seasonal requirements of the Philadelphia market. In a survey covering the farm-trade territory of Roanoke, Va., farmers were advised not to increase their production of milk, because the local market for whole milk was entirely supplied and the surplus might have to be sold at a much lower price on a butter-fat basis. Poultry raisers were shown that an increase in the local production would probably not materially affect the prices received, because poultry products were being sold in terminal mar-

kets, and that an increase in size of farm flock should prove profitable. Vegetable growers were advised of the quantity of truck crops that could be marketed in Roanoke.

In Cheshire County, N. H., where many farms have been abandoned, the production of agricultural products was found to be decreasing. The farms in that county, each with only a few acres of tillable land, have been unable to compete with western farms. It was pointed out to the owners of these farms that timber production should receive more attention and that poultry products could be doubled and still find a good local market.

Many other examples could be given, but these will suffice to show how the department is indicating neglected agricultural opportunities.

Inventions by Department Workers

Grain inspection and grading in the United States have been greatly improved and in some respects revolutionized by inventions made by members of the grain investigations staff of the department. These inventions in every case have been patented and dedicated to the people of the United States for their use without the payment of any royalties. Some of them are already employed in important grain markets throughout the world.

A public service patent was recently granted on an "aspirator" for cleaning grain at the threshing machine. When foreign matter is present in considerable quantity when the grain is marketed, it means heavy dockage. About 19,000,000 bushels of dockage was contained in the wheat and flax grain threshed in the spring-wheat States alone last year.

Another patented appliance invented in the department removes weed seeds from grain and rice which are not readily removed by the ordinary cleaning devices. Some of these weed seeds are wild oats, burr clover in barley, and watercress in rough rice.

A method has been developed in the department for the determination of moisture in grain and other substances. This moisture tester has completely changed the handling and grading of grain in all important grain markets. Its great advantage is that moisture determinations are made on the whole grain, so that there is no loss of water from the grinding of samples, and much time is saved. Without this device the grading of grain on a moisture percentage basis, as now provided in the United States grain standards act, would be practically impossible.

A grain sampler for accurately splitting samples of grain for analysis has been devised. This accuracy is essential to correct grading, otherwise the subdivisions are not representative of the whole sample.

Another of the department's inventions is the ship sampler. Under the old system of ship sampling it was the custom to grab handfuls of grain from a falling stream, or to let a bucket down into the cargo hold and allow it partly to fill up with the falling grain. These methods did not give a representative sample, and grading was therefore often very unsatisfactory. Sampling by means of the department's device takes complete cross sections from the falling

grain as it leaves the delivery spout, so that the sample accurately represents the shipment.

The value of flaxseed for crushing depends largely on its oil content. The method heretofore in use for determining the oil content took about 24 hours. Recently the department developed a simple method for determining the oil content of flaxseed by which the test can be made in approximately 10 or 12 minutes. This method has already come into commercial use at the principal terminal markets in the central Northwest.

The protein content of wheat has come to be an important market factor. Practically every lot of hard red spring and hard red winter wheat arriving at terminal markets is now tested for its protein content, and substantial premiums are paid for high protein wheats. Tests are made for the grain trade at protein-testing laboratories maintained by State agencies, by commercial grain-inspection concerns, and by private chemists. Methods for making the test, and consequently the results obtained, were not uniform at the different laboratories. To overcome this the department has developed a standard method for making protein tests, the value of which is already widely recognized.

Official Grain Standards

Minor changes in the official grain standards of the United States for corn, oats, and rye became effective during the fiscal year ended June 30, 1925. Official grain standards of the United States for grain sorghums became effective December 1, 1924. Oat standards effective June 15, 1919, required that the grain must contain at least 75 per cent cultivated oats in order to be classified as oats. Considerable quantities of grain mixtures, consisting principally of cultivated and wild oats with varying percentages of other grains, were found to be moving in interstate and foreign commerce. This class of grain did not come within the official standards for oats established in 1919.

These products, however, have a real commercial and feeding value and are in demand not only in certain parts of the country, but also in foreign trade where a comparatively cheap feed is desired. By reason of the fact that no official standards were available for this character of feed, the merchandising thereof has been conducted on a basis of general or indefinite terms resulting in many instances in confusion and misunderstandings. After public hearings on the subject with members of the grain trade in numerous markets throughout the country it was decided to promulgate under the grain standards act, standards for grain of this kind in addition to the existing standards for oats. Accordingly, official grain standards of the United States for feed oats and mixed feed oats were promulgated and became effective September 1, 1925.

Hay Standards Made Official

United States standards for alfalfa and alfalfa mixed hay, prairie hay, Johnson and Johnson mixed hay, and mixed hay were published, recommended, and made effective July 1, 1925. Slight revisions in the timothy, clover, and grass standards also were made effective on the same date. These standards have since been pro-

mulgated as official for the United States. Prior to their adoption, tentative standards for alfalfa, prairie, and Johnson hay, based on laboratory data and field and market surveys, were prepared and submitted to producers, shippers, and receivers of hay at 23 public hearings held in Alabama, Texas, Arizona, California, Utah, Idaho, Washington, Oregon, Montana, Colorado, Nebraska, Kansas, Missouri, Minnesota, Michigan, and New York. Valuable suggestions brought out at these meetings were incorporated in the standards.

The commercial dry edible bean crop of the United States returns to the farmer over \$50,000,000 annually and constitutes one of the important staple food products. Quality standards uniformly applied are essential to the free interchange of this commodity in commerce. Standards are in use and applied by six regional commercial associations, each drawn up, for the most part, independently of the others. Studies of the bean industry made by the department during the fiscal years 1924 and 1925 revealed many inconsistencies in the interpretation and application of such commercial standards. Tentative standards based on these studies were prepared and issued March 1, 1925. Public hearings were afterwards held in the principal bean-producing areas, to determine wherein the standards needed revision to meet local problems. A preliminary report has been issued summarizing the results of these studies and hearings.

Tentative broom-corn standards have been prepared and recommended for the use of State and commercial organizations. These standards have been made official for Oklahoma, the largest broom-corn-producing State. A school for training inspectors was conducted at Oklahoma City, following which a joint Federal-State inspection service was established in Oklahoma.

Crop Reporting

Information as to intended crop and livestock production, prices, stocks, shipments, demand, etc., is gathered and distributed by the department in ever-increasing volume. Three years ago a system of reports of farmers' intentions to plant crops was inaugurated. The purpose of these reports, one of which is issued in March covering spring-sown crops and one in August covering fall-sown crops, is to furnish information as to what farmers generally are intending to plant. Such information, made available at the right time, gives producers an opportunity to change their plans should there appear to be a likelihood of overplanting or underplanting any particular crop. It is believed that these intentions-to-plant reports are capable of having an immediate salutary effect on acreage and production.

The department's semiannual hog surveys, in making which the department has the assistance of the Post Office Department through rural mail carriers, have already had considerable influence on hog production. These surveys forecast production and marketing, and also indicate farmers' intentions as to breeding, thereby enabling farmers to decide when to market their hogs to best advantage, as well as whether to increase or decrease their production. Similar surveys are furnishing basic facts about dairying.

Sheep and lamb surveys likewise are made. The first of these reports has been issued. It showed a tendency to increase farm

flocks of sheep throughout the country to a point at which the increased supply would be liable to have a material effect on prices. A similar study is planned for the beef-cattle industry to throw light on the probable supply of beef cattle and to show whether there is any tendency to increase the number of beef cows for breeding.

These new lines of work were inaugurated primarily to aid the farmer in planning his planting and breeding programs, and as the work develops and is better understood the reports should exert a beneficial influence.

Constant improvement is also being made in the statistical methods used in the older and more developed lines of work having to do with crop reporting, namely, those relating to the estimating of acreage planted to various crops, the progress of the crop during the growing season, and estimates of yield and production as well as of stocks and farm prices. Material progress has been made during the past two or three years in the devising of better methods of estimating acreage. These newer methods are resulting in increased accuracy. Plans are under way to report wheat stocks much more completely than is done at present.

The cotton crop reports have recently been severely criticized, some of these criticisms being directed against the frequency of the reports, others against the accuracy of the reports, while some have gone so far as to impugn the integrity of the department officials engaged in making the reports. There is, perhaps, some ground for criticizing the frequency of these reports. The law now requires the issuance of two reports a month from July to December. The experience of the department in handling the semimonthly reports during the past two years would suggest the desirability of reducing the number of reports, especially in the early months.

The criticisms of the accuracy of the reports are largely due to a misunderstanding of the nature of the early forecasts which are often taken to be estimates of final ginnings, when, in fact, they are merely interpretative indications of condition figures reported by correspondents at given dates, and are, therefore, subject to change as prospects change throughout the season. To avoid misunderstanding with respect to these early forecasts, it has been suggested that the cotton forecasts during July and August be omitted, the department simply reporting the acreage in cultivation and the condition and progress of the crop during these months, and that, beginning in September, forecasts be made which, instead of being stated as a single definite figure as at present, be issued in the form of a range forecast, which would indicate the probable upper and lower limits within which the final ginnings were likely to fall. It is believed that if these suggestions were carried out some of the present criticism might be avoided without diminishing in any way the value of the official cotton reports.

The crop reports covering crops other than cotton are quite generally accepted by producers and the trade as the best available and are seldom subject to attack. The cotton reports, notwithstanding the frequent attacks upon them, are generally accepted as more accurate than those issued by private estimators, of which there are now more than a score.

Radio and the Farmer

The department made its first experiment with radio in 1920. Since then there has been a great development in the use by farmers of this new means of communication. A survey made by county agricultural agents in 1923 indicated there were about 145,000 radio sets on farms throughout the country. In 1924 the estimated number had jumped to 365,000 and in 1925 to 553,000. The average number of radio sets on farms per county has increased from 51 in 1923 to 204 in 1925. This increase of 300 per cent is evidence that the farmer appreciates the broadcasting service provided for him.

There has also been rapid growth in the number of radio-receiving sets on farms in States at great distances from good broadcasting service. In Florida, for example, the increase in 1925 over the estimated number on farms in that State in the preceding year was 1,955 per cent. Idaho increased the number of its farm receiving sets 850 per cent in the year, Alabama reported an increase of 850 per cent, Arizona of 460 per cent, and Louisiana of 600 per cent. In Pennsylvania, on the other hand, the gain in 1925 over 1924 was only 5 per cent.

Farmers generally have bought very good radio sets. A questionnaire answered by 2,500 farmers in 1923 indicated the average price of their manufactured sets was \$175. This sum will buy a better set to-day than it would two years ago. Yet farmers are not on that account reducing their investments in radio. Dealers in several parts of the country say that radio sets worth from \$125 to \$400 sell much more readily to farmers than those costing under \$100. Farmers have discovered that they need good long-distance sets to get the weather and market reports and entertainment they demand. Twenty-four agricultural colleges maintain radio broadcasting stations. The colleges are becoming enthusiastic users of radio. They cooperate with the Department of Agriculture in broadcasting its weather, crop, and market reports. Several hundred broadcasting stations regularly obtain information for broadcasting from the department. Many farmers have more than saved the price of their radio sets by profit gained by the use of market information issued by the department for broadcasting.

The Library

A comprehensive collection of books and periodicals, bulletins, and reports relative to practical agriculture, agricultural statistics, and scientific experimentation at home and abroad is a necessity for the department. In the field of agriculture and the related sciences, the library stands unsurpassed by any other single collection. It now contains 180,000 books and periodicals. Many of these are found in few, if any, other libraries in the country. The collections have been enriched during the last year by the addition of over 13,000 volumes and pamphlets. The periodical list is growing fast. Publications of the department are widely distributed to agricultural officials, societies, colleges, universities, and other institutions of learning. In return for these, thousands of serial publications are obtained. There are currently received by the library

more than 4,000 periodicals, of which number about two-thirds come by gift or exchange. The files of agricultural papers include representative publications from all over the world.

Agricultural workers, particularly those connected with the land-grant colleges and the agricultural experiment stations, look to the library of the department for books and for verification of references. Books are sent to every State in the Union. In the last 10 years the number of books lent has increased 100 per cent. Last year 1,916 books were lent to institutions outside of Washington. The dictionary catalogue of the library now numbers a half million cards, and is supplemented by special indexes in the bureau libraries on the subjects in which the bureaus specialize. All of these catalogues and indexes make an invaluable key to the literature of agriculture and the related sciences, and are in constant use in supplying information on the subjects of investigation by the department.

The Naval Stores Act

The naval stores act of March 3, 1923, is designed to improve the quality and the accurate grading of rosin and turpentine and to prevent the misbranding of these products when shipped into interstate or foreign commerce. The personnel for the enforcement of the act was organized during the year and a number of cases involving violations of the act instituted. Samples from 215 shipments of turpentine have been collected and examined during the year and 35 citations to hearing were issued. Under the service features of the naval stores act approximately 20,000 round barrels of rosin have been officially inspected, graded, and official United States grading certificates have been issued to cover them.

Home Economics

National welfare is based upon the combination of efficient production and wise consumption. The second of these two essentials, long neglected, is now beginning to receive the attention it deserves. The direction of home expenditure along lines which will make for health and well-being is the work of the department's Bureau of Home Economics. Studies are necessary to furnish information about the American diet. It is not enough to know what people consume. Certain items of the consumer's budget, notably food, may fall short of requirements for health and efficiency. Estimates of the food needs of the consumer should take such a discrepancy into account. Determination of requirements for an adequate standard of living therefore forms an important field of study. But if adequate standards of living are to be made effective, current practices must be checked against ideal standards.

In each of these fields of investigation much research is still to be done. For the last three years the department has been conducting an investigation in farm standards of living. During the last year the results from two States have been summarized. Analysis of the food expenditures of 3,000 farm families has been started in the light of present standards for adequate nutrition.

Methods of food preservation are important factors in wise utilization of food in the rural home. As a result of studies in this bureau and in the Bureau of Plant Industry the department has

withdrawn from distribution all previous publications on home canning and issued a circular giving directions for home canning based on the results of the research of these two bureaus. Special attention is called to the use of the pressure cooker in canning nonacid vegetables, to the use of the "hot pack" for both fruits and vegetables, and to the careful examination of canned foods before use. Various questions are being investigated, so that a more definite stand may be taken on certain controversial questions in home canning.

VI. The Department of Agriculture: Animal Husbandry and Plant Industry Investigations

Fundamental Dairy Research

To carry out the policy of enlarging the work in fundamental dairy research it was necessary to readjust the department's activities by cutting down the force devoted to cooperative work in the States so as to make it possible to undertake new investigations without additional funds. Work on the scientific principles governing the nutrition of dairy cows was considerably enlarged. The new building for research in nutrition was put into use and has greatly facilitated this important study.

On account of the large amount of calcium (or lime) in milk, heavy-milking cows require a great deal of it in their feed. Experiments have been conducted which show that if heavy milkers do not get sufficient calcium in their feed they will take it from the reserve supply in their bones in order to put it into the milk. This drain on the cow's body has a serious effect on her health and ultimately reduces her capacity for milk production and the bringing forth of normal, well-developed offspring. Dairy cows are more liable to suffer from a deficiency of calcium in their rations than from a lack of any other feed constituent so far studied.

It has also been found that calcium taken into the cow's stomach in various kinds of feed is assimilated into body tissue and milk with different degrees of readiness. The assimilation of calcium from such calcium compounds as ground rock phosphate, ground limestone, and bone meal has also been studied a good deal, and it has been found to be much lower than that from either alfalfa or timothy hay.

The quantity of phosphorus contained in the diet has an important effect on calcium assimilation. If a milking cow receives a diet which contains sufficient assimilable calcium, but not enough phosphorus, she will at first take phosphorus from her soft tissues to put into the milk; but the phosphorus which can be spared from the soft tissues is small in amount, and it is soon used up. When this has happened, the cow then begins to take phosphorus from her bones. The chemical composition of the bones is not easily changed; therefore, when phosphorus is taken from them, calcium comes along with it in the proportion of two parts by weight to one of phosphorus. Calcium coming from the bones in this way, and not used for milk secretion, is lost in the manure. Thus a cow may lose calcium from her body on account of a shortage of phosphorus in her diet.

Cows which receive too little calcium or phosphorus in their rations go down in their milk yield, and finally come to grief in one way or another, just as surely as cows which receive too little general nourishment. The difference is that in the latter case the cow gets thin, and anyone can see what is the matter with her as soon as he looks at her; whereas in the former case she may appear to be in very good condition, and the cause of the trouble can be discerned only by rather difficult and expensive investigations.

Farmers and dairy investigators generally recognize the fact that one of the quickest ways of increasing the net income from dairy farms is to have cattle that will produce more milk and butterfat than the average cow does at the present time. The average production of the cows of the United States is much too low. In round numbers it is about 180 pounds of butterfat a year. This can be increased, no doubt, in two ways: (1) By feeding our present cows better; (2) by raising the hereditary level of the producing capacity of our dairy cattle by better breeding. Both of these phases of the problem are being carefully studied by the department.

Breeding experiments are under way involving 1,500 head of dairy cattle in various parts of the United States. The object is to determine the method of breeding that will insure uniformity in the transmission of the capacity for high production of milk and butterfat. The methods of mating that are being compared are line breeding with outbreeding and inbreeding with outbreeding. With these goes the continuous use for generation after generation of sires that have proved their ability to transmit uniformly high-producing capacity to their offspring.

As a result of production studies made with the records of animals in the Advanced Register and Register of Merit, the theory has been advanced that a sire's hereditary make-up for producing capacity is indicated by the production records of a number of his daughters more accurately than a cow's hereditary make-up for producing capacity is indicated by her individual production record; that where all the daughters of a sire are uniformly excellent producers, this may be taken to indicate that such a sire has in his hereditary make-up only those factors that determine high-producing capacity, and therefore he is pure (or homozygous) for the factors controlling high-producing capacity; and finally, that by the use of such sires for generation after generation, dairy cattle might be bred that in the course of five or six generations will have an inheritance that will make it possible for all of them to be high producers, and that will make it impossible for them to transmit to their offspring an inheritance for low-producing capacity.

The difficulty is to find these pure sires. Up to this time we have looked to the Advanced Registry and Register of Merit to prove our sires. The difficulty in the selection of a proved sire through official testing is that the poor daughters of a sire may not be tested, because of the requirements for entry into the Advanced Registry or Register of Merit, and also for commercial reasons.

In the cow-testing association this difficulty may be largely overcome because it is the practice to test the entire herd, including the good and the poor daughters of a sire. Heretofore, the proving out of the thousands of well-bred sires in use in cow-testing associations

in this country has not been emphasized. The department is now taking steps to secure the necessary data to measure accurately the transmitting ability of the sires in use in cow-testing associations

Milk-Plant Management

In order that the milk producer may get a good price for his product without at the same time forcing the consumer to pay an unduly high price, it is necessary for the city milk distributor to operate his business at as small a cost as possible. Investigations are being carried on to determine the best practices in milk-plant operation, both from the standpoint of economy of plant operation and of quality of the product. Labor studies have been made at 125 milk plants located in the principal cities of the East. A detailed study is made at each plant, the number of men and time required for each operation being determined. The results of these studies indicate the most desirable arrangement and layout of plants and equipment.

The cream layer visible on a bottle of milk is the principal means which the consumer has for judging the richness or butterfat content of the product. Investigations have been carried on to determine what processes in the milk plant have a tendency to injure this visible cream layer and what methods may be followed for procuring the normal and uniform cream layer and at the same time obtain a clean and safe product.

Studies are being carried on at country milk stations to determine the most economical methods followed in the construction, arrangement, equipment, and operation of these stations in order to assist milk producers and dealers in establishing and remodeling such stations.

Rubber Possibilities in the United States

On account of rapidly advancing prices there is an acute demand for information regarding rubber-production possibilities in the United States and in tropical America. It is believed by many industrial and economic writers that a serious shortage in the supplies of crude rubber is impending, in addition to the dangers that have been recognized in being dependent upon the East Indies for a product that within a few years has become indispensable not only for industrial purposes but for military requirements. About three times as much rubber is used in the United States as in all the rest of the world. Rubber is now as essential to agricultural production and marketing of crops as to the urban industries. The present development of our civilization could hardly be maintained without rubber.

Interest in the possibilities of rubber production is intensified by the large areas of unused or partially used land in the United States, especially in the southern and southwestern regions, where rubber production might be feasible if suitable plants were discovered and methods of utilization were devised.

It has been determined already that several of the rubber-producing plants grow well under our conditions, and could be utilized, but other species or varieties may be found that yield more or better rubber, or are better adapted to cultivation under our conditions.

Because of the large numbers of plants that contain rubber, it is a large undertaking to make experimental determinations of the various possibilities that exist, in order to settle upon the plants that are best adapted to our conditions, and to develop suitable cultural methods and extraction processes.

Investigations of the problems of rubber production are being based on a new principle or method of procedure. Attention is first given to the cultural characters of the plants, so that intensive technological investigations of extraction and utilization methods may be directed to the species that are most readily propagated and that afford the best assurance of production in large quantities. In this way the investigation of agricultural possibilities will not be restricted to the species that have served as commercial sources of rubber, since the agricultural possibilities obviously do not depend upon the abundance of a plant in the wild state, or upon the exploitation of its natural products. Some of the most important crop plants are not known in the wild state or exist only in limited numbers under restricted conditions.

Several of the tropical rubber-producing species thrive and appear well adapted to conditions in southern Florida. Although the East Indian plantation system of production apparently would not be feasible in Florida on account of the high cost of labor, it is not impossible that other systems and methods of production and extraction of the rubber may be developed that could be established as regular agricultural industries. Popular interest in such possibilities of tropical development in southern Florida is very acute among the thousands of new settlers who are now establishing themselves in the more tropical districts. Although private cooperation may contribute to earlier solutions of the experimental problems, commercial plantings of rubber can not be considered advisable until practical methods of handling the crop under the Florida conditions have been devised and demonstrated.

Rubber plants that are natives of dry regions are being tested in California. Special attention is being given to one of the native species of milkweed (*Asclepias subulata*), which appears to be the most promising from the standpoint of growing on waste lands and of producing the largest quantity of rubber-bearing material readily and cheaply.

The East Indian tapping methods have been applied experimentally to a small planting of hevea, about 20 years old, near the north coast of Haiti. The records of these experiments are comparable with those that have been reported from the East Indies and show the same wide range of variation in the production of latex from individual trees. From 60 per cent to 75 per cent of the rubber is produced by 25 per cent of the trees in the East Indian plantations, and the problem of producing uniform high-yielding trees is still to be solved. Some of the trees in Haiti approached the best records in the East Indies, whereas other trees produced very little latex and some none at all. Owing to the seasonal variation in the flow of rubber being much greater in Haiti than in the East Indian plantations, other systems of production should be considered in which continuous tapping would not be necessary.

Plantings of all available species of rubber plants are being made in the Canal Zone in cooperation with the experimental garden of the Canal Zone at Summit, near the middle of the isthmus. By permission of the War Department a tract of 10 acres on the Atlantic side of the isthmus, at the Fort Sherman Military Reservation, has been made available for experimental plantings of rubber. These plantings are on lands that are being drained to control mosquitoes and that afford conditions apparently quite similar to those of the locality where hevea rubber has thrived in Haiti. From seed beds to be established in these or in other suitable places it is expected that seedlings of hevea can be transplanted at least in small numbers to many localities that can be selected to represent the full range of conditions in the Canal Zone and adjacent districts of Panama, to determine the practicability of commercial plantings of rubber or of utilizing waste lands for reserve plantings from which emergency supplies could be drawn.

Improvements in Cotton Production

Intensive studies of the problems of cotton production in the United States since the boll-weevil invasion have shown several causes of gradual deterioration in the quality of the fiber and lower yields per acre that have no necessary relation to boll-weevil injury, although they have frequently developed seriously in the same regions where boll-weevil injury has been serious.

The planting of seed of several different varieties of cotton in the same neighborhood, the intercrossing of these varieties in the fields, the mixing of the seed at the public gins, and the general use of gin-run seed for planting, are especially important causes of deterioration.

The production of poor fiber and low acre yields from mongrelized gin-run seed has been the underlying reason for the popular idea that cotton varieties "run out" and that fresh seed must be brought in every few years from other districts. It has been shown, however, by careful and extensive experiments that selected seed stocks that have not been allowed to become mixed may be grown continuously in the same districts for many years with no indication of "running out."

Wider utilization of superior varieties is going forward more rapidly through a plan of organizing one-variety cotton communities as centers of seed supplies where supplies of pure seed are grown, sufficient for general planting in the region, and where uniform high-quality cotton is produced in the commercial quantities that manufacturers require.

As compared with the usual conditions of mixed-variety production, each individual farmer of a one-variety community is able to raise more cotton and of better quality, which can be sold at a higher price. The manufacturers are willing to pay more for dependable supplies of uniform fiber because the spinning and weaving are less expensive and the resulting fabrics are better. The advantages to be expected eventually through establishing and maintaining a system of community production and marketing of the

crop of Acala cotton in the single-variety communities may be estimated conservatively at from 3 to 10 cents per pound, or from \$15 to \$50 per bale.

The organization of one-variety communities is of interest in other States not only as a step in working out the general problems of the cotton industry but as assuring a source of seed supply of good varieties that may be drawn upon in emergency years.

In California the State legislature recently passed an act which definitely excludes other varieties of cotton from specified districts where the farmers have restricted themselves to the Acala variety. The purpose of the enactment, to protect the public interest in the improvement of the cotton industry, is clearly stated in the first section of the act, and is regarded as in line with well-established precedents. No extra cost is involved in establishing the one-variety improvement, but only the requirement that growers refrain from injuring their neighbors who have adopted an improved system of production. The cotton land becomes more valuable in a restricted community, because it can be used with greater advantage to the farmer.

In the last few years a number of superior varieties of cotton have been developed by the Bureau of Plant Industry, better adapted to purposes of production under weevil conditions, maturing earlier and larger crops, and producing fiber of better quality. Among the more prominent of these are the Acala, Lone Star, and the Pima variety of Egyptian cotton grown in the Salt River Valley of Arizona. Hundreds of thousands of acres have been planted with these varieties and crops of aggregate values of many millions of dollars produced, as well as a general stimulation of interest in better varieties and better seed.

The production of cotton is also being improved by the application of new cultural methods, based on the discovery that the restriction of the size of the plants will shorten the growing season and often will greatly increase the yields in the presence of the boll weevil, and under short-season conditions along the northern rim of the Cotton Belt. Leaving the plants closer together in the rows increased the yield 50 per cent or more in some test cases, and a general estimate of at least 10 or 15 per cent would be justified to illustrate the value of this improvement.

Dry-Land Agriculture

The hazard of agricultural production in the Great Plains is only partially the crop hazard owing to unfavorable weather and soil conditions, insects, diseases, and other pests. The temptation to expand any agricultural enterprise to the extreme limit of financial credit has often led to unnecessary disaster. With a better balanced agriculture and a more careful provision for reserve credit, or, in other words, a more conservative development of any area in the Great Plains, the substitution of a sound and reasonably profitable agriculture for much of the speculative enterprises of this area is assured.

During the past three years the possibilities of home making in the Great Plains have been brought more closely to the attention of farmers than any other phase of agriculture in that region. Once

it is demonstrated that the maintenance of self-sustaining homesteads is not only possible but practicable in that vast region, the results can not but be beneficial and far-reaching.

The work of the department with that objective in view has been productive of encouraging results and has reached the stage to justify the conclusion that homes can be established and families maintained from the returns of fruits and vegetables of the farm under all growing conditions. Upon a 1-acre plat sufficient vegetables can be raised to support a family of five. These fruit and vegetable results are significant. It means that the food requirement of a family is assured from the farmstead. Add to such a farmstead a cow or two, a litter of pigs, and a flock of poultry, and a competent farm economy is accomplished.

The attractive and happy farmsteads provided with these resources that are beginning to dot the prairies in the Plains region fully compensate for the years of labor by the investigators of the department and augur well for the future. Any permanent agriculture must plant its roots around the nucleus of the farm home. When communities of farm homes are once established, the expansion of farm activities for supplying staple crops for the market on a large scale will develop as the capital of each farmer increases and experience guides his industry and initiative.

Barberry Eradication

The campaign to remove all of the common barberries in the 13 north-central grain-growing States has completed its seventh full year. The State agricultural colleges of the 13 States, the State departments of agriculture in most of the States, the conference for the prevention of grain rust, and similar allied agricultural and business organizations are cooperating in the campaign. There are four phases of the campaign: Investigation, publicity, survey, and eradication.

Numerous foreign and native species of barberries and hybrid barberries have been added to the *Berberis* garden at Bell, Md., during the year. These are being assembled for description and classification. Native species of barberries also are being studied in their natural habitat and the most effective method of eradication of the susceptible species is being determined.

Additional proof of the connection between common barberries and rust in grain has been obtained. Aecidiospores developed on common barberries within the eradication area about a month before the appearance of stem rust on grains and grasses. Grains and grasses near infected barberries became rusted two or three weeks before any rust appeared on more distant grains and grasses. A heavy rust infection on spring wheat in central North Dakota in 1924 was immediately traceable to about 80 barberry bushes near Jamestown, which had been overlooked in an original survey. The occurrence of stem rust on oats over an area more than 60 miles long in western Wisconsin was directly traceable to infected barberries in the area of escaped bushes near Trempealeau.

Before the removal of great numbers of barberries it was nearly impossible to differentiate between the local stem-rust epidemics which the infected barberries caused. Now that many millions of

these bushes have been removed, the local epidemics are greatly reduced in number and are more easily identified. Within the last year it has been possible to find barberry bushes by tracing stem-rust epidemics from areas of light infection to areas of heavier infection until the source of the epidemic was reached. This has been true in practically every State of the eradication area.

It seems very probable that when the barberry in the 13 States is reduced to such a minimum that each local epidemic can be clearly isolated from the other epidemics each common barberry eventually will reveal its location in a year favorable to the production and spread of stem rust. Barberry eradication has been especially emphasized through the schools. With the cooperation of Smith-Hughes instructors and school superintendents and teachers, many school children have been taught to identify the harmless Japanese barberry, the harmful common barberry, and the different stages of black stem rust.

After several years of experimenting with nearly 40 different chemicals it has been demonstrated that common crushed rock salt and kerosene are the two most satisfactory chemicals with which to kill a common barberry. The use of sodium arsenite, which for a time was recommended, has been discontinued because of the danger to livestock involved in its use. Either salt or kerosene is 100 per cent effective if properly applied, and the cost of application is considerably cheaper than eradication by digging. The availability of both salt and kerosene makes them especially satisfactory. During the fiscal year 304.5 tons of salt and 11,957 gallons of kerosene were used to kill 427,914 barberry bushes, sprouting bushes, and seedlings on 2,651 properties.

A determined effort has been made to discover and treat all escaped barberries. One of the outstanding discoveries of the year's work is the fact that areas of escaped bushes in nearly every instance are larger than was at first supposed. It has been necessary to survey miles in every direction from hedges of barberries which are bearing seed. Where the escaped bushes are fruiting, the policy is to survey foot by foot at least 2 miles beyond the limit of the last fruiting escaped bush. Seedlings still continue to appear every spring around hedges which were destroyed several years ago, indicating that seeds lying on the surface of the ground will retain their viability for as long as six or seven years. A total of 3,860,402 escaped bushes and 4,631,929 seedlings have been found to date. Of these 259,733 escaped bushes and 806,451 seedlings have been found this year.

Effects of Crops on the Yields of Rotation Crops

Fairly extensive field tests, the technical description of which will be published soon, have demonstrated the fact that use of intensive cropping systems may quickly cause some soils to lose the power to produce satisfactory yields of certain crops. Liberal fertilizing and manuring may hasten rather than delay or prevent the development of this condition. In the crops involved the root system may fail to develop normally in spite of the fact that some of the soils behaving in this manner are in excellent mechanical condition and have very thorough underdrainage. This condition does not involve loss

in general productiveness, for some crops give excellent yields, whereas others are more or less complete failures.

It has been found that the cropping system largely controls the situation and the result in any particular case primarily depends on the comparative effect of the preceding crop in producing the unfavorable soil condition, on the one hand, and the sensitiveness of the succeeding crop to this condition on the other hand.

Corn seems to be a crop which is especially apt to affect succeeding crops in the rotation unfavorably, but itself is not sensitive to the effects of other crops. The converse is true of tobacco. Systematic crop rotation, with free use of soil-improving crops, does not necessarily correct or improve this condition of the soil. In the case of tobacco no system of rotation has been found which fully equals the simple expedient of allowing the soil to remain idle and undisturbed for a year or more, with or without a covering of adventitious vegetation. Curiously enough, the next best results are obtained with tobacco in continuous culture, without use of any soil-improving crop, or after crop plants related to tobacco, such as tomatoes and potatoes, which also are sensitive to the soil condition in question. On the other hand, tobacco may give poor results after crops to which it is in no way related, such as corn, grasses, and legumes. Similarly, potatoes give much better results after tobacco than after corn. Among the legumes, soy beans affect tobacco very unfavorably when compared with cowpeas, whereas both legumes are very beneficial to corn. It is apparent that these specific crop effects are explainable only in part on the basis of the quantities of plant nutrients removed from the soil. The fertilizer treatment may modify but frequently does not control the effect of one crop on another. Weather conditions, more particularly the seasonal rainfall, have been found to exert a marked influence in these crop effects.

White Pine Blister-Rust Control

The white or five-needled pines of this country are of outstanding importance in the development of forestry. Of the nine species occurring in the United States, the eastern white pine, western white pine, and sugar pine are of great commercial importance and value. Existing stands of these trees on public and private lands approximate 80,000,000,000 board feet, having a stumpage value of about \$550,000,000. Their harvesting and utilization sustain many industries and give employment to thousands of people. Immature stands of these species cover large areas of forest land and form a most important part of the forests of the future. The intrinsic value of their wood, their rapid growth, their wide range, and their adaptability to forest management give them a commanding place in the forestry of this country. The continued maintenance of these species in our forests is a matter of regional and national concern.

In the eastern United States the disease has been present about 25 years, although it was not known to be widely established on native pine until 1916. Since then control measures have been developed and demonstrated by extensive field tests to be practicable and effective. A control program, requiring an estimated period of eight years for completion is now under way in cooperation with

the affected States. Such action is necessary to prevent serious losses in maturing stands and to assure stability in the continued production of the pine crop.

The control program has made good progress and public interest and cooperation in the work have been very satisfactory. Each year numerous individuals and many townships have joined in the co-operative work, and control measures have been applied on 3,447,485 acres of land.

In the West a 10-year control program in cooperation with the States concerned has been vigorously prosecuted. Apparently the disease was introduced from France into British Columbia about 1910 and became thoroughly established on native host plants before its discovery in 1921. It has spread into eastern British Columbia to within 35 miles of the white-pine region of Washington and Idaho, and to the south it has extended its range through western Washington to the Columbia River. No further extension of the disease was found in 1924. This probably was due primarily to the dry weather conditions that prevailed in the Northwest and to the extensive eradication of cultivated black currants. Additional pine infections were found in western Washington, indicating that the rust is beginning to establish itself on the native pine host in that region.

Cultivated black currants (*Ribes nigrum*) have been systematically located and eradicated in western Montana, Idaho, Washington, Oregon, and northern California. This species of currant becomes diseased at great distances from infected pines and establishes new disease centers from which the rust spreads locally to other currants and gooseberries and to white pines. The department recognizes this currant as a distinct menace to the white-pine timber supply of the country and is opposed to its growth in the United States. Some States have declared it a public nuisance and prohibited its further culture.

Citrus Canker Eradication

As a result of the vigorous campaign conducted by the Gulf States in cooperation with the department, citrus canker, a bacterial disease of citrus fruits and trees, has been practically eliminated from the greater portion of this region. Mississippi has not reported any new infection since November, 1922, and, apparently, is free from canker. The work in Alabama has been very effective. The last infection found there was in June, 1924. Florida reported the discovery in March, 1925, of five infected trees on two town lots at Boynton. All citrus trees on these properties were destroyed and a rigid inspection of the entire district was conducted, but no more infected trees were found. With this exception, Florida has been free from canker since October, 1923. In Texas the work has progressed satisfactorily. No new infections have been reported.

Scattered infections of nursery stock are being found in Louisiana. During the past year major efforts have been devoted to citrus properties in Terrebonne and Lafourche Parishes, where all trees were uprooted from properties where citrus canker had been found. New trees were planted under permit to prevent owners from planting trees in the same soil or in close proximity to soil from which canker-infected trees were removed. Because of scattered infections

in dooryard plantings in Louisiana and the possibility of similar infections occurring sporadically in other States, it will be necessary to maintain at least a reconnaissance inspection of the entire citrus area for several years.

Sugar-Cane Investigations

Despite the disastrous flood which occurred at the field station at Canal Point, Fla., in October, 1924, a number of new sugar-cane seedlings were produced, and about 300 of them survived. These are all from parents which are immune to or tolerant of mosaic, a disease which is responsible for much curtailment of sugar-cane yields in Louisiana. Approximately 1,300 seedlings produced at the station in previous years were given preliminary trials, and a large proportion of them have been discarded. About 500 promising ones were sent to our field stations at Cairo, Ga., and Houma, La., for further trial. Performance records of about 5,000 sugar-cane seedlings in various stages of testing are now on hand. In addition to the seedlings many standard varieties imported from foreign countries are being tested at Canal Point.

Imported varieties of sugar cane and seedlings from Canal Point were tested at this station. One of the varieties proved decidedly better than the "native" varieties, and was distributed to nearly 3,000 planters in the Gulf States. Our field men also supervised the distribution by the American Sugar Cane League of 52 half-ton lots of the same seed cane. The department's work in importing, testing, and distributing this variety, which is extremely resistant to mosaic and root disease, should have very beneficial results.

Sugar-Beet Investigations

A study of different sugar-beet areas of the United States shows that in some regions development of effective fertilizer practices, together with modern field operations, will assure satisfactory production. In other regions pests and diseases appear to be the essential limiting factors. Among the more important of these troubles is the sugar-beet nematode. The efficiency of economic rotation systems for controlling the sugar-beet nematode has been established and from the experience gained it would appear that areas of heavy infestation should be readily controlled and serious future losses from this cause avoided.

Perhaps the most important single factor limiting sugar-beet production in the western areas is the curly-top disease, caused by the virus transmitted from diseased to healthy beets by the sugar-beet leafhopper. Important technical discoveries regarding this disease have been made during the last year, although the exact nature of the virus still remains undiscovered and no method of destroying either the virus or the leafhopper has as yet been found.

Observations made in various sugar-beet growing areas in the States west of the Rocky Mountains revealed striking contrasts between different localities in the amount of curly top occurring. In southern California there was more curly top in 1925 than has occurred in the eight years during which the fields have been observed.

On the other hand, the prospects for a beet crop in the intermountain region were the most favorable in a number of years.

In the Yakima Valley of Washington last season approximately only 25 per cent of a normal crop was harvested from a large acreage. The losses from curly top in this valley have been so serious and frequent in occurrence that by 1925 beet growing had been practically abandoned. Three fields, comprising only about 20 acres, were planted. In southern Idaho, where last season more than 10,000 acres were ruined by curly top, the 1925 crop was in excellent condition. In Utah there was this year relatively little curly-top damage, whereas the only previously recorded outbreak of curly top in Utah which can be compared in seriousness with that of 1924 occurred in 1905.

The most encouraging phase of the recent work is the slightly greater resistance to the disease shown by some strains developed by specialists engaged in breeding beets for disease resistance. Although these strains are not sufficiently disease resistant to be of commercial importance, even this much gain in the knowledge of combating the disease is noteworthy, and accordingly the department has undertaken a thorough exploration of the native home of the sugar beet in the hope of there discovering more resistant types which can be used for intensive development of the work of breeding for disease resistance.

Red-Clover Seed Production

Red clover is by far the best restorative crop in Corn Belt rotations. The steady decline of the red-clover acreage over a long period has adversely affected the yields of all other crops involved in the rotation. For at least 15 years the United States has been a heavy importer of red-clover seed. Most of this seed has come from Italy and southern France. Evidence is accumulating to show that much of this imported seed is not satisfactory for use in America. Cooperative trials which the department has been carrying on with experiment stations in the Middle West have shown that the plants from imported seed are much more likely to winterkill than those from American seed; that they are more susceptible to certain diseases, and that they often give a smaller crop even when the stand is otherwise apparently satisfactory.

As far as our investigations have progressed we have found that Italian seed is everywhere unsatisfactory and that French and Chilean seed, although giving good yields in some parts, is unsatisfactory in Iowa, Minnesota, and elsewhere where the winters are severe. During the past year there has been a considerable development of the cooperative movement in the purchase and sale of red-clover seed. Those most active in this movement insist on the condemnation of all imported seed and the use of the United States grown seed only. With the present limited production in the United States the American farmer can not confine himself to domestic seed, and the importation of something like 12,000,000 to 15,000,000 pounds annually is necessary.

The fact has developed that red-clover seed may produce plants unsatisfactory to the American farmer either because they are not resistant to cold or are not resistant to disease. It has been custom-

ary in the past to call every case where clover died out during the winter a case of winterkilling. The department has learned, however, that in the region approximately south of the Potomac and the Ohio, winterkilling due to freezing or freezing and thawing is a rare phenomenon, but that most of the destruction of the clover in that area is caused by anthracnose. Just how far this disease is serious is not known, but this phase of the work is being studied. It is known, however, that plants raised from Italian seed are extremely susceptible and that plants from European and South American sources vary in susceptibility, some lots suffering very heavily and other lots scarcely at all. We also know that seed from certain parts of the United States will produce plants which, in the area where the disease is severe, will suffer as much as French or Chilean plants, whereas seed from other sections appears to produce plants with a high degree of resistance.

Field Tests of Imported Alfalfa Seed

The tendency to increase the acreage of alfalfa, particularly east of the Mississippi River, is now very marked. This tendency has resulted in very large increased demands for alfalfa seed. Our domestic supply has rarely, if ever, been adequate for home needs. In the past two or three years the supply has not nearly kept pace with home consumption and has resulted in the importation of considerable quantities of seed from foreign sources, particularly Argentina and South Africa. This seed has been sown very generally in the eastern part of the United States, regardless of latitude. Although the seed from Argentina, according to the preliminary tests that have been made by the department, gives very satisfactory results as far north as central Pennsylvania, it does not appear to be sufficiently hardy north of this line to be dependable. On the other hand, the seed from South Africa, according to the preliminary tests, which are not nearly as extensive as those made with seed from South America, does not appear to be particularly well suited to any part of the United States where alfalfa is grown.

VII. The Department of Agriculture: Scientific and Extension Work

Extension Service

The past year marked the beginning of the second decade of co-operative extension work between the department and the State agricultural colleges under the Smith-Lever Act. It saw the further rounding out of this national system of education among American farm people and their increased participation in planning and applying it to the needs of their local communities. More than 180,000 farmers and farm women acting as volunteer leaders joined with the paid extension forces in undertaking to improve agricultural and home practices. Farmers and farm women themselves were encouraged to explain the demonstrations, conduct the meetings, make reports, write necessary letters, explain extension work, and solicit support for it. Self-conducted demonstration was a basis for this teaching. More than a million demonstrations influencing farm and home practices were carried to completion during the

year. Of these demonstrations 645,000 were conducted by adults and 489,000 by farm boys and girls. This increased participation in extension activities by farm people has markedly stimulated thought and resulting action looking toward better farming methods, higher standards of living, and a more attractive farm life.

The total forces employed in cooperative extension work in the States during the year numbered 4,868 persons. Of that number 3,455 were located in the counties, and of these 2,171 were engaged in county agricultural agent work, 880 in home-demonstration work, 133 in boys' and girls' club activities, and 271 in extension work with negroes. There were in addition 723 full-time and 207 part-time subject-matter specialists with headquarters at the State agricultural colleges supplementing the work of the county agricultural agents. Supervisors, assistant supervisors, and administrative officers numbered 483. Public agencies continued to take over an increased part of the financing of county extension work, with a consequent gradual decline of funds from private sources. This trend further stabilized the status of extension work in the counties.

State and regional programs for farm and home improvement were developed during the year. The Northeastern and far Western States, in particular, worked out sectional programs based on carefully selected economic data. In formulating these programs chief consideration was given to their effect on the fundamental agricultural enterprises of the States involved. At the conference of extension workers in the Western States held at Tucson, Ariz., in November, 1924, recommendations were adopted covering the production of alfalfa, corn, and barley in relation to the range livestock and dairy program; home gardening and fruits in relation to the human-nutrition program; and potatoes and wheat as cash crops.

The nutrition specialists, meeting in connection with the extension conference of the Northeastern States in New York City in February, 1925, developed a sound basic program for extension work in nutrition, involving particularly food selection, preparation, preservation, the food budget, prenatal and postnatal nutrition of the mother and nutrition of the infant, the preschool child and the school child. The program contemplates training schools in subject matter for extension agents, use of well-trained local leaders, improvement of demonstrations and development of the growth work in connection with boys' and girls' club projects based on the idea that the club member should be his own best exhibit.

Exhibits and Motion Pictures

Marked progress was made in the effectiveness of the department's exhibits at fairs, particularly at the National Dairy Show and the International Livestock Exposition. At the latter a feature which created much interest portrayed the contrast between common and good beef cattle, with live animals of the two classes as calves, feeders, and finished steers. Samples of the principal cuts of meat from good and from common steers were also shown. The exhibits were accompanied by appropriate backgrounds and legends pointing out the difference in the two classes and the better financial returns from the good steers. Showings were made by the department at 86 fairs, expositions, or other gatherings.

During the year, 28 new educational motion pictures were completed and 30 old films were revised. The department now has a film library of 1,862 reels available for distribution, consisting of from 1 to 50 copies of more than 200 different pictures. Shipments of films to cooperative users numbered 4,260, an increase of 33 per cent over the previous year and double the number made in 1923. Actual attendance at showings of department films totaled nearly 3,000,000. Conservative estimates of attendance at showings not reported and of films purchased by State extension services and other agencies indicate that 9,000,000 persons saw department films during the year.

Broadcasting Weather Forecasts

At the close of the year there were 121 stations, located in 40 different States, broadcasting weather forecasts and information by the radiophone on regular schedules. About 95 per cent of all the powerful radiophone-broadcasting stations in the United States are now cooperating and many of them broadcast forecasts for several States, and people in every section of the country are being served. The scope of the radiophone weather service may be estimated when it is known that, for instance, in the State of Iowa alone there are over 33,500 receiving sets *on farms*. It is estimated that the weather forecasts are available by radio to more than half a million farms in the United States.

An outstanding feature of the Weather Bureau's work last year was the warning given citrus growers the latter part of December of the approaching period of cold weather of unusual length and severity. On this information an additional 300 carloads and 175 truck loads of oil were rushed into the citrus districts to meet the impending emergency, which came as forecast. Eight specialists were assigned to duty during the frost-danger season in the citrus and deciduous fruit districts of the Western States. There were urgent requests from fruit interests for additional service in other portions of the country. This service has become one of the most valuable conducted by the bureau. Its cooperation with fruit growers materially assists in the saving of hundreds of thousands of dollars annually.

The fruit-spray forecast service is principally for the benefit of apple orchardists. It consists of special weather forecasts as a guide in the application of sprays to combat scab and fungous diseases. The season begins in early April and continues into the latter part of June. The harvest weather forecasts are designed for the use of farmers during the harvesting season in determining when wheat, oats, and hay can be cut and harvested to the best advantage and with the least likelihood of damage from wet weather. The season runs from about the middle of June until the latter part of September. The fruit-spray service heretofore confined to the State of New York was extended in a limited way to other States, particularly Pennsylvania. The harvest-weather service was expanded to 44 counties in the State of New York. The past year was the first during which the projects were carried on as established programs, owing to the availability of the specific appropriation made by Congress for the work. In one county alone

the money value of the spray service to fruit growers was estimated from \$40,000 to \$60,000. It is estimated that about 24,000 farmers obtained the harvest-weather forecasts, and reports indicate that many thousands of dollars were saved by farmers who used the weather reports, and those who did not have reports in many cases lost heavily.

During the late summer and early fall months fruit drying is one of the principal industries of the central valley of California. Fruit to the value of \$40,000,000 to \$50,000,000 is at times exposed to the weather in trays in the process of drying. The occurrence of rain without warning a sufficient time in advance to protect by stacking the trays or placing them under shelter would cause large losses from complete damage or deterioration in quality of the fruit. Therefore, much responsibility rests on the weather forecasters and the growers depend on the Weather Bureau to advise them when protective measures are necessary. In order that the best possible service may be given to this important industry arrangements were made during the year for providing the district forecaster at San Francisco and the local forecasters at Fresno and Sacramento with special observations by telegraph from points in California and near-by States whenever conditions indicate the probability of rain in the raisin-growing districts.

The great flood period of the year was that of January, 1925, in the rivers of the South Atlantic States. The warnings of the coming, duration, and extent of the floods were issued with timeliness and accuracy. Special efforts of the Weather Bureau in assembling data and issuing flood warnings during the flood crisis were estimated to have been the means of saving \$1,000,000 to the citizens in river territories in middle and southern Alabama. Much property was saved during the year in other portions of the country through the flood warnings of the Weather Bureau, the total reported value of property saved being \$2,209,975, which, of course, is not a complete record of the saving effected.

Fighting Insect Pests

Further progress was made in fighting insect pests. The campaign for the suppression of the plum curculio in Georgia, which has resulted in the saving of several hundred thousands of dollars a year to the peach growers of the South, was this year extended to include a trial of dusting with arsenicals by means of the airplane. Further experimentation improved the paradichlorobenzene treatment for the peach borer. This treatment was developed by the department a few years ago. Its use has now been extended to the southern peach-growing districts, where it is said to save millions of dollars annually. The use of lubricating or engine oil emulsion for the San Jose scale has been extended and placed in a firm basis. It is now regarded as a cheap and efficient standard treatment for this pest. A new insecticide field has been opened by the discovery of the value of fatty acids as contact insecticides, especially efficient for plant lice and similar insects.

The Japanese beetle has been held to the region of its original infestation. The operations of the department, in cooperation with the States of Pennsylvania and New Jersey, have prevented its

spread to other parts of the country. Much progress has been made in methods of control, in the study of the biology of the beetle, and in the importation of its natural enemies. Several of these enemies imported from the Orient have become established in this country. Additional European parasites of the European corn borer have been imported.

The dusting of cotton fields with arsenate of lime by the airplane as a boll-weevil remedy, originally developed by the department, has been adopted commercially. Indications are that it will find a place in the regular routine of the large cotton planters. This means that the poisoning will be done by experts in a more satisfactory way than by farm labor. The use of the airplane in distributing arsenical dust over more or less inaccessible standing water near plantations in the delta region of Louisiana resulted in the destruction of over 99 per cent of the larvæ of malarial mosquitoes.

An improved poison bait, in which sodium fluosilicate has been substituted for Paris green, has been worked out for the control of wireworms in tobacco fields. In the case of heavy infestations the crop stand has been increased by this application as much as 12 per cent. In the work against sugar-cane insects agents of the department have developed a method of soaking the seed cane in water of ordinary temperature for 72 hours, destroying all borers of all stages and stimulating germination of the plant.

European parasites of the European earwig, an insect causing much damage in the Northwest, have been imported and liberated, with the strong prospect that at least one of them will become established at Portland, Oreg. Eradication of the sweet-potato weevil has been accomplished in what is known as the Baker-Charlton area in north Florida. This indicates that the principal threat to commercial sweet-potato growing in the Gulf States can be eliminated.

An outstanding achievement has been the discovery that the application of high vacuum can be used successfully in the control of insects attacking many products in storage. These results indicate that a high-vacuum chamber is a feasible and desirable part of the equipment of a modern storage warehouse. Work in the control of bean weevils in California has resulted in the discovery of facts concerning the biology of the weevil which will result in the saving of many hundreds of thousands of dollars to the California bean growers. The barrier zone between New England and New York State, established for the purpose of retarding the march of the gipsy moth, has been maintained successfully, and the large colony of this insect found a few years ago in New Jersey is being wiped out.

Foot-and-Mouth Disease Eradication

Prominent among the department's activities in combating animal diseases was the suppression, during the last fiscal year, of foot-and-mouth disease. This highly infectious malady, which occasionally has gained entrance into the United States, was controlled and eradicated by rigorous methods of inspection, quarantine, slaughter of infected herds, and the cleaning and disinfection of premises. At the beginning of the fiscal year the extent of foot-and-mouth disease which appeared in California early in 1924 had been limited

to the counties of Los Angeles, Tuolumne, and Merced. The last outbreaks among domestic livestock in these counties occurred on August 23 and October 9, 1924, and April 5, 1925, respectively. In the testing and restocking of 702 premises which had contained foot-and-mouth disease the malady reappeared on only two, demonstrating the thoroughness with which the inspection forces conducted cleaning and disinfection.

The difficulty of eradicating foot-and-mouth disease was increased by infection among deer in the Stanislaus National Forest. Cooperation of the Bureau of Biological Survey, the Forest Service, the State Department of Agriculture, and the California Fish and Game Commission with the Federal Bureau of Animal Industry made possible the eradication of the disease from the deer in the forest. The last deer showing recent infection was killed June 10, 1925. As a precautionary measure, the Stanislaus National Forest was closed to grazing during 1925. A separate outbreak of foot-and-mouth disease in Texas was officially confirmed September 27, 1924, in a herd of Zebu cattle south of Houston. Methods similar to those used in suppressing the California outbreak resulted in the suppression of infection in Texas within 30 days. It seems probable that infection entered Texas through a gulf port, since investigation established no connection between this outbreak and the one in California.

Outbreak and Suppression of European Fowl Pest

In the fall of 1924 the European fowl pest appeared in the United States, menacing poultry flocks. This new, highly contagious malady broke out in the States of Pennsylvania, New York, New Jersey, Connecticut, Indiana, Michigan, West Virginia, Missouri, and Illinois. Most of the infection was limited to the four States first named. To prevent the spread of this disease the department, by official order, prohibited the interstate shipment of live chickens, turkeys, and geese affected with or directly exposed to European fowl pest. The order also required the cleaning and disinfection of premises, cars, coops, and other equipment used in handling interstate shipments of poultry affected with the disease. Affected birds were slaughtered, and, together with birds that had died, were burned or deeply buried. An appropriation of \$100,000 promptly made by Congress—in the absence of funds available for poultry-disease work in the field—contributed greatly to the thoroughness of control measures. Methods used for suppressing European fowl pest were similar to those used in combating foot-and-mouth disease. By May 1, 1925, the fowl malady was virtually eradicated; infection subsequently appeared only in one small flock of chickens in New York, where it was promptly suppressed. In dealing with such pests immediate action is half the battle. The serious effects of the fowl pest outbreak on agriculture and other industries deserve attention. Prices of poultry broke badly when the disease began to spread and producers and distributors suffered heavy losses. Poultry-dressing establishments, especially in the East, were obliged to discontinue operations, throwing thousands of employees out of work.

Tuberculosis Yields to Aggressive Testing Program

It is gratifying to report that tuberculosis of livestock is yielding in the aggressive campaign waged against it by Federal, State, and county forces. Improved State laws, liberal State appropriations, and a better understanding of the work by stock owners have aided the work. Field operations for the year showed a 32 per cent increase in the number of cattle tested compared with the previous fiscal year. Tests were applied to over 7,000,000 cattle, of which 3.1 per cent showed tuberculous infection. This figure was slightly less than in the preceding year and was still lower than the average of former years. The degree of infection, however, varies widely in different States. Altogether 214,491 tuberculous cattle were detected and slaughtered, thereby removing a large menace to both the human population and farm animals.

The plan of eradicating bovine tuberculosis from areas—usually a county—is now recognized as the preferred method for conducting the work. More than two-thirds of the cattle tested during the year came under the area plan. Altogether 591 counties have completed or are engaged in eradicating bovine tuberculosis, this number representing an 86 per cent increase over last year. In addition to the county-wide activities, there was a gain of 24,110 herds accredited as free from tuberculosis, bringing the total of such herds to 72,383. The proportions which tuberculin testing has assumed in recent years may be judged from the impressive number of cattle that have received the test. More than 11,000,000 were under supervision at the end of the fiscal year, with an additional 3,500,000 on the waiting list.

In conjunction with the testing work the department has held many meetings and conferences and has distributed much educational literature and exhibit material for the information of the public. Opposition to official tuberculin testing, which some years ago obstructed the work in numerous localities, has gradually declined and is being replaced by cooperation. In fact, State appropriations for tuberculosis eradication during the year aggregated about \$7,000,000, or more than twice the funds provided by the Federal Government. The outlook for the continued eradication of tuberculosis of livestock, including cattle, swine, and poultry, is unusually promising.

Federal Meat Inspection

Although the inspection of food animals, meats, and their products is now commonly accepted as a "public service" Federal activity, brief comments on its current extent may be of interest. During the fiscal year the department conducted Federal meat inspection at 910 establishments in 257 cities and towns. Altogether about 75,000,000 food animals, of which more than three-fifths were swine, passed under the scrutiny of trained Federal inspectors. Federally inspected slaughter continues to represent about two-thirds of the total kill of food animals in the United States. The remaining one-third, representing mainly local and intrastate business, does not come under Federal authority.

Besides the assurance of wholesomeness which the United States meat inspection service provides, the inspection constitutes an important factor in export trade. During the year the department issued more than 100,000 official meat-inspection certificates. These covered the exportation of over 1,500,000,000 pounds of meat products and over 100,000,000 additional pounds of inedible animal products. During the year imports of meat from abroad were a very small percentage of the export business. Records of meat inspection afford livestock producers much information concerning the health of farm animals received at the principal market centers. Of 35 diseased conditions that occur with greatest frequency among animals offered for inspection, tuberculosis is by far the most serious. This disease caused more condemnations of cattle carcasses than all other diseases and ailments combined. It also was by far the most important cause for condemnation of hog carcasses and parts.

Tick Eradication Makes Progress

Previous success in eradicating cattle-fever ticks from Southern States has resulted in a continued vigorous campaign to free the entire South from this pest, which causes disease and a large economic loss. Of 975 counties quarantined because of cattle-fever ticks on July 1, 1906, when the work of eradication was launched, 529 were released from quarantine and were tick free November 1, 1924. The complete eradication of cattle ticks from 71 counties is one of the outstanding achievements of the current tick-eradication season. On December 15, 1924, Federal quarantine restrictions were lifted from the entire State of Georgia following the success of tick eradication in that Commonwealth. Progress in destroying the pest required the use of over 25,000 dipping vats and more than 24,000,000 inspections or dippings of cattle were conducted.

The department continues to stress the importance of completing tick eradication in areas released from Federal quarantine, but in which a small degree of infestation remains, such premises being continued under quarantine regulations. The importance of "clearing up" such areas of potential danger with vigor is shown by abundant field experience. Many of the encouraging results here reported are due to the use of two portable motion-picture outfits that have molded a favorable sentiment for this work. The motion pictures show proper methods of conducting tick eradication and the benefits to be derived. These machine exhibits are given in small towns and in rural schoolhouses in tick-infested districts, 530 showings having been made during the year.

Livestock Improvement

Information received from many sources shows the continued improvement of livestock in the United States with respect to its breeding and utility value. Although much of this progress is of an intangible nature, department records obtained under the "Better Sires—Better Stock" plan show an unmistakable trend toward the wider use of purebred sires and subsequent improvement in the quality of herds and flocks. Under the plan mentioned livestock owners signify their intention to use purebred sires exclusively for all classes of livestock kept and report the number and quality of

their breeding stock. During the year approximately 1,500 stock owners definitely placed their livestock-breeding operations on a purebred-sire basis, bringing the total number participating since the work started to 15,818. Moreover, six more counties qualified for the list of those having 100 or more livestock owners using purebred sires of good quality in all breeding operations. At the end of the year 41 counties had reached this goal.

Records continue to show that ownership of purebred males leads promptly to a large number of purebred female animals in all classes of stock kept and to a gradual grading-up process, with the reduction of scrub stock to a negligible number. Information obtained during the year by an extensive questionnaire covering 45 States shows that the high utility value of purebred livestock is becoming recognized by stockmen. The inquiry showed that more than half of purebred food animals are marketed directly for meat purposes; that purebreds are much more profitable to raise than scrubs, and somewhat more so than grades, the degree depending on the proportion of pure blood the grades possess; and that about 96 per cent of persons who give purebred sires a fair trial stick to the general principle of using them for all classes of stock. According to farmers' reports, purebred meat animals cost slightly less than scrubs to raise to maturity; purebred dairy cattle cost slightly more. Purebreds are, of course, worth much more when raised. The same inquiry indicated that only about half of the purebred animals eligible to registration are actually registered. This matter is of interest in connection with figures of the last census showing the number of registered purebred livestock. The principal reasons for not registering purebred animals, as reported, are intention to sell for slaughter, poor individuality, and lack of demand for registration papers when stock is sold.

Low Hog-Cholera Losses

The swine industry during the last fiscal year experienced the smallest losses from hog cholera since official records of the disease have been kept.

At times cholera has taken toll of as high as 10 per cent of the swine, whereas last year the loss from this cause was only 3 per cent. The lessened prevalence of the disease has caused swine owners to give less attention to immunizing their animals, with the result that more swine herds on farms are left susceptible to hog cholera than in other years. Consequently, heavy losses may be expected should the disease begin to spread before outbreaks can be checked. Promptness in immunizing swine, should outbreaks appear in a locality, is therefore extremely important if such outbreaks are to be checked promptly.

A system of swine sanitation, developed in McLean County, Ill., several years ago by department workers, has spread widely throughout hog-raising States. The system controls roundworms and related filth-borne diseases of young pigs. Pigs raised in accordance with the system grow and develop more evenly and are ready for market fully a month earlier than under usual methods of management. The experience of numerous swine raisers in the Corn Belt, who have practiced the method, shows that they can rear as many

pigs as formerly with two-thirds as many brood sows. Death losses and runts caused by worms and hog-lot diseases are avoided almost entirely. Extension workers in Iowa, Nebraska, and other States, as well as in Illinois, are actively engaged in extending the system which has resulted in so many benefits.

Livestock Research

Research on livestock problems has gone forward steadily. Several investigations have led to results of outstanding promise. A method of producing immunity against tuberculosis is being tested, with results thus far of an encouraging nature. Another promising series of experiments deals with the mode of action of disinfectants. Results furnish new information on the germicidal power of disinfectants with relation to their chemical composition. Other research deals with the study of bovine infectious abortion, factors influencing soft pork, the vitamin content of meat and meat products, the chemistry of plants poisonous to livestock, tests of chemicals to remove internal parasites, and rabies. There is a popular idea that rabies is a disease of the hot "dog days" of summer, but a large proportion of the suspected animals examined by department scientists were brought to the laboratory during the months of December, January, February, and March.

The Synthetic-Ammonia Process

The most striking recognition of the work of the Fixed Nitrogen Research Laboratory during the last year has been the adoption of its synthetic-ammonia process by an American company. The company, with the cooperation of the laboratory, has applied the process in a plant that was put into successful operation in the spring of 1925. This is an outstanding result of research work extending over several years. The plant operates at a pressure of 300 atmospheres (4,400 pounds per square inch) and is capable of producing 3 tons of ammonia per day. Its successful operation within so short a time after its construction demonstrates the soundness of its design. The synthetic-ammonia process is in a continual state of development. The present process, with its various improvements, may be regarded as a considerable step in advance of the Haber process as originally installed in Germany. Still another process, the French or Claude process, is now being installed in this country. It will operate at 900 atmospheres (about 13,000 pounds) pressure.

In the prosecution of the nitrogen-fixation work, which necessarily involves the employment of unusually high gas pressures, a satisfactory engineering practice had not been developed in some of the details of high-pressure equipment. This was especially true of high-pressure relief valves and gaskets. Such "pop valves" as existed were more in the nature of emergency or safety equipment, which were rendered useless or required extensive refitting after each accidental operation. An automatic continually operating high-pressure relief valve has been designed and successfully used. It has application not only in the nitrogen-fixation indus-

try but in all others employing high pressures of gases, vapor, or steam. It has been most favorably received by the various industries which can use it, especially by manufacturers of compressor equipment.

The increasingly high pressures utilized in ammonia synthesis have developed another pressing need in high-pressure engineering, namely, suitable gaskets to withstand all pressures. The old principle of gasket design for high pressures was to make them broader the higher the pressure to be resisted, on the theory that the greater the area of contact the greater would be the resistance. The falsity of this principle was recognized in this laboratory when it was realized that by distributing the pressure that could be applied to the gaskets over too great a gasket area the pressure per unit area would thus be reduced below the pressure of gas to be withstood, and consequently blowouts would inevitably result. A method of designing the gasket area and reducing it exactly to fit the conditions of use has brought about the greatest improvement. This design is also being eagerly adopted by the ammonia industry.

Although it has been recognized for a long time that some nitrogen from the atmosphere becomes fixed in the form of cyanide in blast-furnace gases, no serious effort has been made in this country to determine whether the quantity is commercially important and whether it would be feasible to recover it. No actual attempts at recovery have ever been made. In cooperation with the Bureau of Mines a complete survey has been made of one blast furnace in the Birmingham district. The results of the survey show that cyanide is produced in the gases in a concentration which should render its recovery economically profitable. This survey will be extended to other blast furnaces with the ultimate object of recovering this source of cyanide which would otherwise be wasted and which is essential in producing hydrocyanic acid for application as an insecticide in the citrus-fruit industry.

In the realization of the difficulties that will be encountered in the direct introduction of concentrated forms of nitrogen into the fertilizer industry this laboratory has been cooperating with other bureaus in the department. The object of this cooperation is, on the one hand, to prepare the way for stimulating the use of concentrated fertilizers from the agricultural standpoint, and on the other, to give the farmer the advantage of such use through obtaining proper freight rates on the concentrated products. This will mean a reduction in the cost of shipping the smaller tonnage of the concentrated material. Active cooperation with the Bureaus of Soils, Plant Industry, and Agricultural Economics has been sought and obtained in the prosecution of these objects.

Finding "Bait" for Boll Weevils

Chemists in the department completed an investigation to ascertain the odorous constituents of the cotton plant. This investigation was undertaken to ascertain the chemical nature of the substances which are presumed to attract the boll weevil. Since the cotton plant possesses a specific attraction for the boll weevil, it has been supposed that this was owing to the emanation of some odorous sub-

stances which could be detected by the insects at a considerable distance. It was thought that if an odorous substance could be identified which by actual tests would be found attractive to the insects, it might be possible to produce it in sufficient quantity to permit of its use as bait. In the course of the investigation a large number of definite chemical compounds, some of which have a very pleasant odor, were isolated from a distillate of the plant. These volatile basic substances are constant exhalations of the plant and it has been found by field experiments which are being continued that one of them (trimethylamine) possesses some attraction for the boll weevil.

Several other important chemical discoveries deserve note. Lignin is a cellular substance which is widely distributed throughout the plant kingdom. A number of agricultural products which are not now fully utilized contain it in large quantities, as, for instance, corn-cobs, cornstalks, straw, cotton-plant stalks, and the like. Heretofore no method has been known for extracting lignin from the material in which it is found. The department's Bureau of Chemistry has discovered a solvent which dissolves the lignin. An investigation of the lignin in corn-cobs resulted in the discovery that when it is dissolved in this solvent it forms an excellent varnish. This varnish is water and acid proof, and when applied to wood it gives a shining and transparent surface. Other profitable uses for it may be found.

Owing to the highly inflammable and explosive properties of carbon disulphide, the objections to its use as a fumigant for destroying insects in stored grain are so serious that fire insurance companies refuse to carry the risk on elevators, bins, and other property while it is being employed for this purpose. The railroads have prohibited the use of carbon disulphide except at two designated isolated points for fumigating cars loaded with grain. Because of this situation the Bureau of Chemistry in cooperation with the Bureau of Entomology undertook an investigation to discover a safe, effective fumigant to take the place of carbon disulphide and as a result has developed a new fumigant consisting of a mixture of ethyl acetate and carbontetrachloride, which is effective in killing destructive weevils in wheat in box cars, grain elevators, and other tight inclosures. This fumigant is noninflammable at fumigation temperatures, is noninjurious to those handling it, does not lower the germinating quality of seeds, and does not injure the baking quality of flour from fumigated wheat. It costs less than 1 cent per bushel for fumigated wheat. Great benefit will result to those producing and handling wheat from this development of a fumigant which can be used without voiding the fire insurance on the buildings. The results of this investigation in detail are published in Department Bulletin No. 1313.

The unusually small cane crop last year caused an increase in the price of cane sirup, particularly unsulphured sirup. This situation made it profitable for sugar-cane growers in certain sections to convert part of their cane into sirup instead of sugar. However, the method of making cane sirup which has customarily been used in the sugar district of Louisiana is that in which sulphur fumes and lime are used for clarifying the juice. This process imparts a peculiar sulphured flavor to the sirup, which interferes with extension of the market. Investigations conducted at two Louisiana plantations resulted in an improved method for producing unsulphured

sirup under the conditions prevailing there. This was an achievement of considerable economic importance, since under existing market conditions the margin in favor of making cane sirup instead of sugar amounted to as much as \$2 per ton of cane. The foregoing illustrates the application of chemical research and chemical technology to a practical problem, with the object of procuring such flexibility in the manner of utilizing a crop as will permit better adaptation to changing conditions and markets.

Previous investigations had resulted in the development of a method for preventing crystallization of cane sirup by use of the enzyme invertase derived from yeast. During the past year this method was extended to sorghum sirup, and its use has permitted the production of sorghum sirup which does not crystallize even when concentrated to the high density which is frequently desired. Crystallization causes the sirup to have an unsightly appearance, which is detrimental to profitable marketing of the sirup, especially when it is concentrated to the high density so often desired by consumers.

As the result of the application of methods developed in the plant-dust-explosions work carried on in the Bureau of Chemistry there were no dust explosions of major importance involving large loss of life and property during the last fiscal year in the grain-handling industries. This is in marked contrast to the previous year, when a number of explosions occurred, the principal one being the starch-dust explosion at Pekin, Ill., in which 42 men lost their lives and approximately \$500,000 worth of property was destroyed. Much of this prevention has been due to the work of the bureau in bringing to the attention of the industries the hazards of dust explosions and methods that can be adopted for their control. This applies principally to the grain-handling industries, in which field the bureau has been principally engaged. In addition to the industrial phase of the work the progress made in the adoption of methods for the prevention of explosions and fires in threshing machines in the Pacific Northwest and fires in cotton gins in the Southwestern States has been very gratifying. The insurance underwriters in the Northwest are offering considerable reduction in insurance rates for the installation of dust-collecting fans in accordance with the specifications worked out by the engineers of the Bureau of Chemistry. This reduction in rate will mean considerable saving in insurance premiums to the farmers and threshermen in that section and has also brought about the general adoption of precautionary measures for the prevention of these explosions and fires.

A chemical method for determining maturity in cantaloupes has been worked out, published, and successfully applied in the industry in California during the past year. The test is now being applied commercially in California to determine when to pick cantaloupes for the market. The value to the growers and consumers of a proper test for maturity of cantaloupes lies in the difficulty of placing California melons in eastern markets in a satisfactory condition unless they are picked at the right stage of maturity. If allowed to become too nearly ripe before being picked, they can not be kept in good condition until they reach consumers. If, on

the other hand, they are picked too soon, the flesh becomes shriveled and tough, lacking in color and odor and disappointing in flavor. One of the horticultural commissioners in a cantaloupe-producing section of California recently stated that "the establishment of the soluble-solids test for determining the maturity of cantaloupes has practically revolutionized the cantaloupe industry and has been of inestimable value to the growers. Before this method was established the different interstate markets were demoralized by the continuous shipment of green cantaloupes, but this system has eliminated all question as to the maturity of our produce and has proved very economical and practical."

Several promising repellents for use against the screw worm and other flies attacking animals have been developed as a result of the work carried on in southwestern Texas by the Bureau of Chemistry in cooperation with the Bureau of Entomology. It is conservatively estimated that during a year 1 per cent of all cattle, sheep, and goats in that section are infested with screw-worm larvae, thus jeopardizing annually the lives of animals valued at over a million dollars. Present repellents for screw-worm flies are either largely ineffective or highly toxic to their hosts. This investigation has shown that certain chemicals in various combinations with certain pine-tar oils give very satisfactory results in repelling screw-worm flies from wounds on animals. These preparations also aid in promoting a more rapid healing of the wound.

In an investigation to develop methods for the standardization of raisins, a test depending upon the catalase activity of mold was developed for determining the extent of mold injury in raisins. It was found that if raisins are placed in hydrogen peroxide moldy fruits will at once begin decomposing the reagent with an immediate evolution of oxygen. This makes it possible readily to detect and count the moldy raisins in a given lot. This test can be applied in the field and may be used to settle disputes between buyer and seller as to the extent of damage from mold to any given lot of raisins.

A study of the mold group *Aspergillus*, begun about 20 years ago and systematically followed throughout the period, has been completed. Molds of this genus are exceedingly abundant in food, in feeding stuffs, in stored grain, hay, fodder, and even occur as human and animal parasites. In spite of their importance and abundance, however, no critical study of the whole group has been reported in English and no such study has been published in any language for more than 20 years. Studies of sections of the group are to be found in publications from this bureau and in French and German.

Truthful Labeling of Foods and Drugs

Through the enforcement of the Federal food and drugs act, commonly called the pure-food law, progress was made in promoting the purity and truthful labeling of foods and drugs that are imported into this country or shipped into interstate or foreign commerce. Action was taken to prevent adulteration and misbranding of a large number of products, but there were some outstanding features of the work on certain products. The enforcement work designed to prevent the canning and distribution of decomposed or partially decomposed salmon reached its culmination during the

year. Following inspection of canneries which revealed that rotten fish were being packed by certain canners libel actions were directed against a number of very large shipments. These seizures, as well as others pending from the previous year, were practically all terminated during the year. The Government was uniformly successful in establishing its contentions where contests in the courts occurred. These actions have resulted in packs which, with few exceptions, promise this season to show little ground for criticism.

How the enforcement of the food and drugs act renders constructive assistance to the industry as well as giving protection to consumers is illustrated by the action on California frozen oranges during the past year. In December, 1924, the California orange groves were visited by a disastrous freeze, which damaged a very large percentage of the fruit then coming into maturity. In much of the fruit the frost damage is not visible in any marked external way, but the fruit in a short time becomes dry and pithy, a condition which is often not discovered by the uninformed purchaser until after the fruit is cut. Knowing that the shipment and sale of such damaged material would result in a fraud to the ultimate purchaser and would also seriously damage the prestige of the California fruit, the vast majority of the growers desired to prevent the shipment of such damaged fruit. In every industry, unfortunately, there are certain individuals who will take advantage of opportunities to ship such material, regardless of the future damage which may be done to the reputation of the industry as a whole and of the cheat upon the consumer.

The authority of the Federal food and drugs act was enlisted to prevent the shipment into interstate commerce of frost-damaged fruit, and through the cooperative action of the State and county authorities of California and the Federal agents of the Bureau of Chemistry a patrol was maintained continuously during the period following the freeze, as a result of which shipments of frost-damaged fruit were practically prevented. The effect has been the saving of thousands of dollars to the eastern consumer, who would otherwise have paid the price of sound fruit for a frost-damaged article, the maintenance of the high standard of the California fruit, and the assurance that the California grower who shipped only sound fruit would receive a full and adequate return for his product.

Discoveries in Chemistry

American manufacturers are now producing vat dyes of brilliant color and lasting quality as the result of processes developed by American chemists for making cheaply and of remarkable purity two dye intermediates which formerly could be obtained only in Germany. The process for making one of those essential intermediates, phthalic anhydride, was worked out in the Bureau of Chemistry and has been outlined in previous reports of the chemist. Because they are fast and durable, vat dyes are especially adapted for cotton goods and their use is being rapidly increased. In 1914 no vat dyes were manufactured in the United States and 1,945,304 pounds were imported. In 1924 there were manufactured in this

country 1,821,319 pounds of vat dyes and 1,499,322 pounds were imported exclusive of the vat dye indigo.

All the phthalic anhydride now manufactured in the United States is made by the process worked out in the Bureau of Chemistry. This essential intermediate has been sold in Europe because of its comparatively low cost and its exceptionally high purity. Approximately 2,300,000 pounds were produced in this country in 1923.

The average price of phthalic anhydride manufactured in America has been about 29 cents per pound, although quoted as low as 16 cents. Before the war the price of the product made in Germany was approximately 30 cents, which would be to-day equivalent to 53 cents. The American product is not only relatively lower in cost but is also higher in purity.

Plant Quarantine Act

The plant quarantine act of 1912 is undoubtedly one of the most useful laws ever enacted by Congress in the interest of American agriculture and forestry. In view of certain misunderstandings with respect to some of the many features of control being exercised under this act, it seems desirable to present a brief statement of its purpose and the broad protective powers under it which are being exercised.

The main purpose of the act is to prevent, so far as possible, further inroads of foreign insect pests and diseases of plants by controlling or prohibiting the entry of any plant or plant product which may be the vehicle for the introduction of such pests. Aside from certain minor efforts by one or two States, no control over such entry of foreign pests had been exercised prior to 1912, with the result that a veritable stream of new pests was entering this country and becoming established. The large development in world commerce in plants, fruits, and vegetables during the last 30 years has greatly increased the danger of such introductions of pests. The increasing entry of such products from Asia, Africa, and other remote regions led to the entry of many pests absolutely unknown, and hence impossible to guard against, such as the chestnut blight, citrus canker, Japanese beetle, and oriental fruit worm.

As illustrating the rate of entry of such enemies, no less than six new major pests gained entry and establishment during the four years immediately preceding 1912. These are the oriental fruit worm, Japanese beetle, citrus canker, potato wart, European corn borer, and camphor scale. These and plant enemies earlier introduced now represent the more important pests of agriculture and forestry in this country and involve annual losses to farm crops which have been conservatively estimated at upwards of \$1,000,000,000. Most of these pests are now thoroughly established and widespread in the United States. Some of the more recently introduced ones, however, have still such limited distribution or local foothold as to make it desirable, under any reasonable expenditure, to hold them in check and prevent their spread as long as practicable. The importance of such new pests is indicated in some measure by the fact that Congress is now making annual appropriations for their control, prevention of spread, and in some instances

eradication, of sums totaling upwards of \$2,500,000. Such control within the United States of new plant enemies or diseases is the second important object provided for in the act.

For the prevention of entry of known foreign pests about 22 quarantine and restrictive orders prohibiting or regulating entry of plants and plant products are now being enforced. The domestic quarantines enforced under this act deal with such newly established pests as the pink bollworm of cotton, the Japanese beetle, the European corn borer, the white pine blister rust, and the black stem rust of wheat. In addition, all border traffic with Mexico is, under special authority from Congress, regulated and safeguarded. This involves the inspection and disinfection of railway cars, freight, express, baggage, and other materials entering from that country, with the purpose, more particularly, of protecting the great cotton industry of the South from further invasion by the pink bollworm and also of excluding various fruit and other crop pests.

That the restrictions on plant entry from foreign countries have been fully justified by the results is indicated by the fact that during the 13 years of enforcement of this act, there has been, with one exception—the entry of the pink bollworm of cotton from Mexico—so far as known, no establishment of an important new pest. This is in striking contrast with the record of the few years immediately preceding 1912.

There has been much misrepresentation and misunderstanding relative to the exercise of the admittedly large quarantine and control powers under the act, and the statement, which has been widely circulated, that the exercise of such powers is entirely controlled by a small independent group within the department, has no basis. To prevent any such individual or arbitrary action, the act provides for an administrative board to be appointed by the Secretary of Agriculture from the personnel of the three important bureaus of the department dealing directly with the farm and forest resources of the Nation. This provision unites the Bureaus of Entomology, Plant Industry, and Forestry as the administrators of the act, advisory to the Secretary. To further safeguard the exercise of these powers, the act is mandatory in requiring that, prior to the issuance of any quarantine or restrictive order, a public hearing shall be held at which any person interested shall have opportunity to be heard.

The need for taking measures—drastic if necessary—to protect American agriculture from the devastation of additional foreign pests and diseases is universally admitted. It follows that some competent body must make the determinations with respect to the necessary restrictions and safeguards. Congress has placed that responsibility on the United States Department of Agriculture. Certainly this department, with its hundreds of specialists in the fields of plant production, insect enemies, and diseases of plants, would seem to be the proper agency for making such decisions.

Before adopting the present general policy of restricting the entry of foreign plants to horticultural, educational, and scientific needs, the department gave seven years' trial to the system of unlimited entry under foreign inspection and certification, with such reexamination of the imported material as was possible at destina-

tion in the United States. That this system was fairly tried out there is no question, and its failure was clearly indicated by the startling record of pest interceptions with such imported material, and still more by the realization that such interceptions, under the conditions of reinspection possible in this country, necessarily represented only a small part of what was actually coming in.

Under the policy of restricted entry no plant or class of plants is embargoed, but any plant may be brought in for any of the essential purposes indicated above, under the safer inspection and control methods which are possible with limited imports. The importations of restricted or so-called "embargoed" plants, during the six-year period, 1919 to 1925, totaled nearly 50,000,000 plants and, as indicating the liberality of entry under these provisions, it may be noted, for example, that there have been thus imported 80,000 rose plants, representing over 2,000 different varieties, 1,000 different varieties of gladioli, and about 1,700 different dahlias.

Work Under Purnell Act

An event of national importance was the passage by Congress of the Purnell bill, making provision for increased appropriations for the agricultural experiment stations in the States. This act, which was approved February 24, 1925, not only enlarges the funds for research relating to production but makes specific provision for investigation in the fields of agricultural economics, home economics, and rural sociology. These lines have received only limited attention at the stations in the past, and are felt to be of national importance in developing the agricultural industry, the rural home, and rural life.

This legislation is a further recognition of the value of research and the large dependence which must be placed upon it in advancing the agricultural industry and country life. It is also a renewed expression of approval of the State experiment stations, which are working close to the local problems and many of whose findings are regional or national in their application. It is planned to join up more closely than ever before the investigations of the State stations and those carried on by the Federal Department of Agriculture.

Plans are already under way which will greatly increase this cooperation and provide for coordinated attack on a great variety of problems in the fields of production, distribution, and rural life.

It is confidently expected that this increasing support of the State experiment stations and the closer coordination of their work with that of the department will mark a notable increase in efficiency in studying the problems of agriculture and providing sound information as the basis of improvement. In order to determine policies to be followed in carrying out the provisions of the Purnell Act a widely attended conference of presidents of the agricultural colleges, directors of the State experiment stations, and representatives of this department was held in St. Louis in April, 1925, at which several problems of national scope were adopted as subjects for cooperation between the States and the department. Special committees composed of leading specialists were appointed to outline these problems and serve as a means of inaugurating cooperative investigations under them. Regional questions for cooperative

study were also outlined by representatives from the several sections of the country. The plans for these cooperative investigations on a national scale have since been matured and the work started. With proper encouragement and direction the movement should not only avoid unnecessary repetition or duplication but unite the research agencies in their studies of questions of broad scope and importance.

Soil Surveys

The main work of the department's Bureau of Soils, that of identifying and mapping the soils of the United States, is continuous. Its results vary from year to year mainly in the area covered, which is dependent upon the funds available. The area covered during the fiscal year ended June 30, 1925, was 27,837 square miles, an area large enough to make 120,214 farms of the average size in the United States. The total area surveyed in detail to date is 684,451 square miles, and is about equal to the combined areas of Norway, Sweden, France, and Germany. No other country in the world has amassed any such store of knowledge concerning its soil resources; probably not all the other countries combined have anywhere near approximated the United States in this field. The area surveyed in 1925 was a little greater than that covered in 1924 and not far from the average covered in the last five years.

At the request of the Tropical Plant Research Foundation, the Bureau of Soils cooperated during the year in a general study of the soils of Cuba. Nearly 50 distinct soil types were recognized and defined. Many of these cover wide areas. Heretofore the soils of Cuba have been known as red, mulatto, black, savana, and coco soils, a classification entirely inadequate. The bureau's survey has shown at least four distinct classes of red soils, ranging from those peculiarly adapted to Cuba's chief crop, sugar cane, to others on which this crop can not be grown at all. As a result of the survey, fertilizer experiments have already been started on certain soils indicated as being suitable for sugar production.

Highway engineers in the Government service testify to the value of soil maps in road building. By using the soil maps considerable uncertainty as to the action of certain clay soils as road foundations can be immediately eliminated, expense avoided, and a better road built. Of the various soil classes the clays, it has been found, are likely to give most difficulty, and of the soils of the general class those having certain properties, such as high plasticity and low friability, are the most troublesome.

A few years ago the Bureau of Soils showed that soils contain an appreciable quantity of particles so small that they are visible only in the ultra-microscope. Some heavy clays contain 80 per cent or more of these particles which are known as colloids. Further study shows that the colloidal material is almost exclusively responsible for many of the most important properties of the soil, such as coherence, plasticity, and adsorption of salts and vapors. However, the colloidal materials of different soils may vary widely in their properties. Thus it is necessary to know the kind as well as the quantity of colloidal material in the soil before the properties and behavior of the soil can be predicted. During the past year it

has been found that the various properties of the colloid are more or less interrelated and that the properties are dependent upon the chemical composition of the material. This discovery points the way to modifying the old systems of mechanical and chemical analyses of the soil so that they will give more information concerning what a given soil will do and what it needs. Applications of the new information are already being made in the general fields of soil fertility, soil engineering, and soil classification.

Incidental to the investigation of the fertilizer value of the several cocoa by-products, research by the Bureau of Soils brought out the fact that solvent-extracted (defatted) cocoa, a waste product, is suitable raw material for the preparation of the alkaloidal drug, theobromine. As a direct result of this discovery, a large drug manufacturing concern already has started construction of an alkaloidal extraction plant with sufficient capacity for handling the entire output of the defatted cocoa by-product. The investigation indicates furthermore that the ultimate defatted, dealkaloidized product may prove to be a better "crude ammoniate" than the present by-product.

From the point of view of the future development of a large and permanent potash industry the greensand beds of New Jersey, Delaware, Maryland, and Virginia are America's most promising deposits of potash-bearing minerals. In the greensand deposits of New Jersey alone it is estimated by the Geological Survey that the mineral here available by open-pit mining methods alone would supply 257,000,000 tons of potash, which at present rates of importation from the European market would supply the United States for nearly 1,000 years. If consideration were given the additional quantities obtainable by underground mining and available in other States, these figures would be enormously increased.

Processes for the extraction of potash from greensand developed in the Bureau of Soils make possible its recovery on a commercial basis, together with a list of side products including iron oxide, ochers, alum, alumina (the raw material for the manufacture of metallic aluminum), and "glaucosil," a form of silica of many unique and valuable properties. This process is now under active exploitation by a company at Odessa, Del., and is being investigated by chemists and engineers generally with a view to large-scale production of potash from greensand. Research work is still in progress on this problem designed to improve certain steps in the process and the purity of the products obtained.

Investigations in the laboratories at Arlington Experiment Farm on the home-mixing of fertilizers have shown that, using the materials employed commonly by the trade, it is not only feasible but under many conditions advantageous to the farmer to mix his own fertilizers. Of special interest is the work showing that home-mixed goods are as uniformly mixed as factory-mixed goods. This is a question long in dispute.

The most concentrated materials suited for use in fertilizers are ammonium phosphate, potassium phosphate, and potassium nitrate. These three materials represent all the possible combinations of the three essential constituents of fertilizers. Complete fertilizers may be made by combinations of any two or all three of

these materials, and certain of these mixtures are the most concentrated that it is possible to make.

Processes for the manufacture of these materials have recently been developed in investigations being conducted in the Bureau of Soils laboratory at Arlington Experiment Farm. A process which gives the two first-mentioned materials simultaneously has been tested on a semicommercial scale and shown to be entirely practicable. A new process also has been developed for the preparation of potassium nitrate, the third of the concentrated materials mentioned. This process gives a product, which, unlike those now recovered in the arc process of nitrogen fixation, is not strongly hygroscopic. The process has not yet been tested on a commercial scale, but the simplicity of the procedure and the relative superiority of the recovered product over those now obtained in the synthetic preparation of nitrates make the process a promising one for commercial application.

Predatory-Animal Control

Good progress has been made in the cooperative campaign of the department in the Western States for the reduction of losses, mainly on the public domain, from such destructive predatory animals as timber wolves, coyotes, and mountain lions. Since this campaign began in 1915 more than 5,830 wolves, hundreds of thousands of coyotes, and more than 1,460 mountain lions have been destroyed. In some States where timber wolves existed by hundreds and were excessively destructive their numbers have been brought down to less than a dozen. During this year the cooperating States contributed \$394,374, with the active participation in the field of great numbers of stockmen. The department expended \$270,967.

Several outbreaks of rabies among predatory animals on the ranges in different States were suppressed by prompt and intensive campaigns against them, and similar action prevented the possible spread of foot-and-mouth disease by these carriers. The success of the cooperation of the Biological Survey with the Bureau of Animal Industry and the State of California in suppressing a serious outbreak of foot-and-mouth disease among deer has saved that State, and possibly the country, from a grave danger.

Losses in cultivated crops, orchards, vineyards, and forage from a variety of injurious rodents, as prairie dogs, ground squirrels of many species, jack rabbits, and pocket gophers, aggregate many millions of dollars each year. In addition, these pests undermine roads, irrigation-ditch banks, and railway embankments. So heavy are the losses from this source that the department receives vigorous cooperation from the 18 States in which organized campaigns against rodents are being conducted.

During the year the States provided \$447,041 and the active field assistance of many thousands of farmers and other landowners, as against the expenditure of \$158,675 by the department. The eradication of most of the prairie dogs and ground squirrels was accomplished on more than 11,500,000 acres, and in addition the second treatment by poison or fumigation for the destruction of these pests covered more than 7,700,000 acres.

Under the authority conferred by the new Alaska game law, passed at the last session of Congress, the Secretary of Agriculture

appointed a game commission which will cooperate with the department in enforcing its provisions for the conservation of the valuable resources of game and fur in the Territory. During the year more than \$2,000,000 worth of furs was procured in Alaska, and probably half that value of game. These resources under proper guardianship can unquestionably be increased.

The members of the new game commission, one from each of the four judicial divisions of the Territory, and the fifth, the chief representative of the Biological Survey in Alaska, met in April and May and recommended for promulgation by the Secretary an admirable set of regulations governing the conservation of wild bird and mammal life. The keen interest of the members of the Alaska Game Commission in the future of the wild life of the Territory and the good will shown by Alaskans in accepting the new law, indicate an excellent opportunity for building up and perpetuating one of Alaska's most valuable natural resources.

Federal Protection of Migratory Birds

Migratory birds, both as destroyers of injurious insects and as game, are actually worth many millions of dollars annually to the country. In enforcing the terms of the migratory-bird treaty act the department has succeeded in vastly increasing the number of game birds and many of the insectivorous species.

A very definite and growing menace to the future of our supply of migratory wild fowl lies in the rapid and indiscriminate drainage of water areas throughout the country. Such drainage operations are generally with the avowed object of increasing available agricultural lands. In many instances, however, the result has been the destruction of valuable water areas, leaving worthless lands exposed, a great acreage of which continues to lie in an unproductive condition. The adverse conditions affecting wild life through the increase of population call for an increasing effort to conserve our wild-life resources.

The Banding of Migratory Birds

Under supervision of the department numbered aluminum bands are placed on the legs of migratory wild fowl in order to learn the movements of these individuals from one part of the continent to another for the purpose of ascertaining their routes of migration and to gain other information necessary in the administration of the migratory-bird treaty act. A striking illustration of the practical value of banding operations is afforded by the results obtained during the summer of 1924 on the breeding grounds of wild geese near the delta of the Yukon in Alaska. During the succeeding autumn a considerable number of these banded birds were killed in the extensive area from the Queen Charlotte Islands on the coast of British Columbia to Washington, Oregon, and California, where in restricted areas these geese and certain ducks banded on the breeding grounds with them evidently have their winter homes. The operations furnish an example of how bird banding affords data on which protective measures for a species can be scientifically based.

VIII. The Department of Agriculture: The National Forests**Grazing Leases**

During the last year the viewpoint has been expressed by representatives of the range-livestock industry that the status of grazing as a permanent and desirable use of the national forests should be defined by legislation and not left, as at present, to the exclusive control of the Department of Agriculture through administrative regulations. Thirty-one thousand livestock owners range approximately 1,800,000 cattle and 6,500,000 sheep in the national forests for varying portions of the year. These represent about 20 per cent of the cattle and 28 per cent of the sheep in the 11 Western States, and with their dependent ranch investments constitute an important part of the economic structure which the national forests should sustain. No provision for grazing in the national forests has been made by Congress and the use of their ranges has been developed entirely under regulations of the Secretary of Agriculture. Although having the force of law, these may be modified or revoked in the discretion of the department. Hence many stockmen desire legislation that will fix the status of grazing with reasonable definiteness, as the production and utilization of timber are now safeguarded and authorized by acts of Congress.

The desires of other grazing permittees in the national forests go much further. They ask for some form of permanent or vested property right acquired by past use of the range in connection with local ranches dependent upon pasturage in the national forests for their economic utility. This viewpoint is the outgrowth of a sense of proprietorship in the national-forest ranges by virtue of pioneer settlement. It seeks to place public ranges in the same legal relationship to the property of the livestock producer as a water right acquired under the usual terms of State law or an easement secured through a long tenure of use. Carried to its logical conclusion, this conception of vested rights would exclude from national-forest range any new user, settler, or livestock producer of the future, except as the grazing preferences of present users might lapse or be acquired through purchase. It would in effect close the national forests to the use of range in connection with the development of new agricultural land or the normal expansion of small livestock enterprises, except as old users might choose to sell their rights to the newcomer.

The stockmen recognize that grazing in the national forests should not be permitted to injure other resources, such as the regrowth of forests, water sources, or the perpetuation of valuable wild life. They also recognize the need for preserving the forage itself from injury through overgrazing or unwise methods of grazing. But in seeking to base the use of the range upon a legal right, they desire to set aside direct administrative control by officers of the department, for protecting the range and other resources, and to substitute for it a judicial determination of the responsibilities of the range user with resort to the Federal courts in all cases of dispute. The most extreme viewpoint of the relationship desired by stockmen toward

the general conservation program of the national forests is that the range user should be responsible to the courts only for such *willful* damage as may be charged against him.

The sense of a moral right acquired through long usage in connection with dependent ranches underlies the attitude of many range men regarding the fees which should be charged for grazing in the national forests. It is argued that long use of the range in connection with the early settlement of agricultural lands has resulted in capitalizing the value of the public pasturage as part of the value of the ranch; and hence for the Government to charge the present commercial value of the forage is in effect to confiscate property values previously acquired by the pioneer. Many stockmen thus maintain that the Government should charge no more for grazing than the cost of administering this use of the national forests and of improving them for the benefit of livestock production. To charge more than a nominal rate based on these principles is vigorously combated as a policy of commercializing public resources not consistent with the equities acquired by the old range users. At the Salt Lake meeting of representative sheep and cattle growers, held in August, 1925, a resolution was adopted to the effect that no charge for grazing on national forests should be made which will depreciate the value of the ranches owned and used by the permittees. Many other stockmen offer no objection to a reasonable fee for grazing, but oppose a fee based on the rentals paid for comparable private range lands.

The Department's Grazing Policy

Although Congress has never enacted legislation dealing with grazing in the national forests, the department has always recognized forage as one of their important resources. Under its general authority "to regulate the occupancy and use of the national forests," a complete scheme of grazing administration has been built up by administrative regulation. The first object of its policy has been to provide for the fullest and most permanent use of the ninety-odd million acres of forage-bearing land in the national forests that is consistent with the preservation of the forage itself and with the protection of the timber, water, and other resources that must be safeguarded. Reductions in the number of livestock pastured and other adjustments of range use have been made from time to time to prevent overgrazing and to avoid injury to other resources. No other policy would have been consistent with the essential purposes for which the national forests were created; but this has not prevented a large and continuous use of the ranges with a minimum of disruption in the local livestock industry. The department has also sought to stabilize the contribution made by the national forests to the livestock industry of the Western States by a fair allocation of the grazing lands available between sheep and cattle and between individual permittees, and to build up the productivity of these mountain pastures through proper stocking and better methods of range management. It has pioneered in grazing research under open-range conditions and has sought to put into effect demonstrated betterments in the handling of the ranges as a

means of making them a more permanent and stable asset of the livestock industry.

The department has sought the fairest possible distribution of grazing privileges in which the old user has been protected as far as consistent with affording reasonable opportunity for the settler and small rancher to establish his home and develop his means of livelihood. The principle laid down by Secretary James Wilson in 1905, for the use of the range and other resources in the national forests, was that of the greatest good to the greatest number in the long run. It was felt that the settler who was engaged in developing from raw land a new farm unit contributing to the food supply and wealth of the Nation and who in this process needed the related use of national-forest grazing resources should be granted such use even though that necessitated a reduction in the privileges of the established occupants of the range. As a result of this policy the number of range users has increased since 1909 by nearly 25 per cent and the national-forest ranges now contribute to the maintenance of approximately 4,500,000 acres of cultivated land and 22,000,000 acres of grazing land in private ownership.

This policy has, of course, necessitated some reductions in the size of the herds grazed by old users in various localities; but that has been felt to be in line with the economic progress of the Western States. At the same time a system of preferences in the use of the national-forest ranges has been put into effect so that the established users of the range would be protected from arbitrary or drastic reductions and the whole industry given the greatest possible stability in its relationship to the national forests. In fact, the use of the national-forest ranges during the last 15 years has been more stable than the tenure of any other range areas in the West with the exception of a few of the very large private ranches.

It has been possible largely to accommodate the new settlers by taking up slack range voluntarily surrendered by old users, so that the extent of forced curtailments of former grazing privileges has, in the aggregate, been very small. For example, the intermountain district, comprising Utah, Nevada, and parts of Idaho and Wyoming, represents the region of most intensive demand for public range. This district supports about 40 per cent of all the cattle and horse permittees in the national forests, and 44 per cent of the sheep and goat permittees. It pastures 25 per cent of all the cattle and horses in the national forests and 43 per cent of all the sheep and goats. During the past 10 years the policy of range distribution followed by the department for the benefit of the new settler and small owner resulted in a reduction of 4 per cent of the cattle and 2.9 per cent of the sheep and goats grazed by the large operators.

Stability in Use of Ranges

The possibility of affording greater stability in the use of national-forest ranges has been given much study by the Forest Service. It is fully recognized that there are limits beyond which the curtailment of the established sheep and cattle outfits should not go, and that from the standpoint of the permanent welfare of the industry reasonable safeguards must be placed around the established and fully

developed livestock ranch. In cooperation with the permittees, this study led to the issuance of grazing permits for periods of 10 years, beginning with the season of 1925. These permits assure the holder that during the decade his use of the range will not be curtailed for any reason other than to protect forest resources against serious injury, with the exception that at the end of the first five years his herd may be reduced not more than one-tenth if necessary to provide room for new applicants qualified for a place in the national forests.

In many localities the settlement and development of agricultural land have progressed to the point where further subdivision of the range is unnecessary and, indeed, likely to be uneconomic. In these localities future use of the range can largely be stabilized in its present occupants. At other points, however, new agricultural developments will create a demand for range privileges from settlers who should be accorded the same opportunity to establish their homes as their predecessors have had in the past.

In 1906 the Department of Agriculture began charging fees for grazing in the national forests under a regulation of the Secretary which indicated that the rates would be advanced from time to time as the value of the range and the demand for it might warrant. The present fees, which were based roughly upon range values prevailing in the Western States in 1916, average approximately 12 cents per month for a cow and 3 cents per month for a sheep. Following a commitment made in 1920, when the charging of higher fees was seriously advocated in Congress, a detailed survey of the thousands of grazing allotments in the national forests was made by the Forest Service with a view to determining their physical characteristics as a means of arriving at the fair compensation which should be paid by the range user. An exhaustive study was also made of the rental value of private range lands in the Western States comparable to those in the national forests as fixed by leases holding over a long period of years. The results of this survey, which was completed in 1924, indicate that while the grazing fees paid on some of the national forests have been equal to or in excess of the actual value of the forage, on the ranges as a whole the present fees are less than the well-established value of similar private lands by at least 75 per cent. The free discussion of these figures among the grazing permittees and livestock associations of the West has led to a general protest from the industry against increasing the grazing fees and against a policy of "commercializing" the national-forest ranges.

Except where existing fees were found too high, the range appraisal report has not been approved by the Secretary of Agriculture. At the time of its completion the livestock industry was undergoing a severe depression, during which it was patent that no increased charges should be placed upon the producers who use the national forests. The reductions below existing fees shown to be required in equity to the permittees were made effective in 1925, involving a total decrease in annual grazing receipts of \$48,600. Otherwise all changes in grazing fees have been deferred until not earlier than 1927 in order to afford a further opportunity for the recovery of the livestock industry and also to permit a further check and review of the charges indicated by the appraisal. To

insure the careful consideration of this question from every angle I have designated as my personal representative Dan B. Casement, an expert of life-long experience in every phase of the livestock industry, to make an independent study of the whole subject.

Grazing Legislation Desirable

The department believes that the production of livestock has a permanent and valuable place in the national forests, and that every reasonable form of security should be given the livestock producer in making the most advantageous use of this public resource. Legislation establishing a permanent place for grazing in the national forests would be desirable, in order that this important economic service may be freed from even the remote danger of sudden or drastic change in the more essential policies concerning the use of the range. It is my judgment, however, that any program for stabilizing grazing as a permanent feature of the national forests must square with the general interests of the public on certain points which are vital to the whole conception and plan of conserving natural resources.

In the first place, the use of the range must be subject to such control and adjustment as may be necessary to conserve and protect all of the resources in the national forests, including the forage itself, and this protection must be afforded through the direct supervision of the agencies responsible for the administration of the national forests as a whole. In the second place, although the stabilization of range use should be a primary feature of the policy, reasonable leeway must be retained for meeting the requirements of new settlement or land development where called for by the principle of the greatest public benefit. And in the third place, I believe that the use of the forage must rest upon a clean business basis of dealing with the public, with fair compensation for the value of the resource utilized, reasonably adjusted to current economic conditions in the livestock industry.

Vested property rights in national-forest range can not be harmonized with these requirements. It is possible, however, to further stabilize the grazing industry on the national forests by a program of legislation and administrative action which will provide for the permanent production and utilization of forage in the national forests as one of their major resources, with the licensing of livestock grazing on such areas in such numbers and under such systems of herding or management as in the judgment of the responsible administrative agencies will not injuriously affect the continuous production of forage, the regrowth of timber, the protection of watersheds, or other resources or lawful uses of national forest lands.

I favor a provision of law that will authorize firm contracts or licenses for periods of 10 years, to be binding upon the Government as long as their conditions are met, and under which the requirements to be observed by the range users, possible reductions in the numbers of livestock, and the provision for grazing fees shall be specifically set forth. Legislation of this nature will place the use of the national-forest ranges on the same footing of legal recognition and specific contract relations which now exists in the utilization of timber.

Other desirable features of stability in livestock production can be largely, if not wholly, provided by the department itself. The department favors the encouragement of individual grazing allotments wherever practicable, extending the policy already effective on many national forests, so that in connection with permits or contracts for 10-year periods the user of the range will have every inducement to improve his allotment and will reap the benefit of the betterments secured during the tenure of his permit. Where local economic conditions and the circumstances of land development warrant, the department favors restricting the further distribution of grazing privileges for the ensuing 10 years in order that greater stability may be secured by the established livestock producers and the desirable economic relationship between ranges and agricultural lands already developed may not be impaired. Elsewhere where land settlement or new development may require a further distribution of grazing privileges for the benefit of new users, this should be made within such equitable limits as will not cause undue hardship or necessitate an unwarranted readjustment of range operations by the established permittees.

It must be borne in mind that there can be no real stability of livestock production where overgrazing is causing a progressive decline in the carrying capacity of the range. A reasonable regulation of the grazing use, designed to bring about better methods of range and livestock management, has steadily strengthened the industry of the West and will continue to strengthen it. Such regulation must be continued. In the past it has had the support of a large proportion of the local livestock producers affected. The department believes in developing this phase of grazing administration more completely along the lines of local self-government by the livestock permittees directly concerned. To that end, a system of local boards, functioning for the national forests or the State, is believed desirable. Ordinary matters of local grazing management and range administration may thus be settled by the stockmen themselves in cooperation with local officers of the Forest Service. The numerous questions involved in the local adjustment of grazing are not susceptible of judicial determination. They should be dealt with on the ground in a cooperative spirit by practical range users and experienced grazing officers of the Forest Service. And in order that responsibility for the administration of the national forests and the conservation of their varied resources may not be divided, or antagonistic policies put into effect in different sections, it is believed imperative that a final determination, on appeal or otherwise, of all questions of a distinctly administrative nature, should rest with the head of the department. At the same time every user of the national forests should have ready access to the Federal courts for the determination of his rights under the law or of disputes arising in his contractual relations with the Government.

A program of greater stability for the livestock producers who use the national forests can readily be developed along these lines without imperiling the purposes and functions of the national forests. The essential point is that while the use of the ranges should be given a permanent and definite status and stabilized as far as pos-

sible, this use of the national forests must be fitted into and harmonized with the entire plan for the conservation of public resources.

During the past year 2,145,029 acres were covered by intensive range reconnaissance, making a total of 20,572,208 acres covered to date. This work involves a very careful survey of our grazing resources and provides the basic data necessary to the establishment of scientific methods of range management. There still remains to be covered nearly four-fifths of the total area of range lands before the work will be complete. It is, however, through work of this character that real stability of range use, based on realization of the highest productivity that the resource permits, will ultimately be attained.

Reforestation

Reforestation has come to signify in popular acceptance whatever looks toward the establishment of a new timber crop, whether by natural reproduction from the old stand or by tree planting, and whether the new crop succeeds the harvested one or restores tree growth on deforested and idle land. In this broad sense reforestation has made great progress during the past year.

Timber growing on the vast area—about one-fourth of the total land surface of the United States—better adapted to this than to any other form of use, is bound to come in time through the slow working out of purely economic forces. Its nation-wide adoption in place of timber mining, however, is still remote, and many obstacles lie in the path. The public must take a hand in hastening reforestation, or suffer during an unnecessarily protracted transition period. In face of the evils of increasing timber shortage and declining productiveness of forest lands it is urgently important to press the work forward.

It can safely be said that never before has the forest problem of the country been so much to the fore in the public mind. Further, there is increasing disposition to act on it; and there is an increasingly intelligent conception of what it really is. Nevertheless, the public does not yet see clearly and fully what ought to be done. It is largely groping in the dark.

There is need for leadership; there is need for much more in the way of public education, to the end that what is done may be intelligently done; there is need for creating a far greater body of knowledge than is now in existence, both to guide public policy and to shape private practice; and there is need not only to develop this knowledge but also to diffuse it in effective and manifold ways, so that it may actually reach and be used by those who will profit by it. All these needs are being met by the Forest Service to the extent of its resources, yet inadequately in comparison with what should be done.

In the forest industries there is taking place a very marked change of attitude toward reforestation. It is of real significance, but its interpretation must not be too hastily made. Powerful economic forces are beginning to create a distinct trend toward a new basis organization of these industries; yet many conflicting forces are at

work, and it would be a serious mistake to assume that a radical transformation is about to take place. Nevertheless, the process of conversion is under way.

The lumber industry, the naval-stores industry, and the pulp and paper industry are outstanding examples. In all of them serious thought is being given to timber growing as the source of raw material. Individual companies in considerable numbers are actually making investments with this end in view. Some are definitely embarked on enterprises that contemplate permanency based on sustained timber yields from their own lands under forest management. On the Pacific coast, in the southern pineries, and, most of all, in the Northeast, forestry has unquestionably gained a substantial foothold.

It is essential that this movement toward the practice of forestry on the part of landowners and industries be facilitated in every possible way. One way is through obtaining and communicating to them better knowledge of the methods that they should employ, of the returns that can be realized through use of these methods, and of the relative costs of improved and current practices. Another way is through public cooperation in the form of organized fire protection and tax reform, both of which necessitate State action. The Federal Government is now in position, through the provisions of the Clarke-McNary law, to extend help to those States which wish to receive this help. The largest immediate need in forestry is for State movements based on a clear conception of the forest situation and requirements in each State, to bring about the adoption of forest policies that will accelerate the trend now unquestionably perceptible toward timber growing as a voluntary private enterprise. Here again there is opportunity for the Forest Service to contribute much of value in leadership and knowledge obtained through research.

Better Utilization of Timber

The traditional methods used in harvesting timber and working it into useful articles cause enormous losses of wood—partly inevitable, partly avoidable—at every stage from forest to consumer. The quantity of wood so lost is in fact greater than the quantity used. As a reduction of these losses would relieve the heavy drain on our forests, it is obvious that economy in wood utilization is an important phase of conservation and should have in the forestry movement a place equal to timber growing. We need not only to grow timber but to learn to use wisely what we now have and what we shall grow in the future.

Recognizing that the public and the forest industries have an equal interest in reducing waste, the late Secretary Wallace called a national conference on the utilization of forest products, which met in Washington in November, 1924. At this conference over 400 representatives of the timber-producing and timber-consuming industries, together with foresters and engineers, formulated a program of attack on timber waste, principally through an organized and voluntary effort by industry aided by the Government to improve the methods of manufacturing, marketing, and using forest products.

As recommended by this conference, a national committee on wood utilization has been formed under the leadership of the Department of Commerce with the support and participation of the Forest Service. This committee, acting as a coordinating and steering body to various timber-producing and consuming associations, will closely parallel in organization and methods the central committee on lumber standards, which is dealing so successfully with the intricate problem of standardizing lumber grades and specifications. The committee on wood utilization will seek to deal with like problems that offer an opportunity to make conspicuous reductions in waste. This movement, promising as it does to prolong our timber supply and give greater security to the public and to the industries dependent on that supply, is a striking example of a great industrial reform undertaken through intelligently directed effort by the business group immediately concerned.

Forest Road and Trail Building

During the past fiscal year 1,800 miles of roads and 4,085 miles of trails within and adjacent to the national forests were constructed at a total cost of \$12,834,738 Federal funds and \$2,291,325 cooperative State and county funds. The first appropriation for the construction by this department of national-forest roads and trails was made by the act of August 10, 1912, under which 10 per cent of the national-forest receipts was made available for this purpose. The total that has been appropriated, under various acts, expressly for the same purpose, has been \$50,591,149. Of this amount \$44,179,226 has been expended in cooperation with \$12,740,135 appropriated by States and counties. The expenditures made to the close of the fiscal year 1925 have resulted in the construction of 10,022 miles of forest roads and 21,497 miles of forest trails and the maintenance of 13,978 miles of forest roads and 38,858 miles of forest trails.

The roads constructed from these forest road appropriations are two kinds, expressly defined by Congress in section 23 of the Federal highway act of November 9, 1921: those required for the administration, protection, and development of the national forests, called forest development roads, and those required to complete the State and county systems when they traverse or adjoin the national forests, called forest highways. The law expressly stipulates the method by which these two funds are to be apportioned to the States containing national forests. The forest development fund is apportioned according to the relative needs of the forests, taking into consideration existing transportation facilities, value of timber and other resources to be served, relative fire danger, and comparative difficulties of road and trail construction. The forest highway fund must be apportioned according to the area and value of the national-forest lands.

IX. The Department of Agriculture: Federal-Aid Roads

A greater mileage of Federal-aid roads was completed during the fiscal year 1925 than in any previous year. The aggregate length

of the projects completed was 11,329 miles, and the largest previous year's record was less than 10,000 miles. This addition brings the mileage completed since 1917 up to a total of 46,486.

In addition to this completed mileage, which includes only the projects that are entirely completed, there were under construction at the close of the fiscal year other projects the aggregate length of which was 12,463 miles. A very considerable portion of this mileage is actually completed, but will not be so reported until the projects in which it is included are completed in their entirety.

The total cost of the projects completed during the year was approximately \$243,000,000, of which approximately \$111,000,000, or more than 45 per cent, was paid by the Federal Government. The cost of the entire mileage completed from 1917 to date has been more than \$845,000,000, and the Federal Government has paid of this total approximately \$373,000,000.

This total Federal expenditure over the nine-year period has been large enough to make the Federal participation effective without necessitating extravagant expenditures of State funds to meet it. As the Federal excise taxes on motor vehicles, tires, and motor-vehicle accessories have produced since 1918 Federal revenues amounting to \$800,000,000, it may be seen that the Federal-aid highway expenditures have been far more than paid by owners of motor-vehicles. The same motor-vehicle owners contributed to the State treasuries in license fees and gasoline taxes during the last fiscal year more than sufficient funds to pay the States' share of the cost of the Federal-aid roads in all States with the exception of New Mexico.

In the roads completed during the year all approved types of construction are represented. Gravel roads, of which there were 4,203 miles, constitute the largest single class. The completed mileage of all types was as follows:

| | Miles completed |
|-------------------------------------|-----------------|
| Graded and drained earth roads..... | 2, 064 |
| Sand-clay roads..... | 719 |
| Gravel roads..... | 4, 203 |
| Water-bound macadam roads..... | 129 |
| Bituminous macadam roads..... | 912 |
| Bituminous concrete roads..... | 341 |
| Portland cement concrete roads..... | 2, 807 |
| Brick roads..... | 107 |
| Bridges (over 20 feet in span)..... | 47 |
| Total..... | 11, 329 |

One of the most important projects recently completed is the Wendover cut-off across the Great Salt Lake Desert between Salt Lake City and the Nevada line. The completion of this road brings to a successful conclusion a five-year effort to bridge the obstacle to transcontinental travel which has always been presented by the salt desert. Its construction could not have been undertaken but for the financial assistance offered by the Federal Government; and the flow of interstate travel which has already begun between Salt Lake City and northern and central California is one of the outstanding evidences of the necessity for Federal participation with the States in interstate highway construction.

Road-Marking System

As an outgrowth of the designation and improvement of the Federal-aid highway system and the several State highway systems, and in recognition of the rapidly increasing interstate highway traffic, the joint board on interstate highways has designated a system of main interstate and transcontinental highways and has devised uniform danger and direction signs for the marking of the designated highways in all States.

The various routes will be indicated by numbers, and the numbering will be continuous on each route in all States through which it passes. The roads included in this system are parts of the Federal-aid highway system. Their improvement is thus assured at an early date; and their uniform marking in accordance with the standards established by the joint board will add greatly to their value and service as interstate and transcontinental arteries. The board was appointed in February, 1925, by Secretary Gore at the suggestion of the American Association of State Highway Officials. Its membership includes State highway officials and representatives of the Bureau of Public Roads.

The highway traffic surveys conducted by the Bureau of Public Roads in cooperation with officials of the States of Connecticut, Maine, Pennsylvania, Ohio, California, and Cook County, Ill., have already produced information of great importance as a basis for the scientific planning of highway improvements and the control of traffic.

Demand for Highway Service

The demand for highway service varies greatly on different roads. Recognizing this condition, it is the purpose of the traffic surveys to reveal the relative density and weight of traffic on all highways of the State or county system as an index of the degree of improvement required and justified by the traffic and as a guide to the equitable allocation of available revenues. These are fundamental decisions which must be made by every State highway department and all other authorities in control of the highways, and they are decisions which can be rationally made only on the basis of the relative traffic demands. In these respects the surveys thus far undertaken have had results of the highest practical value.

Of the 681 miles of major national-forest roads completed during the last fiscal year, 635 miles were in the States of the far West and the Territory of Alaska. Although the work of forest-road construction is overshadowed in the eyes of the public generally by the more extensive Federal-aid work, its importance is fully realized by the people of the West, and in the great territory west of the one hundred and third meridian it is in fact no less important than the bigger work. Occupying the crests of the mountain ranges the forests control all the more important highway passes. They practically surround and control access to the national parks; and they interpose between sections of all the Western States virtually continuous bands of national land, in which the highways, if they are to be improved at all, must be improved by the Federal Government. The improvement of the major forest roads is, therefore,

not only of vital concern to the States in which they are located but is of importance to the Nation as a whole, since it is essential for the accommodation of interstate and transcontinental traffic.

X. The Department of Agriculture: Insular Experiment Stations

The department maintains agricultural experiment stations in Alaska, Hawaii, Porto Rico, Guam, and the Virgin Islands. In Alaska it is seeking to develop a type of agriculture for that region that will supplement the development of other industries. In Hawaii and Porto Rico it is trying to diversify the agriculture of those territories, at present centered very largely on cane-sugar production. In Guam an effort is being made to improve agricultural practices and to restore agriculture to its former important position. In the Virgin Islands the problem has been to show how diversified agriculture may improve the disturbed economic conditions of those islands and furnish employment for many who formerly were engaged in other industries that are now in need of fewer laborers.

In Alaska homesteads are being acquired and former prospectors, miners, and fishermen are turning to agricultural pursuits to supply local demands for products. The stations through their plant-breeding work have developed varieties of wheat, barley, and oats than can be depended upon to mature in average seasons in the interior of the Territory. Hybrid strawberries have been produced that are hardy in most parts of the country and they are being extensively grown for home consumption and for market. New varieties of potatoes have been developed that surpass in yield and quality any of the varieties grown in Alaska that are standard elsewhere.

Considerable attention has been given to livestock, and Galloway cattle have been found adapted to the rigorous winter climate of southwestern Alaska. In order to obtain higher milk yields and still retain the vigor of the beef type reciprocal crosses have been made between the Galloway and Holstein breeds, and some of the second-generation animals are now in milk. Their production is intermediate between that of the best Holsteins and the best Galloways of the herd, and the average percentage of butterfat in their milk is considerably higher than that of the Holstein cows. The crossbred animals stay with the Galloways during stormy weather, while the Holsteins seek shelter. For the interior of Alaska the Fairbanks station is trying to develop a beef animal that will withstand the winter's cold without undue sheltering and feeding, and it now has three calves resulting from crossing the Asiatic yak with Galloway cows. Crosses between yak and domesticated cattle are common in Mongolia, and it is believed they will prove of value in the interior of Alaska.

Progress in Hawaii

The Hawaii station, from its establishment, has worked for the diversification of agriculture in those islands and the development of new industries. That it has been successful to a gratifying degree is shown in the changed practices and larger production of a number of

commodities. Through the station's efforts the methods of rice growing have been changed, and now the oriental growers fertilize their crop with ammonium sulphate instead of with nitrate of soda, and the cost of production is lowered and the yield increased. Soon after the establishment of the experiment station attention was given to a diseased condition of pineapples that was threatening that crop. The trouble was found to be due to large quantities of manganese in the soil, making iron unavailable to the pineapple plant. By the simple expedient of spraying the plants three or four times a year with a solution of iron sulphate perfect crop production is assured, and more than 10,000 acres of land that had been abandoned has been planted to pineapples again, and this crop has become second in importance to sugar production, the export of canned pineapples in 1924 amounting to about \$28,000,000.

Attention was given quite early to the improvement of stock ranges, and many valuable forage plants were introduced and established. One of the outstanding achievements was the introduction of the pigeon pea, which was obtained from the Porto Rico experiment station. This has proved such a valuable acquisition for feeding and fattening all kinds of stock that more than 10,000 acres have been planted for those purposes. It has been found also to be an excellent crop to rotate with pineapples, improving the soil very greatly.

The station is engaged at present in developing a starch industry from the edible canna. This plant grows readily on lands not adapted to sugar cane or pineapples and in no way competes with them. Some technical details of manufacturing remain to be worked out, but one factory has already begun the commercial production of the starch.

When the mosaic disease of sugar cane appeared to threaten the destruction of the sugar industry of Porto Rico, the experiment station found among its varieties the Uba or Japanese cane, that was but little affected by the disease. Through the Bureau of Plant Industry of the department additional supplies of this variety were obtained and disseminated to the worst-affected districts, and it is now being extensively grown. This variety has some undesirable qualities, and through plant-breeding experiments other resistant varieties are being obtained that will soon replace it. A testimonial signed by 30 planters was recently presented the station in acknowledgment of their gratitude to it.

Tick Eradication in Porto Rico

The first dipping tank for use in the eradication of the cattle tick in Porto Rico was constructed at the station, and as a result of its successful use there are now about 200 public and private vats on the island, and the time is believed to be soon at hand when the island will be free of this menace to the cattle industry. Following the clearing of the station grounds of ticks, dairying was taken up, and through the introduction of purebred sires a valuable high-grade herd has been developed that is serving as an example to many ranchers and milk is becoming more available for the diet, especially of children.

The station has given much attention to the introduction of improved varieties of agricultural and horticultural crops, and many

of its introductions have become important factors in the life of the people.

When the Guam experiment station was established agricultural production had fallen to a low state and the problem was to restore it and develop it along modern lines. Agricultural practices were very primitive and the livestock of the island had degenerated through inbreeding until all kinds were in a deplorable condition. Immediate attention was given to the improvement of livestock through the introduction of purebred animals, and remarkable results have been obtained, especially with swine and poultry. This was accomplished very largely through the organization of boys' and girls' clubs, and high-grade pigs and chickens, as well as many purebred ones, are now to be found throughout the island. Connected with livestock work was the introduction of forage and pasture plants, and a number have been established to take the place of inferior native plants.

Copra is the only export of importance and it is the main money crop of the island. The station has greatly improved the quality produced and a higher price is now obtained for all that is produced. Unfortunately the coconut scale (*Aspidiotus destructor*) has made its appearance on the island, having been found in destructive abundance in December, 1923. This scale has practically destroyed all the coconut plantations on Saipan, an island 120 miles north of Guam. Energetic measures were undertaken under the direction of the station, and much good was accomplished in checking its ravages. Under special appropriations from Congress a campaign for the control of the scale was begun late in the last fiscal year. In addition to the coconut the scale in Guam also infects many other important economic plants.

Food Crops in Virgin Islands

The Virgin Islands experiment station, which is located on the island of St. Croix, was obtained through the cession of those islands by Denmark in 1916. Economic changes have been so great in the Virgin Islands that agriculture is about the only important industry that is left. The experiment station is endeavoring to improve agriculture in all its phases, but it is paying particular attention to the growing of food crops to supply local needs as well as to provide employment to persons who were deprived of their usual occupations by changed conditions. Attention is being given to livestock problems as cattle raising is second only to sugar production.

Porto Rico offers a good market for cattle, and investigations have been begun in breeding up and feeding the native stock. New forage plants have been successfully established and they are being distributed rapidly. Vegetable growing has received quite an impetus, and local supplies are more numerous than formerly. A very successful experiment in growing Bermuda onions for local use as well as for shipment to New York has just been concluded, and as an outcome of the experiment a Bermuda onion growers' association has been formed.

One of the outstanding achievements of the station is its variety of sugar cane known as SC 12/4. This variety, originated several

years ago as a seedling, has proved valuable for conditions resembling those of St. Croix where cane is grown without irrigation. It has been given extensive trial in the Virgin Islands, Porto Rico, and Cuba, and is highly commended not only on account of its high tonnage of cane, but also of the outturn of sugar and the comparative freedom from injury by the mosaic disease.

XI. The Department of Agriculture: Publications and Press Work

The informational work of the department was consolidated under one head on May 1, 1925. The Office of Information, which was reestablished at that time, includes all publication, press service, and radio work, either within itself or under the supervision of the director. During the past year the department issued a total of 5,374,000 copies of new publications exclusive of periodicals, of which 2,314,000 were Farmers' Bulletins. In addition, nearly 15,000,000 copies of various publications were reprinted, about 9,500,000 of them being Farmers' Bulletins for popular distribution. Economies in printing have helped in a measure to meet the demand for publications with a smaller appropriation. In an effort to prevent waste distribution, the practice of sending publications to large mailing lists has been stopped and instead inexpensive announcement cards, calling attention to the new publications, are sent out. It is estimated that this method has saved many thousands of publications and has resulted in getting bulletins only to those persons most interested in them.

Releases of mimeographed stories for the press during the year numbered 1,062. In addition, there were 103 issues of mimeographed material for the use of radio broadcasting stations and 52 issues of a printed weekly Clip Sheet for the use of newspapers. The Office of Information has improved its contacts with newspapers, press associations, and the farm and trade press through various means. A study of the several hundred publications of various kinds indicates a large increase in the use of department material by all classes of newspapers, magazines, and trade journals.

It appears to me that the press has been noticeably receptive to all information of a scientific and an economic nature. This tendency has been of the utmost value to the department in carrying on its work, which consists mainly in acquiring new facts which are of value only when they have been brought to the attention of persons who can apply them—on farms, in factories, and in the home.

Respectfully,

W. M. JARDINE,
Secretary of Agriculture.

XII. FINANCIAL STATEMENT

EXPENDITURES, DEPARTMENT OF AGRICULTURE, FISCAL YEAR 1925

Expenditures for work under the supervision of the Department of Agriculture during the fiscal year which ended June 30, 1925, including road building, totaled \$164,395,010.99, classified as follows:

Expended and obligated, fiscal year 1925

| | | |
|---|---------------|----------------|
| (1) For regular work of department (activities with whose execution the department is directly and independently responsible), as follows: | | |
| Office of the Secretary | ----- | \$894,996.70 |
| Division of Accounts and Disbursements | ----- | 72,582.82 |
| Office of Publications | ----- | 1,090,197.12 |
| Office of Experiment Stations | ----- | 333,491.50 |
| Extension Service | ----- | 1,570,497.91 |
| Weather Bureau | ----- | 2,291,652.77 |
| Bureau of Animal Industry | ----- | 11,839,854.88 |
| Bureau of Dairying | ----- | 508,544.71 |
| Bureau of Plant Industry | ----- | 3,719,037.47 |
| Forest Service | ----- | 9,503,015.18 |
| Bureau of Chemistry | ----- | 1,468,058.57 |
| Bureau of Soils | ----- | 382,875.15 |
| Bureau of Entomology | ----- | 2,174,680.16 |
| Bureau of Biological Survey | ----- | 913,327.10 |
| Library | ----- | 70,754.06 |
| Bureau of Public Roads | ----- | 464,154.82 |
| Bureau of Agricultural Economics | ----- | 4,777,128.73 |
| Bureau of Home Economics | ----- | 105,551.57 |
| Insecticide and Fungicide Board | ----- | 173,887.51 |
| Federal Horticultural Board | ----- | 707,092.81 |
| Packers and Stockyards Administration | ----- | 441,683.78 |
| Grain Futures Administration | ----- | 91,234.71 |
| Fixed Nitrogen Research Laboratory | ----- | 241,454.09 |
| Farmers' Seed Grain Loans | ----- | 71,591.99 |
| Total expenditures for regular work | ----- | 43,908,614.05 |
| (2) For work administered by department, supported by Federal funds provided as direct aid to States or for special forestry conservation work and similar objects, as follows: | | |
| (a) Special conservation items | | |
| (Weeks law of Mar. 1, 1911)-- | | |
| Cooperation with States in fire protection of forested watersheds of navigable streams | \$390,260.17 | |
| Acquisition of lands for protection of forested watersheds of navigable streams | 834,678.45 | |
| | | \$1,223,938.63 |
| (b) Colleges and stations-- | | |
| Payments to State agricultural experiment stations for research work (Hatch and Adams Acts funds) | 1,440,000.00 | |
| Payments to State agricultural colleges for extension work in agriculture and home economics (Smith-Lever Act funds) | 5,880,000.00 | |
| | | 7,320,000.00 |
| (c) Road construction (Federal-aid road act of July 11, 1916, as amended and supplemented) | | |
| Payments to State highway departments for cooperative construction of Federal-aid highway system | 97,497,976.41 | |
| Forest roads and trails | 9,089,694.29 | |
| | | 107,487,670.70 |

¹ Including \$2,730,845.96 paid to livestock owners as indemnities for animals destroyed in connection with tuberculosis and foot-and-mouth disease eradication.

(2) For work administered by department, etc.—Continued.

| | |
|---|-----------------------|
| (d) Forest Service receipt funds— | |
| Payments to States for benefit of local roads and schools— | \$1,346,352.00 |
| Roads and trails for States— | 518,689.30 |
| Cooperative work, consisting principally of forest road and trail construction (paid from contributions from private sources)----- | 2,475,852.14 |
| Refunds to users of national forest resources of moneys deposited by them in excess of amounts required to secure purchase price of timber, use of lands, etc.----- | 103,894.00 |
| | <u>\$4,444,787.62</u> |

Total expenditures for work administered by department (other than regular work)-----\$120,486,396.94

Total expenditures for regular activities of and work administered by department-----164,395,010.09

FEDERAL FUNDS FOR REGULAR WORK

As indicated by the foregoing table, the total expenditures for the regular or ordinary work of the department during the fiscal year 1925 amounted to \$43,908,614.05. Partially offsetting this figure, earnings in connection with these activities during the year, amounting to \$5,306,392.72, deposited in the Treasury of the United States to the credit of "miscellaneous receipts," and \$198,372.98 received as fees for classifying cotton and credited to the revolving fund for that purpose, make the actual net cost to the Federal Government of the department's regular work \$38,403,848.35.

Of the total expenditure of \$43,900,000 for regular work, approximately (1) \$10,100,000, or 23 per cent, was used for research, including investigations and experiments in animal and plant production, breeding and improvement, in methods of controlling diseases, insects, and other animal and plant pests, for soil studies, for the investigation of farm management, marketing, and crop utilization problems, and other scientific studies and investigations of the fundamental problems of agriculture, horticulture, forestry, etc., by means of laboratory and field experiments; (2) \$2,400,000, or 5.5 per cent for extension work—that is, demonstration and educational work by means of county agricultural agents, through exhibits, motion pictures, or otherwise, with a view to the dissemination of the information developed by the experiments and discoveries of the department and the various States; (3) \$8,600,000, or 19.6 per cent, for the direct eradication or control of plant and animal diseases, insects, and other pests; (4) \$9,500,000, or 21.6 per cent, for the administration of regulatory laws, such as the food and drugs act, the meat inspection law, the migratory-bird treaty act, the grain standards act, the warehouse act, and other laws, some 30 or more in number, with the enforcement of which the Department of Agriculture is charged; and (5) \$13,300,000, or 30.3 per cent, for service work, including such activities as the administration and protection of the national forests, the weather service, crop and livestock estimating, market news service, shipping point and terminal market inspection service on perishable farm products, and other work of like character for the benefit of the public, not primarily involving research or the enforcement of special laws of a regulatory nature.

**FEDERAL FUNDS ADMINISTERED BY DEPARTMENT FOR ACTIVITIES
OTHER THAN REGULAR WORK**

As shown in the above table, of the total expenditure of \$164,400,000 charged against the Department of Agriculture for the fiscal year 1925, approximately \$120,500,000 constituted funds administered by the department but not used for the prosecution of its regular or ordinary activities. The larger part of this amount, or about \$107,500,000, consisted of Federal aid to States for highway construction and for forest roads and trails; \$7,300,000 was the Federal contribution to State agricultural colleges and experiment stations for research and extension work under the Hatch, Adams, and Smith-Lever Acts; \$4,500,000 (consisting of receipts derived from business on the national forests and funds contributed by Forest Service cooperators) was used principally for local road and school purposes; and \$1,200,000 was applied to special forest conservation work, under the Weeks law, including the purchase of additional forest lands and cooperation with States in the protection of State and private timberlands against fire.

**INCOME TO GOVERNMENT IN CONNECTION WITH DEPARTMENT'S
ACTIVITIES, FISCAL YEAR 1925**

Incident to the department's work during the fiscal year 1925 direct receipts aggregating \$9,214,322.72 were covered into the Treasury and fines were imposed and judgments recovered by the courts amounting to \$176,804.45 in connection with the enforcement by the department of the regulatory laws which devolve upon it for administration and execution, as follows:

RECEIPTS

Deposited to credit of miscellaneous receipts fund—

Regular work—

| | | |
|--|----------------|-----------------------|
| From business on the national forests..... | \$4,502,955.92 | |
| From other sources..... | 803,436.80 | |
| | | \$5,306,392.72 |

Work administered (other than regular work)—

| | |
|--|------------|
| Ten per cent of net receipts from business on the national forests, appropriated as a special fund for forest road and trail construction in 1926..... | 497,181.57 |
|--|------------|

| | |
|--|--------------|
| Contributions from private cooperators, appropriated as a special fund and used mainly for the construction of forest roads and trails.. | 2,104,219.28 |
|--|--------------|

| | | |
|---|------------|---------------------|
| Proceeds from sale of surplus war materials transferred to States for road-construction work..... | 130,924.72 | |
| | | 2,732,325.52 |

Total receipts deposited to credit of miscellaneous receipts fund..... \$8,038,718.24

Deposited to credit of applicable appropriations
and funds of department:

| | | |
|--|--------------|-----------------------|
| Fees collected for classifying cotton, deposited to credit of revolving fund for conducting this work..... | \$198,372.98 | |
| Reimbursement to various appropriations of department for expenditures made therefrom | 977,231.50 | |
| | | <u>\$1,175,604.48</u> |
| Total receipts..... | | 9,214,322.72 |

FINES

| | | |
|---|------------|---------------------|
| Fines imposed and judgments recovered by the courts in connection with violations of statutes intrusted to Department of Agriculture for enforcement..... | 176,804.45 | |
| Total direct income to Government resulting from activities of the Department of Agriculture..... | | <u>9,391,127.17</u> |

XIII REVIEW OF AGRICULTURAL PRODUCTION AND EXPORTS

Acreage of crops in the United States

| Crop | Annual average 1910-1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 ¹ | 1925 ² |
|------------------------|--------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|-------------------|
| CEREALS | | | | | | | | | | | | |
| Corn | 103,340 | 103,197 | 105,256 | 104,457 | 104,457 | 107,770 | 101,049 | 103,740 | 102,845 | 104,324 | 105,013 | 105,621 |
| Wheat | 58,512 | 58,512 | 58,512 | 58,512 | 58,512 | 58,512 | 58,512 | 58,512 | 58,512 | 58,512 | 58,512 | 58,512 |
| Oats | 35,014 | 35,014 | 35,014 | 35,014 | 35,014 | 35,014 | 35,014 | 35,014 | 35,014 | 35,014 | 35,014 | 35,014 |
| Rye | 7,583 | 7,583 | 7,583 | 7,583 | 7,583 | 7,583 | 7,583 | 7,583 | 7,583 | 7,583 | 7,583 | 7,583 |
| Buckwheat | 4,326 | 4,326 | 4,326 | 4,326 | 4,326 | 4,326 | 4,326 | 4,326 | 4,326 | 4,326 | 4,326 | 4,326 |
| Rice | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 |
| Grain sorghums | 4,133 | 4,133 | 3,944 | 3,944 | 3,944 | 3,944 | 3,944 | 3,944 | 3,944 | 3,944 | 3,944 | 3,944 |
| Total | 205,664 | 205,664 | 215,50 | 215,50 | 215,50 | 223,073 | 224,499 | 231,100 | 228,855 | 225,306 | 219,725 | 5,147 |
| VEGETABLES | | | | | | | | | | | | |
| Potatoes | 3,724 | 3,724 | 3,565 | 3,565 | 3,565 | 3,565 | 3,565 | 3,565 | 3,565 | 3,565 | 3,565 | 3,565 |
| Irish potatoes | 611 | 611 | 774 | 774 | 774 | 774 | 774 | 774 | 774 | 774 | 774 | 774 |
| Onions (commercial) | 1,107 | 1,107 | 1,107 | 1,107 | 1,107 | 1,107 | 1,107 | 1,107 | 1,107 | 1,107 | 1,107 | 1,107 |
| Cabbage (commercial) | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Total | 4,23 | 4,23 | 5,363 | 5,363 | 5,363 | 5,692 | 5,692 | 5,692 | 5,692 | 5,692 | 5,692 | 5,692 |
| MISCELLANEOUS | | | | | | | | | | | | |
| Cranberries (5 States) | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 | 2,402 |
| Flaxseed | 1,357 | 1,357 | 1,474 | 1,474 | 1,474 | 1,474 | 1,474 | 1,474 | 1,474 | 1,474 | 1,474 | 1,474 |
| Sugar beets | 611 | 611 | 665 | 665 | 665 | 665 | 665 | 665 | 665 | 665 | 665 | 665 |
| Tobacco | 1,370 | 1,370 | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 | 1,413 |
| All hay | 68,356 | 68,356 | 68,356 | 68,356 | 68,356 | 68,356 | 68,356 | 68,356 | 68,356 | 68,356 | 68,356 | 68,356 |
| Forage crops for sheep | 33,330 | 33,330 | 33,330 | 33,330 | 33,330 | 33,330 | 33,330 | 33,330 | 33,330 | 33,330 | 33,330 | 33,330 |
| Peasants | 1,043 | 1,043 | 1,043 | 1,043 | 1,043 | 1,043 | 1,043 | 1,043 | 1,043 | 1,043 | 1,043 | 1,043 |
| Broomcorn | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| Clover seed | 312,766 | 312,766 | 312,766 | 312,766 | 312,766 | 312,766 | 312,766 | 312,766 | 312,766 | 312,766 | 312,766 | 312,766 |
| Grand total | 312,766 | 312,766 | 324,323 | 324,323 | 324,323 | 343,433 | 343,433 | 348,183 | 348,183 | 351,402 | 352,049 | 430,602 |

Average under cultivation June 25
Not including acreage for clover seed for which no estimate is yet available¹ Subject to revision in December
² Preliminary Oct 1

Crop production in the United States

| Crop | Annual average 1910-1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 ¹ | 1925 ² |
|------------------------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|-------------------|
| | | Thousands | Thousands | Thousands | Thousands | Thousands | Thousands | Thousands | Thousands | Thousands | Thousands | Thousands |
| CEREALS | | | | | | | | | | | | |
| Corn... | 2,752,457 | 2,994,763 | 2,666,927 | 3,045,233 | 2,552,655 | 2,811,302 | 3,208,584 | 3,068,569 | 2,900,020 | 3,003,557 | 2,436,313 | 2,917,086 |
| Wheat... | 1,728,225 | 1,025,901 | 1,050,318 | 1,690,655 | 1,921,438 | 1,967,979 | 1,833,027 | 1,814,905 | 1,967,568 | 1,797,381 | 1,872,673 | 1,872,673 |
| Barley... | 1,167,901 | 1,546,030 | 1,261,317 | 1,367,740 | 1,528,254 | 1,184,030 | 1,498,281 | 1,078,341 | 1,215,803 | 1,305,883 | 1,541,900 | 1,470,394 |
| Oats... | 37,698 | 42,605 | 42,892 | 42,923 | 51,041 | 75,483 | 180,482 | 184,946 | 182,068 | 187,001 | 187,875 | 228,768 |
| Rye... | 17,022 | 15,005 | 11,602 | 16,022 | 16,905 | 14,399 | 13,142 | 14,207 | 14,564 | 13,967 | 15,045 | 15,833 |
| Rice... | 26,378 | 26,947 | 40,881 | 34,728 | 38,605 | 41,985 | 52,066 | 37,612 | 41,405 | 33,717 | 33,950 | 35,310 |
| Grain sorghums | | 114,460 | 58,588 | 61,400 | 73,241 | 130,774 | 137,468 | 113,990 | 90,524 | 105,835 | 114,231 | 102,046 |
| Total - | 4,863,819 | 6,010,968 | 4,792,634 | 5,681,490 | 5,458,245 | 5,373,650 | 5,990,350 | 5,344,245 | 5,421,344 | 5,371,106 | 5,266,550 | 5,517,985 |
| VEGETABLES | | | | | | | | | | | | |
| Potatoes | 360,772 | 360,721 | 264,863 | 442,168 | 411,860 | 322,967 | 403,296 | 361,649 | 453,366 | 416,105 | 454,784 | 344,227 |
| Onions (commercial) | 57,117 | 10,321 | 78,539 | 16,044 | 17,397 | 13,249 | 9,185 | 9 | 109,394 | 97,177 | 71,861 | 74,237 |
| Onions (commercial) | | 7,664 | 8,552 | 19,138 | 18,423 | 14,548 | 21,043 | 14,166 | 18,783 | 17,306 | 12,619 | 16,648 |
| Cabbage (commercial) | | 671 | 256 | 476 | 883 | 646 | 1,106 | 1,087 | 1,080 | 806 | 17,973 | 845 |
| FRUITS | | | | | | | | | | | | |
| Peaches | 45,842 | 64,097 | 37,205 | 48,765 | 33,064 | 53,178 | 45,620 | 32,602 | 55,832 | 49,382 | 53,137 | 47,790 |
| Pears - | | 11,216 | 11,874 | 13,281 | 13,362 | 16,006 | 16,806 | 11,297 | 20,705 | 17,845 | 18,626 | 18,164 |
| Cranberries (3 States) | | 230,011 | 186,605 | 166,749 | 106,675 | 142,649 | 223,677 | 99,002 | 202,702 | 202,842 | 179,101 | 164,043 |
| MISCELLANEOUS | | | | | | | | | | | | |
| Flaxseed | 18,353 | 14,030 | 14,295 | 9,164 | 13,380 | 7,178 | 10,712 | 8,020 | 10,375 | 17,080 | 30,173 | 28,228 |
| Sugar beets | 90,899 | 1,062,237 | 1,168,276 | 1,246,276 | 1,439,071 | 1,405,481 | 1,592,225 | 1,069,683 | 1,246,837 | 1,515,110 | 1,242,410 | 1,298,567 |
| Tobacco | 81,640 | 107,263 | 110,902 | 98,439 | 101,139 | 104,790 | 105,315 | 97,770 | 112,013 | 106,811 | 112,436 | 98,136 |
| All hay | 14,269 | 11,192 | 11,440 | 11,302 | 12,041 | 11,421 | 13,440 | 9,994 | 9,762 | 10,140 | 113,028 | 14,750 |
| Cotton | | | | | | | | | | | | |
| Sorghum straw | 14,974 | 13,698 | 37,472 | 33,387 | 33,387 | 39,413 | 40,506 | 44,596 | 38,440 | 32,001 | 32,339 | 26,181 |
| Alfalfa | | 919,028 | 919,028 | 1,432,811 | 1,940,102 | 783,273 | 841,474 | 859,361 | 859,361 | 647,762 | 616,260 | 581,531 |
| Other feed | | 52 | 1,706 | 1,486 | 1,197 | 1,484 | 1,944 | 1,538 | 1,965 | 1,228 | 76 | 26 |
| Other seed | | | | | | | | | | | 977 | |

¹ Preliminary, Oct. 1.

² Subject to revision in December.

Exports of domestic foodstuffs and cotton from the United States

[Foreign Commerce and Navigation of the United States 1910-1913, and monthly summaries of the Bureau of Foreign and Domestic Commerce June 1921 1922 1923 1924 and 1925]

| Article exported | Unit | Year ended June 30— | | | | | | | | | | | |
|--|--------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Average 1910-1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | | Then acres | Then acres | Then acres | Then acres | Then acres | Then acres | Then acres | Then acres | Then acres | Then acres | Then acres | Then acres |
| Wheat including flour | Bushel | 104,967 | 332,465 | 243,111 | 203,514 | 132,779 | 287,402 | 210,885 | 338,010 | 279,407 | 221,923 | 194,430 | 238,023 |
| Corn including meal | do | 41,640 | 50,698 | 39,580 | 55,753 | 40,073 | 23,019 | 18,779 | 0,906 | 179,490 | 94,596 | 23,155 | 9,791 |
| Oats including oatmeal | do | 9,655 | 100,009 | 96,900 | 85,100 | 125,001 | 109,005 | 45,436 | 9,301 | 21,313 | 25,413 | 8,700 | 16,771 |
| Barley including flour | do | 7,890 | 26,557 | 27,143 | 16,381 | 26,265 | 20,458 | 26,571 | 20,455 | 22,400 | 18,193 | 11,200 | 22,643 |
| Rye including flour | do | 888 | 13,027 | 15,250 | 13,703 | 17,186 | 36,467 | 41,531 | 47,337 | 29,944 | 51,663 | 19,902 | 50,243 |
| Rice including flour meals and broken rice | Pound | 18,498 | 5,449 | 120,065 | 131,372 | 106,363 | 103,128 | 483,385 | 440,855 | 741,509 | 370,610 | 227,757 | 112,087 |
| Dairy products | | | | | | | | | | | | | |
| Butter | do | 4,278 | 9,851 | 13,467 | 24,835 | 1,726 | 33,740 | 27,156 | 7,829 | 7,512 | 9,410 | 5,425 | 8,264 |
| Cheese | do | 4,015 | 53,263 | 44,364 | 24,080 | 44,373 | 18,732 | 19,138 | 10,533 | 7,411 | 8,440 | 8,958 | 9,432 |
| Milk condensed evaporated and powdered | do | 15,774 | 37,230 | 139,578 | 259,141 | 638,719 | 778,740 | 10,533 | 266,550 | 588,620 | 159,857 | 216,319 | 179,170 |
| Total dairy products | do | 24,967 | 102,450 | 217,459 | 352,025 | 560,768 | 781,272 | 5,065 | 285,161 | 303,612 | 177,812 | 225,662 | 194,906 |
| Meat and meat products | | | | | | | | | | | | | |
| Pickled beef | do | 32,873 | 31,875 | 38,114 | 58,054 | 54,468 | 45,005 | 32,384 | 22,313 | 26,774 | 24,185 | 21,851 | 22,407 |
| Fresh beef | do | 29,432 | 170,441 | 221,214 | 197,177 | 3,003 | 332,205 | 133,561 | 21,094 | 3,963 | 4,017 | 2,817 | 3,144 |
| Canned beef | do | 9,392 | 75,245 | 59,804 | 67,536 | 9,343 | 108,460 | 31,133 | 10,763 | 3,749 | 2,312 | 1,545 | 1,835 |
| Total beef | do | 71,717 | 277,559 | 320,132 | 372,767 | 521,844 | 485,730 | 217,073 | 55,160 | 34,516 | 30,514 | 26,213 | 27,386 |
| Pork | | | | | | | | | | | | | |
| Bacon | do | 182,474 | 344,718 | 379,800 | 667,152 | 815,294 | 1,238,241 | 808,061 | 499,296 | 350,549 | 408,334 | 623,590 | 284,263 |
| Hams and shoulders | do | 106,313 | 203,701 | 262,206 | 294,635 | 419,573 | 667,840 | 373,456 | 1,2,012 | 271,642 | 319,360 | 381,564 | 292,214 |
| Pickled pork | do | 48,373 | 45,656 | 65,401 | 44,963 | 33,222 | 31,504 | 41,043 | 33,284 | 33,510 | 40,634 | 3,409 | 24,726 |
| Canned pork | do | 4,227 | 4,645 | 9,611 | 5,896 | 5,165 | 3,262 | 2,263 | 1,119 | 2,263 | 2,069 | 2,601 | 4,186 |
| Fresh pork | do | 2,024 | 3,909 | 65,005 | 50,436 | 21,390 | 19,645 | 7,225 | 5,075 | 23,911 | 43,772 | 49,113 | 27,003 |
| Total pork | do | 408,813 | 604,628 | 698,904 | 1,037,133 | 1,294,673 | 1,961,909 | 1,121,233 | 52,790 | 683,875 | 815,008 | 864,381 | 398,992 |
| Mutton and lamb | do | 3,580 | 3,877 | 4,555 | 3,196 | 2,066 | 2,174 | 3,968 | 7,355 | 2,302 | 1,760 | 1,663 | 1,460 |

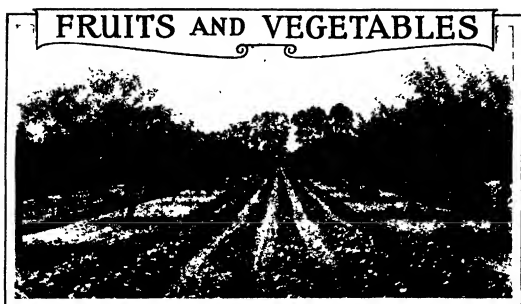
| | | | | | | | | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Lard and neutral lard.....do..... | 1,517,927 | 501,533 | 481,438 | 442,345 | 398,765 | 742,167 | 610,427 | 768,702 | 831,932 | 973,136 | 1,039,137 | 813,156 |
| Oleo oil.....do..... | 115,225 | 80,489 | 102,646 | 67,119 | 54,403 | 46,292 | 74,329 | 106,415 | 117,174 | 104,948 | 92,965 | 103,145 |
| Tallow.....do..... | 20,009 | 20,240 | 16,289 | 15,209 | 5,015 | 16,173 | 32,837 | 16,844 | 27,658 | 25,665 | 37,372 | 28,776 |
| Other meat products.....do..... | 115,019 | 125,866 | 104,617 | 96,893 | 69,834 | 100,634 | 134,750 | 107,173 | 102,312 | 65,589 | 64,446 | 75,266 |
| Total meat and meat products..... | 1,267,249 | 1,614,224 | 2,008,771 | 2,005,724 | 2,346,834 | 3,453,078 | 2,294,932 | 1,814,038 | 1,799,989 | 2,080,637 | 2,164,103 | 1,688,201 |
| Apples.....do..... | 1,451 | 2,352 | 1,466 | 1,749 | 635 | 1,579 | 1,051 | 2,685 | 1,094 | 1,718 | 4,098 | 3,291 |
| Cotton.....do..... | 5,840 | 5,807 | 6,168 | 6,176 | 4,641 | 5,528 | 7,087 | 5,023 | 6,718 | 5,233 | 5,389 | 5,439 |
| Tobacco, leaf (including stems and trimmings).....do..... | 362,183 | 344,346 | 443,263 | 411,599 | 299,171 | 628,288 | 643,038 | 504,526 | 463,389 | 454,364 | 597,030 | 430,702 |
| Total, agricultural exports, including forest products.....do..... | 1,143,642 | 1,528,491 | 1,898,227 | 2,037,172 | 2,367,647 | 3,683,193 | 4,051,660 | 2,746,518 | 2,009,961 | 1,929,150 | 2,029,897 | 2,438,805 |
| Total agricultural exports, excluding forest products.....do..... | 1,038,941 | 1,475,938 | 1,518,071 | 1,598,353 | 2,280,466 | 3,579,918 | 3,881,511 | 2,807,042 | 1,915,866 | 1,799,168 | 1,847,068 | 2,280,165 |
| Index of volume of exports, excluding forest products.....do..... | 100 | 138 | 118 | 118 | 101 | 145 | 134 | 127 | 137 | 112 | 104 | 126 |

¹ 5-year average for lard and 4-year average for neutral lard; neutral lard included with "oleo oil" in 1910.

² Includes neutral lard for 1910.

³ "Other meat products" include the following items: Canned sausage, other sausage, sausage casings, lard compounds, lard oil, oleomargarine, oleo and lard stearin, grease stearin, oleic acid or red oil, stearic acid, and other fatty acids.

⁴ Includes boxed apples, boxes reduced to barrels on the basis of 3 boxes to the barrel.



By L. C. CORBETT, H. P. GOULD, and W. R. HEATTIE, *Bureau of Plant Industry*

FRUITS, VEGETABLES, AND NUTS produced on farms in 1925, were valued at approximately \$2,000,000,000, an amount sufficient to attract attention even in these times when to speak in terms of billions is but to use the language of the day. The total farm value of all agricultural products of the country, exclusive of those fed on farms, may during favorable crop years reach \$15,000,000,000. The two crop-years of 1923 and 1924 are typical, their average being \$12,114,800,000.

Value of Fruits, Vegetables, and Nuts

According to the fourteenth census, the farm value in 1919 of the fruits, vegetables, and nuts grown in the United States was as follows (fig. 1): Fruits \$700,000,000; vegetables, including those grown in farm gardens, \$1,300,000,000; nuts \$30,000,000. The value of the wheat crop for the same year was about \$2,000,000,000, and the corn crop \$3,500,000,000, both of which, however, were above the normal yearly average for the census period from 1909 to 1919. A better comparison is obtained from the statistical report of the Division of Crop and Livestock Estimates, Bureau of Agricultural Economics, covering the average for the two-year period of 1923 and 1924, during which the corn crop was valued at \$2,714,000,000, or 24.9 per cent of the total of all farm crops; the wheat crop \$937,000,000, or 8.5 per cent of the total; cotton, including seed and lint, \$1,678,000,000, or 15.4 per cent; hay and forage crops \$1,676,000,000, or approximately 16.4 per cent; fruits \$619,000,000, or 5.8 per cent; and vegetables \$1,143,500,000, or 10 per cent of the total. Fruits and vegetables taken together would, therefore, represent 15.8 per cent of the total agricultural production.

NOTE.—This article is not intended as a handbook of cultural information on American horticulture, but as a portrayal of the origin and development of the fruit and vegetable industry of the United States and as an expression of its present status and important trends.

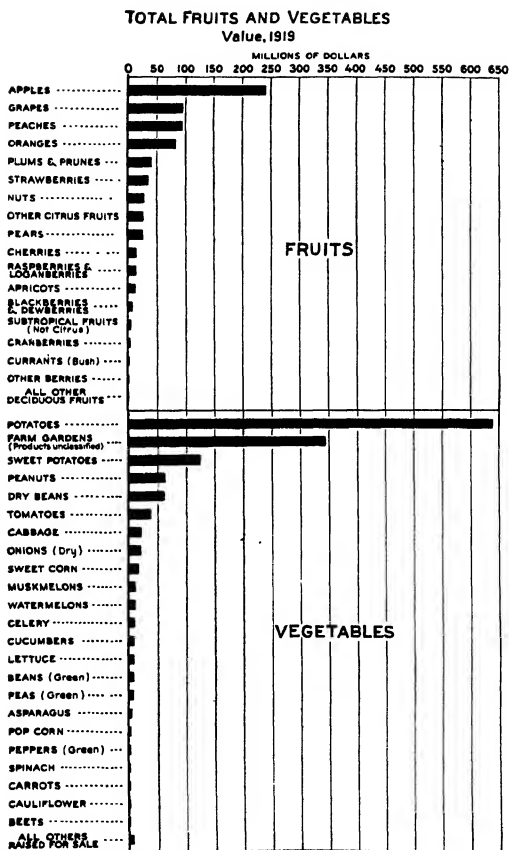


FIG. 1.—Total farm value of fruits and vegetables produced in the United States in 1919

Of the individual horticultural crops, the potato leads in farm value, this being placed at \$370,000,000 for the 1923-24 average. Others named for comparison in order of farm values are: Apples, \$230,000,000; sweet potatoes, \$112,000,000; peaches, \$79,500,000; grapes, \$72,500,000; oranges, \$64,500,000; and dry beans, \$59,000,000. The most reliable sources of information indicate that the annual value of the nut crop grown in the United States is approximately \$30,000,000.

Twenty important truck crops shipped to the markets and those used for canning in 1925 were valued at \$918,813,000. The latest available figures on farm gardens are those given for 1923 and 1924, a yearly average of which is \$342,000,000. Assuming that the value of farm gardens in 1925 was practically the same as for the two preceding years and adding that amount to the commercial vegetable crops gives a total of \$1,260,813,000. This, however, does not take into account vegetables sold in small quantities and which are not included in statistical reports.

In addition there are many fruits, vegetables, and nuts grown, the value of which can not be determined, but which certainly aggregate many thousands of dollars. Such products, however, are mainly of local or personal rather than commercial value.

Though the valuation of the horticultural products may vary widely from year to year, even though the figures used to express their values are largely estimates and only approximations at the best, they are sufficient to be markedly impressive. If the fact was not otherwise made evident, the yearly value of these products would suggest the large place they take in the lives of the people.

Although the dollar is here used to express the economic status of our horticultural industries and to indicate their magnitude, it is, after all, the more abiding aspects, the deeper things in horticulture, of which the dollar is but an index, that have real significance. Although the material side of horticulture must be recognized, it is its contribution to the happiness and welfare of millions of people which makes its numerous aspects so very much worth while.

Early History of the Fruit Industry

American horticulture, which has attained this great importance, had its origin in both Old World and New World species of plants. When the first settlers came to the New World they found the Indians growing many crops of a horticultural nature. Old World fruits and vegetables were brought to America by the early settlers and wild American species were improved and placed under cultivation. Methods followed by the Indians were adopted and improved upon through the application of Old World cultural practices.

The inquiring mind, taking note of the present magnitude of our horticultural industries, can not fail to ask, "Whence has it all come, and how did it begin?" The development of the horticultural industries of the country has been in a most intimate sense "part and parcel" of the development of the country itself. There is no connected story of this development, and so far as it occurs at all it is found mostly as incidental references scattered throughout the meagre literature and records of colonial days.

The significant fact brought home to the minds of those who take into account the importance of the horticultural industries of to-day is the intimate relationship borne by its products to the life and well-being of all the people. This is not only true from the standpoint of proper food supply but the vast number of persons who, though not actually engaged in production, transport, handle, store, sell, and manufacture the products of horticulture. There is also that vast army of artisans who provide the supplies and equipment which go into horticultural production, all of whom in turn are consumers and must be fed. Much of the progress of the horticultural industries has been brought about through efficiency of transportation and this, together with the development of storage facilities, has made possible the present wide distribution and extended use of fruits and vegetables at all seasons of the year.

Fruits Grown by the Indians

The American Indians appreciated and made use of the wild fruits which in their native habitat were perhaps more abundant formerly than they came to be as advancing civilization made way to so large an extent with Nature's methods of production. It may be supposed that the Indians were satisfied with the products Nature gave them. At least, they knew nothing better.

Some conception of what the early explorers and pioneer settlers found has been presented in another connection,¹ and certain paragraphs very pertinent to this discussion are here quoted.

The chronicler of the expedition sent out by Raleigh to explore in the vicinity of Hatteras said of the grapes observed there that he had visited those parts of Europe in which this fruit was most abundant, and that the difference in quantity in favor of Roanoke was quite incredible.

Ralph Lane, in reporting his observations in 1585-86, pronounced the grapes of Virginia to be larger than those of France, Spain, or Italy.

John Smith found "Che-nuts whose wild fruit equalize the best in France, Spaine, Germany, or Italy to their tast[e]s that had tasted them all." He early learned to discriminate between the green and the ripe persimmon, for he states: "Plumbs there are of three sorts. The red and white are like our hedge plumbs; but the other, which they call Putschamls grow as high as Palmets. The fruit is like a medler; it is first green, then yellow, and red when it is ripe; if it be not ripe it will draw a man's mouth awrie with much torment; but when it is ripe it is as delicious as an Apricot." He mentions also chinquapins, cherries, crab apples, and grapes, of which last named the colonists made "neere 20 gallons of wine, which was neere as good as your French Brit-tish wluie." He describes at length the Indian methods of drying nuts and persimmons for the winter supply and of preparing them for food, and mentions among other summer fruits "strawberries which ripen in April" and "Mulberries which ripen in May and June"; he also mentions gooseberries and raspberries as abundant.

The New England colonists made similar reports. In the words of one who was at Plymouth in 1622, "The chestnut, hazelnut, beechnut, butter-nut, and shagbark yielded contributions to the store of food laid up for winter. Wild cherries, mulberries and plums enlarged the variety of the summer's diet. Wild berries, as the strawberry, the gooseberry, the raspberry, the whortleberry, the cranberry, grew in plenty in the meadow and champaign lands. Vines bearing grapes of tolerable flavor flourished along the streams." Rev. Francis Higginson, writing from the Massachusetts colony

¹ TAYLOR, WILLIAM A. THE FRUIT INDUSTRY AND SUBSTITUTION OF DOMESTIC FOR FOREIGN-GROWN FRUITS. *Yearbook of the Dept. of Agr.*, 1897, pp. 305-344; also *Div. of Pomology Bul. 7* with similar title by the same author.

in 1629, says: "Excellent vines are here, up and down in the woods. Our governor hath already planted a vineyard with great hopes of increase; also mulberries, plums, raspberries, corrance, chestnuts, alberts, walnuts, smalnuts, hurtleberries, and hawes of white thorne, neer as good as our cherries in England, they grow in plentie here." William Wood, who came in 1629, reports, "There is likewise Strawberries in abundance, verie large ones, some being two inches about; one may gather halfe a bushell in a forenoone. In other seasons there be Gooseberries, Bilberries, Resberries, Treacleberries, Hurtleberries, Currants; which being dried in the Sunne are little inferior to those that our Grocers sell in England." He seems to have been a man of discriminating taste, for, unlike other writers of the period, he tempered his praise of some with condemnation of others, as in the following lines: "The Cherrie trees yield great store of Cherries which grow on clusters like grapes; they be much smaller than our English cherry, nothing neare so good if they be not fully ripe, they so furre the mouth that the tongue will cleave to the rooffe, and the throat wax hoarse with swallowing those red Bullies (as I may call them), being little better in taste. English ordering may bring them to be an English *cherry* but yet they are as wilde as the *Indians*. The Plummes of the Countrey be better for Plumbs than the Cherries be for Cherries; they be black and yellow about the bignesse of a Damson, of a reasonable good taste. The white thorne affords hawes as big as an English Cherrie which is esteemed above a Cherrie for his goodness and pleasantnesse to the taste." In his account, "New England's prospect," we find that comparisons of latitude and climate were being made with a view to determine the possibilities of domestic wine production, for he says "vines afford great store of grapes which are very bigge, both for the grape and Cluster, sweet and good: These be of two sorts, red and white, there is likewise a smaller kinde of grapo which groweth in the Islands, which is sooner ripe and more delectable; so that there is no knowne reason why as good wine may not be made in those parts as well as in *Burdenaux* in *France* being under the same degree."

Roger Williams found the strawberry "the wonder of all the fruits growing naturally in these parts. In some places where the natives have planted I have many times seen as many as would fill a good ship within a few miles compass."

William Penn, writing in 1683, mentioned chestnuts, walnuts, plums, strawberries, cranberries, whortleberries, and grapes as growing naturally in the woods, and questioned whether it was best to attempt to improve the fruits of the country, especially the grapes, by the care and skill of art or to send for foreign stems and sets, already good and approved. It seemed to him most reasonable to believe that a thing grows best where it grows naturally, and that it would hardly be equaled by another of the same kind not naturally growing there.

The abundant and varied supply of indigenous fruits in the Mississippi Valley and Lake regions is still a matter of recollection among the surviving pioneers and their descendants.

Influence of Native and Exotic Species

It is evident, however, that attempts were soon made, to improve, or at least to domesticate some of the native fruits, and to introduce exotic species. It is recorded that Lord Delaware who came in 1610 brought with him French vineyardists who transplanted native grapevines. In 1619 the Virginia Co., sent French vine dressers to America with cuttings of the finest European grapes.

The demands of civilization have long been forcing the issue with insects and diseases, with frosts and drouth and other natural elements, and man has been engaged in inducing fruit trees and other plants, the products of which he has desired, to exceed Nature's requirements. It is not a normal outcome of the seasonal influences for an apple tree to produce at harvest time 20 bushels of fruit, each apple perfect in size, color, finish, and in freedom from every

kind of blemish of insect and disease. That is man's ideal, though if the tree is large he may want from it 40 rather than 20 bushels of perfect fruit. The one aim of Nature is to produce seeds that the species may not matter to Nature if the fruits are small as size has little to do with the number of seeds in an apple and their vitality may not be impaired if insects and diseases blemish the skin. Besides, if every seed that develops should grow, the earth would soon become overcrowded with plant life; so many seeds may fail and still Nature's object be accomplished; she is profligate, wasteful, and in no hurry. Man is impatient of results and strives for perfection in size, flavor, and beauty of finish, none of which is essential to the perpetuation of the species.

An inventory of the fruits that enter into American horticulture will be helpful and perhaps surprising. The largest surprise is in the extent to which the American fruit industry has been built on fruits not native to this country. Of the different fruits with which the markets are somewhat familiar, the following may be claimed as native: Raspberry, both red and black, blackberry, dewberry, strawberry, cranberry, blueberry, huckleberry, elderberry, Juneberry, gooseberry (native in distinction from the European type), persimmon (native in distinction from the Oriental type), plum (native in distinction from the Japanese and European or domestica types), grape (excepting the European or vinifera type), mulberry (certain relatively unimportant types), crab apple.

Among the native nuts the pecan is the only one cultivated extensively for its food product. Others which should be enumerated, however, because of the contribution made from wild trees, include: Hickories (several forms), black walnut, butternut, chestnut, chinquapin, and possibly a very few others of minor importance. Reference also may be made to the papaw, buffalo berry, and various subtropical fruits that are rarely seen in the markets, but which, even growing wild, are more or less esteemed locally.

In contrast, note the following list of fruits which are not native to the United States and for the most part not even to the Western Hemisphere: Apple, pear, quince, loquat, peach, plum, including the prune (European and Japanese types), cherry (both sweet and sour types), apricot, orange (including the tangerine and other types), grapefruit, lemon, lime, kumquat, fig, persimmon (Oriental type), olive, pomegranate, mango, avocado, pineapple, date, grape (European or vinifera type), currant, gooseberry (English type), mulberry (more important types); of nuts, the Persian walnut and almond as the most important, Japan chestnut, European chestnut and a few others.

The foregoing inventory—native and exotic or introduced fruits and nuts—though imposing enough in length, is not intended to be exhaustive but rather to include those fruits with which the consuming public is more or less generally acquainted. Even a casual review of the two lists will impress the fact of the relatively small proportion of the commercial industry represented by the native list as compared with the introduced list. The preponderance of berries in the native list is striking.

Figure 2 visualizes effectively the relative importance of fruits native to the United States and the ones introduced from other lands. Although the great bulk of the fruit grown represents varieties originated here, they have come largely from foreign species. The situation indicated by Figure 2 raises anew the question of the trend of development.

Starting Points in American History

Although, as already stated, there is little on record to show the details of what took place in the early days of American colonization, fragments of information suggest the outlines of the story. In early American history there are certain places and dates that

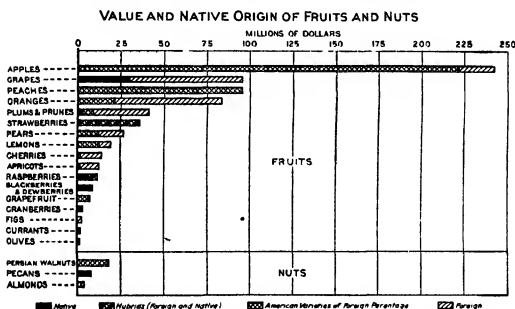


FIG. 2.—The extent to which the fruit and nut industries of the United States are based on foreign species, a situation not generally appreciated. Only a small proportion of these industries are wholly American in their origin. Although only a comparatively small percentage of the different varieties grown are of foreign origin, the great bulk of the fruits and nuts produced consist of varieties of foreign parentage, but which have been developed here. The values shown in millions of dollars are those given in the census for the crop of 1919.

stand as starting points: St. Augustine and 1565, Jamestown and 1607, Plymouth Rock and 1620—these are places and dates from which events are reckoned.

On the Pacific coast an equally significant date appears, considerably later than along the Atlantic seaboard, namely, the coming of the Franciscan fathers into California in 1769. That event marked the beginning of a period in fruit history on the Pacific coast comparable with that which occurred on the Atlantic coast. In 1769 the first mission was established at or near the present site of San Diego. Between that time and 1823 the Franciscans founded, in all, 21 missions and at nearly all of them fruit collections were planted, some of them of considerable size. Naturally these plantings consisted of the fruits with which the Franciscans had been previously familiar—oranges, lemons, olives, figs, pomegranates, wine grapes, and others. Remnants of some of these early mission plants still remain (fig. 3).

As an abiding monument to the vision of those early laborers for mankind, there are to-day in California the Mission fig, the Mission olive, the Mission grape—varieties that trace back to these early missions for their beginnings in California, the fig and olive varieties still being among the most important in the industries they represent.

The Franciscan fathers were active in other parts of the southwest while Spain still held sway there. Near the present town of Manzano in central New Mexico there stand the ruins of an ancient mission church. At this spot in the seventeenth century there was an Indian pueblo known as Onarai. It is recorded that the church was built in 1629. It was abandoned in 1675 because of the depredations of the Indians. Near its ruins there are to be seen to-day the



FIG. 3—Olive trees planted at the San Diego Mission, near the present site of San Diego, Calif., about 150 years ago, as they appeared in May, 1920. In recent years the trees have received but little care and are much depleted as a result of neglect; also from attacks of twig borers.

remnants of an ancient but still producing apple orchard, which tradition says was planted sometime during the occupancy of the mission. If this be true, then the orchard must trace back at least for 250 years. The trees now standing give evidence of being 100 years old or more, and it is believed by those who have examined them that they have grown from the roots of an earlier stand of trees after the original tops had died. Though much must be left to the imagination and few facts concerning the early history of these trees are authenticated, their great age is clearly indicated. The source from which the Franciscans obtained them in the beginning or the seeds from which they grew, assuming that the legend of their planting is true, furnishes a wide field for speculation.

Apparently authentic though not fully verified statements indicate that the Spaniards brought oranges to Florida as early as 1560—even before the founding of St. Augustine. Oranges had

been growing long enough in Florida, and the trees had become so numerous in a more or less wild state in some sections as to give to early settlers the impression that they were indigenous.

Though it seems impossible to fix the date when figs were introduced in Florida or in the Southeastern States, it is generally assumed that they, too, were brought in by the Spaniards or early explorers or settlers. Because of its historical setting, interest in early horticulture possibly centers in the colonies farther north—Jamestown and Plymouth Rock, and the parts of the country these places stand for historically. It was from the Atlantic seaboard, in the main, that fruit growing spread into the Mississippi Valley and westward.

As an insight into the manner by which many fruits of the Old World early became established in the New World, there is perhaps no more significant record anywhere than that to which Smith² has called attention. He mentions two entries in the records of the governor and company of the Massachusetts Bay at New England, one of which, undated, was evidently made during 1629, if not the preceding year, and which consisted of a memorandum of things "to provide to send for New England." Among them were to be "stones of all sorts of fruits, as peaches, plums, filberts, cherries." The second record is a reference to a letter dated April 17, 1629, from Gravesend, England, by the governor and deputy of the New England Co., to Capt. John Endecott, then "governor and council for London's plantation in the Massachusetts Bay in New England," from which one reads: "As for fruit stones and kernels, the time of year fits not to send them now, so we purpose to do it pr. our next."

Thus within a decade after the landing of the Pilgrims the foundation of a future fruit industry was being laid in fruit seeds brought from the Old World homes of the first settlers.

A Remarkable Fruit Tree

Specific reference to one of the most remarkable fruit trees in the history of American pomology is of interest here—the old Endecott pear tree standing near Danversport, Mass. Figure 4 shows this tree as it appeared when in bloom in May, 1920. Figure 5 as it looked in September, 1923, the two views being from a slightly different angle.

If tradition be true, this tree was planted in its present location by Gov. John Endecott soon after "Orchard Farm," as the tract of land was very early designated, was granted to the governor, which was on July 3, 1632. That many trees were planted here within the next few years after the grant was made is clearly evident, since it is a matter of record that 500 trees were injured in 1641 by a fire that was set by children.

Whether the Endecott pear tree was first planted where it now stands or was transplanted from Governor Endecott's garden in Salem is uncertain. That it may have been brought from overseas is not impossible. In fact, there is a tradition that it came in the ship *Arbella* with Winthrop in 1630. Whatever the facts, there are enough very early references to this pear tree which connect it

² SMITH, ERWIN F. PEACH YELLOWS: A PRELIMINARY REPORT. U. S. Dept. of Agr., Div. of Botany. Bul. 9. p. 11 (1888).



FIG. 4.—The Endecott pear tree as it appeared when in full bloom in May, 1920

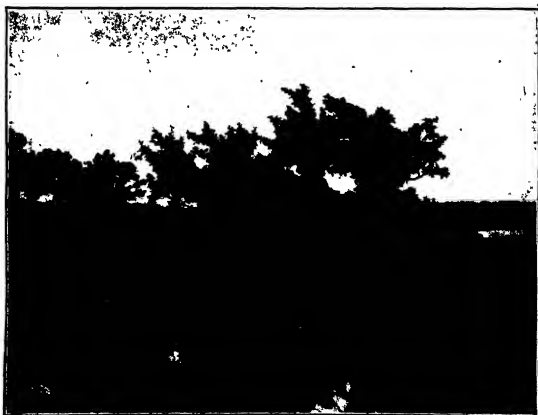


FIG. 5.—The Endecott pear tree as it looked in September, 1923, nearly 300 years after it was planted

definitely with Governor Endecott to give much support to a very early date of planting, though the exact year in which it was done is a matter of some conjecture. In line with the view that it was transplanted from the governor's garden in Salem to its present site, what could have been more natural than that the tree grew from a seed in the garden, from whence it was removed to its permanent location at Orchard Farm soon after the grant of land was made in 1632. That the tree is a seedling rather than one grown from a bud or scion on some other root is indicated by the fact that the fruit borne by the two parts of the double trunk, which are readily seen in Figure 5, is the same as that produced by the original "main" tree, this fact being commented on by William Lincoln, of Worcester, who addressed the Massachusetts Horticultural Society in 1837 concerning this pear tree. In part, he spoke as follows:

Its appearance at this time is rather dwarfish, being only 18 feet high and 55 feet in the circumference of its branches. The trunk exhibits all the marks of extreme old age, being entirely hollow, and mostly open on the south side, with just sufficient bark to convey sap to the branches. It is 7 feet 4 inches in circumference near the roots, and is divided into three parts, two of which are connected, to the height of about 18 inches; the other is entirely distinct from the ground upward. There is bark only on the outside of these divisions, until they reach the height of 7 or 8 feet, where they are completely encircled with it, and form distinct limbs, with numerous lateral branches, all of which appear in a perfectly sound and healthy state. Two suckers have sprung up from the roots, one on the northeast, and the other on the southwest side, each 10 or 12 feet in length, and I presume it is known that this tree has never been grafted, but is natural fruit.

In a painting of this tree made in 1816 two sprouts on opposite sides of the main trunk are clearly evident. Presumably, they are the suckers referred to in the above quotation, and they are even more plainly shown in a wood engraving of the tree published in 1845; also in a drawing of the tree made in 1863.

When the main trunk of this tree disappeared does not seem to be a matter of record. During the past century and more the tree has suffered much from severe storms. In 1815 it is recorded that it was badly shattered by a gale, and again in 1837, and still other storms are reported to have wrought havoc with it. Still it survives. The present owner of the tree and of "Orchard Farm," himself a direct descendant from Governor Endecott has the following to say about it:⁵

When visited on October 11, 1924, it was found that the original trunk described in 1837 had entirely disappeared, but the two suckers were in good condition, the taller, the one on the southwest side, being about 14 feet high and having a circumference of 25 inches at 3 feet from the ground. The other sucker measured 22 inches in circumference at 3 feet from the ground and was somewhat hollow-hearted below that point. During a recent storm a northerly branch from this sucker had partly broken off. No new suckers were to be seen. Many pears lay on the ground and half a bushel of the fruit had been carried to the house that morning. The pear is undoubtedly the old-fashioned "sugar pear," well known in old gardens. It is round, slightly red on one side, has an average diameter of $2\frac{3}{4}$ inches, and when ripe is

⁵ Credit for information concerning the old Endecott pear tree is due Frank C. Damon, Danvers, Mass., and to the present owner of the tree, William C. Endicott, Boston, Mass., who furnished the photographs from which Figures 4 and 5 were made, and other information. The substance of this account has been taken, and published in part direct, from a book entitled "Memoir of Samuel Endicott with a Genealogy of His Descendants," of which Mr. Endicott is the author, and privately published by him.

The name Endecott was changed to Endicott apparently by a member of the fourth generation from Governor Endecott. As the pear is named for the latter the spelling is made to correspond.

usually decayed at the heart. This is a characteristic of this pear everywhere, but when just right to eat it is juicy and sugary sweet, and well accounts for its name.

Not the least interesting thing concerning the old Endecott pear tree is the fact that, whatever its exact age may be, it bridges completely the whole span of years from very early colonial days to the present time. It seems safe to assume that it represents the oldest planted fruit tree now growing in America.

Smith⁴ makes other citations of much interest. In reference to peach growing in Maryland in 1635: "Although there be not many that do apply themselves to plant gardens and orchards, yet those that do it find much profit and pleasure thereby. They have peares, apples, and several sorts of plummets, peaches in abundance, and as good as those in Italy." Again, in 1656, a writer referring to an earlier time, said: "Orchards innumerable were planted and preserved," and of his own time this writer spoke:

The country is full of gallant orchards, and the fruit generally more luscious and delightful than here. Witness the peach and quince. The latter may be eaten raw savourily; the former differs and as much exceeds ours as the best-relished apple we have doth the crab, and of both most excellent and comfortable drinks are made.

Another has recorded for the same period:

All early travelers in and writers about Maryland have noted the fact that even before the first generation of settlers has passed, the country was thickly planted with orchards of apple and peach trees, which seemed to grow in the most flourishing way. It is certainly remarkable that within 22 years after the landing at Saint Mary's in 1634 orchards should have become a notable and even conspicuous feature in the landscape; but the evidence of the fact is conclusive.

In 1680 it is recorded by a personal witness concerning New Jersey:

I have traveled through most of the places that are settled, and some that are not; and in every place I find the country very apt to answer the expectations of the diligent. I have seen orchards laden with fruit to admiration: their very limbs torn to pieces by the weight, and most delicious to the taste and lovely to behold. I have seen an apple tree from a pipkin kernel yield a barrel of curious cider, and peaches in such plenty that some people took their carts a peach gathering; I could not but smile at the conceit of it; they are very delicate fruit, and hang almost like our onions that are tied on ropes.

In a similar manner the development of fruit growing might be traced throughout the eighteenth century. The foundation of a pomological development was laid, apparently coincident with the determination of the first immigrants to make their future home in the New World.

Beginning early in the nineteenth century, or even during the last decade of the eighteenth, the horticultural interests assumed greater importance. The Revolutionary War had been fought and won. Things distinctively American began to develop. In a most effective manner Bailey⁵ has reviewed some of the outstanding features of this epoch in American horticulture, especially in recounting its status at the period centering around the year 1800 and in pointing out some of the influences that were operative in a directing way, especially during the first half of the nineteenth century. On this review the following statements, greatly condensed, are based.

⁴ *Ibid.*

⁵ BAILEY, L. H. SKETCH OF A CENTURY OF AMERICAN HORTICULTURE. *The Florists Exchange*, Vol. VII, No. 17 (Mar. 30, 1895), p. 387.

The Beginning of American Horticultural Literature

It was during the latter half of the eighteenth century that American agricultural literature had its beginning. Not until 1804, however, did a strictly American horticultural book appear when "The American Gardener," by John Gardiner and David Hepburn, was published. This was followed in 1806 by Bernard M'Mahon's "American Gardener's Calendar." The first strictly pomological book indigenous to the New World was entitled "View of the Cultivation of Fruit Trees," by William Coxe, published in 1817. This was followed in 1822 by James Thacher's "American Orchardist." Several earlier books appeared in America before the one by Coxe but they were based largely on English conditions or were American editions of English works.

In 1818 the first horticultural organization, the New York Horticultural Society, came into being. The second organization to be founded for the advancement of horticulture was the Pennsylvania Horticultural Society, which dates from 1827 and which is still active.

The New York society is said to have gone out of existence about 1837. It was comparatively early in this century, too, that current horticultural literature first appeared. The New England Farmer, established in Boston in 1822, was the first journal to devote any considerable space to horticultural subjects. Thirteen years later, or in 1835, the Horticultural Register and Gardener's Magazine first appeared also in Boston. The number of horticultural publications, including many that have specialized in particular phases of horticulture—fruit growing, vegetable growing, floriculture, and landscape gardening—that has followed in their trend has been legion.

Leaders in Early American Horticulture

The beginning of the nineteenth century thus witnessed the setting in motion of influences that were to have a marked effect on the trend and rapidity of development of the pomological interests of the country. Books on fruit growing and gardening began to appear and the number increased, for those days, with considerable rapidity; magazines and papers devoting space to horticulture were established; societies to promote horticultural interests were organized; and, men of horticultural vision and strong influence appeared. The names of Adlum, Jonathan Chapman (Johnny Appleseed,) Patrick Barry, William Cobbett, William Coxe, Andrew Jackson Downing, Charles Downing, John James Dufour, George Ellwanger, Thomas Green Fessenden, C. M. Hovey, William Kendrick, Henderson Lewelling, Nicholas Longworth, John McIntosh, Bernard M'Mahon, Robert Manning, William Prince, William Robert Prince, John J. Thomas, John A. Warder, Marshall P. Wilder, and a host of others not less worthy or influential than many of those included in the roll will forever be linked with the developing fruit interests of the country during the first 50 years of the nineteenth century. America was developing during this time her own fruit experts and specialists. Although many of these men lived well into the second half of the century and perhaps did some of their most effective

work during their later years, it perhaps did not count for as much as in the more formative period.

It is impracticable in this historical background to more than touch a few of the most outstanding points. But a very hurried sketch of the status of the apple through the early colonial period is enough to give us an insight into much that has since followed.

That the first immigrants to the New World obtained seeds of many of the fruits they knew in their former homes seems indisputable. Hence the first fruits grown by them were apparently seedlings. As to the apple, it was seemingly prized for cider above all else. At least it is recorded that as early as 1647 a single individual in Virginia made 20 butts of it. But the early Bostonians were doing likewise, for in 1721 a small community of 40 families near there is said to have made about 3,000 barrels of cider. Moreover, in 1644, Gov. John Endecott, of the Massachusetts Colony, wrote to John Winthrop as follows: "My children burnt mee at least 500 trees this spring by setting the ground on fire neere them"; and in 1648 he traded 500 apple trees 3 years old for 250 acres of land. Even in those days apples were evidently grown in considerable abundance in some centers. In 1817 Coxé could list "one hundred kinds of the most estimable apples cultivated in our country." In 1825 William Prince, from his nursery at Flushing, Long Island, offered 116 apple varieties at 37½ cents apiece. Seventeen of these were deemed especially good for cider, while 61 of the number were considered to be of American origin.

The Prince catalogue for 1823 listed 114 varieties of apples, including crab apples, among which were many names familiar to most apple growers of to-day, for example, Summer Rose, Maiden Blush, Fall Pippin, Newtown Spitzenburg, Esopus Spitzenburg, Lady, Yellow Bellflower, Vandevere, Swaar, Rhode Island Greening, Yellow Newtown, Winesap, Yellow Harvest, which undoubtedly is Early Harvest, Red Baldwin Pippin, which without question is Baldwin of the present day, and a number of others no less generally known. In this connection it is of interest to note that some of these varieties were old even in Prince's time. For instance, the Baldwin traces its history back to 1740; Rhode Island Greening to 1748; Yellow Newtown to 1759, by which date it must have been pretty well established, since in that year Benjamin Franklin received specimens of it in London, and it was only a few years later (1765) that a tree of it had become noted in Albemarle County, Va., for its fine fruit.

Other varieties not named by Prince lend a sense of venerableness to the apple industry. The Roxbury is supposed to have originated early in the seventeenth century in Massachusetts, to have been taken into Connecticut soon after 1649, and to have gone from there to Ohio in 1797; Westfield was introduced into Ohio from Connecticut as early as 1796; Wagener dates from 1791; and Tompkins King, Tolman, Ralls, Red Canada, Wine, Hubbardston, Northern Spy, Ortley, and still others have rather definite histories going back from 100 to 125 years.

In his catalogue for 1823 Prince offered 107 varieties of pears; 74 varieties of peaches, including Oldmixon, Heath, Early Newington, and Columbia, the last two better known to peach growers of a

slightly earlier day than to those of the present time; also 48 varieties of plums and 53 of cherries, the latter including the Early Richmond, English Morello, Yellow Spanish, Elkhorn, and May Duke.

In the list of apples described by Coxe in 1817 one finds the following familiar names: Summer Rose, Maiden Blush, Vandevere, Wine, Esopus Spitzenburg, Newtown Spitzenburg, Rhode Island Greening, Yellow Newtown, Winesap, and several others. He also described 38 varieties of peaches and 65 of pears not many of which are in the American trade at the present time. Thus it is seen that long lists of varieties have early precedents. The development of commercial fruit growing has been a gradual process though it had early beginnings as some of the foregoing historical references indicate.

Extensive peach orchards came into existence earlier than did correspondingly large apple orchards so far as indicated by historical evidence. For instance, about the year 1800 a seedling peach orchard consisting of 18,000 to 20,000 trees was planted in Anne Arundel County, about 20 miles south of Baltimore, Md. The entire product of this orchard, however, is said to have been used in making brandy.

It was during the decade following the Civil War that peach growing assumed the status of a somewhat modern commercial fruit industry in what was then the recognized peach belt—Maryland, the Delaware peninsula, and New Jersey. The first commercial peach orchard in western Maryland was planted near Edgemont in 1875.

Though peach growing has existed in Georgia for many years (the Elberta peach originated from a seed planted near Marshallville in the fall of 1870), it was not until the late J. H. Hale undertook operations at Fort Valley in the early nineties that central Georgia began to assume the status of a prominent peach district. The development of other peach-growing regions in the more recent years, although perhaps as interesting as the earlier ventures, must be passed by without comment.

Apple growing expanded in the older parts of the country somewhat steadily from its early beginnings as an amateur enterprise into a commercial industry. It was feared some 65 years ago that within a decade the production of apples would become so great that they would not be worth picking, and there is said to be a record of one man in western New York during that period who cut down his orchard because of his fears in this respect.

First Attempts at Spraying

Although modern apple growing can hardly be said to date from the time when spraying was first used as a means of controlling insects and diseases, it is of interest to note here that the first recorded instance so far as known of spraying an orchard was when in the spring of 1878 an apple grower in Niagara County, N. Y., sprayed his apple trees with Paris green for the control of canker worms. In due course it was observed that the sprayed trees were not only less severely injured by canker worms than the unsprayed but that the fruit was less injured by the codling moth. This seemingly was the first suggestion that "wormy apples" might be prevented by spraying.

This first attempt at spraying apple trees attracted a good deal of attention in western New York, not all of which was of favorable purport. Other similar efforts followed the next year and in subsequent years. Bordeaux mixture began about 1885 to receive attention as a fungicide. From this time on spraying gained ground constantly as a regular orchard practice until it came to be recognized as an essential operation if fruit growing was to succeed as a commercial enterprise. However, a review of the experiment station literature, the annual reports of the various horticultural societies, and the current horticultural press of the period will show that discussions of the question, "Does it pay to spray?" continued practically until the end of the century—1900.

The development of spraying marks, in a striking manner, the development of the modern fruit industry. The development of cold storage and improved transportation facilities was practically coincident with the working out of effective insect and disease control methods.

Thus, from 1880 or 1885 to 1900 great things fundamentally important to the fruit industry took place—the development of spraying, of cold-storage methods and facilities, and of improved transportation equipment. During the last 25 years much advancement has been made but it has been based in a peculiar sense on the constructive efforts that were put forth during the preceding 15-year period.

In yet another way the growth of the fruit industry is outlined or at least is indicated by the export trade in apples. The fact has elsewhere been noted that Benjamin Franklin received Yellow Newton apples in London in 1759. It is further recorded that there were "large apple exports" in 1773. The records for the next 75 or 80 years are rather fragmentary, but the growth in apple exports since 1851 as shown by definite export data has been rather constant. In 1851 there were exported 28,842 barrels of apples. The average exports for the 10-year period 1851 to 1860 were 38,860 barrels; for the period 1861 to 1870 (shipments for 1869 omitted), 88,589 barrels; the decade 1871 to 1880, annual average 214,448 barrels; 1881 to 1890, 560,385 barrels; 1891 to 1900, 575,549 barrels. Since the season of 1902-3, the annual exports have dropped below 1,000,000 barrels but three times. The largest yearly export was in the season of 1920-21, when 2,665,000 barrels were shipped. These export figures are of interest in this connection only in suggesting the tendencies and at the same time the growth of an important phase of the apple industry.

Not less marked has been the expansion of the citrus industry, especially in Florida and California, with interesting developments in the Gulf coast region of several States and in Arizona. The story of the rise and development of grape growing is little short of a pomological romance. The extension of fruit growing to the frontier outposts as the settlement of the country proceeded westward is a part of the history of the country itself.

The particular citations that have been made with respect to apples serve to suggest substantially what has been the course of development with other fruit industries, specific reference to which must be passed over in the present connection.

This phase of the account must end here. The background of the pomology of the country and its initial impetus have been stated. For a hundred years since the real foundation was laid the industry has been gaining momentum.

Early History of the Vegetable Industry

Writers on the kitchen garden and other phases of vegetable growing are particularly silent with regard to the early history of the vegetable industry and give little information that would aid in the formation of a connected account of its development. It is significant, however, that such authors as Bernard M'Mahon, whose work was first published in 1806, give detailed directions for the preparation of hotbeds, the starting of early plants, and the culture of a majority of our vegetables, also that cultural practices recommended to-day show few departures from those given by these early writers. The foundation of the American vegetable industry seems to have

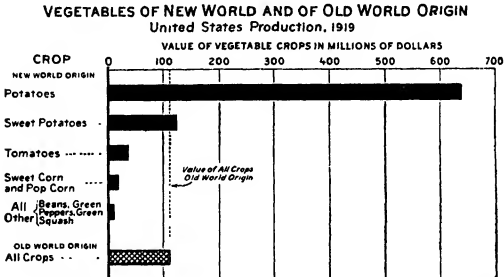


FIG. 6.—Comparison in farm value of vegetables of Old World and New World origin

consisted of the knowledge brought over by Old World gardeners supplemented by that obtained from the Indians. Old World species, together with those grown by the Indians, were the materials from which the structure of the industry was built. The graph shown in Figure 6 illustrates in a striking manner the relative importance of Old World and New World vegetables.

The American people of to-day are deeply indebted to those pioneers in horticulture who during the latter part of the eighteenth and the early part of the nineteenth centuries preserved and improved both the Old World and the New World types of vegetables, many of which came into general use almost immediately, others, however, requiring long introductory periods before being accepted as having real merit. It is significant that the vegetables grown and used by the Indians were readily accepted as food crops by the early settlers whereas those that were later introduced, or which were not being used by the Indians, required a longer period for their adoption. For example, beans and corn came into almost immediate

popularity, while tomatoes and potatoes, both of which are of South American origin, were introduced into Europe where they became popular and later brought to North America from Europe.

Early development of the vegetable industry in America was, for the most part, in the vicinity of the main population centers, such as Boston, New York, Rochester, and Philadelphia. Here also were located the first seed firms, including M'Mahon, Buist, Landreth, Thorburn, Vick, and others. It is to these seedsmen that we are indebted for most of the earlier cultural information. In fact, it is only during comparatively recent years that standard American works on vegetable gardening, written by persons not connected with the seed trade, have been published and even these are based largely upon the information supplied by the seedsmen as a stimulus to the sale of seeds.

Many of our present American varieties are the products of work performed by amateur horticulturists and botanists who used both the Old World and New World species in the creation of these newer varieties. Comparatively few of the more important varieties of vegetables have been originated by the seed trade. However, the seedsmen have been the important factor in the introduction and dissemination of these varieties. In a few instances the originator of a variety has been the introducer and to a certain degree has become a growerdealer of that and closely related varieties. Practical vegetable growers, during recent years, have originated many of our most important varieties of vegetables.

Vegetables of American origin, especially the potato and tomato, have become an important factor in the world's agriculture, while certain of those of Old World origin now form the basis of some of our largest vegetable production, transportation, and manufacturing enterprises. Although the potato has undoubtedly contributed more to the general well-being of the world's inhabitants it would be unfair to the credit of numerous vegetables of Old World origin to fail to call attention to their great economic importance. It is unfortunate indeed that a more detailed and connected account of the early development of the vegetable industry as a whole in America is not available. The early history of the individual vegetable crops, especially those of Old World origin, is reasonably clear in most instances. The record varies in character, however, to such an extent as to render it impracticable to consider it under a general sketch, therefore, further reference to the history of the vegetables will be left for consideration under the individual crops.

• • RELATION OF THE FRUIT • • • AND VEGETABLE INDUSTRY • TO OTHER FARM ENTERPRISES



By L. C. CORBET and W. R. BEATTIE, *Bureau of Plant Industry*, and H. R. TOLLEY, *Bureau of Agricultural Economics*

COMMERCIAL FRUIT GROWING is concentrated in the few regions naturally best adapted to the several kinds and having adequate market and transportation facilities, whereas fruit growing for home use is limited only by the desire of the grower and the physical environment. Commercial fruit production has developed in two general ways, either out of other farm enterprises by a gradual readjustment as has taken place in certain sections in New York, Virginia, Michigan, and the Carolinas, or as an independent reclamation activity where lands not previously used for agricultural purposes have been cleared and immediately planted to orchards or have been reclaimed through irrigation and immediately devoted to orchard enterprises.

Where commercial fruit production has displaced other farm enterprises the transition has been rather gradual as one farmer after another, finding fruit growing more profitable than other agricultural enterprises, has gradually extended his area in fruit. Other farmers in the region have gradually followed until the dominant enterprise of the community has become fruit growing rather than general or special agricultural production. In such regions fruit growing as an enterprise is found in all stages of development and associated with various other farming enterprises according to the secondary adaptabilities of the region and the choice of the farmer. In some regions the transition has been from general cereal production to fruit growing, whereas in other regions the change has been from dairying, stock raising, or stock feeding to fruit depending upon the adaptabilities of the region, transportation facilities, markets, and other limiting factors.

The same general plan of procedure has characterized the development of the commercial vegetable industry. In the beginning market gardeners developed a seasonal production to meet the requirements of the local market. With the development of transportation and the growth of city populations, special markets which

would absorb large quantities of particular crops covering a long period led to the development of regional crop areas and the extensive planting of special crops to meet the seasonal requirements of the markets. This extensive planting of special crops in certain localities led to car-lot shipments and the rise of what we now term the "trucking industry." Such areas naturally develop on a regional basis along lines of transportation which provide facilities for moving the crops in season. With truck crops the location of the producing areas, in addition to being arranged along suitable arteries of commerce, is geographically located to provide supplies of particular crops during a certain period each year—as, for example, the production of early potatoes in the United States begins in Florida and progresses, with the season up the Atlantic coast until the fall harvest of the late crop of potatoes is completed in New York and the New England States. By taking advantage of the progress of the seasons and the possibility of storing the crop, a 12-month's supply of potatoes is provided for.

Vegetables as Special Crops

In addition to this special seasonal and geographic development of crop production there is another type of vegetable production which is usually a corollary to various types of general farming. This production is primarily intended to meet the requirements for special crops, such as potatoes, cabbage, carrots, squash, turnips, celery, etc., which are required in vast quantities and which are either stored or manufactured to provide a long season supply. Many of these special crops are in the aggregate grown on a very large scale. So far as the individual grower is concerned, he plants a relatively small acreage, but the fact that these special crops are handled by a large number of growers provides the country with the necessary quantity.

The cabbage production of New York, Wisconsin, and Colorado is chiefly handled on a special-crop basis. The so-called "canning crops," including peas, beans, tomatoes, corn, etc., belong to this type of special farm crop which is grown in connection with general farm enterprises but constitute a considerable portion of the cash return from the farm. In many instances a single crop, such as cabbage, corn, potatoes, onions, or carrots, is grown. In other instances, the farm-cropping system may be made up almost entirely of a number of these special crops so chosen with reference to labor requirements that they do not interfere or cause an overburden of labor at any one season.

One of the important features that must be taken into consideration by all those who include special crops in their agricultural enterprise is to choose those crops which, so far as time and the character of labor required are concerned, do not demand maximum attention at a given time but follow in sequence of time so that the peak labor-load for one crop does not overlap that of another. As labor is frequently the major cost in the production and handling of both fruit and vegetable crops, it is imperative that the cropping system in any agricultural enterprise be made up of crops which dovetail together in such a way as to develop a fairly uniform labor requirement

throughout the growing season, and if possible, throughout the 12 months of the year.

In most areas outside the irrigated and citrus areas the amount of land suitable for setting to fruit is limited in extent by soil, topography, and location. It is further limited by the contingencies of ownership, the larger the holding the smaller the percentage of total available land likely to be found in fruit.

Determining the Size of Orchards

The size of a man's orchard depends somewhat on his capacity, his labor supply, and his other interests. The size of the orchard tends to run in units of the number of acres one man can care for outside of picking time. Where the size of the orchard is not sufficient to employ the available labor economically or where other land must be used to the best possible advantage, crop and livestock enterprises are engaged in up to the point of interference with orchard work.

The organization of the individual farm as a business unit presents many problems, the proper solution of which may largely determine the economic and civic status of the owner and all that that implies with respect to his personal welfare and that of his family. These problems of farm organization are more or less complicated, depending on the type of farming that is to be followed. The general farm with a few staple crops which are not exacting with respect to when they must be given cultural and other attention is a comparatively simple business unit. But when the more highly specialized crops are grown and the type of farming becomes intensive as contrasted with general enterprises the situation becomes complicated—increasingly so as the number of specialized crops or other enterprises on the individual farm are multiplied.

No special combination of enterprises can be recommended as each agricultural enterprise, and each environment must be taken into consideration in connection with its market and other opportunities in working out and developing the most satisfactory group of crops to use to accomplish the utilization of the time of those employed in the enterprise as well as to produce the most profit from the use of the land and the expenditure of labor.

Agricultural enterprises which are based upon a combination of several crops are, as a rule, more dependable from a financial standpoint, than those based upon a single crop. In the older and more thickly settled portions of the United States where large centers of population are comparatively numerous, and as consequence extensive local markets have developed, agriculture has become more diversified and each farm enterprise is made up of a larger number of crop activities than is the case in those regions where general farming predominates. The New England States, New York, New Jersey, Delaware, and eastern Pennsylvania, comprise a territory carrying the largest urban population of the country. As a result, general farming and cereal production have largely given way to complicated farm enterprises in which dairying, poultry-raising, the production of special crops such as cabbage, onions, potatoes,

sweet potatoes, small fruits, and orchard fruits in various combinations have become dominant.

Within the span of a lifetime this territory, a portion of which was once considered the "granary of the Nation," has long since lost its prestige as a wheat and cereal growing territory and is now given over to the quantity production of apples, peaches, strawberries, canning crops, special vegetable crops, and to the dairy and poultry industries, the production of wheat and beef having moved to the extensive farming areas of the States farther west. Every agricultural region is undergoing important and often radical readjustment of its enterprises to better meet the needs of a shifting population and changing food requirements, as the country becomes less rural and more urban.

Distribution of the Farm Income

Farm income is a question of major importance in determining crop combinations in any farm enterprise. The relationship between the gross income and the net income is also of primary importance. In addition, the distribution of income throughout the year is often important from the standpoint of financing the enterprise. Fruit growing is characterized by having its gross income confined to a relatively short period of the year. This may often be supplemented by the production of vegetables, the period of income of which is more generally distributed in combinations of fruit or vegetable growing with dairying. The income from the fruit may be used to meet the major obligations while that from the vegetable and the dairying are used to carry current expenses. In a survey of 178 fruit farms in Niagara County, N. Y., in 1920, the average farm income was \$1,558. After allowing for deterioration, interest, and wages for farm work done by the members of the family the farmer could count upon \$301 as cash wages for himself in addition to the food, fuel, etc., for the family. In the study of the New York fruit farms the farm living is distributed between the fruits, general crops, livestock, etc. The most important sources of income, however, are apples and peaches. Some wheat, truck crops, milk, and hogs were sold from these farms. In all cases the farmer obtained food, fuel, and other perquisites from his own farm.

Another factor that must be taken into consideration is the amount of care and labor of an exacting nature that must be given the various enterprises. Fruit growing in general requires special care whereas certain of the vegetables especially cabbage and potatoes, can be handled in the same manner as general farm crops requiring less skill in their cultivation and being less exacting as to the time that they are given attention. On the other hand the spraying of apples must be done not only on the day but almost on the hour in order to get maximum results. Points of this character must be considered in the planning of any combination especially where the fruits are included.

Soil Fertility

One of the most important economic factors in establishing relationships between fruit and vegetable growing with other lines of

agriculture is the problem of maintaining soil fertility. Two methods of meeting this problem are being followed by the fruit and vegetable producers of the country. In the case of fruit-growing reliance is largely being placed upon nitrates and other commercial fertilizers in combination with orchard cover crops of a soil-improving nature. With the vegetable grower the problem is more complicated; for with the diminishing supply of animal manures he has been compelled to turn more largely to other sources of plant food or readjust his operations so as to provide means for maintaining natural soil fertility. For this reason both fruit and vegetable growers have in many instances readjusted their operations to include livestock and farm crops in conjunction with fruit and vegetable production in order to provide a balanced system of soil fertility maintenance. In cases where livestock can not be included in the system, the problem resolves itself into one of a rotation of crops including those adding a maximum of organic matter to the soil. By supplementing the soil-building crops with mineral plant foods it is possible to maintain reasonable soil fertility without very great interruption in the production of marketable crops. Alfalfa has been used extensively in the orchards of the Northwestern States as a source of both nitrogen and organic matter. Cowpeas, soy beans, crimson clover, rye, and vetch have been the important orchard cover crops for the eastern sections.

There is one outstanding point to be taken into consideration in connection with the use of any crop in an orchard and that is the relation of the cover crop to the moisture supply of the trees in order that the trees may not be robbed of the necessary moisture at critical periods. In sections where irrigation is practiced this objection is not so important but should be given attention in planning any system which has for its object the maintenance of soil fertility.

In order that a satisfactory combination of stock or general farming may be made with fruit or vegetable growing it is essential that not more than 40 per cent of the available land be devoted to either fruits or vegetables. In most cases the ratio should not exceed 25 per cent and in the case of vegetables should be based on a definite rotation covering a period of four or five years. With orchard fruits a plan for definite rotation is not possible, except during the early development of the orchard. The vegetable crops that adapt themselves to best advantage in rotation where the matter of maintaining soil fertility is the main consideration are sweet potatoes in the South, and in other sections beans, peas, potatoes, tomatoes, and strawberries, all of which may be highly fertilized to the double advantage of both the truck crop and the orchard. In conjunction with these there should be planted the various summer and winter cover crops to occupy the ground at all seasons of the year and prevent the loss of soil fertility through washing and leaching.

The Distribution of Labor

Maintaining proper labor distribution where fruit and vegetable growing is combined with other farm enterprises perhaps presents the most serious factor in the organization. Where two or more

crops require the attention of the full farm force at the same time, it is obvious that at least one of them will suffer. If, for example, a farmer whose chief interest is corn growing has also an orchard or a vegetable crop and the corn requires his attention at the same time that the trees need spraying or the truck crop needs cultivation the conflict is serious. As already noted the operations in fruit growing such as spraying must be done with very close regard as to dates depending upon the progression of the season. But the corn grower or the potato grower, as the case may be, is likely to reason that the trees will still remain in condition for spraying after the corn or potatoes have been given attention. On farms where dairying is the primary enterprise with fruit or vegetable growing secondary the case is somewhat different, for the reason that the work in the dairy is more or less regular, the exceptions being the times when feed crops must be handled. For this reason a better arrangement of labor can often be made on dairy farms than on farms devoted to general crops.

Again, a farmer who is chiefly a fruit grower must consider conflicts within the possible range of the different fruits that he may grow. Perhaps strawberries, inherently adapted to the region, may be quite impracticable on a fruit farm which is extensively devoted to apples or peaches because of spraying or other orchard requirements during the harvesting of the strawberries. Summer apples and peaches are liable to conflict during the harvesting and handling of the fruit unless the varieties grown are carefully selected as to their sequence of ripening. There is, therefore, this problem of crop adjustment with respect to the labor requirement. To such an extent does this problem project itself into fruit growing that many of the large fruit growers practically disregard other crop production even to the extent of buying the greater part of the feed required for the teams used in orchard work.

The number of specialized fruit-growing enterprises has greatly increased during the past 20 or 25 years. Specialization in fruit production may be questioned from the standpoint of the most effective use of labor and of power. In many cases such highly specialized activity has not proved fundamentally sound or economic. This, however, is doubtless a matter largely of local conditions dependent upon the availability of extra labor as it is required, and the organization of the secondary farm enterprise and other factors that are incidental rather than fundamental. The discussion here is directed mainly to pointing out certain facts that are readily obvious from even casual observation. These studies are based on three different groups. In Group 1 with less than 25% of the receipts from apples the extra labor required during the harvesting period was comparatively small. It was somewhat larger in Group 2 but in Group 3, where over 75 per cent of the income was from apples, there was required almost as many months of extra labor at harvesting time as of regular labor throughout the year. In the study made in New York the requirement for extra labor during the harvesting period was relatively small. Similar comparisons can be made for the majority of the vegetable crops, the peak labor requirement usually occurring during the harvesting period.

Selecting the Farm Enterprises

In deciding on the enterprises that shall comprise any farm unit the individual grower obviously must be guided to some extent by personal preferences, also by many factors that are local in their relationships. If fruit growing is the main enterprise, the other activities must be regulated according to the requirements of the fruit interests. Among the combinations with fruit that have been found desirable under many different conditions are dairying, stock raising of some kind, poultry raising, and vegetable growing. Not infrequently these two types of horticulture—fruit and vegetable growing—work out together very nicely. Moreover many nurserymen are also extensive fruit growers. Dairying or stock raising have an advantage over any other side lines in that barnyard manure, ordinarily difficult to obtain by purchase but of great value in fruit growing, is thus provided by the grower himself. Some fruit growers are so situated that they feed considerable numbers of beef cattle during the winter, buying the stock in the fall and selling in the spring. This may be done where it is possible for the grower to produce the necessary roughage—corn fodder and hay, perhaps alfalfa or other feed—during the summer months.

On the whole the economic aspects of fruit and vegetable production in relation to other lines of farming in the United States have not been given the consideration they deserve. Many failures in fruit growing have resulted from the neglect on the part of the promoters to take into consideration the economic relationships involved. Not only must the physical and environmental conditions be adapted to the various phases of the enterprise but the proper relationship must exist as regards the capital and labor requirements. The motorizing of power and transportation on fruit, vegetable, and dairy farms has not only increased the man power on these farms but also greatly changed the economic relationships. Further economy of labor is being obtained through the standardization of production and marketing. The elimination of all but the more important varieties of fruits and vegetables, is also a decided step in the establishment of a more systematic economic relationship on farms where two or more enterprises are combined.

NUTRITIVE VALUE OF FRUITS, VEGETABLES, AND NUTS



By CAROLINE L. HUNT, *Associate Specialist in Foods and Nutrition, Bureau of Home Economics*

FOODS ARE PRODUCED to be eaten and in the last analysis the question as to whether or not a food should be raised, and in what quantities, depends on how it fits into the wholesome and palatable diet. The human body has need of many substances and no one food provides them all. The human palate, too, makes its demands, and it seeks variety of flavor and also differences of texture, to use a term borrowed from the field of textile fabrics. The various flavors—bland, sweet, spicy, acid, savory—must be not only pleasant in themselves, but also well blended or skillfully contrasted. In the meal that satisfies the taste, there is usually a background of comparatively mild-flavored foods, such as bread, butter, cereals, and milk, and against this background and offset by it the savoriness of meat or vegetables or the mild acidity of fruits. There is also a variety of textures, including the richness of fats, the starchiness of cereals, the crispness of salad vegetables, or the succulence of fresh fruits.

It is misleading, therefore, when the subject of the adequate diet is under discussion to consider any one food or class of food materials by itself and out of relation to others. And when many foods of many kinds and many compositions are considered the question of how they all go together from the standpoint of taste as well as from that of body building and health must always be kept in mind. There unfortunately is, or has been in the past, a tendency on the part of students of nutrition to underestimate the importance of palatability, individual preferences, and family customs. This has retarded a very much needed reform, which, if accomplished, would substitute for the more or less hit-or-miss method of selecting foods now in practice, a systematic plan based on the needs of the human body and consequently on the reasonable demands of trade.

The subject of this chapter is the nutritive value of fruits, vegetables, and nuts, foods which differ so widely among themselves that

it is difficult to consider them under one head. In fact, classifications of food materials made by producers and distributors are seldom useful to consumers who must of course consider foods in their relation to the needs of the body. For illustration, milk, cheese, and butter are often grouped together and called dairy products, but from the standpoint of nutrition, milk and cheese are efficient protein foods, whereas butter serves entirely different purposes.

The Make-up of Meals

The process of classifying and grouping products in accordance with the needs and demands of consumers for the purpose of directing production and reducing waste has been slow, partly no doubt because many foods are of complex composition and may be used for many purposes. Delay has been due partly, also, to confusion between the demands of the palate which often determine the make up of meals, and the real needs of the body. This conflict is not, to be sure, so great as it often seems for many food customs have probably been formed in response to instinctive requirements of the body. For example, in the early days of this country people went to considerable trouble to gather wild herbs and greens of various kinds, but not until very recently was it known that these foods provide an important dietary principle necessary for health. In the light of recent studies on the nature of protein it seems probable, too, that the very common custom of serving a small quantity of meat with beans may represent an instinctive effort to make the dish satisfactory in the matter of the quality as well as the quantity of protein it provides.

In a less fertile and prosperous country the instinctive demands of the human body might finally have led to the custom of satisfying body needs by means of simple, palatable meals in which each requirement of the body was satisfied by one or at most two foods. As a matter of fact, it is not in the least unusual for a meal to provide several animal protein foods—meat, milk, and eggs, perhaps; several starchy foods such as bread, macaroni, and potatoes; and several fat foods—butter, cream, and bacon. This custom often involves waste not only of materials but also of the housekeeper's time and energy, but the tide is turning. As the result of cooperation among physiologists, food chemists, students of home economics, practical dietitians, and home makers, there is coming to be a demand for the production of foods in the proportion in which they are really needed. This program must proceed of course from a classification of food materials in accordance with the demands of health and taste.

Taste demands a certain proportion between starch, sugar, and fat in a meal. If starch is present in excess, the food is likely to be dry and tasteless unless condiments are used to an undesirable extent. An undue proportion of sugar and fat characteristic of the so-called "rich" foods or meals soon palls on the appetite. It happens that in vegetables as a class, as in cereals, the largest though not the most important ingredient is starch. In fruits as a class, as in sirups, honey, and candy, the largest ingredient is sugar. In most nuts, as in cream, bacon, and chocolate, the predominating

nutrient is fat. Good meal planning, therefore, suggests that vegetables be considered in connection with the other chief sources of starch, the cereals; that fruits be considered with sweets; and nuts in connection with other fat-carrying materials used to enrich our meals.

In seeking a proper balance between cereals and vegetables, sweets and fruits, nuts and other fat foods, many points including cost, time needed for preparation, flavor, texture, and nutritive value must be taken into consideration.

Needs of the Body

It is apart from the purpose of this chapter to discuss in detail the subject of nutrition and dietetics. Important researches are being carried on and new facts may be discovered at any time. The best that can be done is to enumerate the various foods required by the body and to indicate the trend of investigations. The requirements of the body besides those that come under the head of taste are protein which must be of the right kind and of sufficient quantity; mineral substances, calcium, phosphorus, iron, and others; certain dietary essentials usually called vitamins; and bulk.

The Need for Fuel

Of all the needs of the body that for fuel and energy is best understood in its quantitative relations. The fuel value of all common food materials has been determined and the needs of individuals of different ages and occupations are known. The average adult requires about 2,700 calories per day and the average or census family, which is supposed to consist of father, mother, and three young children, from 10,000 to 12,000 calories a day. From these facts it is possible to estimate somewhat closely the calorie requirements of the Nation and, in fact, of the world.

Fresh fruits and vegetables are of low fuel value, a fact which at first thought seems to be against them. In reality the low fuel value of fruits and vegetables constitutes a very great advantage and an almost unanswerable argument for their greater use. The fuel value of fresh vegetables varies from less than 100 calories per pound in the case of such foods as lettuce and cucumbers, to about 450 in the case of sweet potatoes, shelled peas, and sweet corn cut from the cob. The fuel value of fruit varies from about 60 in the edible portion of melons to about 350 in bananas and plums. In the Bureau of Home Economics it has been estimated that in the long run, when, for example, the food supply for a family for a week or a longer period is under consideration, it is safe to count on about 240 calories per pound from fresh fruits and vegetables in the variety in which they are used in most families and in the form in which they are usually purchased. Cereals, on the other hand, average about 1,600 calories per pound. The fuel value of sugar is 1,800, of butter 3,400, and of fats like oil and refined lard, over 4,000. A glance at these figures will show what most people know by experience that in the allowance of 2,700 calories, a person can easily eat 2 or 3 pounds of fresh fruits and vegetables and still leave a large margin for other needed materials. The only common food materials that can be used

in quantities comparable with fresh fruits and vegetables is milk which has a fuel value of about 300 calories per pound.

It follows from these facts that so far as human capacity for food is concerned, it is possible to use the fruits and vegetables either in very small or in very large quantities. For example, it is quite a common occurrence for people to double or even treble their allowance of these foods without inconvenience. A correspondingly great change in the quantity of cereals, fats, sweets, or meats would, of course, be entirely out of the question. It follows also that if any particular fruit or vegetable is proved to be an important source of some very essential nutrient, iron for example, or vitamins, it is possible to increase the daily allowance of that food almost indefinitely. Low fuel value or succulence may therefore under some circumstances be considered an advantage, for it makes a food or group of foods adjustable to special needs.

Protein

A second requirement of the body is that for protein which furnishes materials that are constantly needed by the tissues. Protein requirements can not be stated except within wide limits, for the various foods in common use differ not only in quantity but also in the kind of protein they furnish, and the proteins of some foods serve far more efficiently than others. It is generally estimated that at least 10 per cent of the total fuel of the diet should be furnished by protein and that more than 13 per cent is never really needed even when most of the proteins are inefficient. These percentages correspond with allowances of from 75 to 90 grams in the 3,000-calorie, or as it is usually called, the per-man-per-day ration, and to from 68 to 82 grams in the daily diet of the average adult.

Fresh fruits and vegetables are often considered mere accessories to the diet. Even those who appreciate their importance as sources of vitamins and minerals seldom realize their value as protein foods. Studies of family food supplies made or analyzed by the Bureau of Home Economics show that nearly half of the total protein is usually supplied by animal foods, such as meat and other flesh foods, milk, cheese, and eggs, and that by far the greater part of the remainder is furnished by bread and other cereal foods. Even in farm families the total protein supplied by fresh vegetables and cereals seldom exceeds 20 per cent of the total.

There is nothing in the composition of vegetables, even when they are fresh, to prevent them from being depended upon for a considerable portion of the needed protein. On page 137 there is a table showing among other things the percentage of protein calories to total calories in 20 familiar vegetables, including potatoes, roots, greens, and also succulent salad vegetables such as radishes and cucumbers. The average percentage of protein calories in these vegetables is 17, which is considerably higher than the requirement of the diet as a whole. It is true that such vegetables are seldom used in equal proportions. Potatoes with their 11 per cent of protein calories often exceed all other vegetables put together, but even under these circumstances the percentage of protein calories in the vegetables of a family food supply seldom falls below 13, which is

slightly higher than the average of protein calories in bread and other cereal foods.

For some purposes the amount of protein per pound is more illuminating than the percentage of protein calories. In the edible portion of the 20 vegetables mentioned the average quantity of protein is about 10 grams to the pound, as the table shows. Even when potatoes are used in larger proportions than other vegetables, the protein seldom falls below 8 grams to the pound. These figures are significant in view of the fact that few people need more than 70 grams of protein a day.

What has been said about the possible usefulness of vegetables as a means of introducing protein into the diet applies, of course, to the vegetables themselves, and not to these foods as they often appear on the table combined with more or less fat or with rich sauces. Those who wish to increase the use of vegetables as sources of protein or for that matter of vitamins, bulk, or minerals, should give careful consideration to the form in which they are served. Raw vegetables, such as celery, lettuce, and cucumbers, can be eaten alone or with just the addition of salt, whereas others such as carrots that are usually cooked can be eaten raw, particularly if they are young and tender. In general, simple methods of cooking and serving are best.

TABLE 1.—Protein in the edible portion of vegetables

| | Fuel value per pound | Protein per pound | Number of protein calories per pound | Percentage of protein calories to total calories |
|----------------------|----------------------|-------------------|--------------------------------------|--|
| | Calories | Grams | | |
| Asparagus..... | 165 | 8.2 | 33 | 32 |
| Beans, string..... | 193 | 10.4 | 42 | 22 |
| Beans, Lima..... | 575 | 32.1 | 128 | 22 |
| Beets..... | 215 | 7.3 | 29 | 14 |
| Cabbage..... | 145 | 7.3 | 29 | 20 |
| Carrots..... | 205 | 5.9 | 20 | 10 |
| Cauliflower..... | 140 | 8.2 | 33 | 10 |
| Celery..... | 85 | 5.0 | 20 | 23 |
| Corn..... | 470 | 14.1 | 56 | 12 |
| Cucumbers..... | 80 | 3.6 | 14 | 19 |
| Lettuce..... | 90 | 5.4 | 22 | 26 |
| Onions..... | 225 | 7.3 | 29 | 8 |
| Paranips..... | 300 | 7.3 | 29 | 10 |
| Peas..... | 465 | 34.7 | 139 | 28 |
| Potatoes..... | 355 | 10.0 | 40 | 11 |
| Potatoes, sweet..... | 570 | 8.2 | 33 | 6 |
| Radishes..... | 135 | 5.9 | 24 | 18 |
| Spinach..... | 110 | 9.6 | 38 | 12 |
| Tomatoes..... | 105 | 4.1 | 16 | 16 |
| Turnips..... | 185 | 5.9 | 24 | 13 |
| Average..... | 239 | 9.8 | 40 | 17 |

Dried vegetables, particularly legumes, are recognized as sources of protein and every community has its characteristic form. Baked pork and beans is a favorite dish of the older portions of the Northern States. Cowpeas boiled with meat are a staple food in many parts of the South, and highly spiced combinations of pinto beans or frijoles, such as chili con carni, are used where Spanish or Mexican influence has been felt. In dried beans the protein calories seldom represent less than 23 per cent of the total calories, which means that the protein is seldom less than 104 grams per pound.

Vegetables Lack Efficient Protein

It is true that none of the vegetables mentioned supply that form of protein which is considered complete or efficient. All lack certain constituents needed to make body protein, and for this reason must, as a rule, be supplemented by animal protein foods. The one vegetable food that supplies complete protein is the soy bean. The peanut, which in spite of its name is not a nut but a legume, is now believed to furnish protein which falls short of completeness only through the lack of certain substances that are found in the protein of wheat, and since wheat in one form or another is seldom absent from the American table, the peanut, like the soy bean, may be thought of as a protein food interchangeable in the diet of grown people with meat, milk, and eggs.

Because of the character of their protein, peanuts and soy beans hold unique positions among vegetable foods. In a sense, too, they are exceptional legumes, for, unlike beans, peas, cowpeas, and lentils, they are fatty and not starchy. In soy beans, the weight of the fat is half as great as that of the protein and in peanuts it is 50 per cent greater in quantity. Therefore, soy beans correspond roughly in fatness with the leaner cuts of beef, such as the round, and peanuts with medium-fat cuts such as the loin. It follows from this that it is not necessary to use much, if any, fat in the preparation of these foods for the table, as it is in the case of the starchy legumes. Soy beans, like most other fatty foods, taste best if eaten with acids of some kind, and tomato juice is often used in their preparation. The same principles apply to peanut combinations. Butter in the preparation of peanut sandwiches is superfluous so far as richness is concerned, and serves to reduce their percentage of protein and therefore their value as protein foods. It is better from this standpoint, as well as from that of taste, to mix the peanuts with a highly-seasoned tomato sauce such as that known as chili sauce.

Peanut-butter soup is a substantial and economical dish similar in nutritive value to the bean and pea puree that were important articles of diet in the early days of this country, and still remain popular. Unlike these soups it can be very quickly prepared, for it is necessary only to dilute the peanut butter with water or tomato juice and to flavor it. If water is used, lemon juice may be added to give zest. Because of the ease and quickness with which it may be prepared, peanut-butter soup is a convenient emergency dish which is to be recommended for use not only in households, but also in the many recreation camps that are springing up all over the country.

Fruits and nuts are not so valuable as vegetables for providing protein. In fruit the percentage of protein calories is about 6 and in nuts about 8. The special uses of these two groups of foods are considered later.

Potential Bulk or Volume

Fruits and vegetables always tend to give bulk to the food residue as it passes through the body. If fresh or undried, they are themselves bulky. A 100-calorie serving of potato is about 5 ounces; of bread, 1½ ounces. A 100-calorie serving of orange is about 7 ounces

(the edible portion of a good-sized orange); of sugar, less than 1 ounce. There is also a tendency for these foods to retain their bulk as they pass through the body, for they contain cellulose which is not as a rule digested or absorbed and which tends to hold and even to take up water. Dried fruits and vegetables, though not bulky as purchased, absorb water during preparation for the table and approach in bulk the fresh product.

A certain minimum volume in the food residue of normal healthy people is needed as a means of preventing constipation and for the maintenance of this volume fruits and vegetables are almost indispensable. It is true that whole-grain cereal foods and bran give bulk and that when fruits and vegetables are not obtainable in abundance can be depended on for this purpose. But when some whole-grain cereals and some refined cereals are eaten and in addition fruits and vegetables are used freely and in variety, the diet is to the taste of most people far more attractive. It should be remembered, too, that some of the more delicately flavored fruits and vegetables, such as fresh berries and peas, taste better with white bread or other refined cereal foods than when eaten with coarse cereals which have a more pronounced flavor. In the ideal diet, therefore, in which taste as well as physical well-being is taken into consideration, it is well to throw the responsibility for bulk largely on the fruits and vegetables.

What has been said about fruits and vegetables as a means of giving volume must not be taken as desirable in all cases of constipation. Chronic constipation is usually due to some form of disease and calls for expert medical attention. In some cases bulky foods do more harm than good. No advice given by a layman is, therefore, to be considered safe.

Alkaline Reserve

The tissues of the body are alkaline and health demands the maintenance of what is usually called an alkaline reserve. Eggs, meats, and flesh foods in general tend to reduce this reserve; milk, fruits, and vegetables increase it; cereals have little effect one way or the other. Fortunately, the body has power to maintain its alkaline reserve even if the tendency of the food is to reduce it. Most authorities believe, however, that it is best not to depend too much upon this power of the body, but to maintain the balance between the acid-making and alkaline-making foods. This means that when meat and eggs are used as the chief source of animal protein, vegetables are needed to offset their acid-forming tendencies, a function which bread and other cereals can not perform. The exact proportions in which meat and vegetables should be used can not be stated, but it is well to be on the safe side and use fruits and vegetables in abundance.

Mineral Substances

Many foods other than fruits and vegetables provide minerals, some being very rich in them. Fruits and vegetables may, however, be considered absolutely necessary for the purpose of keeping up the required supply of mineral substances. It has long been considered probable by experts in nutrition that this was the case, and

statistics gathered by the Bureau of Home Economics seem to remove all doubt, for they show a definite relationship between failures to use fruits and vegetables freely and deficiencies in minerals in the diet. It appears, however, from these statistics that the reasons for this relationship are seldom correctly stated. It is often said, for example, that fruits and vegetables are richer in minerals than are other food materials. A statement of this kind which concerns a large number of foods differing greatly among themselves is hardly worth taking seriously, and yet it is so often made that it may be worth while to point out a few of its weak points. Milk and cheese are more useful in supplying calcium than are any of the vegetables. They can in fact easily be used in such quantities as to completely satisfy the need for this element. Lean and medium fat meats and eggs compare very favorably with many of the fruits and vegetables as sources of iron, and whole-grain cereals and many animal foods are important as sources of phosphorus.

It is often said, too, that the required quantities of the mineral substances of various kinds can not be obtained without the use of fruits and vegetables. This statement is also in error. It would be quite possible to use milk, cheese, eggs, flesh foods, and whole-grain cereals in such proportions and quantities as to supply all needed minerals, but this does not represent prevailing food preferences and habits. The fact is that most people eat a certain quantity of sugar and of butter or other fats, foods which add greatly to fuel value without contributing anything to the needed minerals. It is, therefore, with a combination of foods including not only cereals, milk, eggs, and meat, but also the fat and sugar usually eaten with them that the fruits and vegetables are to be compared. This combination of foods varies greatly, of course, with food habits, but it is safe to say of it in general that its percentages of calcium, phosphorus, and iron are all lower than required in the diet as a whole and that they can always be raised to the needed quantity by the use of fruits and vegetables properly selected and prepared.

It is estimated in the Bureau of Home Economics that when fruits and vegetables are used in variety and in quantities sufficient to provide 20 per cent of the fuel, corresponding with 600 calories out of the 3,000 needed per man per day, none of the minerals are likely to fall below the required quantity unless the remainder of the diet is one-sided to an unusual degree. This corresponds with at least five 100-calorie portions a day in the case of the average adult and at least eighteen 100-calorie portions in the case of the typical family consisting of a man, a woman, and three young children. This allowance represents the quantity of fruits and vegetables themselves and does not include any butter, sugar, or sauces that are added. It presupposes, too, that the food supply as a whole has been wisely chosen and that mineral-saving methods of cooking are employed.

The number of 100-calorie portions per pound is given in other publications of the department.¹ It will be sufficient here to give the value of average helpings of a few varieties. A potato of average size (about 5 ounces), 100 calories; a sweet potato (small), 100 calories; apple (large), 100 calories; one-half grapefruit, 100 calories; strawberries, one-half pint, 50 calories; asparagus, a large

¹ U. S. Dept. Agr. Farmers' Bulletin 1313, "Good Proportions in the Diet."

serving (one-quarter pound), 25 calories; lettuce, four leaves (about 2 ounces), 10 calories; cooked spinach, one-half cupful, 20 calories; peas, shelled, one-half cupful, 70 calories; tomatoes, stewed, one-half cupful, 25 calories.

It follows from what has been said that the quantity of various minerals may greatly exceed the actual need. Fortunately, there is no danger from this source. In the diet of those who get most of their efficient protein from milk or cheese, calcium often far exceeds the quantity needed without that obtained from fruits and vegetables. This is often the case in the diets of children who take the quantity of milk now considered necessary; in the diets of grown people who prefer milk and cheese to eggs and flesh foods; and in the food supplies of households in which, for the sake of the children, a large quantity of milk is used for general cooking purposes. On the other hand, in the diet of persons who prefer meat and eggs to milk and cheese and who use whole-grain cereals chiefly, the use of the allowance of fruits and vegetables recommended may have the effect of introducing a 50 per cent margin of safety in the case of iron. This last-mentioned fact may be of interest in connection with disease. There is no reason to suppose that lack of iron alone is the cause of anemia, but one of the recognized factors in correcting this abnormal condition is an excess of iron in the food. In procuring such an excess, fruits and vegetables are important because if properly prepared they serve to tempt the appetite.

Far larger quantities of fruits and vegetables than those which make up the allowance recommended as a general guide can, of course, be safely used. Special cases which call for larger quantities or for special selection among the different varieties are as follows:

The greater the proportion of refined cereals to whole-grain cereals, the greater the need for fruits and vegetables. This is true of the diet of individuals and also of the food supplies of different sections of the country. In some of the Southern States little cold bread is used and the popular hot bread usually calls for refined flour. In such places fruits and vegetables are greatly needed and because of climate and soil fortunately can be easily produced in variety and abundance.

When milk or cheese forms the protein basis of the diet, special effort must be made to obtain iron from fruits and vegetables. This applies to children who under normal conditions get most of their efficient protein from milk, and also to grown people who for one reason or another depend more on milk and cheese than on meat, fish, poultry, and eggs. As a source of iron, spinach stands in a class by itself. Other green-leaf vegetables such as lettuce and dandelion greens are also important. Potatoes, though containing far less iron per pound than the vegetables mentioned, help to keep up the required amount of this element because of the quantities in which they can be used. A medium-sized potato, 5 ounces, contains about as much protein and starch as a large slice, $1\frac{1}{3}$ ounces, of Graham bread or an ounce of whole-grain cereal, but it supplies 50 per cent more iron providing, of course, it is either baked or cooked in some mineral-saving way. This is a good point to remember in feeding children.

Of the fruits, strawberries and huckleberries are richest in iron, but all fruits, particularly when they can be made to take the place of other sweets, are to be recommended. Raisins may be added to breakfast cereals or to puddings as a means of sweetening them. In general, dried fruits are most useful for sweetening purposes if they can be softened without the addition of much water. A good brand of prunes can be satisfactorily cooked as follows: Pour over them just enough cold water to cover, bring the water to the boiling point, cover closely and allow to cool. Prunes so prepared and served with lemon juice have much the quality of fresh fruit and if thoroughly chilled make a refreshing dish in which the percentage of iron to total calories is not lowered by the addition of sugar. Dates, figs, raisins, and nuts, in equal proportions by weight, and finely chopped make a good sweet which is rich not only in iron but in other minerals. The mixture can be rolled into balls, or cut into caramel-shaped pieces and dipped in sugar to reduce the stickiness of the surfaces, or it can be spread on bread. If graham bread is used such sandwiches are a good means of introducing iron into the diet.

When, as often happens in the case of adults, the protein basis of the diet consists chiefly of meat, fish, and eggs, and little milk and cheese are used, fruits and vegetables must be eaten freely or especially chosen to insure calcium. In this case there is no alternative as there is when iron or phosphorus is concerned. In the latter cases whole-grain cereals help, but such cereals are almost as poor in calcium as are the refined cereals. It is somewhat misleading to class eggs and meat in this connection, for eggs contain more calcium than meat, though far less than milk. It is the milkless and eggless diet that is most likely to fall low in calcium.

When extra calcium from vegetables is sought, beans (navy, kidney, and Lima), peas, cowpeas, and lentils, and also turnips, carrots, and parsnips are all more useful than potatoes. Baked beans, bean or pea purées, meat and bean stews, stews made with a little meat carefully browned to develop flavor and combined with large quantities of the savory root vegetables are all helpful. Richer even in lime than the vegetables mentioned are Swiss chard and cauliflower, provided, of course, they are properly cooked. Those who use little milk and cheese can bring up the percentage of calcium in the diet also by using fruit juices, particularly orange juice. Rhubarb contains more calcium than oranges but when sweetened sufficiently to taste good is not so useful.

Since milk, cheese, eggs, meat, and cereals, as well as fruits, nuts, and vegetables contain phosphorus, there is little danger that this element will be lacking. It is, however, occasionally found to be too low for health, particularly in the diet of the poor. When fruits and vegetables are lacking, it is natural to try to make meals attractive by serving rich and sweet foods, but such foods used to the exclusion of fruits and vegetables always tend to lower the phosphorus as well as the iron and the calcium. This is an argument for the use of dried fruits and vegetables when fresh ones can not be afforded and for preserving both fruits and vegetables in times of plenty for use in times of scarcity. In the absence of such foods it is quite possible to depend so much on sugar and fat as to bring even the phosphorus down below the real need.

Vitamins

This is not the place to discuss the nature of vitamins nor the question as to how many vitamins there are. Suffice it to say that the diet must regularly supply certain substances to which the name vitamins has been given. Without vitamins, development is sure to be impaired and in later life the body is likely to fall prey to certain specific ailments. Vitamins do not apparently originate to any extent in the animal body but must be obtained from plants. They are introduced into the human body either directly through the agency of vegetable foods, or indirectly through the agency of foods furnished by animals that have been fed on vitamin-rich substances.

Vitamin A, which is often called the growth-promoting vitamin, is found in all green leaves, including grass and other green feeds as well as lettuce, spinach, and other leafy plants used for human food. Having been taken into the body it tends to associate itself chiefly with the fat of the body and particularly with the fat of actively functioning organs, such as the liver and the kidneys. For this reason it is sometimes called the fat-soluble vitamin. Milk and eggs are among the most important sources of vitamin A. When milk is separated, vitamin A tends to follow the fat. It is found, therefore, more abundantly in whole milk, cream, butter, and whole-milk cheese than in buttermilk and skim-milk products. The yolk of the egg which contains 95 per cent of all the fat of the egg, also contains practically all of the vitamin A.

As stated elsewhere, the fact that people have always taken considerable trouble to get greens seems to indicate that these foods filled a need that was felt long before it was understood. Recent investigations show that the complete absence of vitamin A leads to the disease of the eyes called ophthalmia. Since few diets, particularly in this country, are wholly lacking on the foods that supply this vitamin, interest centers more on the results of its deficiency than on those of total absence. Deficiency is now believed to result in lowered resistance to infectious diseases. Considering the suffering, retarded development, and loss of time from work caused by such diseases, even in their less serious forms, it seems wise to keep on the safe side in the matter of introducing Vitamin A into the diet. For this reason those who are able to do so use not only milk and its products and eggs, but also green-leaf vegetables abundantly.

At certain times of the year edible green leaves may be found growing wild. Varieties differ with the region. In almost every part of the country the green tops of vegetables known as "fleshy" roots may be obtained. These include turnip tops, a staple green in the South, and also beet tops and radish tops. In most cases it is necessary, however, to raise vegetables for the purpose of supplying greens for the table. One of the easiest greens to raise is cabbage. The green leaves of this vegetable have a greater value than the white leaves.

Few people realize that mixed greens make a palatable dish. For example, spinach, celery leaves, and onion tops go well together. Such greens as radish and celery tops, and the outer leaves of lettuce

are seldom available in large enough quantities to make a dish by themselves, but they can be satisfactorily combined with the more usual greens like spinach and kale, thus making the total amount of the dish much larger.

The potency of vitamin A is gradually reduced by ordinary cooking processes. For this reason, methods of cooking greens and other foods containing this vitamin have been revolutionized of late. Cabbage, spinach, and similar foods should be cooked only long enough to make them tender and not enough to shrivel them. They should not be cooked with meat, for the time of cooking should be determined by the vegetable itself and not by any added material.

Vitamin B is the most widely distributed of all the vitamins. It is found in almost all foods with the exception of refined sugars and fats. It is more abundant in whole grain than in refined cereal products. The total absence of this vitamin causes a disease called beriberi, not known in this country. A deficiency results in impaired appetite and digestion.

The fact that vitamin B is not found in most sweets and fats, and is less abundant in the refined flours usually used in preparing desserts than in the whole-grain cereals may constitute one of the chief objections to overrich diets. Fat, sugar, and white flour are not in themselves harmful, but they have very high fuel values and if eaten too freely may crowd out other foods needed for vitamin B. No particular dish or class of rich dishes or desserts is to be excluded or unreservedly condemned. In general, however, it is safer to select food materials in correct proportions and to let these determine the richness of meals, than to follow the opposite practice of deciding on the character of the meals to be served and letting these determine the food materials to be chosen. Good proportions among the various kinds of food materials—efficient protein foods, cereal foods, sweets, vegetables, and fruits—are given in another publication of the department.² These are not to be taken as fixed rules but rather as guides. It is suggested in the publication referred to that fruits and vegetables be used in such quantities as to supply at least 20 per cent of the total calories and that fat and sugar not be allowed to supply over 30 per cent. If these proportions are followed it is almost necessary to adopt simple methods of preparing and serving fruits and vegetables. The effect of elaborate methods of cooking on proportions of food material is indicated by the fact that a 100-calorie portion of a creamed vegetable or of fruit shortcake or pie seldom supplies more than 20 calories of fruit or vegetable, the remaining 80 calories being in the form of butter, sugar, or flour. An undue proportion of rich dishes makes it impossible to introduce the required quantity of fruits, vegetables, and other foods necessary to supply the necessary amount of vitamin B.

Vitamin C is of special interest in connection with the subject of this chapter. It is far less widely distributed than are vitamins A and B and is found chiefly in fruits and vegetables. It is often called the antiscorbutic or antiscorvy vitamin because when it is wholly absent from the diet scurvy is almost sure to result. This dread disease like ophthalmia and beriberi is practically unknown in this

²U. S. Dept. Agr., *Farmers' Bul.* 1313; "Good Proportions in the Diet."

country and in fact is not prevalent at present in any part of the world. Its tragic history is associated with the lives of sailors who in the past were obliged to pass long periods without fruits and vegetables. It is now believed, however, as a result of animal experimentation, that bodily afflictions resembling scurvy, but not nearly so serious, can result from deficiency of vitamin C. Such afflictions in childhood may lead to imperfect development. Fortunately, this vitamin is found chiefly in foods of attractive texture such as lettuce and cress or those of very pronounced and pleasing flavors such as oranges, lemons, and tomatoes. These foods, because of their succulence and low fuel value, can be used in either large or small quantities.

Every housekeeper knows ways of serving oranges, lemons, grapefruit, and tomatoes in comparatively large quantities. Tomatoes are eaten raw, stewed, baked, fried, broiled, or scalloped and are made into sauces for use on meat, fish, boiled rice, and other dishes. Oranges are eaten as such or made into orange ice or jelly. It is well to keep in mind also, the ways in which these foods can be introduced into meals in small quantities so that the supply will be regular even if it is not large. There are few meat soups or stews or gravies that are not improved by a little tomato juice. A little orange can be introduced by folding a sliced orange into an omelet or by means of an orange "trifle," a dish consisting of custard and sliced orange in varying proportions. Orange juice can be served also as an ingredient of pudding sauces and cake fillings and icings.

Lemon juice, like pickles and catsup, may be used as a condiment and seems to go especially well with fish. To get the benefit of the juice the lemons should be used in such a way that they can be conveniently handled at the table. If they are used as an ornament or garnish they are likely to become greasy and therefore it is better to serve them on a separate dish and in such form that all their juice can be extracted and used.

As yet no chemically quantitative method has been devised for measuring the vitamin content of foods, though progress is being made in this direction. In the absence of exact information on this point it has been recommended by the Bureau of Home Economics that a certain percentage of the total fuel of the diet be regularly supplied from those foods that are known to be particularly useful in supplying vitamins.

It is well in the case of adults to see that at least one-sixth, or 16 per cent, of the total calories be selected from the foods that are rich in vitamin A—that is, milk, cream, butter, eggs, and green-leaf vegetables.

Since vitamin B is very widely distributed, and not much affected by heat, it is not so likely to be absent from the diet as either A or C. A good way to insure this vitamin is to keep the fats, the sugars, and other sweets and refined cereals within limits of approximately 40 per cent of the total calories.

Vitamin C, besides being less widely distributed than the vitamin A and B, is in most cases far more easily affected by heat. There is a conspicuous exception to this rule in the case of tomatoes. Cooked and even canned tomatoes are nearly as good a source of vitamin C as raw tomatoes. It is recommended in the Bureau of Home Eco-

nomics that from 1 to 2 per cent of the total calories of the diet be selected from foods especially rich in vitamin C. It is true that potatoes, if used in abundance, supply enough of this vitamin. The regular use, however, of such foods as tomato, lemon, and orange juices, and raw green-leaf vegetables may be considered a precautionary measure in view of the fact that the other articles of diet vary, cereals being sometimes used in place of potatoes. Since the value of vitamins is more or less reduced by cooking processes, it follows that care should be exercised in preparing as well as in selecting foods.

Saving Minerals and Vitamins

When vegetables are cut into small pieces they cook quickly and require comparatively little water to cover them. In the Bureau of Home Economics the method known as "panning" has been devised. It consists in cutting vegetables into small pieces and cooking them in a flat pan on top of the stove with a minimum of water to which a little fat has been added to prevent the vegetables from sticking to the pan. When so cooked there is a tendency for the water to evaporate and it is often unnecessary to pour any of it off. If carefully carried out, this process often makes it possible to add milk without making the cooked vegetables too moist. The finished product then contains all the minerals of the vegetables and also of the milk and is more valuable for vitamins than if the cooking had been longer continued. The perfecting of this general method as applied to particular vegetables calls for skill, but the results warrant the expenditure of thought and care on the part of those who value vegetables and wish to make the most of their health-giving properties.

Vegetable Meals

The "vegetable plate," which consists of three, four, or five different vegetables served on a large plate having several compartments, has become popular in some restaurants and dining cars. It might occasionally be used in the home to replace the more common dinner of meat and vegetables. On the home table the vegetables would usually be served from separate dishes on ordinary plates but the points that should be observed if these vegetable meals are to be made popular are everywhere the same. The ordinary dinner of meat and vegetables provides as a matter of course a considerable variety of flavors and textures. Care must be taken that the vegetable meal provides the same variety of flavors and textures as the more usual meal of vegetables and meat.

So far as flavor is concerned, a good combination is one mild flavored vegetable such as potatoes or Lima beans; one vegetable of pronounced flavor like cauliflower, cabbage, or onions; and one which is either sour itself or which like spinach or beets is ordinarily served with vinegar.

Variety in texture can be obtained by having one vegetable with a crisp crust like corn fritters or scalloped tomatoes with a layer of well-browned crumbs; a second vegetable served with white sauce, and a third simply cooked in water, as peas or string beans are

usually cooked. A raw vegetable, such as celery or radishes, lends still further variety.

The matter of protein must also be kept in mind. As a rule, one of the vegetables should either be beans or peas, which are comparatively rich in protein, or one served with some food rich in protein such as cauliflower or potatoes scalloped with cheese. Spinach with hard-boiled egg, or sweet corn pudding made with milk and eggs, would also answer this purpose. The addition of white sauce to a vegetable also increases the amount of protein.

Food Value of Nuts

Fat is by far the largest ingredient in most nuts, though there are important exceptions, such as chestnuts. Fat so far exceeds protein in the oily nuts, which include almonds, pecans, walnuts, hickory nuts, filberts, and others, that it is practically impossible for the average person under ordinary conditions of living to get sufficient protein from them without an excess of fat in the diet. Under most circumstances, it is better to consider nuts as sources of fat rather than of protein, and to use them interchangeably with other fatty foods such as butter, oils, and bacon. If instead of being recommended as sources of protein, nuts were classed as fatty foods, they would be brought into comparison with pure fats which supply no protein, minerals, or vitamins, and their advantages would be more apparent. Fat in the diet as a whole should not exceed protein by more than 50 per cent in order to suit the taste of most people. Almonds, which are one of the least fatty of the nuts, contain two and one-half times as much fat as protein, there being five or six times as much fat as protein in most other nuts.

The uses of nuts may be grouped under three heads:

1. *As food accessories.*—Nuts are often served either alone or with dried fruits as a second dessert, or in salted form between courses as appetizers. They are frequently added in small quantities to cakes, cookies, and salads. When so served they are seldom eaten in sufficient quantities to affect the mineral content of the food as a whole to a significant degree.

2. *As emergency rations.*—Nuts supply so much body fuel in so compact and so attractive a form that they are peculiarly well suited for the use of "hikers" or mountain climbers or others who are expending large amounts of energy and who wish to travel light. For such persons the large amount of fuel from fats and carbohydrates as compared with that from protein is not a disadvantage and the minerals in the nuts are a great advantage. A pound of oily nut meats supplies approximately 40 per cent of the protein needed by a man each day, 60 per cent of the phosphorus, and 30 per cent of the calcium and iron. When provision is to be made for one or two meals, nuts and dried fruits as such, are often used. In case of long trips greater variety may be wanted, and under such circumstances canned steamed puddings or fruit cakes have in the experience of travelers in this and other countries proved very useful. In making such puddings nuts can be used to supply most of the fat and dried fruits the greater part of the sugar. This gives

the dish a far greater value from the standpoint of minerals than if enriched by pure fat and sweetened with sugar.

Canned fruit and nut puddings are specially suited for the use of travelers in places where there is danger of contracting dysentery or other diseases carried by water or transmitted by insects, for, besides being palatable and concentrated, they have the advantage of being protected from contamination up to the moment in which they are to be eaten.

3. *As the chief fat in cakes and salads.*—In places where nuts are raised and can be obtained at small cost it may be a means of economy to use them in large quantities in place of other fat foods. A pound of shelled nuts of the oily kinds supplies about two-thirds of a pound, or $1\frac{1}{3}$ cupfuls of fat. It is equal for shortening or enriching purposes; therefore, to $1\frac{1}{4}$ cupfuls of olive oil, or $1\frac{1}{2}$ cupfuls (three-fourths pound) of butter. In the Bureau of Home Economics, light cakes of the richness of ordinary cup cakes have been made with nuts as the only fat, no milk, butter, or egg yolks being used. Since nuts, even those of the same variety, differ in composition, no set rules can be given, but the following proportions may be taken as a guide: Shelled nuts (hickory, pecan, walnuts, filberts, or others), 8 ounces; flour, 3 cupfuls; salt, 1 level teaspoonful; soda, one-fourth level teaspoonful; baking powder, 4 teaspoonfuls; sugar, $1\frac{1}{2}$ cupfuls; water, $1\frac{1}{3}$ cupfuls; whites of 4 eggs. The nuts should be put through a food chopper with part of the flour to absorb the oil which otherwise might be lost. Except for this precaution there is nothing peculiar about the method of mixing. It may be necessary to increase the water or the flour a little, but that can be determined by baking a small sample. It is well to bake such cakes in muffin tins for this gives a maximum of crust which is particularly palatable in cakes enriched by nut fat.

Nuts, if finely chopped or reduced to the consistency of peanut butter, can be used in place of oil in salad dressings and in the place of butter in pudding sauces. In club sandwiches finely chopped nuts may be substituted for the bacon and oil.

Summary

There is only one nutrient—that is, efficient protein—of which fruits, vegetables, and nuts can not supply by far the greater part in the diet. Soy beans and peanuts are the only vegetable foods that can be thought of as supplying complete protein.

For the purpose of supplying protein not classified as complete or efficient, vegetables are more useful than generally supposed. As a class vegetables have a slightly higher percentage of protein calories than cereals.

In vegetables as a class the largest ingredient is starch; in fruits, sugar; and in nuts, fat. For purposes of meal planning it is logical, therefore, to consider vegetables in connection with cereals, fruits with sweets, and nuts with such exceedingly fat foods as cream, chocolate, and bacon.

Raising the proportion of fruits, vegetables and nuts to refined cereals, sugar and pure fats (other items being the same) tends to increase the bulk, minerals, and vitamins of the diet.

Bulk is always an advantage in the case of healthy people and more minerals than needed are not harmful. A margin of safety in the matter of alkaline reserve, minerals, and vitamins is assured by the liberal use of fruits and vegetables.

Fruits and vegetables in variety and sufficient in quantity to supply 20 per cent of the total calories are considered sufficient by the Bureau of Home Economics, providing the remainder of the diet is well proportioned.

Calcium can be raised by the liberal use of dried beans, cauliflower, Swiss chard, oranges, and certain other fruits and vegetables. This is apparently necessary when milk supplies less than 6 or 7 per cent of the total calories.

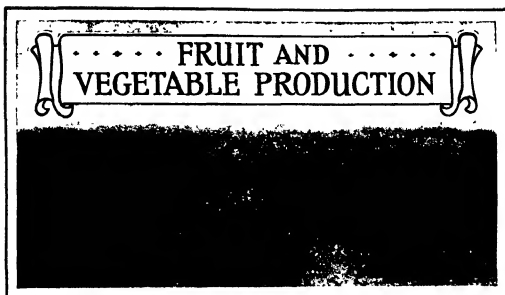
Iron can be raised by the liberal use of fruits in general and of green-leaf vegetables, particularly spinach. Potatoes supply more iron than the same number of calories of any cereal. These points are of importance in the diet of children and of those adults who depend chiefly on milk and cheese for protein.

Vegetables selected with reference to the need for minerals are almost sure to be adequate from the standpoint of vitamin A and B. Vitamin C is usually adequate in the diet of those who use potatoes liberally. It is most abundant in oranges, lemons, tomatoes, and raw green-leaf vegetables—foods that can be used in small quantities in such ways as to add attractiveness to the diet even when they are too expensive to be used freely.

The importance of vegetables for the purpose of supplying vitamins and minerals has revolutionized methods of preparing and serving these foods.

In the diet of hikers, mountain climbers, and others desiring concentrated foods easy to carry, nuts are a valuable emergency food. They can be used as the only source of fat in cakes, salads, and many other dishes. Such uses are to be recommended in regions where nuts are raised and can be obtained at low cost.

Statistics of production show that even if the waste occurring in the course of distribution, transportation, and preparation for the table were greatly reduced, the vegetables and fruits produced in this country would not be sufficient to supply the 20 per cent allowance recommended by the Bureau of Home Economics.



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Relation of Climate and Weather to Fruit and Vegetable Production

CLIMATE AND WEATHER are among the most important factors that influence fruit and vegetable production within the areas where topography and soil are favorable for these crops. Climate, or the normal average weather conditions for a given locality, is the fundamental factor that determines the general adaptability of a region for production, while the prevailing current weather is the important factor in influencing the varying conditions of growth and the yield from year to year.

The principal cause of the relatively greater frost risk to fruits in unprotected orchards is the lack of control of the vegetative epochs in spring, the advancement of which, through premature development, often very greatly increases the danger of frost injury. In the case of vegetables that are subject to harm from frost, planting can be delayed until the frost risk becomes small or is entirely eliminated, even though an unseasonably warm spell of weather early in spring may tempt one to begin seeding.

Weather and Fruit

The Frost Risk

One of the principal weather risks of fruit growers in the United States is the occurrence of frost, particularly in spring. Most fruit trees respond readily and rapidly to short periods of abnormal warmth in early spring, and, consequently, a spell of warm weather in that season may cause premature development of buds and blooms, in which case a later cold period may be destructive. Frost damage to fruit in the United States is relatively much greater than

to any other crop produced. The apple blooms comparatively late and is among the hardier of the tree fruits; consequently, it is less subject to frost damage than some others, but even in this case it has been estimated that frost causes a loss of about 20 per cent, on the average, of the apple crop of the United States.

Another weather danger to fruit trees is the occurrence of glaze or ice storms in winter, when an accumulation of ice on the trees may cause much harm by breaking the branches. Widespread, serious damage from this cause, however, is rather infrequent, and is confined mostly to the northeastern portion of the country from the middle and upper Mississippi region eastward.

Critical Temperatures

The low temperature danger point for fruit blossoms, or for the fruit when setting, varies only slightly for different kinds, and ranges in most cases from 27 to 30° F., though in the case of plums it is generally about 31°, and in that of apricots about 32°. Well-developed fruit buds, with petals still closed but showing red, will withstand a somewhat lower temperature than after the blossoms appear. The weather immediately preceding a freeze may have an important bearing on the harm done, as wet blossoms, after a rain, are more susceptible to harm than when they are dry. Damage to the buds and blossoms is invariably greater when the frost is preceded by warm weather.

The heaviest frost damage to deciduous fruits in this country usually occurs in the early stages of growth, to the blossoms or fruit just set, whereas the principal loss to citrus, especially in California, and to the cranberry occurs when the fruit is nearing maturity. In the case of most deciduous fruits an injurious frost or freeze will cause much greater permanent damage after the fruit has set than during the bud or the blooming periods, and the later the frost after the setting of fruit the greater the danger. This is because the critical or dangerous temperature is usually somewhat higher after the fruit has set and, consequently, a given temperature will cause greater damage. With the strawberry, however, blossoms are far more susceptible to frost injury than young fruits. Again, there is a range of several degrees between the temperature at which all the buds or blooms on a tree will be killed and that at which a goodly number will escape; owing to the more favorable location as to position or to different stages of development of individual buds.

Undercooling of Buds

The physical process which enables fruit buds to withstand a temperature considerably below freezing is undercooling of the capillary liquids within the bud; that is, a cooling below the freezing point of water without the actual formation of ice. If there be no solid material in water under certain conditions it may be cooled much below the freezing point without the formation of ice, but in such cases the introduction of a very small quantity of solid matter will result in instant freezing. Again, water in solution with other substances, such as salts, has a lower freezing point than pure water. The liquid contained in the minute capillary tubes of

fruit buds is of such nature and in such solution as to favor undercooling, and will often remain for a considerable time with a temperature slightly below the freezing point of water, and finally warm up again without crystallization and without injury to the bud.

Frost Risk is General

Although in some parts of the country fruits are less liable to frost damage than in others, there is no known section or locality in the United States, including citrus-growing regions, where they are entirely free from possible harm. Killing frost has been experienced in every locality of the United States for which weather records are available, except on a few of the Florida keys.

There is no marked disadvantage in different latitudes of the United States in susceptibility of fruits to frost, as determined by earliness or lateness of blooming in relation to the average date of the last killing frost in spring. This is true also, in general, with regard to difference in elevation, aside from local topographic influences. The average difference in blooming is about four and one-half days for each degree of latitude, and the average lag from south to north in the last killing frost date in spring, disregarding marine and mountain influences, is about five days for each degree of latitude, except in the Southeast where it is about 10 days.

The average retardation in blooming dates with increase in altitude is substantially one day for each 100 feet. Therefore, an increase in elevation of 1,000 feet is equivalent, in retarding the blooming epoch, to a northward displacement on a plain surface of some 150 miles. This is almost exactly offset with regard to the frost hazard, however, by a nearly similar retardation in the average date of the last killing frost in spring with increase in altitude. Frost records for 14 stations in Colorado east of the divide, all under 5,000 feet and averaging 4,200 feet, show May 1 as the average date of last killing frost in spring, whereas 7 stations over 8,000 feet, averaging 9,200 feet, show June 15. Thus, there is a retardation in the average frost date of one day for each 110 feet of altitude. In northern New Mexico, 4 high-level stations with an average elevation of 8,700 feet show June 1 as the average date, whereas 6 stations, averaging 5,500 feet, show April 30, an average of one day for 103 feet. Results quite similar to these are shown also in the southern Appalachian Mountains. Ten high-level stations in the mountains of western North Carolina, with an average elevation of 2,600 feet, show April 27 as the average date of last killing frost, whereas a similar number in districts adjoining the mountains, having an average elevation of 690 feet, show April 9, a lag of one day for each 100 feet difference in elevation. These data show that elevation, in general, disregarding local topography, has but little influence on the frost risk, as the retardation in the frost date with increase in elevation keeps pace, approximately, with that of blooming.

Local Topography of Much Importance

The foregoing statements have reference to differences in general elevation, and do not hold in cases of local variation in topography. Great advantages are often to be had in selecting a location for an

orchard where the general land surface is uneven, especially where alternating moderate slopes and depressions obtain. In general, the lower ground, especially small, inclosed valleys, should be avoided. Such locations are much more liable to frost than higher or sloping ground because of air drainage, whereby a mass of dense, cold air collects over the lower ground during clear, calm nights. Where irrigation is necessary, however, such selections can not always be made, because of the difficulty in supplying water. Slopes too steep for proper orchard care should be avoided. The difference in susceptibility to frost on slopes and bottom lands is often very pronounced. It frequently happens that trees on the higher ground of an orchard escape, while those on the lowlands are frosted. In fact, the danger line is sometimes so sharply drawn that the blossoms on the lower branches of individual trees are killed, while those on the upper branches are unharmed. In cranberry fields the boundary between frost injury and no injury may be determined within a few inches in elevation.

The importance of taking into account the local topographic influence in selecting an orchard site is shown by some recent results obtained by the Weather Bureau in temperature surveys of important fruit districts in southern California. Typical of these may be mentioned the following: Among some 40 stations established in a certain district, two were located about one-third mile apart; one at an elevation of 1,975 feet on sloping ground, and the other on lower land of 825 feet elevation. On the morning of January 6, 1924, a minimum temperature of 25.1° F. was recorded at the lower point, and 48.1° was the lowest reached at the higher station, a difference of 23° in temperature at points only a few hundred yards apart. For 42 critical nights, the average difference in the minimum temperature at these two stations was 15°. This experiment clearly showed why the higher location was practically immune from dangerous frosts, while an orchard in the lower was so unsuccessful that it had to be abandoned. Figure 7 shows the possible effect of air drainage on the temperature during a calm, clear night at different elevations on a steep slope, at the base of which a minimum of 24° F. was reached, whereas at 225 feet above the base it did not go so low as 50°. Wind has a decided influence upon air drainage and in some cases has been known completely to reverse temperature conditions of high and low altitudes. This condition is the exception rather than the rule however. Unfortunately, many orchards in this country have been planted with little regard to these matters, and to this may be attributed, in a considerable measure, the large frost damage from time to time.

Relation of Fruit Blooming and Last Killing Frost Dates

Killing frosts are so likely to occur in most sections during the blossoming period of fruits, that, at the best, the margin of safety is narrow. Both the date of the last killing frost and the blossoming period of fruits vary in time of occurrence from year to year, sometimes the last freeze occurring before the bloom and sometimes after. The very complete phenological record kept for many years by the late Thomas Mikesell, of Wauseon, Ohio, simultaneously with me-

terological records, shows that the average date of full bloom of the Tompkins King apple during a period of 26 years was May 11, and the average date of the last freeze May 6; this gives an advantage in the apple's favor of only five days, while in 40 per cent of the years the temperature dropped to freezing or lower after the apples were in full bloom. The Bartlett pear was in full bloom, on the average, by May 7; Late Crawford peach by May 3, and plums and early cherries by May 4. When these dates are considered in connection with the average date of the last freeze (May 6), the importance of avoiding, as far as possible, locations subject to frost in selecting orchard sites is forcibly emphasized.

TEMPERATURES AT BASE STATION AND AT VARIOUS ELEVATIONS

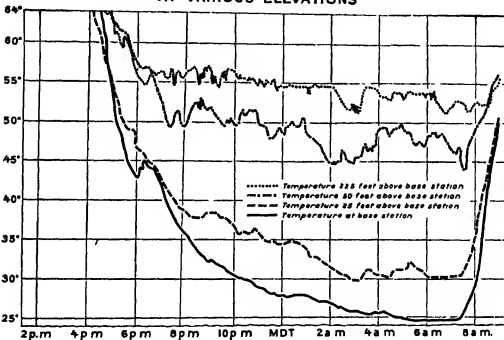


FIG. 7.—Continuance records of the temperature from 4 p. m. to 9 a. m. at the base and at different heights above the base of a steep hillside, showing the great differences in temperature that sometimes develop on a clear, still night. Although the temperature at the base was low enough to cause considerable damage to fruit, the lowest temperature 225 feet above on the slope was only 51° F. Note that the duration of the lowest temperature was much shorter on the hillside than at the base. Although this represents a rather extreme case of temperature inversion, it illustrates the importance of local topography in selecting orchard sites

Relation of Spring Temperatures to Blooming

There is a close relation between the temperature in early spring and the earliness or lateness of the blooming of fruit. Warm weather at this season hastens the appearance of bloom, but does not have the same relation to the earliness or lateness of the last freeze. The Wauseon records show that the most important period in the development of fruit buds and bloom, from the standpoint of temperature in relation to apples, includes the latter part of March and the month of April. A correlation between the temperature and time of blooming shows only a slight relation for January and none for February. March, as a whole, gives a fairly good correlation, whereas the temperature for April shows a closer relation. The most important period is shown to be the interval from

March 21 to April 30. When successive 10-day periods are considered, that from April 11 to 20, inclusive, shows the closest relation. Figure 8 shows graphically the relation between the departure of the temperature from normal for the period March 21 to April 30, and the departure in days from the average date of apple blooming at Wauseon. The graph covers the period from 1883 to 1912, except the years 1900 to 1903, inclusive, for which no record of blooming dates is available.

Favorable Fruit Climates

In general, the most favorable climate for deciduous fruit is one with a continuance of cool weather into late spring, which tends to retard the development of buds until danger from frost is past; comparatively clear and not too hot summer weather, which favors the development of good color and flavor; a prolonged, cool fall

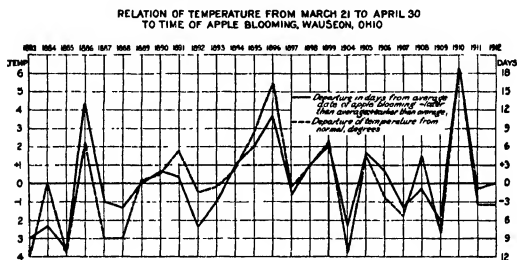


FIG. 8.—The relation of the temperature between March 21 and April 30 to the date of apple blooming at Wauseon, Ohio, covering a period of 26 years. The correlation between the temperature and the earliness or lateness of apple blooming for the period indicated is greater than for any other period during the winter and early spring months. When the weather was cool during this time apples bloomed comparatively late, and when it was warm early blooming is indicated.

without early, hard freezes, which favors maturity and the ripening of the wood; and freedom from extreme cold in winter to avoid winter killing. In middle or higher latitudes, the lee shores of lakes and other large bodies of water stand out as prominent fruit-producing sections because these ideal conditions are more nearly realized in such localities.

Weather and Nuts

Nuts, as with the fleshy fruits, have rather definite climatic requirements but owing to their wide range of species there are those suited to practically all climatic conditions. At present the principal commercial nut crops, including pecans, Persian (English) walnuts, and almonds are grown commercially only in the warmer parts of the United States. The more hardy nuts, including filberts, chestnuts, black walnuts, and others, are adapted to the colder sections, thus extending the range of nut crops to all parts of the country.

The Persian walnut is the most restricted of all in its climatic range and its culture is limited mainly to California. The greatest hazard in the production of Persian walnuts is frost injury to the immature growth in the fall. Forced maturity of the trees through restricted water supply seems to be the best method of safeguarding the walnuts against fall frost injury. Pecans and almonds are more hardy. Pecans are especially adapted for culture throughout the territory south of Virginia and southern Indiana, westward to central Texas. Almonds are practically as hardy as the peach but their commercial production is largely limited to the Pacific coast region where the climatic conditions are especially adapted to their production.

Weather and Vegetables

Vegetables are subject to the same general climatic and weather limitations as are fruits and nuts. As ordinarily grown most of the vegetables are annuals and their period of growth comes within the normal summer season, but in most instances the geographic limitations of production and the season most favorable for growth are definitely determined by temperature and moisture conditions. The majority of our vegetables have a rather definite maximum and minimum temperature range within which they will grow. This limitation in temperature requirement finds its natural expression in the geographical distribution of the crop, the northern limit being determined by reduced temperature and short growing season while the southern limit is determined by an excess of heat. Certain crops like Lima beans have both a northern and a southern limit and are grown to advantage only in the intermediate zone. Other short-season crops like lettuce are adapted to the northern regions during the short summer season, to the intermediate sections during the spring and fall, and to the southern sections in the winter. In all cases rainfall or irrigation bears an important relationship to temperature in determining the geographical distribution of any vegetable crop or group of crops.

Vegetables in their relation to temperature influence on growth may be divided into three general groups: (1) Those which require a relatively large amount of heat and a long growing season; (2) those which do best under intermediate temperature and seasonal conditions; and (3) those adapted to regions where the growing season is comparatively cool and short, or that grow best in warm climates during the colder part of the year. In the adaptation of vegetables to climatic conditions the term "hardy" is applied to those crops which are able to withstand ordinary frost without serious injury, and the term "tender" to those which are especially subject to injury by frost.

Average dates of the last killing frost in the spring and the first killing frost in the fall have an important bearing upon the planting dates for all early and late vegetables. Owing to the wide difference in the temperature requirement for the germination and early growth of several of the more hardy vegetables, these may be planted considerably in advance of the average date for the last killing frost in spring. The usual best dates for spring planting have a definite relation to the average date of the last killing frost

The dates shown on the charts extend from the first half of February in the southern portions of the country, to the first half of May in the more northern sections. Although these dates are considered to be the best for an average year, general weather conditions vary from year to year making earlier or later planting desirable according to the particular season.

The Growing Season

The annual period of plant growth in countries situated in middle latitudes, such as the United States, is limited by the occurrence of low temperatures. There are two important phenomena that may be considered as constituting central or basic points of reckoning. These are the vegetative temperature and the occurrence of killing frost.

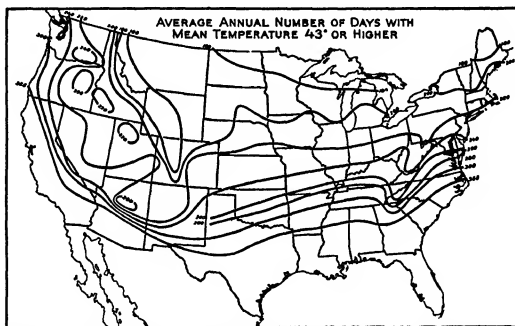


FIG. 11 —The vegetative period is usually considered to be the interval between the time the normal daily temperature rises to 43° F. in spring and that in fall when it goes below 43°. This represents the potential growing season for most crops, but this is often materially shortened by the occurrence of late spring or early fall frost. The above chart shows the average annual number of days with the mean temperature 43° or higher.

The first defines the potential period of plant growth, which is determined by the date in spring when the temperature rises sufficiently high to render active the protoplasmic content of vegetative cells, thereby inducing growth, and the date in autumn when it falls below this point and growth ceases. It is usually considered that the vegetative season for most plants comprises the period between the time when the normal daily temperature rises to 42.8° F. in spring and the date it falls below that point in fall (fig. 11). By reason of difference in topography, variations in marine influence, and the wide latitudinal scope of the United States, the length of the frost-free season varies greatly in different sections. A little less than 10 per cent of the area comprising the elevated western districts has a growing season, reckoned from the average date of the last killing frost in spring to the first in fall, less than three months in length. Nearly

three-fourths has less than six months and about 10 per cent has more than eight months. The frost-free period includes the interim between the date of the last killing frost in spring and the first in fall.

The limitation of plant growth by frost is different from that due to lack of heat energy sufficient to induce growth in spring or to bring a growing plant to maturity in fall. The frost limitation results from the definite and abrupt destruction of growing plant tissues, and consequently can be operative only after the vegetative period has been established in spring or before it ceases in fall. The frost-free period is shorter than the vegetative period and any frost protection methods to prevent the destruction of immature vegetation in fall is simply an effort to artificially prolong the former, for the particular plant, so that advantage may be taken of the remaining vegetative period to bring the plant to maturity (fig. 12).

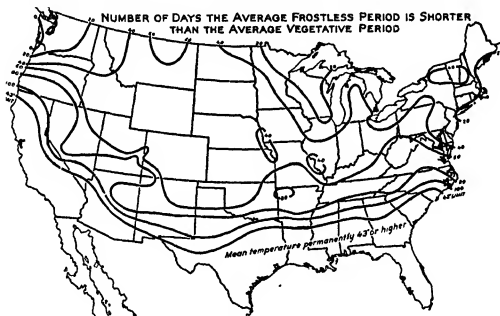


FIG. 12.—The frost-free period is represented by the average number of days between the last killing frost in spring and the first in fall. This represents the length of the growing season for plants subject to frost injury, and is shorter than the vegetative or potential growth period. The chart shows the average number of days by which the vegetative period for tender crops is shortened through killing frost, or the number of days the average frost-free period is shorter than the vegetative period.

Figure 11 shows for different parts of the United States the average annual number of days with the normal daily temperature 42.8° F. or higher, representing the length of the vegetative period, and Figure 12 shows the number of days the average frost-free period is shorter than the average vegetative period. In the North, especially in the region of the Great Lakes, the average frost dates agree closely with the vegetative temperature dates and consequently the potential growing season is not markedly shortened by the occurrence of frost. In the South, however, the vegetative period is much longer than the frost-free period and consequently hardy truck has a much longer growing season than has vegetation susceptible to frost damage. It follows, also, that frost protection can be much more profitably practiced in the South than in the North.

The Occurrence of Frost

Spring frost.—It is important that the frost situation, which varies greatly in different sections of the country, be carefully studied in connection with fruit and trucking operations, particularly in spring planting of truck and garden crops. Under ordinary conditions fairly great frost risks can be taken in early planting for some crops where high prices are usually realized for the early marketed products, but large scale risks are not, as a rule, advisable.

Killing frost does not occur on the average along the south Atlantic coast from central South Carolina southward, and in the southern portions of the Gulf States after March 1. To the northward, the average date becomes progressively later to after June 1 in limited areas in the extreme northern portion of the country and also in the higher altitudes of the West. From the Rocky Mountains westward, owing to diversity of topography, there are wide variations in the frost dates and consequently no general statement can be made applicable to this region. The average spring dates range from before April 1 along the central and southern California coast to after June 1 in the higher elevations of the plateau and Rocky Mountain districts. Killing frost may be expected on the average in half the years as late as the average date of occurrence. That is, in the long run, the time of occurrence in half the years is earlier than the average date and in the other half later than the average.¹

Fall frost.—In the fall, killing frost may be expected in an average year by September 20 along most of the northern border of the country, including practically the whole of North Dakota, Montana, and the western portions of South Dakota and Nebraska, whereas in some of the higher localities of the West the average date is before September 1. Southward from the northern border States the dates become progressively later until in the immediate Gulf coast region killing frost does not occur as a rule until near the close of November, and in much of Florida and the west Gulf section not until after the 1st of December.

Geographical Distribution of the Commercial Fruit Industry

The Climatic Factor

Although fruit growing in its numerous aspects is widely distributed throughout practically the entire country, the commercial development of the industry is rather definitely restricted to particular regions or sections. Several factors operate to determine these regions. It is not a matter of chance, and often not of choice, except as the latter may be guided by certain basic principles. Some of the determining factors are natural conditions; others are economic. Of the natural conditions the climate is perhaps the most important. It is inexorable. The economic factors, though perhaps as effectively restrictive as the climate in the financial success of an orchard, are more subject to the control of man.

The climate in its relation to the geography of fruit growing is complex, but its most determinative element is temperature. Rain-

¹ Information as to the time of occurrence of frost for any locality may be had by application to the nearest Weather Bureau station.

fall, or the availability of water otherwise, is second only to the temperature factor. Both are influenced by topography and elevation. The soil factor has important relationships but they have to do with local conditions and with particular sites rather than with the broader aspects of the geographical distribution of fruit growing.

Temperature.—The temperature factor is everywhere operative. The northern extension of fruit growing is limited by the occurrence of minimum temperatures that are either so low as to prevent the functioning of the plants or of such severity as to injure them more or less seriously. The southern extension of fruits in many cases is likewise limited by temperature but operating very differently from its manner of influence northward.

Furthermore, it should be understood that it is the temperature extremes that limit the geographical distribution of fruit growing rather than the average or mean temperatures, although the total heat during any given period may be a very important factor. This is the case especially with respect to the limitations northward. Southward, the mean temperature is somewhat more of a factor though the seasonal distribution is a large element in the results. However, the mean or average temperature of a place is purely theoretical so far as it concerns any actual readings of a thermometer. If the reading ever actually represents the mean of a place, it is purely incidental. In consequence, two places widely separated might have the same mean temperature, but that of itself would tell little or nothing as to the fruits that could be grown in the two places. For instance, in one of the places the extremes in temperature might not vary widely from the mean. In other words, the temperature there is very equable. In the other place with the same mean, the extremes may vary widely, and in the direction of the cold endurance of plants the minimum temperatures are the restricting influence. Even if destructively low temperatures occur but seldom they may as effectively debar the profitable commercial production of fruit as where they occur frequently.

These observations are by no means theoretical possibilities. Examples are not lacking. For instance, the history of orange growing in Florida furnishes a striking illustration of the forcing southward of an entire fruit industry as a result of the occurrence of destructively low temperatures. Although the present area of important commercial growing of citrus fruits in Florida is not immune to frost injury, the industry has been pushed southward by destructive freezes in past years to the sections that are reasonably safe, except for the possible occurrence at some future time of temperatures without precedent in severity. On the other hand, extending southward, citrus growing finds no limits from the temperature factor other than those resulting from high altitudes until the South Temperate Zone is approached.

Again, the apricot furnishes a striking example of a fruit commercially restricted in its geographical distribution by another expression of the temperature factor, which in turn is closely correlated with the early blossoming habit of the apricot tree. Because of the latter characteristic, the blossoms are much subject to injury from frosts, except in favored localities mainly in California, even though the tree may thrive in regions widely separated.

In like manner, peach growing has shifted considerably in the past because the crops in some regions have proved too uncertain on account of the danger of destructive frosts during the blossoming period, even though the trees might thrive.

Again, the northern limits of peach growing are determined mainly by the temperature factor as expressed in minima that are too low either for the fruit buds, the trees, or both, to withstand. The same is true of the apple as well as other hardy fruits such as pears, cherries, grapes, plums, and others, though with most of these fruits there is a wide range in varietal adaptability, some being more hardy than others.

Hence, some varieties of fruits may be grown successfully in regions where others of the same kind would fail because of the severity of the temperature.

The operation of the temperature factor in the southern extension of deciduous tree fruits expresses itself in various ways and very differently from what it does in regard to citrus and other subtropical and tropical fruits. The latter are evergreen in their habit of growth. That is, by nature they remain continuously in a state of more or less active growth, never becoming perfectly dormant and always remaining in full leaf. Deciduous fruits, on the other hand, those which normally shed their leaves annually—apples, peaches, pears, raspberries, currants, and the like—must have a period of rest and dormancy every year in order to thrive and function normally. This period of dormancy is brought about by the lowering of the temperature as the season advances and finally the coming of late fall and winter when the temperature is so low as to inhibit the active functioning of the trees and other plants.

Trees adapted to such a climate do not thrive when planted where the temperature remains throughout the year so warm as not to induce the required rest period represented by complete dormancy. It is possible, perhaps even probable, that the shortening of the daily period of sunlight in the advancing season may be a factor in plants becoming dormant, but this relationship introduces quite another consideration in the behavior of plants in general.

As one result, in the nature of things, there is a decreasing number of apple varieties that are adapted to the southern limits of apple culture, until, as in the Gulf coast region, in the Coastal Plain region of the south Atlantic States, and other extreme southern sections of low elevation, the apple practically is not to be found.

The desirability of locations near large bodies of water for fruit growing is everywhere recognized. The advantages are mainly favorable temperature conditions as influenced by the water. During the summer the water absorbs heat. As the cool autumn season approaches with its accompanying frosts and freezes, the tendency is for the water to become the same temperature as the air, in this process radiating heat into the air. From a large body of water this is sufficient to produce an appreciable ameliorating effect on the temperature of the adjacent land areas, thus retarding the occurrence of frosts. Where tender fruits, as the grape, are involved, the delaying of a killing frost for even a few days may mean the difference between the crop maturing well and being largely a loss because of immaturity.

Again, the water becomes cold during the winter. As spring approaches and the air becomes warm, a body of water tends to become the same temperature of the air as in the autumn, but with this difference, that in the spring it serves as an immense refrigerator and prevents the air of the surrounding land areas from warming up as rapidly as it would otherwise do. This obviously retards the development of vegetation and delays the blossoming of fruit trees growing within the area of influence. The occurrence of serious frosts during the blossoming period of fruit trees is always much feared by fruit growers. Every day of delay, therefore, in the blossoming of the trees gives reassurance to the fruit grower because of the decreasing danger of killing frosts after the fruit buds open. The concentration of fruit growing along the lake shores in western New York, northern Ohio, on the opposite shores in southern Ontario, in western Michigan, and elsewhere, is thus explained. Moreover, land on the leeward side of a lake is more favorably located for fruit growing than that on the other side. This is seen in western Michigan in contrast to corresponding locations on the Wisconsin side of Lake Michigan. The winter winds reach the lake shore of Wisconsin after passing over land areas, but the same winds pass over the waters of the lake before they strike the Michigan shore. In so doing, they are greatly modified. Hence, peaches may be grown successfully in the Michigan fruit belt all along the lake shore, whereas in the corresponding portion of Wisconsin the winter temperatures are too low for peach growing.

Temperature determines more definitely than any other factor the northern extension of peach culture, as already stated, as well as that of other common and relatively tender deciduous fruits such as sweet cherries, grapes, and others. Wherever the winter extremes are too severe for the trees, plants, or fruit buds to endure, there the northern limits of culture become established, until perhaps, more hardy varieties are developed. Then the range may be pushed farther north in accordance with the hardiness of the newly developed variety. Various other aspects of the temperature as a factor in the geography of fruit growing might be cited, but enough has been said to indicate the very potent character of this element of environment.

Latitude, elevation, and topography.—Compensating influences due to elevation may become operative in considering latitude and topography in relation to fruit growing. For example, in the southern extension of the Appalachian Mountains into northern Georgia and northern Alabama the conditions due to the higher elevations are favorable for apple growing, though in the same latitude in the Coastal Plain apples are so poorly adapted as to occur only to a very limited extent and in many localities not at all. Likewise, in the higher elevations west of the Mississippi River similar conditions prevail. In certain parts of northern Texas, New Mexico, and other sections apple culture has been established more or less gradually at latitudes farther south than at the lower levels of the Southeastern States. In California, citrus and other subtropical fruits are grown extensively within a few miles of large deciduous fruit interests, the latter occurring at the higher elevations and the subtropical fruits in the warm valleys.

Again, elevation becomes restrictive in the geographical distribution of fruits when it is excessively high. In the Rocky Mountain sections practically no apple growing exists at elevations in excess of 7,000 or 7,500 feet, and in the Appalachian Mountain sections of

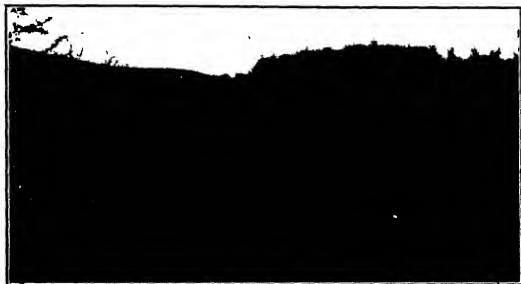


FIG. 13.—Apple trees in the background in an elevated part of the orchard in full bloom on April 6

the East peaches are not found very far up the slopes of the various mountain ridges.

It should be observed in this connection, however, that the elevation factor, like that of latitude, is essentially a climatic factor—



FIG. 14.—The same orchard as shown in Figure 13 one week later (April 13). The trees in the background have nearly passed the blossoming period. Meanwhile those in the hollow this side of the hill have come into full bloom, illustrating the influence on time of blossoming of the drainage of the cold air to the lower level

mainly temperature. The reason apples do not succeed above a rather definite elevation in the Rocky Mountain section is because of insufficient heat, the frequent occurrence of destructive frosts and the shortness of the growing season. The limitations are more quickly

reached in the case of tender fruits such as the peach and they are operative at the lower elevations of the Appalachian regions as compared with the Rocky Mountains.

Relative elevation (not the actual elevation above sea level) is one of the fundamentally important factors in selecting sites for fruit growing. As in the foregoing aspects, it concerns the temperature factor. It is universally recognized that cold air settles to the lower levels. This is referred to as "air drainage." The results of atmospheric drainage, relative elevation, and the stratification of the air at different temperatures are shown in Figures 13 to 16. The application of this principle is discussed in detail on page 154.

Moreover, the soil of the higher sites is likely to be better drained than the lower land because of the fact that soil moisture, like cold air, seeks the lower levels.



FIG. 15.—A peach orchard on the side of a mountain. The photograph was taken on an early spring morning when the atmosphere was very still, but the smoke from the burning stump shows an unmistakable drift toward the lower level, thus visualizing air drainage.

It follows, therefore, that sections or regions having a broken or a more or less mountainous topography are likely to possess certain natural advantages over a flat or low-lying region for fruit growing.

Moisture.—Rainfall, or its expression in adequate water for irrigation, is another deciding factor in the geographical distribution of fruit growing. The force of this influence is not much apparent in the humid portions of the country, but it is much in evidence in the semiarid regions where the natural precipitation is insufficient to maintain fruits and where dependence must be placed on irrigation as a means of moisture supply.

The comparative absence of important fruit interests in the Great Plains area and the development of commercial production in many of the irrigated valleys of the intermountain and Pacific States mark the application of this principle.

Soil.—The soil factor, although important and in some instances influential in determining the geographical distribution of fruit production, is more often a deciding feature in the choice of a location or site than in the broader aspects of fruit geography. An example, however, of the latter is the development of an important regional



FIG. 16.—The stratification of air in different temperature layers. The picture shows an orange tree in Florida soon after a freeze. The lower part of the tree was in a stratum so cold that the foliage dried on the tree after it was killed without dropping. The temperature of the air surrounding the central section was cold enough to kill the foliage, which dropped. The top of the tree was in a temperature that was not injurious.

apple industry in the adjoining corners of the States of Iowa, Nebraska, Kansas, and Missouri. It is doubtless the occurrence in the adjacent sections of these four States of a large area of loess soil which is highly adapted to fruit growing that accounts for the development of apple interests there of considerable size, rather than

to any other single agency. In many other regions the occurrence of both favorable climatic and soil conditions has had a conspicuous influence. In the absence of either condition, little would have been accomplished.

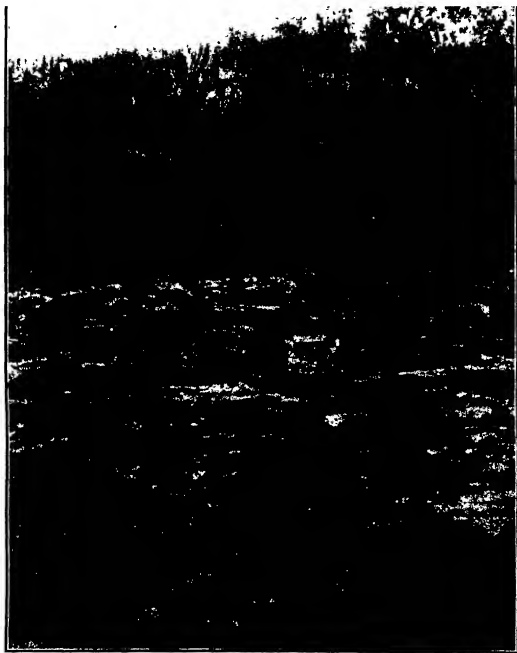


FIG. 17.—Soils of good depth with deep, friable subsoil are essential to good orchard sites. Many orchards have been planted on shallow soil underlain by a ledge, as shown in this picture. The trees may thrive for a time but are practically certain sooner or later to die, either from excessive moisture or as a result of extreme drought.

Though the general situation with respect to the soil factor is as stated, two aspects stand out with such prominence as to merit specific mention. These are perfect drainage and a deep, friable subsoil. Many orchards have failed utterly because the roots of the trees were submerged in water for too long periods or the soil was soggy and sour because of poor drainage. Many other orchards have

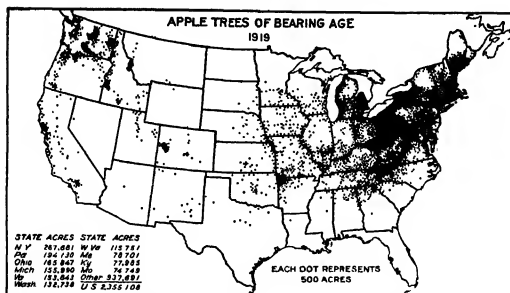


FIG. 18.—Acreage of apple trees of bearing age. The wide distribution and districts of concentrated planting are clearly shown. The relative absence of apple trees in the Gulf coast region, the Great Plains area, and the nonirrigated districts in the Intermountain and Pacific States is also to be noted.

failed because of unfavorable subsoil conditions even when the surface conditions seemed well suited to fruit growing. A condition frequently prevailing is that shown in Figure 17 where the shallow surface soil is underlaid by a ledge. A very loose, gravelly subsoil is but little better and for substantially the same reasons—plant food and soil moisture conditions. There is this difference, however, that a loose gravel subsoil is rarely, if ever, poorly drained, while a shallow soil over a ledge may be too wet at times as well as being without capacity to hold moisture during drought. Figures 18 to 23 show the geographical distribution on the basis of the fourteenth census of the acreage of bearing and nonbearing apple trees, the production of apples in 1919, and the acreage of pear, peach, and plum and prune trees.

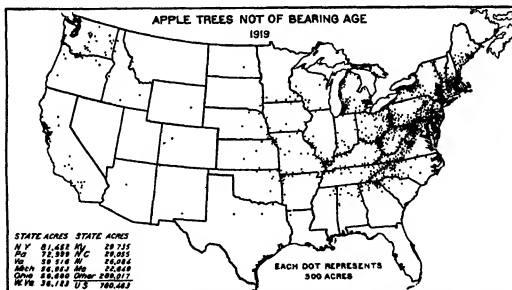


FIG. 19.—Acreage of apple trees not of bearing age. Note distribution and districts of concentrated planting in comparison with Figure 18.

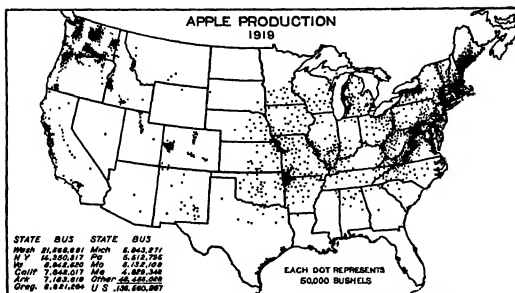


FIG. 20.—In a normal crop year the distribution of production, including centers of concentration, naturally conforms closely to the distribution of apple trees of bearing age. Compare with Figure 18

Economic Factors in the Development of the Fruit Industry

The successful development of a fruit industry in any region requires much more than the occurrence there of favorable climatic and soil conditions. With these two factors favorable, the production of abundant crops of high-grade fruit might be possible and at the same time the enterprise might fail financially. Various economic factors are not less essential than good soil and climate. These differ somewhat with the kind of fruit to be grown.

The relation of a region to markets must be considered. Transportation is vital. Formerly an orchard that was more than 4 or 5

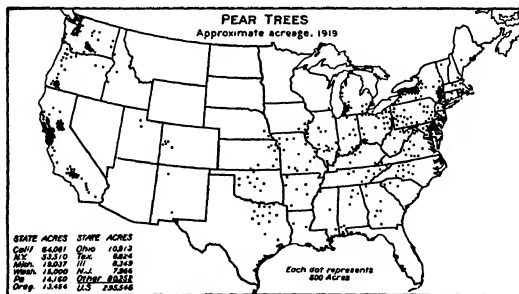


FIG. 21.—Distribution of pear growing throughout the country. The data here presented include trees both of bearing and nonbearing age. The rather scattered distribution of the industry is indicated with only limited concentration in a few relatively small areas, as in the Hudson River Valley and along Lake Erie in New York, in southwestern Michigan, in central California, and to a lesser extent in Oregon and Washington

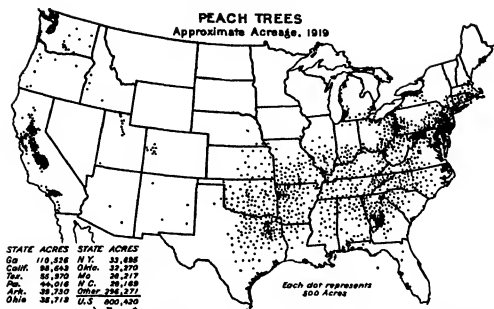


Fig. 22.—Distribution of peach growing throughout the country. The data here presented include trees both of bearing and nonbearing age. The centers of largest concentration are in central Georgia, along Lake Erie in New York, and in California

miles from a shipping station was under a serious handicap. The development of the motor truck and good roads has greatly modified, though not eliminated, this handicap. Large quantities of fruit are now delivered by auto truck over distances of 20 and 30 miles where

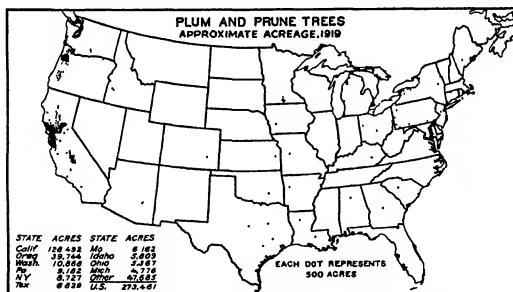


Fig. 23.—Distribution of plum and prune growing throughout the country. The data here presented include trees both of bearing and nonbearing age. The very wide distribution, but at the same time its limited character, are here indicated. The only centers of important concentration are in California and Oregon, where a considerable proportion of the acreage indicated consists of prunes. In 1919 nearly half of the acreage of plum and prune trees in the entire country were in California, and, as shown, the industry is rather highly concentrated in a comparatively small area in that State, the areas including Santa Clara, Sonoma, Placer, Napa, and Solano Counties. In Oregon the concentration of planting is mainly in Marion, Polk, and Yamhill Counties. A small center occurs in Clarke County, Wash. Practically no prunes are grown east of the Rocky Mountains. The plums grown in the middle latitudes and the South, as well as the upper Mississippi Valley region, consist mainly of native varieties, with some of the Japanese varieties, rather widely distributed

the roads are good. In some cases much greater distances are traversed more or less regularly in delivering fruit to markets, transportation by truck being substituted for railroad service. There are many regions in which fruit is not produced as a money crop but where the natural conditions are as favorable in every particular as in other regions that have become famous for fruit production. The only material difference lies in their accessibility to markets. Lack of suitable transportation facilities acts as an impassible barrier to commercial fruit production in many otherwise suitable regions.

Important fruit industries have developed along the line of some railroad following its completion through a potentially good fruit region. In other cases orchards have been planted in anticipation of the early construction of a projected railroad which never materialized. Lack of access to markets rendered these orchards of small commercial value. Good fruit sections supplied with both water and rail transportation have great advantages in marketing the crop, in obtaining orchard supplies, and in other ways. However, where good automobile roads exist and the orchards are within reasonable trucking distance of markets the shipping problem is perhaps as much simplified and comes as much within the control of the grower as under any system that has yet been devised.

Another factor in the success of many fruit growing enterprises is the time the crop ripens in any location in relation to the time of ripening of the same kind of crop in other sections. This is especially true in the case of a highly perishable fruit which in any one region has a rather short season. The strawberry illustrates this feature in a striking manner. It is not an accident that the commercial strawberry growing regions of the Atlantic seaboard are located in Florida, eastern North Carolina, the Norfolk section of Virginia, and in rather definite order northward in Delaware, New Jersey, and other northern sections. The sequence in which the fruit ripens and reaches the markets is virtually the deciding factor with respect to these locations. In Florida, strawberries are grown under climatic conditions peculiar to the region and ripen over a long period, depending largely on when the plants are set. The fruit from this section supplies the demand until strawberries are ready to ship from eastern North Carolina. By that time in the spring the demand begins to increase and comparatively heavy shipments are required to supply the northern markets. To a large extent shipments cease in the North Carolina area when the Norfolk crop begins to move. For a short time the fruit from that section meets little competition, then that from the more northern points comes in season, and shipments from the more southern points cease.

A similar condition prevails with respect to different peach regions. The variety factor enters into the peach industry more largely than in almost any other kind of deciduous fruit because the production so largely consists of a single variety—the Elberta. The season of large peach shipments begins with some of the varieties which ripen in advance of the Elberta in central Georgia. Then follows the Elberta, which closes the peach season in that section. There is small chance in the market for the earlier varieties from the northern peach sections while the Elberta is moving from a more southern section. In like manner, as the Elberta ripens in sequence

progressively northward in the various peach districts, the peach season from more southern points comes to an end with the close of the Elberta season. Later varieties from southern points would not compete successfully in the northern markets with the Elberta ripening at the same time in sections more advantageously located with respect to distribution.

Not only is the foregoing situation a vital factor in the peach industry, but the feasibility of extending it into any new territory, even with every other condition favorable, will hinge rather definitely on the sequence in the ripening of the Elberta variety there in relation to its time of ripening in other sections. At present, the markets are usually well supplied with that variety practically throughout the peach season. There is little use in developing new peach areas which merely add to an already adequate supply, but if a careful study of the markets should reveal a period of even a few days when the supplies of peaches are regularly short of the demand, the development of orchards in some area suitable for peaches, and where they would ripen during the period of low supplies, might prove very profitable.

The supplanting of the Elberta variety in some of the large peach-growing regions might change the details of orchard expansion, but not the general principle covering the choice of location with respect to the sequence of the ripening of the fruit in different sections. This applies especially to the less perishable kinds such as the apple or pear of which numerous varieties of each are extensively grown. The problem of a continuous and adequate supply of most other kinds of fruit may be met by the selection of varieties that ripen at the desired period rather than through the selection of a section in which to grow a particular variety ripening at a particular time.

Other economic factors also require attention, such as availability of suitable labor, convenience of obtaining orchard and packing-house supplies, the community interests in their relation to the fruit industry, cooperative organization among fruit growers, and any other local features which may have bearing in any way on a regional enterprise.

The Nursery in Relation to Fruit Growing

The foundation of every fruit plantation, be it orchard, vineyard, or berry field, is suitable young trees, vines, or plants which ordinarily are produced in the nursery, though many commercial berry fields are also sources of new planting material. The growing of nursery stock is a highly specialized art in horticulture. A specialty signifies a specialist. Not many specialists in fruit growing are also specialists in the art of propagation and growing nursery trees. A fruit grower who undertakes to grow nursery trees without experience in nursery work is likely to produce so large a proportion of poor trees that those fit to plant prove more costly than he may realize. The use of poor nursery stock simply because it can be bought for less money than high-grade stock usually proves costly in the end because of unsatisfactory growth after it is planted. However, the grower should not go to the other extreme and assume

that the highest-priced trees listed by a nurseryman are necessarily the best for him to order. In considering the relation of the nursery to fruit growing, it should be noted that practically no fruit variety comes true from seed. It follows therefore that trees and other fruit plants must be multiplied by asexual methods—budding, grafting, cuttings, layering, by the use of suckers, sprouts, or other vegetative parts. As a rule, tree fruits are propagated by budding or grafting, or by both of these methods. The buds and grafts are placed on small seedling trees grown for the purpose. Here a phase of the nursery industry itself becomes specialized, the growing of seedling fruit stocks being largely the work of nurserymen who specialize in their production. However, certain kinds of stocks are habitually grown by each nurseryman for his own use and budded without transplanting. Peach stocks furnish an outstanding example of this kind. A seedling stock is, therefore, the foundation of every fruit tree that is planted in the orchard, unless, of course, some special method to gain a particular end is adopted. Such methods do not concern the rank and file of fruit growers and are passed here with a bare reference to them.

Methods of Propagation

An entire seedling may be used in propagating each tree, or the roots may be cut into pieces 2 or 3 inches in length and one piece used for each scion. The latter is known as a piece-root graft, the former as a whole-root graft. If propagation is by budding, an entire root stock is used for each tree produced. Grafting is done when both stock and scion are dormant; budding, during the summer season when the bark of the stock can be peeled, or is said to "slip" readily and when well-developed buds of the current season's growth can be obtained.

Propagation by cuttings, layers, runners, sprouts, or by use of other vegetative parts varies with the kind of fruit concerned. In general, these methods are used in increasing the berry fruits—raspberries, strawberries, currants, grapes, and others. Layering in one form or another is employed in propagating gooseberry plants; also, in certain instances for tree fruits; quinces for example are propagated to some extent by this method. It is used especially, however, in case of the quince in propagating stocks on which to bud other varieties. More or less peculiar to this fruit, certain varieties of quince propagate by mound layering more readily than do most other sorts, and one variety, the Angers, is largely multiplied in this way for stocks to be used in propagating other quince varieties.

Referring again to fruit stocks produced as seedlings, it should be observed that their quality and character are apparently of much greater importance than has been believed heretofore. In recent years, rather definite convictions have arisen among fruit growers, nurserymen, and investigators that selection in stocks has a bearing on the character and development of individual fruit trees that is comparable in its relation to the future of the tree with the selection of parent trees, or even individual limbs, from which buds or scions are taken for propagation. Although more or less mass selection of stocks has been practiced for an indefinite period in the past,

it is a recent conception that the individual seedling stock is a unit in itself and that every seedling stock differs from every other seedling stock as truly as do the seedling trees grown from the seeds of the same kind, or even of the same horticultural variety. The statement above that fruit varieties do not come true from seed is merely another way of saying that such seedlings differ from one another. It is no less true of seedling stocks than of seedling trees grown to fruiting age.

It is now believed that many of the tree differences that are apparent in practically every block of fruit trees of the same variety—differences in vigor of growth, productiveness, relative resistance, or susceptibility to injury from cold, and in other ways—are due in part at least to differences in the seedling stocks on which the trees were propagated. The exact extent to which this conception may be borne out by facts is somewhat speculative at the present time. Considerable investigational work now in progress was planned with a view to determining the value of discriminating selection of seedling stocks as compared with the usual practice; also the practicability of the asexual multiplication of selected stocks that have proved superior. This line of investigation of fruit stocks was too recently inaugurated to have yielded far-reaching results at this time. The fact of wide variability of seedling stocks, even when graded according to the usual commercial standards, has, however, been well established.

Stocks in Use for Propagation

In any broad discussion of fruit stocks mention must be made of the kinds in common use at the present time. An enumeration of them includes: for apples, French crabs, Vermont crabs, selections from our own domestic cider-mill pomace, which rather recently have been gaining some prominence in certain sections; for pears, French pear seedlings, Japan pear seedlings; for plums, myrobalan seedlings, St. Julien plum layers, and seedlings of some of the native wild species of plums; for cherries, mahaleb and mazzard seedlings; for peaches, peach seedlings grown largely from "natural" peach pits gathered in the mountain region of North Carolina, Tennessee, and adjacent regions, but also from selections mainly of particular varieties from some of the large canneries; for apricots, apricot and peach seedlings. Numerous other seedlings are also in use but those enumerated are the principal ones. There is some interchange of stocks in certain cases. Apricot seedlings are sometimes used, especially in California, as stocks for peaches. Peach and plum stocks are more or less interchangeable in propagating peach and plum trees, but as a rule these interchanges are made to meet particular ends as special soil adaptations or for other reasons.

The tree stocks enumerated above provide only for the propagation of what are termed standard trees; that is, those which are expected to attain normal or full size in their habit of growth. Mention should also be made of certain stocks used when it is desired to produce dwarf trees. For apples the dwarfing stocks are what are termed Paradise and Doucin stocks. These are nothing other than two small-growing varieties of apples, ordinarily multiplied

by mound layering, which because of their dwarf habit of growth so influence and restrict the growth of buds or scions worked on them as stocks that they have become the generally recognized dwarfing stocks for apples. However, investigations made by the Wye College Experiment Station at East Malling, England, have shown that Paradise stocks, the variety most extensively used, vary greatly in habit and vigor of growth, and in their effect on the vigor of the resulting tree when they are budded or grafted. The work of this station has shown that a large number of different strains of the Paradise variety exist. These have been segregated and the habits of each critically observed as a basis for developing selections having a high degree of uniformity.

Quince stocks are used for dwarfing pears. These consist mainly of the Angers variety which is propagated by mound layering as above stated. Some of the small-growing species of native plums have been used to a very limited extent as stocks for dwarfing peaches, plums, and cherries, but as these trees are normally relatively small when fully grown, as compared with standard apple and pear trees, there is not much object as a rule in undertaking to grow them to dwarf form.

The use of grape stocks in propagating most of the vinifera varieties serves yet another purpose. Vines of most varieties might be propagated readily by cuttings though some varieties root more readily than others. But the vinifera, or European varieties, are, as a rule, highly susceptible to the phylloxera, a destructive insect that attacks the roots. Instead of multiplying vines by cuttings and thus growing them on their own roots, they are grafted on other varieties that root readily and which are resistant to this insect.

The extent to which the American fruit industry is dependent on foreign sources for the seedling fruit stocks used in propagation is probably not realized by the great mass of fruit growers. Although many millions of such stocks are produced in this country, the industry being quite largely centralized at present in eastern Kansas, many other millions are imported from France, Belgium, and Holland.

American growers produce a considerable proportion of the apple seedlings used for stock purposes, but France supplies the bulk of the seed from which they are grown. As already stated, American sources of seed are being developed, but at present they furnish only a small part of what is required. The Japan pear seedling stocks used are raised in this country but not the seed; the French pear seedlings used are largely imported as are most of the different kinds of plum and cherry seedlings.

The production of most kinds of seedling stocks is gradually being extended in several different parts of the country, and American sources of seed supplies are being developed with a view to making this country largely, if not entirely, self-sustained with respect to its principal nursery interests.

The nursery business, as an industry basic to the fruit industry, is highly developed and widely distributed throughout most of the country and the fruit grower rarely need experience serious difficulty in obtaining suitable trees and other stock for planting. The question, however, as to what constitutes suitable stock is difficult to

state in tangible terms. In fact a description that would suit one kind of stock might not adequately apply to some other kind. However, there are certain characters that are common to all good nursery stock. Nursery stock should be true to name; characteristic of the variety in habit of growth and in other respects; possess a good root system and a well-formed top, particularly where the permanent top is largely fixed by the manner in which it is developed in the nursery; and be free from all injurious insects and diseases. In size and vigor it should be coordinate with the age of the tree or other plant besides giving evidence of abundant strength and vitality. In general a medium-sized tree of the age represented is preferable. An overgrown or excessively large tree is relatively heavy to handle and to ship. Often it does not withstand the check of transplanting as successfully as a smaller one, and there are, as a rule, few, if any, compensating advantages for these disadvantages. On the other hand an undersized tree is likely to be stunted permanently, to lack vigor, to be poorly formed, or to possess a poor root system or some inherent weakness or fault which accounts for its small size.

Grades of Nursery Trees

Although different nurserymen grade nursery stock differently and use various terms for the grades, the terms in general usually denote "large," "medium," and "small." These sizes are sometimes designated respectively as XXX, XX, and X. The terms No. 1, No. 2, etc., are also used. In general, the caliper, that is, the diameter of a tree just above the ground, or above the bulge of the union if it is a budded tree, is closely coordinated with the height and size, and it is frequently given as a part of the grade designation.

Obviously size is related to age somewhat closely, and planters use trees and other plants of different ages. For instance, in apples the bulk of the trees sold from nurseries for immediate planting are 2 years old. This means that the tops have made two season's growth in the nursery, though they may lack several months of actually being 2 years old. However, many growers prefer a 1-year-old apple tree, that is, one that has made but a single season's growth in the nursery. The use of 1-year apple trees is, to a considerable extent, a regional practice. A 1-year tree is a straight unbranched whip, whereas a 2-year tree is considerably branched and usually bears the limbs when it leaves the nursery which the grower selects at time of planting to form the permanent top. These branches from which the top or head of the tree develops are commonly termed scaffold or framework branches. In some cases, where apple trees make a rather slow growth in the nursery, as for instance in a region where the growing season is short, a 3-year-old tree may be the choice of the grower. In pears, plums, and cherries, 2-year-old trees are much used, although 1-year-old cherry trees are preferred by many. In peaches, 1-year-old trees are habitually used, while in citrus fruits both 1 and 2 year olds are extensively planted. Grapevines, currant, and gooseberry bushes are likewise planted at these ages. The age of the stock used may be governed by the choice of the planter, the ready availability of one and not the other, or some other factor more or less incidental, rather than for fundamental reasons. The nurseryman's influence in the fruit industry can hardly be

calculated, and his responsibility is heavy, whether it is fully realized or not. In no small degree the economic soundness of orchards and other fruit plantations is determined by the nurserymen who furnish the stock for planting. Moreover, in many instances they serve as advisors to the planters in such important matters as the selection of varieties and the details of cultural practice.

Selection of Varieties for Planting

The variety factor is strikingly conspicuous in the production problems of the fruit grower and consequently in the financial success of his enterprise. If a wise selection of varieties is made in planting the grower is fortunate. With a poor selection the enterprise is foredoomed to failure to a greater or less extent, no matter how favorable the orchard site is, or how intelligently the orchard is managed. A faulty choice of varieties is difficult and costly to overcome.

Adaptability to Conditions

The trend of fruit growing has been westward. As the early settlers came and developed an agriculture, they brought from their former homes across the sea the varieties of fruit that they liked, or they sent back for scions and seeds. Varieties, therefore, developed which were adapted to the conditions along the Atlantic seaboard where the early settlers colonized. Varieties that failed because they were not adapted soon dropped out of sight. As the people moved westward they took with them the fruit varieties, especially of apples, which had been developed in the East. There are men still living in Iowa, Minnesota, and Wisconsin who went to those States as boys or in young manhood and who recall vividly the experience of the early settlers in that part of the country, who, planting the varieties which they knew in their former homes, saw the trees fail utterly because they were not hardy enough to withstand the winter conditions. The development of varieties adapted to the upper Mississippi Valley region furnishes one of the many fascinating stories of pioneering in American fruit growing. On the basis of early failures a group of varieties peculiarly adapted to this region has been developed. This story, if fully expanded, would take explorers to Russia for the purpose of procuring hardy varieties of apples from some of the extremely cold regions of that country, several hundred of which were brought to the United States and tested in many sections. A number of these Russian varieties are now extensively and widely grown in this country, but one of the large contributions made to American pomology by these importations was the furnishing of exceedingly hardy varieties that have been much used in breeding new sorts. From this work the varieties that are now grown in the upper Mississippi Valley have mostly come. Breeding new and better varieties for this region is still in progress, and probably greater actual progress has been made in recent years than in any previous period in the history of fruit growing in this part of the country.

What occurred as people sought the frontiers, when the Mississippi Valley was a region almost inconceivably far west, was re-

peated as the Oregon Trail came into being and again in more recent times as the irrigated valleys of the intermountain and Pacific coast States have been planted to fruit.

The story of the covered wagon transportation of nursery stock to the Northwest in an early day is now one of romance. It must have been a fighting reality when it was taking place! But the point in the present connection is that the nursery stock which was used represented eastern varieties. There were no others that it could represent. Fortunately, however, for the early fruit growers of the Northwest, as well as for those in many other western sections in which a fruit industry is a comparatively recent development, the eastern varieties found a more congenial home than they did in the upper Mississippi Valley. As a result, the deciduous-fruit industry of the intermountain and Pacific States is largely based on varieties either of eastern origin or those introduced into the East from foreign sources, and which in due course found their way to the West. There are, of course, striking exceptions to the last statement so far as particular varieties are concerned. In fact, the sweet-cherry industry has very largely developed its regional varieties, and some of the leading berry varieties are likewise of local or regional origin. Yet the general statement applies.

A very different condition prevails from that just outlined in case of the subtropical fruits in California, and for that matter in Florida and in other parts of the country where the climatic conditions permit of growing subtropical fruits. In California the most important varieties of subtropical fruits grown, with few exceptions, are not only not of local origin, but most of them came to this country as alien varieties. Many of these have gained an importance and a place in industry quite unknown for them, even to-day, in the land of their nativity. It is true, on the other hand, that the conditions under which some of the important subtropical fruits have developed in Florida, and especially citrus fruits, have resulted in important varieties of regional origin more generally than in other subtropical fruit regions of the country.

Mention should also be made of the native fruits which in some parts of the country have been so developed that they contribute largely to the welfare of the people and to the fruit industry. Obviously the varieties in cultivation are of native origin, though many have become widely distributed. In the present connection, however, little more is needful than to enumerate the more important native fruits with regard to the "variety question." In many respects grapes stand preeminent among the native fruits. In the range of adaptability of the numerous varieties, taking them as a whole, and in the number of ways in which they are used, there is perhaps no other native fruit that exceeds them. As will appear elsewhere, the varieties of the bunch grape of which the best known member is the Concord, and which in their different forms represent a considerable number of different botanical species, cover a very large part of the country in their range of adaptability. Again, the varieties of the Muscadine group, of which the number is limited, occur only in the south Atlantic and Gulf States. In the region where the Muscadine varieties are at their best it happens that the bunch grape varieties, as a group, are not well adapted.

The native plums, in like manner, hold a place of considerable eminence. There is perhaps no other fruit, including its several native species, that is more widely distributed throughout practically every part of the country than the plum. Although the greater proportion of the named varieties of native plums that have been introduced into the trade represent not more than two or three botanical species, a considerably larger number of species have contributed a few sorts that have been named and are in the trade. It is because of this fact that the native plum varieties, taken as a whole, represent so wide a range of adaptability. Among them are those which endure the extremes of the winter temperature in the far North, and the long, hot summers of the South, including those which may be grown in a climate that approaches subtropical, and others which succeed fairly well under the conditions of limited moisture in the Great Plains area.

There are also the raspberries, red, black, and purple varieties—the latter hybrids of the other two forms—the blackberries, dewberries, strawberries, gooseberries, and numerous others, many of which have not yet been brought to such a stage of domestication as to be represented by any named horticultural varieties.

In the foregoing discussion of fruit varieties the underlying theme is the adaptability of varieties to the conditions under which they are grown. In a smaller country, or one in which the conditions in its different parts are less diverse than ours, fewer varieties would meet the needs and desires of the growers. But where such wide ranges of temperature, moisture, and other climatic factors prevail, where soil differences are almost endless and the market requirements are widely diverse, many varieties are inevitable in the development of a comprehensive, nation-wide, or even world-wide, fruit industry—for it is true that some of our fruits go substantially all over the world. The number of varieties of the different kinds of fruit comprising the product that goes into commerce varies greatly. The bulk of any kind of fruit marketed may consist of only a couple of varieties as in the case of oranges in California where the Washington Navel and the Valencia make up nearly the entire crop, about equally divided between the two; or as in peaches where there is a single variety, the Elberta, that is conspicuous above all others but which is supplemented by many other varieties of lesser importance which ripen both earlier and later; or a large number of varieties of much prominence may exist as in the case of the apple.

The fact that the needs are met by a few outstanding sorts of certain kinds of fruit may mean that the few have a wide range of adaptability which permits them to be grown successfully in many diverse regions, as is true of the Elberta peach, or it may mean that the industry is regionally restricted as in the case of citrus-fruit growing, thus requiring no very wide range of adaptability. However, in the latter case experience may have demonstrated that for economic reasons a minimum of varieties is desirable. In fact, there is a rather well-marked tendency to reduce to as small a number as possible the varieties of all kinds of fruit grown for commerce.

The summation of the discussion thus far may be expressed in the statement that a primary fundamental in choosing a variety for planting in any section is its adaptability to the conditions under

which it is to be grown. The success of one region over another in the marketing of a variety grown in each may easily exist in the better adaptation of the variety to the conditions in one, as compared with the other; and better adaptability may mean better development of the fruit, better finish (appearance), greater regularity of crops, larger yields, greater vigor of tree, or any one of several other factors.

Suitability to Purpose for Which Grown

Hardly less important than the adaptability of a variety is its suitability for the purpose for which it is desired. This is obvious. It is clear that a variety intended for long-distance shipment would be of little value, however fine its eating quality, if it lacks good shipping quality. A variety of apple reaching full maturity in July, however desirable for that season, would be utterly valueless if one of long-keeping quality was wanted.

The relation of the variety in all of its numerous qualities and characteristics to the satisfaction with which it may be used in different ways or in the making of different product is not generally realized. The importance of this factor is perhaps being emphasized in the wider use of fruits now as compared with earlier years. The large place in industry of the special-purpose variety in no degree contradicts this proposition. The planting of varieties of peaches especially adapted to the canning industry has been done for a long time in California, and varieties still more suitable to the needs of this industry are being earnestly sought at the present time; likewise special varieties are grown for drying. There is the table grape variety; the raisin variety; and, formerly, the wine variety. A high degree of perfection in dessert quality of strawberry varieties has long been recognized, but a satisfactory canning strawberry is still lacking. Such a berry must, above all else, retain its form and its color when canned. None now in the trade adequately meets these requirements.

Though these declarations are largely self-evident and the facts recognized, it is not so commonly observed that certain varieties, for instance, of apples, are much better for fresh juice making, that is, they yield a much more pleasing beverage, than others, and that some produce a much more attractive evaporated product than others. It is of frequent note that some varieties are much better for cooking than others, while the apple variety of high dessert quality is of course separate and apart from others in the esteem of the connoisseur. But to many, perhaps to the majority of consumers, an apple is simply an apple without conscious recognition of varietal differences or qualities.

This status of the variety problem may be safely said to result from a general lack of appreciation of its significance and bearing, not only by the consumer but by every representative of the industry from the grower, or even the nurseryman, through to the ultimate consumer of the fruit. As indicated, the general-purpose variety that is good for use in the fresh state, satisfactory for cooking and desirable for other uses must fill an even larger place than it does now, but the interests of all will be far advanced when the consumer learns better than to use, for instance, for dessert purposes, an apple variety that has merit only for cooking.

Marketing a product of poor grade or quality in great quantity tends to restrict consumption and therefore to depreciate the price of the whole crop. It follows, therefore, that wise and discriminative consideration of the variety problem by the grower is essential, especially from the standpoint of increasing the consumption of fruit.

Sequence in ripening.—Another feature of great consequence is the sequence in the ripening of varieties in an orchard where the grower desires a uniform supply without interruption over the longest period possible. The selection of varieties to ripen in sequence requires an intimate and wide knowledge of them and their habits; otherwise, breaks will occur in the order of ripening or the supply will fluctuate unduly. Even at the best, the grower is likely to find that varieties fully suitable to his needs do not exist or that there is variation in ripening in different seasons due to the diverse response of varieties to seasonal conditions. Such behavior of varieties is not uncommon, but is little understood.

Self-sterility in fruit varieties.—Self-sterility, as the term is used in fruit growing, is the inability of the pollen produced in the blossoms of a variety to fertilize the ovules or embryonic seeds in the blossoms of the same variety. A self-sterile variety does not set fruit and develop it to maturity unless its blossoms are fertilized by pollen from some other variety. Therefore, in planting such a variety provision must be made for cross-pollination by planting with it another variety that blossoms at the same time, or at least with an overlapping of the blossoming periods of the two sorts. The common honeybee is the most important agent in cross-pollination. Conversely, a self-fertile variety is one where the pollen produced by a flower is potent in fertilizing the ovules of the same flower. Such a variety may be planted as an isolated tree far from others or in large unmixed blocks and yet be abundantly fruitful. The fact of self-sterility is comparatively recent knowledge having been first developed about 30 years ago in relation to pear varieties. Since then, and especially during the last decade self-sterility studies have been made on many kinds and varieties of fruits. Every conceivable gradation exists between the extremes of complete self-sterility in some varieties and perfect self-fertility in others. Perhaps the degree of self-sterility that is the most baffling and disappointing to the inexperienced grower is where an excellent crop of fruit apparently sets, develops for a time, perhaps even until nearly full size is reached, and then the fruit begins to drop, and continues to do so until nearly all is on the ground but too immature to be of any use. In such a case the fruits are perfect externally when they drop, but if cut open it becomes evident that the seeds are abortive, thus indicating imperfect fertilization or lack of fertilization of the embryos.

Another characteristic having the same practical results as self-sterility yet not due to any inherent incompatibility of the pollen with the other flower parts concerned is that represented by dioecious species which produce two types of blossoms, staminate and pistillate, each on different trees or plants. Those producing staminate flowers only never bear fruit; those with pistillate blossoms only produce no fruit except as their blossoms are fertilized by pollen from the staminate plants. The latter condition, however, has cer-

tain exceptions, as for instance some of the Japanese persimmon varieties and the Adriatic type of figs, which develop fruit to perfection without pollination.

The Smyrna type of fig, however, requires pollination. Otherwise the fruit drops before it is mature. The manner in which these figs are pollinated is one of the most striking of nature's methods which concern fruit growing. It is given in some detail on page 236.

As different fruit varieties have been investigated with respect to self-sterility, the extent to which it exists has caused surprise. As the matter now stands, many varieties of apples are known to be sterile with their own pollen, also most pear varieties; it is the rule with native and Japanese plum varieties so far as determined, and common among European or domestica plums, also with sweet cherries, the latter being intersterile among varieties in many cases. The same is true of grape varieties, many being self-sterile as well as sterile with the pollen of certain other sorts. Some blackberry varieties must be cross-pollinated and many strawberries must be planted with other sorts. With the latter, however, the case is somewhat different and hardly falls within the scope of self-sterility as the term is generally used, the need of pollen from other varieties in some cases being due to the absence of the flower parts in which pollen is produced. Peach varieties with few exceptions are fertile with their own pollen, as are sour cherry varieties. Apricot varieties are considered highly self-sterile, and no variety of almond is known to be fertile with its own pollen. The foregoing is only a partial statement of the self-sterility problem, but it is sufficient to indicate the character of the self-sterility problem and to suggest the extent to which it enters into the production of fruit. Moreover, as studies of self-sterility are extended they add to the number of varieties known to possess this characteristic. Self-sterility is not in all cases a definitely fixed character. A variety shown to be self-sterile in one region may prove to be habitually self-fertile in another region; or, there may be variation in this respect from season to season in the same orchard. Moreover, it is a common observation that many varieties regarded as highly self-fertile produce more abundantly where cross pollination prevails.

The fact that self-sterility is only one of several causes of unfruitfulness calls for brief comment in this connection. A fully self-fertile variety may blossom abundantly and still fail to set fruit. Among the reasons therefor may be winter injury to the pistils of the flowers, this being the flower part usually the most tender and therefore the first to suffer; low temperatures during the blossoming period which, though not killing any of the flower parts, inhibit the proper functioning of the pollen; the occurrence of heavy dashing rains at critical stages of the blossoming period that wash away the pollen; the prevalence of severe winds which seriously restrict the activities of bees, this applying especially in case of self-sterile varieties which receive no potent pollen in the absence of bees; the occurrence of a widespread attack of some disease destructive to the blossoms; and faulty nutritional conditions of the trees. Other causes of unfruitfulness may occur under some conditions, but those named are the more frequent.

Development and Improvement of Varieties

The need of developing improved varieties of all kinds of fruit is fully recognized—varieties better suited to particular purposes and better adapted to different regions and conditions, as well as those having better dessert, shipping, storing, and keeping qualities.

The perfect variety does not exist. Although there is little, if any, inherent incompatibility of desirable qualities, the fact remains probably without exception that every variety which approaches appreciably near the ideal in some particulars is faulty in others. On the other hand, it may be observed that a variety especially desired for home use because it is so tender and delicate in texture is not likely to have good shipping quality.

With few exceptions the important fruit varieties now in cultivation in the United States originated as chance seedlings; that is, the original tree in each case sprang from a seed that fell by chance in the spot where it grew, or if the seed was planted by man with serious intent, it came from a fruit which developed as a result of natural fertilization and without the exercise of any selection or choice on the part of man as to its parents.

Whatever measure of perfection is now represented in the leading fruit varieties has developed, with rare exception, as a result of Nature's own methods, unaided and without any speeding up or selective guidance on man's part. Nature's object is served when an abundance of viable seeds to perpetuate the species is produced. Man's ideals call for something very different from, though not necessarily incompatible with, Nature's needs. Therefore, man undertakes to improve on Nature in the production of new varieties, employing methods of breeding and selection which he has devised. The details of fruit breeding and the methods followed have no place in the present discussion. Only certain general considerations may be stated here.

Improvement by breeding.—Efforts to develop new and better fruit varieties by the generally employed methods of plant breeding are in progress with practically all the different kinds of fruit that are of recognized importance. These efforts are directed toward improvement in dessert quality, storage, and shipping qualities, the procuring of greater hardiness in tree and bud with respect to cold resistance, the development of varieties ripening at particular times and to meet special needs in different forms of utilization as peach and strawberry varieties for canning, not to enumerate other lines of equal moment.

In some lines of breeding, progress is being made by combining through breeding the qualities represented within the species; in others, the hybridizing of different species offers greater promise in certain directions. Thus, some of the newer and more valuable plum varieties are hybrids between Japanese and native varieties. Some of the most striking developments in citrus varieties have been obtained by combining different species and the development of extreme hardiness in new plum varieties especially adapted to the cold climates of the far North has come about in like manner.

Improvement by bud selection.—Though a part of all improvement by breeding is rigid selection, there is another phase of improvement by selection that must be mentioned. Reference is made

to that selection which takes advantage of any sporting branches or other mutations which appear from time to time and which may represent marked improvement in character of fruit as compared with the parent tree.

This phase of selection has thus far been applied more extensively to citrus fruits than to other kinds, although varieties of merit in other fruits that have originated as mutations are in the trade. It is possible, even probable, that mutations occur in citrus more frequently than in most fruits. However, in this group the off-type bud variations are more apt to represent inferior developments than improvements. Many such mutations are characterized by low productiveness correlated with marked vigor of growth and by undesirable fruit characters.

It has been proved beyond any reasonable doubt that the fruiting and vegetative characters of many citrus mutations, at least, are transmitted to progeny trees propagated from them. Thus a nurseryman, by chance, taking buds for propagation from a sporting or mutating limb that possesses the inherent qualities of low yield and unusual vigor of growth gives rise to a group of trees having the same characteristics. Then, subsequently, in cutting buds for propagation a nurseryman is naturally attracted to such trees by their vigor and apparent desirability on this account. In this way many citrus groves have come to possess a substantial proportion of trees of such character.

In these cases improvement of the nonproductive but strongly vegetative trees is possible through top-working them with buds selected from superior high-yielding trees with a known production record. This course does not result in improving the character of the fruit as compared with the normal type of the variety, but it does improve the crop of the grove as a whole.

Improvement by selection is also operative in the amelioration of fruits from their native habitats. Many varieties of the native fruits have developed in the wild and have been domesticated simply as a result of some one being attracted because of the merits of the fruit of the original plant or tree where it grew from a seed dropped by chance. Most of the native plum varieties have originated in this way, a considerable number of the berry varieties, most, even if not all, of the native persimmons and some other fruits. The bringing of such varieties into cultivation has been in reality a matter of selection.

The variety list for some kinds of fruit is enriched from time to time through the introduction of new varieties from foreign sources. In fact, in certain cases many of the varieties grown in this country are of foreign origin. This is true of avocados, mangos, Japanese persimmons, and certain groups of some other kinds of fruit of which the European or vinifera grape is an outstanding example; the choice dessert pear varieties also are largely of European origin.

Many introduced varieties prove to be of even greater value for use in breeding new sorts than they do in their original form. Thus, some of the plum varieties originating as hybrids between Japanese and native varieties are doubtless more valuable in the trade, regionally at least, than any of the parents.

Orchard Development and Cultural Practices

Preparation of the Soil

Though the details of the preparation of the soil for the planting may vary somewhat with different fruits, there are certain, broad, basic principles that apply generally. Thorough and complete preparation is essential to the best results. Although various compromises are possible without defeating the ends in view, anything that falls short, in effect, of deep plowing and thorough pulverizing of the soil by harrowing or otherwise before the trees or plants are set out is destined to prove costly. "Deep plowing, complete pulverizing and thorough preparation" expresses only relative conditions and the terms may represent different ideals to different growers. For instance, a furrow 5 inches thick is deep plowing by the standards of some, while to others deep plowing may mean 8 or 10 inches; to another, deep plowing is not expressed concretely in inches but by the limits imposed by the motive power available. As to thoroughness, pulverizing "as mellow as an ash heap" is somewhat expressive; likewise, "as well prepared as for planting corn" forms a mental concept that stands for a tangible ideal.

Only a single suggestion concerning compromises in preparation is needed by way of illustration. Many orchards are planted on land but recently in forest. The stumps still remain in the ground when its preparation for orchard purposes begins. Practically complete removal of them is highly desirable before planting the orchard trees, but in many instances to do so would delay the time of planting beyond the grower's wish. The future of the orchard in such a case is not likely to suffer materially if the stumps are removed for several feet in a strip marking each tree row, the soil in that strip thoroughly prepared, and the remainder of the clearing and preparation delayed until later. In such procedure, however, it is essential that the width of the originally prepared strips be extended in advance of the needs of the trees. Moreover, that need, represented by the extension of the roots, will progress much more rapidly than the average grower is likely to anticipate. Another caution—a detail by way of illustrating a principle—is in regard to planting on land recently in sod. Unless plowed well in advance of the time of planting, so that the sod will have time to decay, the grass roots and other vegetation are likely to prove bothersome in planting the trees.

It is likewise a mistake to plant fruit of any kind on soil that is in poor physical condition from the depletion of its humus supply. Trees or other plants set on soil in such condition will, as a rule, make a poor start; this may prove to be a permanent check. Before planting the soil should be put in good tilth in order that the newly developing roots may readily make intimate contact with the soil particles. Although the thorough preparation of the soil, already emphasized, works in this direction, the necessary results can not be procured where a soil is deficient in humus; neither can the biological activities in the soil necessary to productiveness take place under those conditions. Where an abundant supply of animal manures is available a depleted content of humus may be restored by its use with little delay. Otherwise green manure or soil improvement crops to be plowed under must be grown. Several such crops

may be required in case of a soil badly in need of an increased humus supply. By proper planning two or more of them may be grown in a single season.

Another basic feature not less important than those stated is good soil drainage. Fruit trees will fail on a poorly drained site in a degree closely comparable to the drainage conditions. Moreover, the chemical and biological activities essential to productiveness can not proceed normally, if at all, under those conditions.

Many other details call for the planter's attention, but the foregoing considerations are somewhat typical.

Establishing the Plantation

An apple or pear orchard is planted practically for a lifetime; a peach orchard for 15 to 20 years, more or less, depending on the region and the care it receives; an orange grove for perhaps 35 to 50 years. At the least, this type of enterprise is a long-time activity. It, therefore, behoves the grower to consider well all of the requisites in order that the orchard may not be a monument to his folly. The case is somewhat different with strawberries and most other berryfruits in the far-reaching effects of costly errors, though the difference is in degree, not in character. Most berry plantations continue, at best, for but a few years without renewal, and in replanting the lessons of costly errors in establishing them can be taken advantage of fairly promptly. The cranberry is a striking exception to this, however, the oldest planted field still being in good condition after producing for 75 or 80 years.

Details of establishing an orchard or small-fruit plantation following the preparation of the land include a number of important steps or operations. The varieties to be planted usually would have been selected and the stock ordered before the land was prepared to receive the plants. If delivered in advance of the time of planting, the stock whether trees or small berry plants, should be unpacked and heeled in, in order that it may be held without deterioration until the time for planting arrives (fig. 24). It is of the highest importance that the roots be kept in a fresh condition and that the loss of moisture from trunk and branches be prevented as far as possible.

Time of planting.—The time when planting may be done varies with the region and the fruit. In the North most fruits are planted in the spring as early as the soil can be put in suitable condition and before the buds start. If the buds on fruit trees have started into growth when set out, the loss from trees that fail to grow will usually be greater than if they are completely dormant. This is emphatically the case with cherry trees, and suggests the advisability of fall planting whenever it is possible. In the middle latitudes where the winter extremes of temperature are comparatively mild, planting in the fall is much practiced though spring planting is successful. In this area winter injury to peach trees or other tender stock sometimes follows fall planting when apple trees and the more hardy things escape. In the South, with its mild open winters, planting is possible at almost any time during the dormant period, as convenience dictates. In the subtropical regions vegetation becomes less active during the winter, or cooler months, and it is during this

period that most citrus and other subtropical trees and plants are set out. In the semiarid regions where there is no irrigation, as in the Great Plains area, and where excessive evaporation due to many desiccating winds prevails, planting should be done only in the spring. In those sections where there is a rainy in distinction from a dry season, during which for months at a time there is little or no rain, planting may need to be done after the ground warms up following the rainy season, this being particularly true where that season occurs during the winter months. Strawberry plants are sometimes set while in an active condition in late summer or early fall. Other departures from the customary planting periods occur but can not be discussed in detail here.

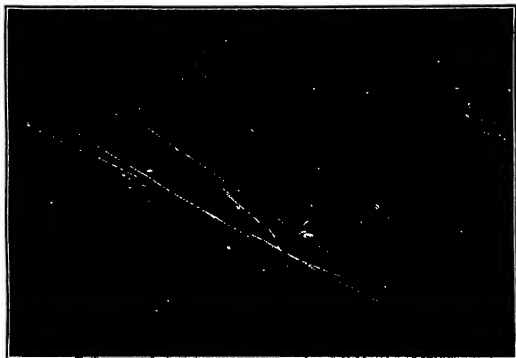


FIG. 24.—Fruit trees heeled in to protect the roots against drying while awaiting permanent planting

A caution should be noted in the fall planting of deciduous fruit trees. It has to do with the time factor. There is a tendency to dig the stock from the nursery before it ripens naturally and the foliage drops normally, thus handling it and delivering to the grower when in a somewhat immature condition. Although it is difficult sometimes to follow the ideal, as when the fall is warm and rainy and the conditions are favorable for growth, the normal ripening of the trees before they are dug should nevertheless be the guide as to time of digging and followed as far as conditions permit.

After deciduous trees become dormant they require a period of rest. Until that period is completed the buds will not start again, even though the conditions for growth are favorable. For this reason, if trees are planted too early in the fall it results in their remaining inactive in their new position, the roots not functioning and the moisture in the trunk and limbs being constantly transpired. The tendency in fall planting is doubtless toward doing it too early rather than too late. The general principles in regard to time of

planting are thus indicated, though no fixed date for planting in either fall or spring can be given.

Systems of arrangement.—A prospective planter must of necessity determine what system of arranging the trees on the ground he will adopt, and the distance apart which he will place them before he can determine how many to buy. The spacing will usually have more influence on the number of trees required than the system of planting. Too close planting is probably the most common fault in planning an orchard. There is some latitude, however, for a given kind of fruit depending on the variety as concerns habits of growth, fertility of soil, region, and other factors. Nevertheless it is rarely practicable to vary the distance between the permanent trees or the rows in an orchard once the spacing is decided, even though certain varieties might permit it. The grower should give searching consideration to the matter of spacing since an error at this point projects itself into the entire life of the orchard. The final decision, however, becomes a matter of detail which rests on conditions more or less local.

Most tree fruits are planted on the square system. That is, the distance between the trees in the row is the same as that between rows. An alternate or triangular system is sometimes followed, especially when trees that are to be permanent are interplanted with others, commonly of another kind of fruit, as apples with peaches. This plan admits of considerable variation as to details.

Another system, the hexagonal, is sometimes used with apples or other kinds of fruits or with nut trees that are spaced relatively far apart. By this system every tree is equidistant from every other tree in the orchard. Thus with a given distance between trees a larger number may be planted on a given area than by any other system. Every tree (excepting the outside rows) is at the apex of six equilateral triangles, assuming lines drawn from any tree as a center to each of the six adjacent ones and then these six surrounding adjacent trees connected by lines. To effect this system, the alternate plan is followed in part, but as may be seen, the rows are not as far apart as are the trees in the rows. It is by means of the gain thus made that a larger number of trees at a given distance apart can be planted on a specified area than by any of the other systems of tree arrangement.

The only other system of arrangement that needs to be mentioned here is the one sometimes followed on steep and irregular slopes and hillsides where the rows are made to follow the contours of the land. This places the rows where each one follows a course that is substantially level, though adjacent rows may not be equidistant apart at all points. By such an arrangement, soil erosion may be largely prevented, especially if terraces are gradually constructed along the rows. In fact, terracing before planting following the contours of the land is sometimes done (fig. 25).

The details of laying out an orchard site, of preparing the holes for the trees, and of placing the trees in the holes, must be very largely omitted beyond a bare mention which merely places these operations in the present phase of the general discussion. Only certain points more conspicuous at this time than others can here be elaborated.

The use of dynamite in the preparation of the holes for trees requires mention in this connection. Though definitely having its field of usefulness, the use of dynamite should be regarded as a special method to meet special conditions rather than a practice to be followed as a matter of course. A soil or site inherently unsuited for orchard purposes can not be made suitable for such use by exploding a charge of dynamite in the soil in each tree position. In fact, under some conditions and if improperly managed such a procedure may prove injurious. Such a condition may be expected if the dynamite is used in a clay subsoil when the latter is too moist. The explosion will then blow a "pot-hole" and compact the surrounding soil instead of loosening or shattering it as is desired. The existence of such a hole may not appear on the surface until at some later time, it may be after the tree has been planted, the surface soil settles into it. Perhaps the one unquestioned condition



FIG. 25.—An apple orchard with rows following the contour of the land on which they are planted. This is an aid in preventing soil erosion

where dynamite may be used advantageously is on a site inherently suited for fruit except that there is a thin stratum of hardpan a short distance below the surface and below which the subsoil is good for fruit growing. In such a case the hardpan may be broken up successfully by the use of a suitable explosive.

The matter of preparing the holes has important aspects. They should be made large enough to receive the roots in their natural positions without bending them, and deep enough so that when a tree is planted and the hole is filled even with the surface the tree will stand an inch or two deeper than it stood in the nursery before it was dug.

Pruning at planting time.—Pruning the top of a tree at planting time has an important bearing on its future, as it is then in large measure that the type of tree to be grown is determined. Such features are largely settled as height of head; type of head, that is, open center, central leader, modified central leader, or otherwise; position of scaffold limbs, and still other aspects, all of which have to do with the tree in its later life. It becomes highly important, therefore, for the grower to anticipate the future of his trees

at the time they are planted and to handle them from the very outset with definite ideals and conceptions in view. Those ideals and conceptions will develop as a result of personal preference based on experience, on observation of the results of others, and on a knowledge of inherent tree and varietal characteristics. No one type of tree or detail of practice is best under all conditions.

Different Systems of Culture

Systems of culture refer to the manner in which the soil is maintained in an orchard. Hardly any two growers follow the same identical plan. However, the numerous practices may be grouped rather readily into three main systems, clean tillage, clean tillage and cover or green-manure crops, and sod culture. To these might be added mulching which is closely allied to sod culture, and intercropping which in effect may be substantially either clean cultivation or cultivation and green manuring. Combinations of these systems are also effective under some conditions.

The name used to designate each cultural system is largely indicative of the outstanding feature of the system. Thus, clean tillage implies that the soil in an orchard is cultivated frequently enough to keep the surface in a fine granular condition until midseason and to hold the weeds in complete subjection in order that they may not utilize the soil moisture needed by the trees. Under this system, tillage usually ceases by the middle of July or the first of August, after which nothing further is done so far as cultural practices are concerned until the following spring or at least until the trees become thoroughly dormant in the fall. The season's tillage operations may begin with plowing the orchard or by use of a disk harrow or any other tillage implement that meets the needs.

Clean tillage and cover or green-manure cropping differs from clean tillage in that when tillage ceases in midseason, or sometimes later depending on conditions, the land is seeded to some crop which will furnish vegetable matter to work into the soil. This crop may be a hardy plant such as rye or vetch which lives over winter and starts into growth very early the following spring. This type of crop is correctly termed a covercrop because it makes some growth in the fall and furnishes a cover for the ground during the winter. This is of greater importance in sections where the winter minimum temperatures are low and the ground bare of snow much of the time than where the ground is well protected by snow throughout most of the winter. On the other hand, a green-manure crop, strictly speaking, is one sown solely with a view to providing vegetable matter to add to the soil. In general it is a crop that is seeded when the seasonal tillage ceases and is killed by the first fall frosts. Cowpeas, soy beans, millet, buckwheat, and various others are typical of the common green-manure crops. Clean tillage may in effect become a cover or green-manure cropping system through the spontaneous growth of grass, weeds, and other vegetation after tillage ceases for the season.

The terms "cover crop" and "green-manure crop," though formerly holding rather distinctive meanings, are now used practically interchangeably and without discrimination. This, however, is an

unfortunate disregard of the real meaning of the terms, though it is true that a cover crop also serves the purpose of a green-manure crop because it supplies vegetable matter for the soil while a green-manure crop may meet the needs of a cover crop. Two types of plants are used for cover and green-manure crop purposes—legumes and nonlegumes. The former consists of such plants as the various clovers, cowpeas, soy beans, velvet beans, vetches, field peas, and the like; the latter, of rye, millet, rape, buckwheat, and others. The tillage and cover-green-manure crop system, though not the best under all conditions, is probably the one by which other systems may best be judged.

Sod culture, as the name suggests, is where the soil in an orchard is not cultivated but is covered with grass, clover or some other kind of sod (fig. 26.). As a rule, the growth of vegetation is mowed two or three times during the season and is left on the ground where



FIG. 26.—Sod culture in a New England apple orchard

it falls to serve as a mulch. The latter, as it decays, works down into the soil forming humus. In the irrigated fruit sections of the West and in the Pacific Coast States alfalfa is extensively used in sod culture. Moreover in some sections, as in the hot irrigated valleys, the shading of the ground by such a crop is of much importance since it prevents a reflection of the sun's rays which in some cases seem to be so intense that they are injurious to the trees.

A combination of sod culture and clean tillage or clean tillage and cover crops may be employed very effectively under some conditions. Such a case is where the growth of the trees does not warrant seeding down throughout for sod culture, and yet to avoid soil washing or for any other reason some such course is necessary. By adopting sod culture in alternate spaces between the tree rows and cultivating the other interrow spaces either with or without a cover crop all the trees receive the benefits of some tillage, and with sod on half

the area, washing of the soil may be largely held in check. After a short period of years the treatment of the alternate row spaces may be reversed. This plan of procedure has much to commend it in many places. In the young peach orchard shown in Figure 27 another method of combining clean tillage with a green-manure crop is illustrated.

In order to apply these systems of soil maintenance intelligently and effectively the grower must understand what the objects of tillage are and, moreover, he must be able to interpret the behavior of his trees in terms of soil treatment. Because a particular system of culture seems to give the best results at one period in the life of an orchard, it does not follow that some other system may not meet the conditions the most effectively at some other period.

Again, the grower should understand that there is no merit in any system simply as a system. It is solely by the behavior of the trees, so far as any system of soil maintenance may affect them,



FIG. 27.—A peach orchard in August of its second season which is receiving the benefits of both clean tillage and a green-manure crop, cowpeas being grown in a strip in the center of the interrow spaces

that the one employed in any orchard may be judged as good or bad, effective or otherwise.

It has long been taught that a dust mulch maintained on the surface of the soil by frequent tillage was the most effective way of conserving soil moisture. Investigations of the movement of soil moisture carried on by the Office of Dry Land Agriculture for many years seem to show that the principal means by which water escapes from the soil are either by gravity as a result of which it seeks the lower levels and drains away, or else through the transpiration of plants growing in the soil, and that loss through evaporation as a result of the capillary movement of the moisture to the surface has been very greatly overestimated.

However, tillage as a means of destroying superfluous vegetation that would compete with the trees for moisture has evidently not been unduly appraised nor has the effect of tillage and the proper aeration of the soil on the chemical and perhaps even more especially on the biological activities in their relation to soil fertility been

either overstated or even fully appreciated. Present conceptions suggest an even greater role for some of the biological activities in the soil in relation to its productiveness than has hitherto been realized.

Therefore, except as the system of tillage employed may be determined by expediency, it is for the grower to study carefully the response of his trees to the treatment he is supplying and to be governed by his interpretation of results as to whether any changes in his methods are desirable.

From the foregoing, it may be seen that there is a close relationship between the moisture supply in the soil and the use of cover or green-manure crops and especially in case of sod culture where there is continuous competition for moisture between the trees and another crop. It is this competition, especially in the first half of the growing season, that often makes sod culture inadvisable or even harmful, whereas the use of the soil moisture by a cover crop late in the season may be advantageous in hastening the maturing of the trees. In a dry fall, the competition for moisture between the trees and a cover crop might prove very harmful to the former.

Of course, in the irrigated fruit sections where water is abundant and under the control of the orchardist, the situation is largely in his hands so far as matters of soil moisture and crop relationships are concerned. For example, in some of the irrigated valleys in the Northwest, sod culture with alfalfa in the orchards has become the prevailing practice, whereas in some of the nonirrigated valleys the growing of any kind of crop in the orchards is precluded, because of an insufficient supply of moisture.

Maintaining the Fertility of the Soil

The fruit grower has no means of maintaining the fertility of the soil in his orchards and other fruit plantations which are peculiar to the special type of agriculture in which he is engaged. He must rely on the same methods as the general farmer—perhaps with this exception, that the latter, as a rule, may have available larger supplies of animal manures than the farmer whose main enterprise is fruit growing. Then, too, the fruit grower labors under limitations not experienced by the general farmer because of the permanent occupation of the land by a single crop. Crop rotation as a part of a program of soil maintenance has little or no application in the plans of the orchardist, whereas it may be an important factor in the production of annual crops.

The use of animal manures.—As a general thesis it may be said that a fruit grower with an adequate supply of stable or barnyard manure for his fruit lands would need to apply little else in the way of plant food in maintaining his land in a suitably productive condition. Much reliance is placed on animal manures by some fruit growers. The case may be cited of one of the prominent citrus growers of the country who established a dairy farm comprising several hundred acres solely with a view to providing a supply of manure for his citrus groves. It was his belief that if the dairy enterprise was only self-sustaining it would be fully worth while because of the value of the manure that was thus made available for his main enterprise.

The use of manure supplies not alone plant food, but organic matter which in turn becomes humus, and without which any soil is relatively unproductive no matter how large quantities of mineral plant foods it may contain. In fact, it is frequently suggested that in many cases the effect of the manure on the physical condition of the soil is of greater importance in relation to productivity than is the plant food which it contains. In turn the physical condition may have a controlling influence on biological changes that affect productiveness in a larger degree than has been realized.

There are no arbitrary limits as to the time of applying manure to fruit plantations nor with respect to quantity. Obviously from the plant-food standpoint the composition of animal manures may vary greatly, depending on the quantity of straw and other absorbents they contain, also on the way they have been handled and the feeding of the animals producing them. Generally speaking, manure is applied broadcast during the winter or in early spring before the seasonal tillage is begun and in quantities up to 10 or even 20 tons per acre.

In some of the citrus groves in California placing the manure in deep furrows in the interrow spaces checking both ways, has proved especially satisfactory and efficient as compared with broadcasting. It is claimed that a given quantity of manure can be made to cover a much larger area of grove applied in furrows and with equally good results than when broadcasted.

The use of commercial fertilizers.—In addition to animal manures, fruit growers use large quantities of commercial plant foods or fertilizers—nitrogen (commonly spoken of as ammonia), potash, and phosphorus (more often termed phosphoric acid). However, the effective, economical and profitable application of commercial fertilizers is a much more complicated problem than is commonly supposed. "What is a good fertilizer for peaches?" "What fertilizer do you recommend for sandy soil?" "How much fertilizer should I apply to my vineyard?" These and other similar questions are frequently asked. They can not be answered in any concrete and specific terms. In fact, of two orchards of the same kind and age standing side by side but with the soil managed differently in previous years, one might readily respond very differently from the other to a particular fertilizer application; such difference even might occur in various parts of the same orchard.

In the first place, a soil in poor physical condition from lack of humus is unproductive without regard to the abundance of plant food it may contain; but a soil in good physical condition may be unproductive because it lacks a single plant food. Phosphorus and potash may be in abundance for maximum production but because of a lack of nitrogen the plant may not function properly and is unproductive as a result.

In such case nitrogen is the "crop limiter." Supplying it in suitable quantity, other things being equal, there would normally be the desired response. Lack of any other plant food may likewise limit the performance of the plant. Supplying more of the plant food or foods already present in the soil in sufficient abundance for maximum performance will be without benefit; in fact it represents waste.

The real problem, then, is to determine what plant food or foods are lacking in the soil, and then to supply the "crop limiter." This

can be done only by "questioning the soil," as a revered professor of agriculture of an earlier day was accustomed to express it. To this might also be added "questioning the plant" as well, since the experienced grower learns to interpret many points in the behavior of his trees in terms of their food requirements. But this, in turn, rests back on soil conditions.

To "question the soil" the grower will need a simple demonstration in a representative part of his orchard consisting of the use of nitrogen alone on certain trees, potash on others, phosphoric acid on others, and finally different combinations of each plant food on still other plats, and then noting the results for several seasons during which the same plant food applications are made annually to the same groups of selected trees.

While even this plan is subject to many uncertainties in exactness of results, fairly strong indications may be expected to occur if indeed there are plant food deficiencies that are seriously limiting the performance of the trees.

The average grower is reluctant to "bother" with the details of such a demonstration besides looking on it as being expensive, but one may well take note of the fact that it is likewise expensive to go on year after year, either applying unnecessary plant foods at large cost, or else withholding some essential plant food—the "crop limiter"—which, if applied might yield results quite out of proportion to the cost involved.

The old idea that the chemist could step in at this point and by an analysis of a soil tell just what plant foods were lacking, ceased long since to have place in the order of things. A chemical analysis of a soil is not necessarily without value, at least theoretically. It might show, for instance, whether a soil was deficient in some essential element. On the other hand, an analysis might reveal certain plant foods in great abundance and yet they might be so locked up chemically as to be unavailable to the plant. The plant's ways are not those of the chemist and the latter has no methods, as yet, by which he can determine how much of the plant food he finds in a soil the roots of a plant can get. A chunk of rock chipped from some boulder might analyze very high in certain plant foods, but a boulder would not be a good soil for an apple tree.

During the last 15 or 20 years much experimental work has been done in the use of commercial forms of plant foods in orchards in line with the plan briefly sketched above. At least three outstanding results, strikingly different from one another, and on the face of things somewhat contradictory, have come from these investigations. In certain cases, these results have been very upsetting of earlier teachings in horticulture.

1. Of these results, first, may be mentioned the demonstration that many soils when managed so as to maintain an abundant supply of humus and when properly tilled apparently yield all the plant food that is necessary for maximum fruit production. In other words, some of the experiments have failed to show appreciable effect from the application of any of the plant foods usually contained in a so-called complete fertilizer.

2. Another result, and one opposed to earlier teachings, is the widespread absence of favorable response of fruits to potash. It

was long held that fertilizers high in potash should be used liberally in fruit growing. Many tests, widely distributed, have failed to demonstrate any general response to applications of this plant food, especially in case of the range of soil types widely used for deciduous fruit growing.

3. It was long taught that nitrogen, and especially in quickly available forms, should be applied to fruits with much caution or else an undesirable and harmful stimulation of vegetative growth would occur. In the demonstrations, not only have baneful results failed as a rule to appear, but to the contrary, the use of nitrate of soda or other quickly available forms of nitrogen, in even rather liberal quantities, has given more widespread and more generally beneficial results than any other one fertilizer treatment in the growing of deciduous fruits. This fact, however, does not obviate the need for each fruit grower to "question" his own soil and trees, but the results of widely distributed experiments may consistently give direction to any demonstration that the grower outlines.

The foregoing discussion on the use of fertilizers in fruit growing hardly more than indicates the character of the problem and suggests that each individual orchard or plantation is the place where the grower must very largely solve his own problem—for it is fundamentally individual in so far as settling the question of fertilizers is concerned.

When to use plant food.—Most forms of commercial plant food are applied early in the spring, the exact time not being very definitely fixed but commonly just before tillage is resumed, or in case of a sod-culture orchard, with the beginning of the spring activities. In case of nitrogen, however, in quickly available forms, as nitrate of soda or sulphate of ammonia, the application should be at about the time the buds begin to swell, if it is desired to obtain a response in the setting and development of the current season's crop. If applied after the blossoming period, the results may be expected to show in the foliage, the annual growth and perhaps in the formation later of fruit buds for the next season's crop, but the results in such case may be disappointing so far as the development of the current crop is concerned. If the grower deems it wise to make a very heavy application of nitrogen, a portion put on as the buds begin to swell and the remainder a month or so later, may be good planning.

It should be noted, however, that many details of practice in the use of fertilizers have been worked out for particular soil and other conditions that are more or less local. Any grower, therefore, locating where conditions differ materially from those with which he is familiar, will do well to study critically the methods of procedure followed by experienced fruit growers there, and to adopt them in so far as they prove to be sound.

Thus in some regions where large fruit interests have been developed the soil is little more than clear sand with very low plant-food content. Obviously the fertilizer problem in such a region becomes very different from what it is where the soil is naturally highly productive. In case of a sandy, almost sterile soil, practically all the plant food requirements must be supplied artificially, and commonly in several applications during the year.

Crops to supply humus.—The place of cover and green-manure crops in fruit growing has been rather fully indicated in the discussion of cultural systems. Brief amplification from the standpoint of their relation to the maintenance of soil fertility is here in place. Also, on a preceding page the place of animal manures in soil productiveness was indicated. An abundance of manure would largely do away with the necessity of cover and green-manure crops. They are, therefore, in large measure substitutes for manure of which few fruit growers can command an adequate supply. In this connection, these crops simply produce in the orchard or other plantation vegetation to be incorporated in the soil, and, in its decay, to form, humus, the importance of which is not likely to be to much emphasized.

Moreover, when a leguminous crop is used for cover or green-manure purposes it adds to the soil not only humus but nitrogen. In this way, part of the needed supply of nitrogen can be produced more cheaply than through purchase in the usual commercial forms.

No special comments in addition to those previously made are necessary with regard to handling soil-improvement or green-manure crops. It is important, however, to point out that in the case of cover crops which start into vigorous growth early in the spring there is an habitual conflict between the owner's desire to defer plowing them under until they have made as much growth as possible to add to the soil, and the matter of equal or perhaps even of greater importance of plowing them under before they make too serious demands in their growth on the moisture in the soil which ought to be conserved for the use of the trees later in the season. This situation inherently represents a compromise between two somewhat incompatible objects. The only basis of settlement is the grower's judgment and a rigid adherence thereto.

The use of tillage.—A third factor in maintaining soil fertility is tillage. The place of tillage or cultivation in fertility maintenance is no less important than that of the other factors. In fact, in many cases proper tillage alone appears to induce soil conditions that are adequate, for a time at least, to produce optimum yields.

The effects of tillage are somewhat complex and in many respects perhaps not fully understood. The maintenance by frequent tillage of a dust mulch several inches deep has been much emphasized in the past as a means of conserving soil moisture by breaking the capillarity of the soil at the surface. The emphasis is now being placed, at least by many, not so much on the importance of a dust mulch as on a somewhat coarser granular mulch, and on tillage in its relation to destroying weeds and other superfluous vegetation by which soil moisture is often exhausted to an excessive degree.

It is a fact well known that it is difficult to wet a mass of very finely pulverized soil, or any other finely divided substance as flour, meal, road dust and the like. It is equally obvious and easily demonstrated that rains do not sink into the soil as readily when covered with a dust mulch as when the surface is less finely divided, or, in other words, is in a condition that may be described as a granular mulch. There is accumulating evidence that the principal means by which soil moisture escapes, other than by drainage, is

through the transpiration of plants rather than through evaporation from the surface of the soil as formerly held, and as still taught more or less. If this be true, the destruction by tillage of all superfluous growth in an orchard such as weeds is of the greatest importance.

Tillage is of primary importance in other respects also. The relation of the chemical activities and, perhaps even more so, of the biological activities to the fertility of the soil gain new significance the more they are studied. The aeration of the soil is essential to both chemical and biological action and that in turn is greatly promoted through tillage.

Principles of Pruning

The fruit grower performs no operation in his orchard that has greater bearing on successful production than pruning. At the same time, there is no part of orchard management about which more diversity of opinion and practice prevails; perhaps no operation is less understood in its effects; and no other, which in recent years has received more attention from investigators. The results of the investigations have thrown much new light on pruning problems. Only a few of the more outstanding features of pruning admit of presentation in this connection. Though complicated from the standpoint of exhaustive discussion, the essentials of pruning may be reduced to a few rather simple statements of fact and of principle:

1. Pruning in some form is an essential operation in substantially all types of fruit growing including tree fruits, vine fruits such as grapes, and small fruits or berries.

2. The objects of pruning include keeping the tree or other plant within bounds, symmetrical, and shapely; the stimulation of growth at local points; the removal of superfluous growth which includes also the thinning of tree tops to admit sunshine and incidentally to make thorough spraying possible and to facilitate the work of harvesting the fruit; reducing the struggle for existence among the different parts of the plant; the regulation in some cases of the position of fruit-bearing wood to that of the roots; thinning the fruit in some cases, and the removal of dead, diseased, or injured parts. Various other objects occur, but they are in reality corollaries of the foregoing points.

3. Pruning is both a mechanical operation for mechanical purposes and a physiological process of far-reaching effect. The former is comparatively simple and easily comprehended; the physiological aspect is intensely complex in its relationships, the full significance of which in considerable measure still remains to be determined. Obviously pruning for mechanical effects has physiological aspects, none the less because it may be done for mechanical purposes.

4. Some of the objects of pruning, as stated, appear to be contradictory or antagonistic to one another. Academically, this may be true, but not all the objects necessarily exist in the same tree or plant at the same time.

5. Pruning has correlations with nearly every aspect of the growth and functioning of the plant. The type and manner of pruning a young tree may differ, and usually does, from that of a mature tree of the same kind; a vigorously growing tree requires different pruning from a weak one even of the same kind and variety; trees of different natural habits of growth and fruit bearing need to be pruned according to those habits. Differences in habit or manner of fruit bearing, as the character of the wood on which the fruit is produced, may occur in different varieties of the same kind, as well as between different kinds of fruit.

6. Pruning, though it may stimulate growth locally, is a physiological influence devastating and depressing in the main and should be done with discrimination and care, and in general with a view to removing the least growth possible rather than the most. This feature is, however, only relative and the

principle must be applied with respect to the conditions that are to be met. The local influence of pruning, especially as that operation modifies the extent of leaf area, has recently been emphasized by the results of some investigations which show a close relationship between the size attained by an apple and the leaf area near it on the branch on which it grows. An inadequate leaf area in close proximity to an apple results in an undersized fruit. The requirements, however, seem to vary with different varieties. Obviously other factors besides pruning may affect the abundance of foliage.

The foregoing statements admit of extended amplification but the limitations of this treatment restrict further discussion to a few of the more important specifications of pruning.

Pruning, especially of fruit trees, as already noted, has received much attention experimentally in recent years. As in some other domains of horticulture, the investigations have shown that some of the teachings of long standing lack the support of facts. Thus, the earlier advice to cut back young trees heavily to stimulate growth and to make them stocky fails largely in the light of the demonstration that such stimulation is mainly local, that the total annual growth in any season of a heavily pruned young tree is likely to be actually less than that of one pruned lightly or not at all, and that the trunk diameter of the heavily pruned tree increases less rapidly than the one lightly pruned, and in general the time of fruit bearing is delayed by heavy pruning.

Again, the former precept that pruning during the summer checks growth and induces fruit-bud formation is found to be directly opposite to the facts in many cases so far as it concerns fruit bearing. As a broad principle, the conception is erroneous. As a detail of practice, it may apply under certain sets of conditions. Likewise, the idea of pruning during the dormant period to stimulate growth proves to be, not a principle of pruning, but rather a detail of practice only that has a place in orchard management.

The pruning of a fruit tree, vine, or other plant normally begins at the time it is set out. In the case of grapevines, berry plants and the like where the top is nearly all cut away at time of planting, the details are simple and are passed here without comment, except to state that the new or permanent top in such cases is formed later from the new growth that develops. Attention, therefore, centers for the present on the tree fruits. Obviously pruning at time of planting has a far-reaching effect. It is then that the branches which are to form the permanent top are selected. Serious errors at this time are difficult, if not impossible, to overcome by any later treatment. In the case of the apple, pear, plum, cherry, citrus fruits, nuts in general, and some others, 2-year-old trees are commonly planted. These, if properly grown, are well branched when planted and already bear the limbs that are to be selected for the framework or scaffold branches of the tree. In case of the peach, apricot, and some others, 1-year-old trees are habitually planted. They make relatively a more rapid development in the nursery than most other deciduous fruits, and are heavily branched unless undersized like 2-year-old trees of the apple, pear and some other kinds. Many growers now prefer 1-year-old trees of most kinds of fruit when planting an orchard. A marked trend has occurred during the last decade in favor, especially, of 1-year apple trees; and 1-year cherry trees have certain advantages over older ones.

Three to five limbs are usually selected at time of planting for the framework which forms the permanent top. The lowest branch will determine the height of the head of the tree from the ground and should be selected so far as possible with that point in view. The others should be arranged symmetrically and at uniform distances about the trunk and with several inches (preferably not less than 5 or 6 inches if possible) between them vertically. This is the ideal that should guide. As nursery trees usually fail to develop according to man's ideals, the grower must select the scaffold branches as best he may and then depend on his skill as the tree develops to overcome as far as possible inherent defects. The branches selected are usually cut back rather heavily when the trees are planted, commonly one-half their length, and all others removed entirely. However, the practice, which formerly was nearly universal, of cutting back the branches very heavily at time of planting has also been modified more or less by the trend away from heavy pruning. Many growers are now heading back young trees less severely than formerly at planting time. Trees planted as 1-year-olds other than peaches, cherries, and apricots, are usually single, straight "whips." They are cut back when planted to the desired height and the scaffold branches selected and trained as they develop.

The manner in which a young tree is pruned when it is planted practically fixes the style or type of tree that is to be developed. The grower then determines whether he is to adopt, for instance, an open center, a central leader, or modified central leader type. Such differences in type concern particularly the apple, since there is greater uniformity in practice with respect to most other kinds. Nevertheless the force of the point in question is universal with respect to the treatment of the young tree at time of planting being projected into its entire future.

The type of tree, whether open center, or some other, is much more a matter of detail in pruning and training and of individual preference than of principle, as is the height at which the head shall be formed. It may be observed, however, that the natural habit of growth of some varieties renders them better adapted to particular methods of pruning and training than others. The principles of pruning with respect to the influence of that operation on growth, fruit-bud formation and development and behavior otherwise are concerned but little or not at all with minor details of practice, as for instance, the particular manner of shaping the top.

In the pruning of young trees, up to the time of bearing, the prevailing practice has long consisted of rather heavy cutting back of the seasonal growth and more or less thinning out of the branches. As previously stated, recently conducted investigations have shown that the tendency of such treatment is to retard the growth of the tree in diameter of trunk, in spread and height of limbs, and to delay the time of fruiting. Although some of the objects of pruning young trees require more or less cutting back at times, as well as the thinning of the tops by removing branches, such requirement varying with the habit of growth of different varieties, many growers have changed their former practice of heavy pruning to that of limiting it to the minimum consistent with the objects that must be attained.

The same general plan of procedure should be followed in the later life of the trees, modified as habit of growth and condition of the trees require, in order to gain the desired ends. In other words, pruning throughout the life of a tree may be said to consist of the judicious cutting back of some branches and the entire removal of others. In fixing upon what is judicious, the grower should keep it in mind that in the tree top the individual bud is the unit of life; that there is an intense struggle for existence between the buds in a tree top and between the branches, each of which has grown from a bud; that each leaf bud, in developing a branch or a fruit spur, functions and develops properly only in the presence of abundant sunshine; that the tendency for every branch and spur in the top is to extend upward or outward towards the sunlight; and that in this struggle for sunlight and plant food the branches and spurs are less favorably situated than others, are suppressed, and become too much weakened to be of value to the tree and in time many of them die. Thus the tops of trees which become unduly dense through neglect of pruning become filled with dead branches. A well-pruned tree—one with the top sufficiently open so that every bud, fruit spur, twig, and branch, receives its due quota of sunshine—rarely contains deadwood unless as a result of disease or injury. The fruit borne by such a tree attains its maximum development in color and finish.

Pruning has close correlation with food supply and vigor of growth. Apparently close relationship exists between the total leaf area of a tree and the functioning of the tree itself; and the extent of the leaf area is, or may be greatly influenced by the pruning a tree receives.

Some of these relationships have been summarized² from the standpoint of plant physiology as follows:

A tree has two functions: Growth, or wood production, and fruit production. The conditions which are the most favorable for tree growth are not the conditions most favorable for maximum fruit-bud formation and fruit production. The conditions which result in the best wood production are not necessarily those which result in the best fruit production. An intermediate set of conditions between those favoring maximum tree growth and minimum or very small growth may be considered as the most favorable to fruit production.

The grower should aim to keep his trees in a moderate condition of growth for the best fruit production. The conditions which promote wood formation are those which increase the intake through the roots of moisture and mineral plant foods, especially nitrates (nitrogen). The conditions which cut down wood formation are those which restrict the entrance through the roots of moisture (drought) and plant foods.

Within the green leaves the raw food elements in solution in the sap are elaborated, resulting in the formation of starch, sugar, etc., which are carried to all parts of the tree, including the roots. These are the new tissue-forming materials.

Other things being equal, the factor which determines the fruitfulness of the tree is the balance of the food elements taken in through the roots with the products manufactured in the leaves. It is in connection with this balance that pruning may be, and often is, an exceedingly important factor in relation to fruitfulness. Trees which are making very rapid wood growth have a relatively greater amount of the raw food elements taken in by the roots, especially of nitrates, than of the substances like starch and sugar which are manufactured in the leaves. In trees making a feeble growth the opposite relations exist.

² By H. R. Kraybill, formerly assistant physiologist, Bureau of Plant Industry.

Therefore, the removal of a large leaf area, as by summer pruning, or of dormant wood containing stored-up food materials would affect, accordingly, the nutrition of the tree, tending towards greater or less growth and more or less fruit production, depending on the condition of the tree and the conditions under which it was growing.

Irrigation

Irrigation as an operation in orchard maintenance is employed mainly in the valleys of the semiarid parts of the country in which a fruit industry has been developed. Geographically this includes the intermountain States of the West and the Pacific States. An occasional orchard or fruit plantation in the humid sections is irrigated during unusually dry periods or as special provisions in the production of superior fruit for a fancy trade. In these exceptional instances the source of the water is generally deep wells of large water capacity, or some other local or individual supply. Only the larger community or regional irrigation activities require presentation here and these only briefly. The source of water supply for irrigation purposes is usually some river across which a dam is constructed at some point where the impounding of a large volume of water is possible and at such elevation above the area to be irrigated that the water flows by gravity from the reservoir to the land. Or, the source of supply may be some mountain lake or some other body of water of natural or artificial formation as conditions and possibilities dictate. In some instances, water for irrigation is raised to higher levels by pumping but that is usually expensive as compared with a gravity system throughout.

It has been noted, and it also follows as a natural sequence, that irrigation as an organized orchard operation is carried on in regions of very limited rainfall; or it may be added, in regions where there are distinct rainy and dry seasons, the latter commonly covering much more than half the months of the year, including the growing season. In passing, and for completing the setting, it needs to be stated that the sources of water supply where irrigation water is stored—the reservoir, lakes, and the like—are generally located at points far removed, in numerous cases many miles distant, from the area that receives the water. The supply of water that comes into the reservoirs has its source in the winter rains that are impounded, the melting of snow that falls in the mountains during the winter, and in some cases, where rivers are dammed to form a reservoir, the head waters of the rivers may rise in humid regions and the available store in a reservoir at any time may consist of water that has come from a watershed scores of miles away. In many instances, however, the quantity of water available for irrigation in any season is determined by the abundance of winter rains and the snowfall in the mountains within the general region that is concerned.

The system of distribution of water from a reservoir to a distant orchard is, briefly, a system of canals and ditches, which divide, subdivided, and radiate in a manner that might be likened to the water system of a large city. There is the reservoir, the "main" through which the water leaves the reservoir, then "submains" that take the water to different sections of the city which, in turn, may divide in order to supply individual streets; the individual houses are connected by relatively small pipes with the street mains, and finally

within the house each separate room may have its individual connection. Here the analogy ceases, however, for the manner of operating an irrigation system has little resemblance to that of a well-equipped and well-managed city system. In a word, a canal or "main ditch" takes the water from the source of supply; from it smaller ditches branch which begin distribution in different directions; these in turn divide and subdivide until the individual farm, ranch, or orchard is reached. In some regions of considerable area artesian wells from which the water flows in great streams form the source of supply. When such wells are in close proximity to the area to be irrigated, the distribution system is obviously simple as compared with other conditions. Very definitely, the construction and maintenance of any such irrigation system as that outlined above is the work of the highly trained irrigation engineer, and not of the fruit grower served by the system.



FIG. 28.—An apple orchard in its fourth year from planting, located in an irrigated valley in the West. The water is distributed through the orchard in furrows, which are clearly seen in the foreground at the right.

The application of the water to the orchard is, however, the work of the fruit grower. In semiarid or arid regions there is perhaps no other part of orchard management that calls for better judgment and wiser practice than the use of irrigation water. Undoubtedly the results of poor judgment and unwise practice in irrigating fruit plantations furnish whatever of truth there may be in the notion frequently expressed that irrigated fruit is not as highly flavored as nonirrigated.

Irrigation water, reaching the individual orchard through a ditch that branches from a larger one at a more or less remote point is applied by the grower in any one of several ways. Probably the practice most commonly followed is to make furrows perhaps 3 or 4 feet apart between the rows of trees and then divert the water from an individual head ditch into each of the furrows, regulating the rate of flow so that as nearly as possible, the water that reaches the remote ends of the furrows where it remains until it sinks into the ground will represent the proper proportionate part of the whole. Otherwise the distribution of the water throughout the orchard would not be uniform and some sections would get too much, others not enough (fig. 28).

By another method, the "basin system" of distribution, the ground is flooded. A ridge of soil is thrown up in both directions along the middle of the space between the tree rows, thus putting each tree in the center of a basin (fig. 29). The water is directed by suitable means into the area set off by the ridges about each tree and remains until it soaks into the soil. Although this system may have limitations imposed by the topography and "lay of the land," it provides a more even distribution of the water than the furrow system. Then, too, the character of the soil is a factor. In case of some types the lateral movement of water through the soil, as from one furrow to another, is very slow. It is easy for an inexperienced



FIG. 29.—A mature peach orchard in a valley location in California. Irrigation water is supplied by the "basin" system. The ridges of soil thrown up to control the distribution are seen in the interrow spaces. The trees are of the Phillips variety, one of the most important for canning. The color of the fruit is of less importance than it is when shipped in the fresh state. Hence the trees are not necessarily pruned with a view to keeping the tops as open as is the case where the fruit is shipped in the fresh state with high color an important characteristic from the marketing standpoint.

grower to think he has irrigated thoroughly when in reality there remains a very dry zone of soil between the subtending sections of each two adjacent furrows and which forms an impassable barrier to the proper functioning of the roots. Soaking the entire area as in the check system is one way of meeting this difficulty where that system is practicable. The distance between the furrows in the furrow system is likewise an important factor. The nearer together they are, the shorter the time it will take for the soil to become uniformly moistened by the lateral movement of the water through it.

Other ways of distributing water in irrigation are used but in the main they are modifications of the two mentioned. Any attempt to detail the numerous aspects of irrigation in fruit growing has no place in the present discussion. However, there are certain general features, all of which the user of irrigation water fully grasps,

which will interest growers in nonirrigated regions; the latter far exceed in number the growers who are located in irrigated areas. In the first place, it is a natural conception that land to be irrigated by the methods above named must be nearly level, sloping uniformly in some one direction in order that water may flow gently along the irrigation furrows. In the main this is true and one of the most exacting things in preparing such land for irrigation is to grade the surface so that it shall be uniform and free from small irregularities. It is possible, however, to irrigate hilly land or that which slopes considerably, provided, of course, the area is below the level of the source of the water, be that a head ditch or some other part of a ditch system from which the water is obtained. This restricts the method of distribution to the furrow system, and the furrows which carry the water must obviously be placed with care, each one following the contour of the hill or slope to be irrigated in a gently descending though in some cases perhaps a very winding course.

Wide differences occur in the practices of fruit growers with respect to irrigation. Some of these are due to conditions such as abundance or lack of water, soil differences, and differences in conceptions as to requirements. The fact that a grower is operating in an irrigation district with water rights does not of itself assure him an abundant supply. In many sections the supply is habitually in danger of exhaustion before the end of the season and must be used with great caution. Sometimes a district, habitually supplied abundantly, finds itself with a distressing shortage because of abnormally light rains or snowfall during the rainy season, this condition prevailing perhaps for several years in succession. In case of shortage each water user is allowed only his proportionate share, except where prior water right has been established through some earlier provision. The various State laws governing water rights, irrigation, and the distribution of water are sometimes complex in their application and are not for the novice to interpret.

An abundance of irrigation water sometimes has its drawbacks and dangers. If a grower is allowed water practically without restriction, the temptation to apply it as a substitute for good tillage as well as for its legitimate purposes is often irresistible. "A little is good, more is better" is likely to be the guiding thought, when as a matter of fact a shortage, if not too severe, may be much better for the grower than a surplus used unwisely. Over-irrigation has undoubtedly produced results detrimental in some cases to the esteem in which fruit grown under this practice has been held. To decide wisely when to irrigate and how much water to use for optimum results is exceedingly difficult. It can not be done by any set rule. Experience, careful observation, and the exercise of much caution all help in the problem. The question when to irrigate is answered, or should be, by conditions, not by the calendar or the day of the week. If delayed too long, signs of tree distress will appear in the wilting of the foliage; if applied too frequently and too liberally it becomes overirrigation. In actual practice, it too often happens that the grower must use the water from the ditch when his turn comes, whether that is the best time from the standpoint of his trees or not. The careful grower will examine the soil in various representative

places throughout the orchard, digging down with a spade, posthole digger, or otherwise to some depth, at least as deep as the roots penetrate, and perhaps well into the subsoil. He learns by experience from the appearance and condition of the soil when a reasonable limit of safety has been reached in the moisture content. By the same means he finds out when an application of water has properly and uniformly moistened the soil. The frequency of application or the number of irrigations in a season varies with different growers in different communities, and it is affected by the character of the soil. As in humid regions with a supply of water in the rainfall, some soils in irrigated districts retain water better than others. Some water users advocate frequent light irrigations; others prefer to make them less often and to use correspondingly more water each time. Probably a general average ranges in the number of applications from three to perhaps five or six in the various sections for the entire season.

Nothing in connection with irrigation needs greater emphasis than the necessity for perfect soil drainage. Poor drainage results in many of the most serious soil troubles which the user of irrigation water experiences—troubles entirely different from any of which the grower in humid regions has any knowledge. While the possibility—potential or realized—of regulating the soil moisture as needed through irrigation offers in prospect a most ideal situation, the problems and difficulties incident thereto present disadvantages that tend to neutralize the advantages in comparison with the conditions imposed by nature on the grower in humid seasons.

Protecting Fruits and Vegetables From Frost

Low temperatures are responsible for either the partial or complete loss of the fruit crop in some section of the country practically every season. The damage may be local, covering only a small region, or it may be widespread and include a large section of the country. It is exceptional, however, that the injury to deciduous fruit is so widely distributed as to cause a material shortage in the supply or to greatly increase the price to the consumer.

Protection of fruits from frost during the blooming period is practical only under certain conditions where intensive production will justify the necessary expenditure. In this respect the apple and citrus fruits probably comprise one of the most extreme comparisons and serve well to illustrate the point. In the case of citrus fruits in many localities frost protection becomes a part of the necessary practices involved in regular and profitable production. In the case of apples the hazards are not so great as with citrus fruits and under normal conditions outside of the Pacific north-western section the additional crop insurance provided by orchard heating is not sufficient to justify the investment in the necessary equipment and its operation. With citrus fruits a severe frost over a relatively small area might rob the country of a considerable portion of the entire supply while in the case of most other fruits, the failure of the crop over a limited area would have very little effect upon the total production for the country. For this reason, the heating of orange groves in southern California and in parts of

Florida has become a standard practice, while in the case of apples, heating has been found profitable only in the Northwest and in other relatively limited districts. With the citrus fruits the period of greatest danger is in the winter season when freezing temperature may occur at any time during a period of two months or longer. A freeze at this time may not only injure the crop maturing on the trees but also destroy the prospect for a crop the following season. With the deciduous fruits the critical period occurs in the spring at the time of blossoming and is limited, seldom exceeding two or three weeks, and for this reason, it has not been found profitable to use protective measures throughout the greater part of the eastern deciduous fruit region.

There are two general weather conditions to be reckoned with in frost protection. These may be called a frost and a freeze, respectively. The word frost is usually employed to designate the phenomena of feathery ice crystal formations on exposed surfaces when the temperature falls to freezing or lower, whereas in the other case freezing weather may prevail without the actual formation of frost. Broadly, the occurrence of a temperature of 32° F. or lower, whether accompanied by a deposit of ice crystals or not, may in practice be considered a frost, for the effect on vegetation is much the same as in the case of actual frost formation.

In most cases it is much easier to protect against a frost than a freeze, by reason of the difference in the physical processes of the atmosphere through which the respective conditions were brought about.

During a freeze the air for a considerable distance above the earth is usually cold. True frosts occur only when the atmosphere in the lower strata is relatively calm. They are caused by the rapid radiation of heat from the earth's surface after the sun goes down on clear, calm nights. Under these conditions the ground cools rapidly and the surface air loses heat to it by conduction, that near the ground becoming cooler than at a short distance above. This soon produces a relatively thin layer of cold air near the surface with an increase of temperature, called temperature inversion, up to a limited height. The force of gravity tends to cause this thin surface layer of cold air to move down and gather in depressions, thereby making the frost risk greater in the lowlands. These conditions make the problem of protection by heating from ordinary frost comparatively easy. Instead of being compelled to heat "all out-of-doors" as many think, the problem is simply that of warming a surface layer of air, ranging from 20 to 30 feet in depth, the upper layer of warmer air functioning very much as a roof and thus facilitating the operation.

Changes in elevation, however, frequently cause the artificially warmed air to rise to the higher levels. This is the usual condition accompanying a general freeze. When the upper air is warmer than the surface layers, however, the warmed air near the surface will not rise until it becomes warmer than that aloft; thus the maximum benefit from the heating is obtained. During a calm, frosty night the air at a short distance above the ground usually is warm enough to be above the danger point for vegetables and fruit.

Effect of Humidity on Frost Formation

Water vapor is the most effective of the various gases present in the atmosphere in obstructing radiation of heat from the earth. Therefore, the amount of water vapor present in the air has considerable influence on the rate of fall in temperature during the night; the temperature falls more slowly when the humidity is high than when it is low, other conditions being equal. At a given temperature only a certain maximum amount of water vapor can be present in the air, and this is greater when the temperature is high than when it is low. When the maximum amount is present and the temperature is lowered, a certain portion of the water vapor is turned into liquid or frozen water. The temperature at which this condensation begins is called the dew point. The drops of moisture which appear on the outside of a pitcher of ice water on a warm day are formed through the chilling of the air coming in contact with the pitcher. These droplets begin to appear on the pitcher as soon as its temperature has reached the dew point. If the dew point is above 32° F., the freezing point of water, dew is formed; if it is 32° or lower, frost forms. Since dew or frost does not begin to form until the temperature of the ground or other object reaches the dew point, it is apparent that if the dew point is very low, the temperature may fall low enough to cause considerable damage without the formation of any frost. For example, if the dew point is 18° and the lowest temperature reached during the night is 24°, there will be considerable damage to growing crops without any frost formation whatever. This phenomenon, often called a "black frost," is of rare occurrence in most localities. Another factor that has great influence on the amount of fall in temperature during the night is the liberation of latent heat in the formation of dew or frost. When the dew point is high the latent heat given off in the formation of dew is often sufficient to check the fall in temperature almost entirely. Generally speaking, therefore, other conditions being equal, the higher the dew point in the evening the less danger there is of the occurrence of a damaging frost.

Methods of Protection From Frost

There are three general principles used in frost protection: (1) Conserving heat, (2) mixing or stirring the air, and (3) adding heat.

Conserving heat.—The most important way in which the ground cools during the night is through the loss of its heat by radiation. If it is possible to arrest or reduce this radiation and conserve the ground heat, frost will be prevented. One of the simplest methods of reducing this radiation is by placing some kind of a covering over the ground or the plants. Among the materials used are glass, cloth, heavy paper, straw mats, special plant protectors, and smoke screens or smudges.

Tin cans or other metal coverings should not be used to protect plants, as the metals are good conductors of heat. In Florida, tender crops are often protected by means of screens made of lath with spaces between them about the width of the lath. These screens serve the double purpose of protecting the plants from frost during

cold weather and providing shade in hot weather. Young potatoes and other vegetable plants are sometimes protected by covering them with soil, but where this is done the plants should be completely covered as the stirring of the soil increases evaporation and ground heat radiation. Cranberries are protected by flooding the fields with water from reservoirs provided for the purpose. Spraying with water is frequently recommended as a means of protecting plants from frost, but on the whole the use of water is not as effective as covering the plants with heavy cloth, heavy paper, or the formation of a heavy smoke screen.



FIG. 30. -Distribution of heaters in an orchard

Stirring the air.—The temperature of the air a short distance above the ground is often from 7 to 10° higher than near the surface on calm, clear radiation nights, or those most likely to have frost. It is obvious that if the lower, cold air could be mixed with the warm upper air, a damaging frost would not be likely to occur in most cases. Attempts have been made to do this by various methods, such as power-driven fans, but it has been found with the devices so far tested that the expense is far too great for practical use, while the general results were not as satisfactory as by other methods.

Adding heat.—The third principle of protection is that of adding heat to the lower air to replace that lost by radiation and conduction. This is usually accomplished by burning a large number of small fires throughout the area to be protected. Oil, wood, coal, oil-soaked shavings, tree prunings, carbon briquets, or a combination of two or more of these may be used. A large number of small fires is more efficient in raising the temperature than a small number of large ones. Atmospherical motion is a very important factor in heating. When the wind is blowing, even though at the rate of only a few miles an hour, the heat is steadily carried away and a much greater quantity of fuel is required than when it is calm.

Adding heat to the lower strata of the atmosphere has been found to be the most economical and effective method, especially where protection is undertaken on an extensive scale. It is almost exclusively employed in the western fruit-growing sections, where frost protection is practiced more extensively than in any other part of the country. Many other devices have been tried out, with varying, but mostly unsatisfactory, results. The fuel is usually a cheap grade of oil, consumed in a specially constructed heater, of which from 80 to 120 are required per acre, depending on the degree of cold that is likely to occur and the type of burner used. Figures 30 and 31 show the usual distribution of heaters in an orchard.

A smoke screen has very little influence on the loss of heat by radiation, and the effect of smudge fires of damp straw or manure, or of smoke screens from chemicals, is far less than that of direct heating, while a chemical smoke screen is much more expensive. A smoke screen has some value, however, in shading the fruit and blossoms from the morning sun and preventing a too rapid thawing following sunrise.



FIG. 31.—Orchard heaters in operation in a California citrus grove. A galvanised-iron tank for holding a reserve supply of oil for fuel is shown at the right.

Only one other form of protection against cold calls for attention here, and that only for a passing mention. It is common practice in Florida to mound the soil about the trunks of young citrus trees to protect them against injury by cold. If mounded 6 to 12 inches above the level of the ground, a freeze may kill the top of the tree, but the soil about the trunk will protect it from injury and from it a sprout will usually grow, from which a new top is developed. This, of course, results in the complete loss of the crop for a year or two, but prevents the loss of the trees.

Storage of Fuel

Where heating is practiced on a large scale, the question of procuring and storing an adequate supply of fuel is of primary importance. In order to carry on orchard heating successfully it is necessary to have enough fuel within reach to last through the longest cold spell likely to be experienced. Many instances have been noted where the crop has been protected successfully through several cold nights at considerable expense, only to be lost on one cold night on account of lack of fuel. Where orchard heating is practiced by many growers in a community, it is a good plan to buy and store large quantities of fuel oil on a cooperative basis, as is done in southern California. Orchards located near the storage tanks can haul directly from them, but in the case of those located a mile or more distant storage tanks should be provided in the orchard.



FIG. 32.—Filling heaters from tank wagon

The necessity of pumping oil from storage tanks should be avoided by raising the tanks high enough above the ground so that the oil will flow into the wagon tanks by gravity. Where the ground is not too flat, the storage tank can be so located that the oil can be run into it and also taken out by gravity. If more than 5 acres are to be fired with oil, a portable tank from which to fill the heaters is almost a necessity on account of the saving in time and labor. Three men with a tank wagon can fill heaters very rapidly, one man driving and two men drawing oil into 5-gallon buckets and pouring it into the heaters, filling two rows at one time. The owners of two adjoining orchards often use the same

tank wagon. Figure 32 shows the method of filling heaters from tank wagons.

Handling Orchard Heating

The fact can not be emphasized too strongly that if orchard heating is to be practiced successfully, it must be handled with as much care and attention as spraying, fumigating, or any other work. The secret of success will be found in adequate equipment, good judgment, attention to detail, and extreme vigilance. An inadequate number of fires to the acre may often be worse than none at all, as the costs of firing may be added to the loss of the crop.

THE RISE IN TEMPERATURE AS AFFECTED BY HEATERS
AND FIRES PLACED IN ORCHARDS

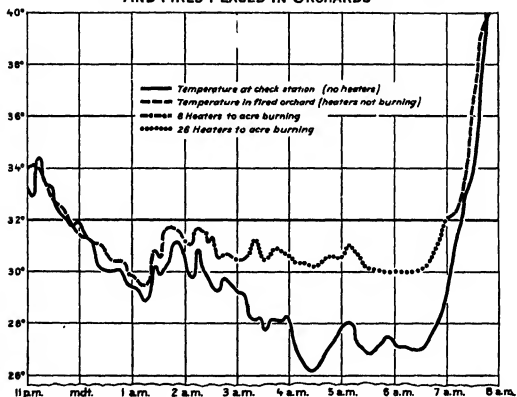


FIG. 33.—The rise of temperature as affected by heaters and fires placed in orchards

Whenever the temperature approaches the danger point the thermometer in the orchard should be watched closely and the rate at which the temperature is falling determined. If the temperature is falling rapidly the firing must be begun early in order that the heaters may be all lighted before the danger point is reached. With a little practice it is often possible to tell with considerable accuracy by inspection of the fruit or blossoms when the danger point has been reached, regardless of the temperature. If the small lard-pail heaters are set about 100 to the acre, alternate heaters in every fourth row should be lighted first, followed immediately by alternate heaters in every second row if the temperature has been falling rapidly. The effect on the temperature should then be noted and decision made as to whether additional firing is necessary at that time. As soon as a row of heaters begins to burn low, reserve heaters should be lighted, as the amount of heat given off during

the last half hour of burning is small. If the large capacity down-draft heaters are used, all may be lighted at once and the consumption of oil regulated by manipulating the drafts (fig. 31).

During a cold night an isolated cloud passing overhead, by cutting off radiation, and to a certain extent reflecting radiation from the earth, may cause the temperature to rise. As the cloud drifts toward the horizon the temperature falls again. Likewise, sudden temporary rises in temperature are caused by gusts of wind of short duration which mix the upper and the surface air. As a general rule the temperature falls rapidly after the wind or cloud has passed, and cases are on record where entire crops were lost through extinguishing the heaters at such a time. If clouds are overspreading the whole sky or a sudden rise in temperature due to wind occurs just before sunrise, the heaters may be extinguished, but if the sky remains clear and sunrise is an hour or more away, the temperature should be watched closely during the remainder of the night. A marked difference in the temperature at different elevations may occur, thus rendering it necessary to make observations at a number of stations where the topography varies widely (fig. 33).

Does Orchard Heating Pay?

This question can be answered only with a knowledge of the prevailing local conditions, as the factors to be considered in connection with the subject vary greatly, even sometimes for orchards in contiguous localities. The most important questions to be considered are:

(1) How often will it be necessary to light the heaters in order to save the crop each year? If dependable temperature records have been kept for a number of years somewhere in the immediate vicinity, a study of these may make it possible to gain a fairly accurate conception of what temperatures may be expected at the orchard in question.

(2) Will the value of the fruit lost through frost damage more than pay interest and depreciation charges on an investment for the necessary equipment, together with the expense of operation?

(3) Is the locality likely to be visited by short periods of cold weather during the growing season that would be too severe to successfully combat by known protective methods? This question can probably be determined from Weather Bureau records from some station in the vicinity. Usually the temperature in an orchard can not be raised more than 6 to 8°, under favorable atmospheric conditions. (See fig. 33.)

There are two conditions under which orchard heating will not be profitable: (1) The orchard may be located where frost damage is too slight in the long run to pay the expense of heating, and (2) it may be an exceptionally cold section where damaging frosts occur so frequently that the cost of protection is too great to be borne by the crop.

Orchard heating has been practiced since 1913 on one of the largest lemon groves in the country, located in southern California. During the season of 1913, when the citrus crop in many parts of southern California was practically a total loss and thousands of trees were killed outright, the lemon crop from this grove brought \$734,318.07 f. o. b. California. Records on the cost of protecting 220 acres on this place during the period from 1913 to 1918 are shown in Table 1. It will be seen that the returns from the fruit

saved in 1913 alone would pay the costs of protection for many years:

TABLE 1.—Annual and average cost per acre for protecting 220 acres of lemons with oil heaters

| | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 6-year average |
|--|---------|---------|---------|---------|---------|---------|----------------|
| Labor, man and horse, filling and lighting pots, per acre..... | \$45.70 | \$10.55 | \$10.65 | \$21.45 | \$20.60 | \$22.15 | \$21.85 |
| Oil..... | 38.35 | 12.70 | 4.20 | 23.20 | 26.15 | 17.75 | 20.40 |
| Depreciation..... | 19.30 | 19.10 | 17.40 | 15.00 | 14.30 | 13.00 | 16.45 |
| Interest..... | 17.85 | 17.45 | 18.50 | 13.40 | 13.45 | 11.25 | 14.80 |
| Upkeep..... | 11.55 | 7.98 | 7.65 | 1.10 | 5.65 | 8.70 | 6.25 |
| Total..... | 132.75 | 67.75 | 55.40 | 74.75 | 80.15 | 67.85 | 79.75 |
| Number of times fired..... | 19 | 2 | 7 | 20 | 27 | 21 | ----- |

This ranch is located on both high and low ground, but only the low ground is protected. Lemons are more easily damaged than oranges, and as the small green fruit must be protected, the fires are lighted oftener than in most other orchards. The costs given in the table are for firing about the maximum number of times that would be necessary anywhere in the country.

Through widespread interest developed some years ago in orchard heating, and a considerable number of experiment stations devoted much attention to the problem, and besides many growers equipped their orchards for heating at large expense, the practice is now largely confined to those fruits, which, like oranges and other citrus, are grown only in a few restricted areas, or to some regions where the fruit interests comprise practically the sole industry of the community. In the fruit regions otherwise located where attention was at one time given to orchard heating it has been abandoned in most cases because it did not pay to maintain the heating equipment. An occasional loss or partial loss of a fruit crop could be sustained with a smaller tax on the resources of the grower than that required for efficient heating.

Group Relationships, Cultural and Economic

A broad classification of fruits recognizes several classes or groups—deciduous tree fruits, tropical and subtropical fruits, small or bush fruits, and vine fruits. This classification is fundamentally geographical rather than botanical, but it will become evident in due course that rather close botanical or natural relationships exist among the members of each group. That, however, is incidental, and not the basis of the grouping.

The deciduous group includes those fruits which have a definite period of growth followed by a period of dormancy, the latter being induced by low temperatures. It is possible, perhaps probable, that the comparatively new conception of the influence of length of day on plant behavior may have its application in the dormancy of plants, but in this consideration dormancy is closely associated with the lowering of the temperature as summer wanes and the cool weather of autumn merges into the colder days of winter. The tropical and

subtropical group is composed of the fruits adapted to those sections which are continuously warm enough so that vegetation is in more or less constant active growth. Plant activities may slow down during the cooler parts of the year, but the trees do not drop their leaves as deciduous trees do. The small or bush-fruit group is composed of the various berries—strawberries, raspberries, blueberries, currants, and others. The vine fruit group is represented principally by the grape, though the passion fruit, rarely grown in this country, belongs here.

Deciduous Tree Fruits

The deciduous tree fruits constitute a conspicuous group. It comprises the tree fruits in the Temperate Zone, though the number that can be grown is gradually reduced and so far as cultivation is concerned reaches the vanishing point in the stretches northward toward the Arctic Circle; southward the deciduous fruits of the temperate climate become restricted in kind and variety and blend into the evergreen fruits—oranges, guavas, avocados, and the like, which characterize the land—not necessarily the land of perpetual summer but at least a region having a subtropical climate. The deciduous tree-fruit group is made up, in turn, of pomaceous and drupaceous or stone fruits.

The Pomaceous Fruits

The deciduous tree fruits are separated into subgroups which represent mainly natural or botanical relationships. Thus, the apple, crab, pear, quince, medlar, and possibly others are designated as "pomaceous" fruits, each having certain specific (as contrasted with general) natural characters in common. For instance, as even the most casual observer will realize, the seeds, core, and flesh of apples, crabs, pears, and quinces are each strongly suggestive of the other in many particulars. The same is true of the medlar, but this fruit is a comparative stranger to the American fruit grower. The loquat is also a pomaceous fruit, but it is also subtropical or nearly so and not deciduous. The fruits comprising the pomaceous subgroup have much in common in their history and cultural requirements. They differ widely, however, in their economic status.

The fact has already been stated that the most of our tree fruits represent exotic or foreign species that were introduced into America. However, many of the berries or "small fruits" represent species native to America. The list of fruits derived from introduced species and recorded elsewhere (p. 112) includes all of the pomes named above with the exception of the crabs.

Whence came the pomaceous fruits?—The apple (*Malus sylvestris*) is believed to have been distributed from prehistoric times both in the wild and in cultivation throughout much of Europe where it is believed to have been indigenous; also, south of the Caucasus and in northern Russia. It is to be noted, however, that with few exceptions the varieties now grown here are of American origin, the outstanding exceptions being some of the early ripening sorts of Russian origin. Probably no other fruit grown in America has given rise to so large a number of named varieties as has the apple. No one knows even approximately how many varieties exist, or

have existed, but American literature records something like 7,500 and the number of synonyms is considerable larger. Several hundred varieties are offered to the planters every year by the nurserymen, though the tendency is to reduce the number. Of those sold by the nurserymen perhaps not more than 50 are of large commercial importance.

The pear.—The pear (*Pyrus communis*) grows wild throughout temperate Europe and western Asia, south of the Caucasus, and in northern Persia, its history being closely parallel to that of the apple. The Oriental pears of which there are several species of considerable importance occur wild in different parts of China, Korea, Manchuria, and Japan, though no single species is indigenous in all of these regions. Pure representatives of these species are but little cultivated in this country for their fruit, but hybrids between horticultural varieties of *P. communis* and Oriental species, especially *P. serotina*, are extensively cultivated, the best known varieties being the Kieffer, Le Conte, and Garber. Some of the Oriental pears, especially *P. calleryana* and *P. ussuriensis* are coming into prominence as stocks for use in propagating pears because of their resistance to blight. Unlike the apple, but few pure "communis" pear varieties grown in the United States are of American origin, most of them being European sorts which have come to us largely from France and Belgium. Although the number of varieties grown is very large, the bulk of the crop in any year is composed of perhaps not more than six or eight sorts of which the Bartlett is by far the most extensively grown of any. Probably the Kieffer is second in quantity production.

The crabs.—The crabs from an historical standpoint are difficult to define. Many of the cultivated varieties are hybrids, and the origin of some of the most important sorts is unknown. The Siberian crab (*Pyrus baccata*) has entered into the parentage of some of them, possibly also some of the native American crabs, whereas certain varieties usually classed as crabs have an apple variety (*Malus sylvestris*) as one of their parents.

The quince.—The quince (*Cydonia oblonga*) in its native habitat is not as widely distributed as the apple and pear, but it is reported in northern Persia near the Caspian Sea, in the region south of the Caucasus, and perhaps elsewhere as in the Crimea and in northern Greece, but the possibilities of its having become naturalized in some parts of Europe are recognized by some. Certain authorities consider it native to southern France and central Europe.

The medlar.—The medlar (*Mespilus germanica*) is found in central and southern Europe to the Caucasus, and also in a wild state in England, but doubt exists as to its being indigenous there.

The loquat.—The loquat (*Eriobotrya japonica*) is an Oriental, being considered native to China and Japan.

In reference to the foregoing, Figure 2 indicates in a striking way the relative proportions of fruits of foreign and of domestic origin that are produced in this country.

Cultural Requirements and Economic Status

The cultural requirements of the members of the pomaceous subgroup are closely similar. Clean tillage, tillage and cover or green-

manure crops, sod culture, and the maintenance of the soil fertility by the use of commercial fertilizers and animal manures—these cultural systems and their modifications are variously employed as occasion or circumstances suggest. The use of a particular system of culture as a feature in disease control is illustrated in the maintenance of pear orchards. The high degree of susceptibility of rapidly growing pear trees to blight is recognized. In order to retard or restrict the growth, orchards are commonly maintained under sod culture as the tillage methods tend to stimulate rapid growth. The members of this subgroup are subject in a marked degree to the same insects and diseases. In substantially a like degree, the same spray schedule and other means of control are applicable to these several fruits. On the other hand, there are certain serious insect pests and diseases that occur on one or more of them and not on the others.

In any of the pruning methods followed, it is essential that the habit of growth and fruit-bud formation be carefully regarded. Even different varieties of the same kind of fruit have different growth and fruiting habits. These must be taken into account in pruning if the grower is to be successful, otherwise he may unwittingly remove an undue proportion of fruit-bearing wood. The quince has an entirely different fruiting habit from the apple or pear. The fruit buds of the latter form the preceding season largely on spurs 2 years or more old and in some varieties many are terminal on 1-year growth. Those of the quince, however, do not form the preceding season, but at the terminals of the current season's growth. Thus, a quince tree (or bush) starts into growth in the spring and shortly a fruit bud develops, if conditions are propitious, at the terminal end of each shoot, thus bringing to a close for the season any further elongation of the shoots. This accounts for the slow, restricted growth and dwarfish habit of quince trees or bushes. Obviously, if the new seasonal growth of a quince tree is weak or lacking, it necessarily follows that the potential possibilities of an abundant crop are lacking in a corresponding degree.

The economic status of the apple and pear, the two most important pomeaceous fruits, is only partially indicated by the records of production, but they are suggestive and are given below for the five-year period, 1920 to 1924, inclusive.

TABLE 2.—*Apple and pear production for the 5-year period, 1920 to 1924, inclusive*

| Year | Apples | | Pears |
|-----------|-----------------|----------------|----------------|
| | Commercial crop | Total crop | Total crop |
| | <i>Barrels</i> | <i>Bushels</i> | <i>Bushels</i> |
| 1920..... | 33,906,000 | 223,677,000 | 16,808,000 |
| 1921..... | 21,557,000 | 99,002,000 | 11,297,000 |
| 1922..... | 31,945,000 | 202,702,000 | 20,705,000 |
| 1923..... | 34,303,000 | 196,770,000 | 17,390,000 |
| 1924..... | 28,063,000 | 171,250,000 | 18,868,000 |

There are no production records of importance on crabs and quinces. Both fruits are widely distributed. In a general way it may be said that they accompany the apple in its geography but

the volume of production of each is small. Quinces are handled in car-lot shipments from a very few points, but the total crop in most centers of production is so small that express or other small lot movements meet the shipping requirements.

To the inexperienced grower the quince is a deceptive fruit in some respects. The retail price in the market is usually high compared with many other fruits. The supply in sight at any time is usually limited. The natural line of reasoning from such a combination of observations is that the production of quinces is below the demand; therefore, it should prove a profitable fruit to grow. The facts are: The trees make a slow growth and are very susceptible to several destructive diseases difficult to control. The crops are irregular and undependable and average yields are low. Retail



FIG. 34.—A well-developed quince tree of mature age. Quinces are often grown in bush rather than in tree form

prices, therefore, which seemingly are very high may represent a disastrously small return to the grower on a tree or acre basis. Besides, the quince is used but little except in jelly making and for preserves. The housewife is usually satisfied with a small supply as compared with a fruit that is used in many different ways extending through a long season. Therefore, the demand is capable of being fully met with a comparatively small production. In the main this is true also of crabs.

Perhaps the safest way for the average quince grower is to plant the trees in the garden or near the house where special care can readily be given and to grow them mainly for home use; local markets may be supplied from any surplus. Or, trees may be planted on land that would otherwise be unused but where they can conveniently be given such special attention as they require (fig. 34).

In that case if the trees or the crop fail it does not make serious inroads in the farm income and anything returned is that much gain.

The medlar is practically unknown in American fruit production, being rarely found outside of botanic gardens and other similar places. Central Europe is its native habit where it is more generally known than in this country. The tree, or bush, which may attain a height of 10 or 15 feet, is hardy as far north as central New York. The fruit, which has some characteristics of the apple and others of the quince, is not much larger than an ordinary crab. Medlar trees and fruits are shown, respectively, in Figures 35 and 36.

The loquat occupies the rather unique position of being an ever-green pomaceous fruit. All the other pomes here referred to are deciduous. Although considered of delicate flavor by many and



FIG. 35.—Trees of the medlar

more or less widely distributed in the Gulf coast region and in some parts of California, the loquat is of little importance in the fruit industry. However, it is cultivated in many of the warm regions of the Old World and is reported to be produced in Japan annually in quantities of 20,000,000 pounds or more. Loquat fruits are shown in Figure 37.

The geographical distribution of apples and pears in the United States is indicated in Figures 18 to 21. These graphs show the range of these fruits, except in regions where the trees occur in too small numbers to be expressed in a unit of 500 acres. In certain areas readily observed in the graphs a heavy concentration of dots symbolizes commercial production, though heavy production occurs in many areas where the dots indicate no greater density than in other areas where commercial orchards do not occur. It should therefore be noted that figures showing area devoted to a crop, or numbers of trees in a given territory, may prove very misleading unless cor-

rectly interpreted. A hundred thousand trees in a county if contained in a comparatively few orchards of a few thousand each may represent community interests of considerable commercial importance,

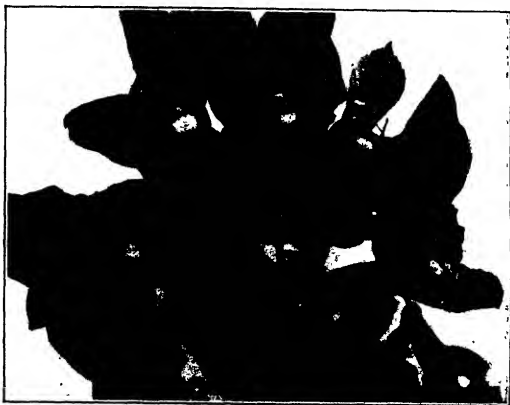


FIG. 36.—Fruits and foliage of the medlar

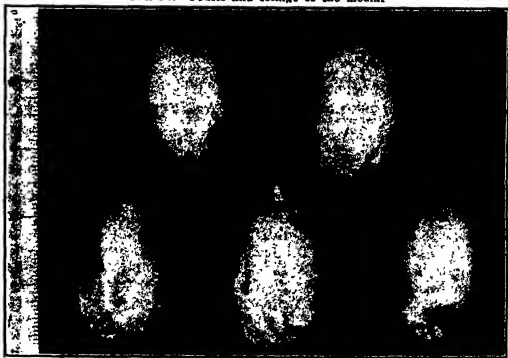


FIG. 37.—Fruits of the loquat

whereas if the trees are widely scattered, with only a few in a place, no commercial industry whatever is represented. Figures 38 to 41 show typical views in different apple and pear growing regions. In

this country the extensive culture of apples in the North Central States, with present varieties, is limited by the severely cold winter weather. North of latitude 42°, slightly north of Chicago between Lake Michigan and the Rocky Mountains, production of winter apples is limited. This is because the varieties formerly available were not hardy enough to withstand the rigorous climate peculiar to that section. Recently varieties have been introduced that are promising for parts of Iowa, Minnesota, Wisconsin, and other portions of the upper Mississippi Valley. On the other hand, regions with long, hot summers and with winters so mild that the trees remain in a more or less active state of growth are not favorable for the growing of apples. In the eastern part of the United States, where irrigation is not practiced, apples require a rainfall during the growing season

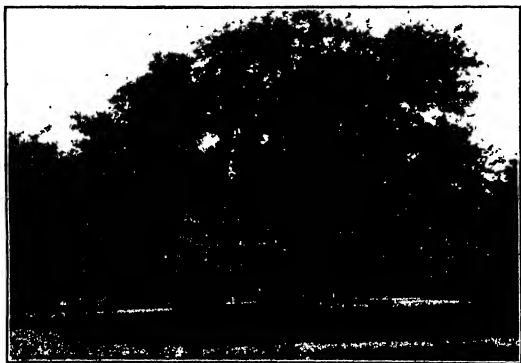


FIG. 38.—View in a 55-year-old apple orchard in western New York. The trees were planted in 1860. The tree in the foreground had a spread of limb of 50 feet. The trunk, 1 foot above the ground, had a circumference of 7½ feet.

of at least 18 inches. In the Great Plains States, west of the 18-inch line of warm-season rainfall there are but few orchards. Although the apple has more or less definite climatic limitations, its many varieties give it a geographic distribution comparable with that of many other staple crops. The lack of transportation facilities is the limiting factor in many sections that are climatically suitable for apple growing.

The Drupaceous Fruits

In like manner to the foregoing, it is noted that the peach, plum (including prune), cherry, nectarine, and apricot are "drupaceous" or "stone" fruits, and in this subgroup, close similarity in structure of seed or pit, and flesh is readily recognized. The almond, among the nuts, is closely related to the members of this subgroup, the kernel being the edible part; the pericarp, which corresponds to the flesh of

the peach or plum dries up on maturing and is not edible. As in case of the pomaceous fruits, the drupaceous subgroup is made up largely of foreign species that were introduced in a very early day, the present representatives in the form of named horticultural varieties, excepting peach varieties, being themselves European sorts in a much



FIG. 39.—A young Yellow Transparent apple orchard in southern New Jersey. It has received clean tillage. The trees were headed higher than is commonly done. Compare with Figure 28.

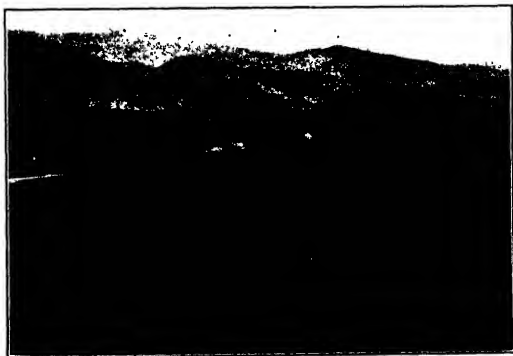


FIG. 40.—A somewhat typical view of the apple orchards in the Wenatchee Valley, Wash.

larger proportion than is true of the pome varieties. Nearly all the peach varieties now grown are of American origin. Further details as to varieties appear as the historical notes are developed.

Whence came the drupaceous fruits.—Strangely enough the place of origin of the peach (*Amygdalus persica*) is unknown. Though

growing in various parts of the Old World in substantially a wild state, doubt exists as to its being indigenous in any region where it has been found. While commonly attributed to Persia, as suggested

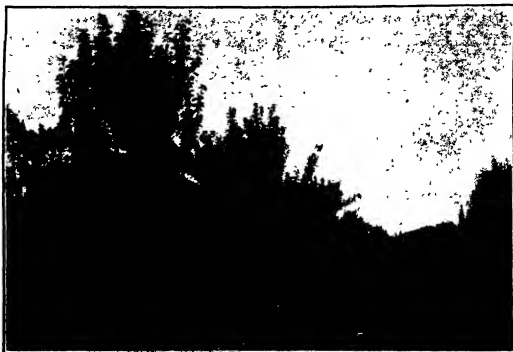


FIG. 41.—A well-kept Bartlett pear orchard in the Rogue River Valley, Oreg.



FIG. 42.—A fairly typical peach orchard in its sixth season in western New York. The fruit is used for shipping in the fresh state. The tops of the trees are pruned with a view to keeping them open so that the sunlight can reach every fruit as it develops

by the species name applied to it, De Candolle points to the fact that since remotest antiquity the peach has been cultivated in China. The early introduction of peaches into the American Colonies, thus mak-

ing the development of peach growing substantially coincident with the development of the country, has been stated on a previous page. It remains to be said that the varieties now grown, with the exception of the Salwey and perhaps one or two others rarely found, are of American origin.

In but few instances in the whole fruit industry has an important enterprise been developed to so large an extent on a single variety—the Elberta—as has the peach industry. During the 50 years more or less, of the existence of this peach hundreds of other varieties have been grown. Some varieties of earlier origin than the Elberta are still being planted, and many others meet important needs in the industry but the predominating position of the Elberta remains. In this connection, however, mention should

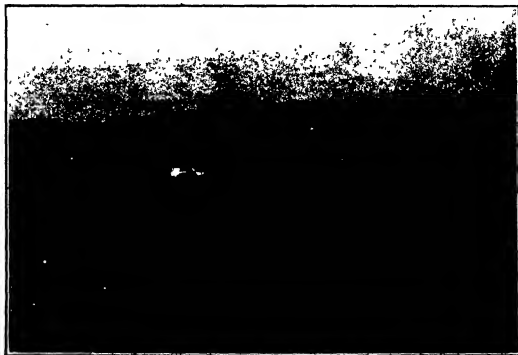


FIG. 43.—A peach orchard location in the Alleghany Mountain section of West Virginia

be made of such special purpose varieties as the Muir and Lovell, grown for drying, and several yellow clingstone sorts produced for canning, all of which are extensively planted in California. The graph appearing as Figure 22 on page 171 shows the distribution of the peach industry.

Peaches are more susceptible to damage by winter killing and also by spring frost than apples, consequently their culture is most extensive in those sections which have relatively mild winters, or where the climate is tempered by the influence of ocean currents or large bodies of water. There are three rather distinct types of cold or frost injury to peaches. In the normally colder climates, such as the region of the Great Lakes, the trees sometimes suffer from a type of winter injury associated with immaturity of wood. In the warmer climates, such as prevails in the Southern States, there is danger of winter injury both to wood and buds, but principally to the buds which respond readily to short periods of warm weather in winter where the warmth may be followed by damaging but sea-

sonable temperature. The third type is general and consists of injury to buds or blossoms by a late spring frost. When thoroughly dormant, peach buds may survive a temperature of -12 to -20° F.

The production of peaches during the last five years is shown in Table 3.

TABLE 3.—Total estimated production of peaches throughout the United States for five years, 1920 to 1924

| Unit | 1920 | 1921 | 1922 | 1923 | 1924 |
|--------------|--------------|--------------|--------------|--------------|--------------|
| Bushels..... | 45, 020, 000 | 32, 602, 000 | 55, 852, 000 | 45, 702, 000 | 54, 119, 000 |

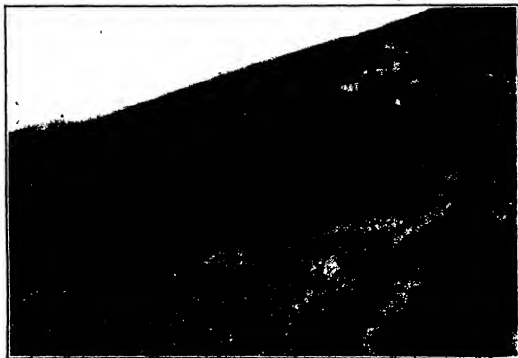


FIG. 44.—A peach orchard on Knobly Mountain in West Virginia. Though very steep, soil erosion is practically unknown here because of the porous character of the soil and subsoil. Yet it is fairly retentive of moisture. The lower side of the orchard is several hundred feet above the floor of the valley, so that the cold air settles far below the level of the orchard. The elevation at this latitude is sufficient to reverse the conditions illustrated in Figures 13 and 14. As a result, because of the decreasing temperature toward the higher altitude of the crest of the mountain, the trees blossom and the fruit ripens in the average season two or three days earlier at the lower side of the orchard than at the upper side.

The nectarine.—The nectarine is but little grown in this country. Many people are unfamiliar with its characteristics. It has been described as a peach with the skin of a plum, which is fairly expressive. It is regarded as a sport or mutation of the peach; the tree is indistinguishable from the peach. In fact, a peach tree is occasionally found on which a single branch produces nectarines. One case at least has been observed where a single fruit on a small twig of a peach tree was typically peach on the exterior of one side and typically nectarine on the other. A tree grown from a peach pit which produces nectarines is not a particularly rare occurrence. In general, nectarines could doubtless be grown practically anywhere that peaches are grown, though very few are produced. The fruit reaches the market in only small quantities. One difficulty in pro-

duction is the susceptibility of the fruit to injury from the plum curculio. Only a few named varieties are in the trade. The nectarine is probably much more popular with the English as a fruit for growing under glass than it is anywhere in America.

The plum.—The plum, as grown in different parts of the United States, includes three rather distinct types; a fourth type, composed of hybrids between two of the other types might also be specified. These types include the European or "domestica" plums (*Prunus domestica*), the Japanese plum (*P. salicina*), and the native plums representing several species, of which *P. Americana* has given by far the largest number of named horticultural varieties of any. Other species represented by named varieties are *P. hortulana*, *P. angustifolia*, also a number of botanical varieties, and certain other species of less importance horticulturally. Uncertainty exists as to the native habitat of the European plum. Though grown in a half-



FIG. 45.—A prune orchard 21 years old of the Agen (*Petit* or *French*) variety in California. This is the leading prune in that State

wild state for 2,000 years in Europe, authorities doubt that it is indigenous there. It has also been found wild south of the Caucasus and in northern Persia, but without conclusive evidence that it sprang from these regions. In the United States the European plum is widely disseminated and constitutes an exceedingly important part of our plum industry. The largest production is in the northern fruit districts, in the Pacific States, and the Northwest. This type does not withstand well the long, hot and frequently dry summers of the South, and even the conditions that characterize the middle latitudes are, in general, rather adverse to most of the varieties. The European type, as represented in this country, includes many varieties that are of foreign origin, though others of prominence in the industry are of American origin. The prunes are also included in this group, the most important varieties for drying, the Italian Prune and the Agen (*French*), being introduced sorts (fig. 45).

The Japanese plum, although widely disseminated from Japan and grown there somewhat extensively, is believed to be native to China. The named varieties of this type have been conspicuous in the plum industry of the United States for the last 35 or 40 years. Some of the varieties were introduced direct, others have originated as seedlings in this country. Though some of those coming in the form of vegetative parts were brought under name, much confusion in identity developed in the late eighties and during the nineties as the varieties began to be known. This was due in part to the fact that fruit names in Japan are commonly group or class names and do not refer to specific sorts. Seedling propagation in the early days of this type of plum in this country with reproduction more or less closely approximating the variety, may also have contributed to the difficulties. Japanese varieties of plum have become widely distributed throughout a large part of the country. The trees are not sufficiently cold resistant to withstand the winters in the most northern fruit districts and in the rather severe climatic conditions in much of the Great Plains area where dry farming methods must be employed, they meet their limitations. Otherwise, the type may be found almost anywhere that plums are grown. The outstanding weakness of the type is the habit of very early blossoming which results in rather frequent injury from spring frosts.

Our native species of plum vary greatly in their habitats. Some have a very wide range of distribution; others are distinctly regional. Some of the hardiest, most cold-resistant, and drought-enduring tree fruits grown in the country represent native plum species. Furthermore, other representatives are adapted to the climate in the warmer parts of the land. Thus it is that the native plum, in its several species, is doubtless more widely distributed throughout the entire country than any other tree fruit. Excepting possibly the strawberry, there is probably no other fruit as widely distributed in the United States as the native plums. The fruit of the native varieties, as a rule, does not reach such standards of size, shipping, and dessert qualities as to render it of more than minor importance commercially, but for home use in canning and other culinary purposes, it is highly prized, especially in those regions where fruit growing is restricted because of the severity of the climate in drought, cold, or desiccating winds. Selected varieties of native plum form one of the most dependable fruits for growing in the Great Plains area.

Perhaps it is in giving origin to the fourth type of plum, already referred to, that both the native and Japanese plums have made their largest contribution to the fruit industry. It may seem strange that the native species, many of them at least, and the Japanese plums hybridize readily, while neither of these types hybridize with the European plums. Considerable plum breeding has been carried on by a number of specialists, and as implied, varieties highly important in the plum industry have been developed and are extensively grown. The distribution of plums, but without regard to type, is shown in Figure 23. Few statistics of plum production exist, but according to the fourteenth census, the crop for 1919 amounted to a little more than 19,000,000 bushels, of which 16,624,000 bushels were produced in California, Oregon, Washington, and Idaho. About two-thirds of

all the plum trees in the country on January 1, 1920, were in these States.

The cherry.—In the cherry, there are two types rather strikingly different in tree and fruit, and a third, whose members are hybrids between the other two and which to some extent combines their characteristics. The two distinct types are the sour cherry (*Prunus cerasus*) and the sweet cherry (*P. avium*). The hybrids, represented by several well-known varieties, are termed the "Duke" type, or group. Such an authority even as De Candolle finds difficulty in tracing the sour cherry to its original habitat. Evidence seems to point to its occurrence in the region between the Caspian Sea and Constantinople in a very ancient time, and it was long ago reported as wild in the mountains of Italy and in central France. It was known and be-



coming naturalized at the beginning of Greek civilization. The sweet cherry is said by De Candolle to be wild in Asia, in northern Persia, in the region south of the Caucasus in Armenia, southern Russia, and in the area southward from Sweden to the mountainous parts of Greece, Italy, and Spain. Though apparently the sweet cherry was much more widely distributed than the sour type in ancient times in the Old World, that does not hold true in this country at the present time.

The sour cherries are more hardy than the sweet sorts, with respect both to cold and drought resistance. In general, the northern range of adaptability of the sour varieties corresponds somewhat closely with the apple excepting possibly the most hardy varieties of the latter; the northern range of the sweet cherries corresponds more nearly with that of peaches than with any other fruit with which comparison is illuminating. Southward, the range of both sweet and sour varieties is limited mainly by their response to climatic con-

ditions. Both types are grown somewhat in the middle latitudes, but in diminishing quantities south of what is commonly designated as the northern fruit belt or district. More or less successful production is possible, however, at the higher elevations in the southern extension of the Appalachian Mountain area.

The sour cherry is represented in this country mainly by introduced varieties. A very few sorts, the Early Richmond, Montmorency, and English Morello comprise the bulk of the crop. In fact, the Montmorency alone is produced in larger quantity, probably several times more, than all other sour varieties combined. Cherry production east of the Rocky Mountains consists very largely of sour sorts with only a small proportion of the crop in any year consisting of sweet cherries (fig. 46). On the other hand, sour cherries are practically nonexistent commercially in California and in the Northwest where sweet



FIG. 47.—A sweet cherry orchard in its eighth season of the Napoleon variety in western Oregon

cherries are grown extensively (fig. 47). The fourteenth census reported the cherry crop of 1919 as 3,946,000 bushels, of which 1,297,000 bushels were grown in California, Oregon, Washington, and Idaho.

The apricot.—The apricot (*Prunus armeniaca*), as the species name suggests, has been considered by some to be native to Armenia, but doubt exists as to whether it may not have been introduced there at a very early date. The Chinese are said to have known this fruit 2,000 or 3,000 years before the Christian era, and a Chinese origin is accepted by some authorities as probable. The apricot, from a commercial standpoint, has rather striking restrictions geographically, not because the tree lacks hardiness or adaptability so far as its growth is concerned, but mainly because of its blossoming habit. The fruit buds respond quickly to the first warm days of spring and open very early—about the first of any of the tree fruits. This results in the buds and blossoms being much exposed to temperatures that are injurious. Such temperatures, however, may be

entirely seasonable and would cause no injury with the buds perfectly dormant. This situation makes the crop very uncertain and renders the planting of the trees unwise in many sections where they would otherwise be well adapted. The tree can be expected to thrive under about the same conditions as the peach. Though planted rather widely, a few trees in a place, the commercial production of apricots is practically confined to sections in California, especially certain well-protected valleys where frost injury is a less serious factor than in most regions. Orchard heating is practiced in these valleys to some extent, the Weather Bureau cooperating by distributing through a special service warnings of impending dangerous temperatures. In 1919, that State produced 5,907,000 bushels of apricots out of a total crop for the country of 6,130,000 bushels.

What is true of the pomaceous subgroup with respect to similarity in the cultural requirements of its members is likewise true of the drupaceous subgroup—peaches, plums, cherries, and apricots. In general, these fruits require the same or very similar cultural treatment. Clean tillage, or tillage with cover and green-manure crops, represents the usual system of orchard maintenance. Sod culture is rarely used with any member of this subgroup. In large measure the same or a similar spraying program is followed, because of the similarity of insect pests and diseases to which the various fruits are subject. Even the details of pruning are much the same, the principal difference being in treating the peach. The peach bears its fruit on wood of the previous season's growth. If for any reason, a tree makes a very small growth in any year, its potential crop-producing capacity is limited accordingly. Pruning, as well as other maintenance operations, may therefore be directed, as occasion requires, to the stimulation of new growth. Although a certain amount of new growth is important in case of the plum, cherry, and apricot, these trees bear much of their fruit on spurs; hence the matter of new annual terminal growth is of less importance from the standpoint of crop production than with the peach.

Of the other deciduous fruits enumerated on an earlier page, there still remain for further comment, persimmons, both native and Oriental, the pomegranate, fig, and native papaw. Each of these fruits represents a different subgroup, but the members are relatively unimportant commercially compared with most of the pomes and drupes. It may be noted, however, that the fig is commonly included in the works on subtropical fruits; Japanese persimmons and pomegranates are rarely put in a group that includes apples, but since they are distinctly deciduous in habit of growth and development, and are grown in regions where the commercial production of peaches and some other Temperate Zone fruits are commercially produced, there seems to be abundant reason for grouping them with other deciduous fruits in any general classification plan.

The persimmon.—The native persimmon (*Diospyros Virginiana*) is indigenous in the eastern United States from Connecticut southward to Florida and westward to Texas and Kansas. The Oriental or Japanese persimmon (*D. kaki*) has been grown in Japan and China for many generations. No special investigation to determine its original habitat appears to have been made. The first introduction of the Japanese persimmon to the United States is said to have

been made by the Perry expedition, but many other importations have since occurred. The number of varieties that has been grown is large, but at the present time the nursery catalogs list perhaps not more than 16 or 18 sorts and hardly more than a half dozen of these are prominent. One variety, the Tamopan, was introduced from China; most of the others came from Japan, while the remainder, representing a small number of varieties, have originated in this country.

The persimmons, native and Oriental, have never come very fully into their own in this country. The dozen or more named varieties of native persimmons are selections from the wild and represent merely individual trees that simply happened to be superior to the others. Few of even the named varieties have ever been propagated to any extent by nurserymen for the trade. Moreover, the demand for them has never been such as to furnish much inducement for propagation. A few small orchards have been planted and occasionally a man, more appreciative of the value of the fruit than the general mass of people, has planted trees about the build-



FIG. 48.—A Japanese persimmon orchard in its third season's growth in Florida

ings. For the most part, the fruit gathered from wild trees is sufficient to satisfy local demands; little or no shipping is done.

The Japanese persimmon is cultivated much more than the native. Orchards of several hundred trees each are not especially uncommon (figs. 48, 49, and 50). Though the fruit is not as rich nor the eating quality as high as the native persimmon, the size, appearance, and good shipping qualities make it more appealing as a commercial fruit than the native form. The trees are less hardy than the native tree. They may be grown in the Atlantic Coastal Plain region as far north as Norfolk, Va., or possibly even southern Maryland in close proximity to Chesapeake Bay, though they are not hardy in the vicinity of the District of Columbia. They thrive in eastern North and South Carolina and in the Gulf States, including a considerable portion of Texas. In California also, this fruit is grown more or less. In fact, planting has been more active there during the last few years than in any other part of the coun-

try. The fourteenth census (January 1, 1920) reported about 28,000 trees of bearing age, nearly half of which were in California. At the same time there were about 24,000 trees not of bearing age, fully half of which were in Florida. Recent plantings in California doubtless modify this proportion at the present time. The crop of 1919 averaged slightly more than a bushel to the tree for the number in bearing.



FIG. 40.—A Fuyu persimmon tree in the orchard shown in Figure 43

The persimmon is known above all else for its "pucker" when eaten before it is fully ripe. This characteristic is due to the tannin which is in the immature fruit. When the fruit becomes thoroughly ripe, certain changes occur so that the tannin is not noticed in eating the fruit, though it still remains in it. There are certain varieties of Japanese persimmons which do not possess this characteristic

pucker even when immature. The fruit may be eaten while still hard. These varieties are commonly termed sweet persimmons. The common notion that frost is a necessary agent in the ripening of persimmons is unfounded. Late varieties may ripen after frosts occur and the ripening processes may be hastened thereby, but the fruit would mature in due course in the complete absence of frost. The early sorts become fully edible without respect to the occurrence of frost.



FIG. 50.—A Tanenashi persimmon tree in the orchard shown in Figure 48

The pomegranate.—The pomegranate (*Punica granatum*) is considered to be native to Persia and adjacent countries, though found in an apparently wild state in a much wider range than this. It is grown only to a very limited extent. It is rather distinctly a warm-climate fruit, occurring mainly in the Gulf States and in California. Shipments in some quantity have been made from California, but elsewhere production is practically confined to trees, or, more accurately, as they usually develop, to bushes in the yards and gardens, with rarely a planting of larger size. The Fourteenth Census reported a total of bearing trees of about 28,000, of which more than 24,000 were in California, the others being widely distributed, a few hundred trees in each of several States. The number of trees not of bearing age was nearly the same as the number in bearing, and all, excepting about 1,000 of these, were credited to California. More than 92 per cent of the crop of 1919, amounting to a little over 1,000,000 pounds, was produced in California.

The fig.—The fig (*Ficus carica*) has been grown from a time that defies the memory of the human race. It entered into the literature of ancient times, both sacred and secular, as have few other fruits

or plants. Though its native habitat evidently included much of the Mediterranean basin, it is supposed to center in Syria. The fig, compared with any other fruit, is one of nature's oddities, both in its morphology and in its manner of development. In general, its distribution in this country conforms rather closely with that of the Japanese persimmon. It is widely distributed throughout the Gulf States, the Carolinas and eastern Virginia; also in California, and to a limited extent, in Arizona. As in the case with the Japanese persimmon, figs are not hardy in the vicinity of the District of Columbia, but in the region of Norfolk, Va., where the winter climate is influenced by the close proximity of the waters of the ocean and Chesapeake Bay, fig trees thrive. In fact, in that section, the trees are apparently less subject to winter injury than in almost any other section east of the Mississippi River. There, the winter temperature seldom drops to a degree that is critical for fig trees in a perfectly

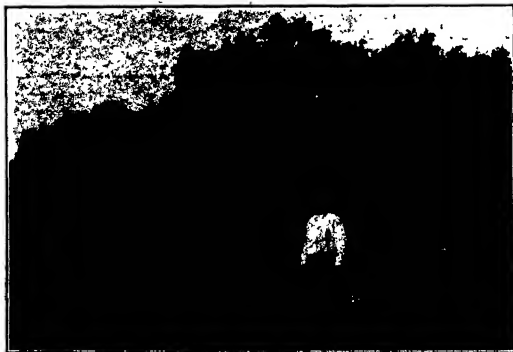


FIG. 51.—Fig orchard of the Adriatic variety about 20 years old in California

dormant condition; and further, the trees evidently remain more completely dormant during the winter than they do throughout most of the Gulf coast region. Farther south, warm spells occur during the winter and stimulate the buds into growth sufficiently to make them tender. Later, temperatures are likely to occur which are low enough to be disastrous to the tender buds. As a result, winter injury to fig trees throughout the Gulf States is not uncommon.

The principal commercial industry in fig production is in California where figs have been grown evidently since the days of the early Mission Fathers. However, it is only within comparatively recent years that extensive commercial plantings have been made (fig. 51.) The figs grown in California include varieties of two types: The Adriatic and the Smyrna. Those of the Adriatic type set fruit and develop it to maturity without being pollinated. Varieties of the Smyrna type, in order to develop fruit to maturity,

must be pollinated. The principal variety of Smyrna fig introduced from Asia Minor as the Lob Ingir is known in California as the Calimyrna. This type of fig requires for pollination the agency of the fig insect (*Blastophaga*) which breeds only in the caprifig ("goat fig"), a wild form that produces inedible fruit. For nearly 20 years after Smyrna figs were introduced into California the trees regularly shed their crops without any of the fruit reaching maturity. After several attempts and failures the fig insect was first successfully introduced into the United States in 1899 by the United States Department of Agriculture and as soon as established and distributed no further trouble was experienced in getting fruit to set and mature.



FIG. 52.—Fig orchard of the Magnolia* variety in its fourth season in Texas

Although chiefly grown for drying, the Smyrna fig is being canned on an extensive scale and shipments of fresh Calimyrna figs in car-load lots are also being successfully made.

In California, much of the fig crop including both Adriatic and Smyrna types is dried. In the southeastern United States the situation is very different. In fact, the character of the fruit grown in this humid region is so different from that grown under the semiarid conditions of California, as to be almost equivalent to another kind of fruit. It is true that the varieties grown in the two regions are different but that probably does not account for the marked differences in the product. In the Gulf coast region of Texas, commercial fig production is an industry of some importance. The product is practically all canned or preserved. A few commercial orchards occur in southern Louisiana, also in the Norfolk section in Virginia. In the intervening area, that is, throughout the Coastal Plain region and the Gulf States between the Norfolk section at one extreme and the Mississippi River on the other, there can not be said to be a fig

*The grower has this variety under the name "Texas Wonder," but it appears to be identical with the Magnolia in all essential particulars.

industry; yet, throughout much of this territory there is perhaps no other kind of fruit tree more widely distributed nor more often seen than the fig. The trees (or more often bushes) occur generally about the buildings and in the yards where they seem to receive some protection from low temperatures and find other conditions more favorable to their requirements than those which occur under open field conditions (figs. 52 to 55).

Fig trees have been grown in some parts of the southeastern United States, perhaps ever since the early Spanish settlers occupied the land, and many orchards have been planted. Early failure has been the rule, however, owing probably to a combination of various causes. In the aggregate a considerable number of trees are to be found in this region, and the product is of substantial importance. The fruit does not hold up well in shipping; hence, the crop is used locally. In some sections the surplus from the home plantings is



FIG. 53.—A fig tree of bush form having many stems instead of a single trunk

assembled at central points and from them, it is taken to canneries located perhaps in an adjoining town where it is packed for the trade.

In 1919 the fig crop of the country amounted to 26,876,000 pounds of which 21,800,000 pounds were produced in California. On January 1, 1920, about 500,000 of the 886,000 bearing trees were also in that State, as were 594,000 of the 783,000 trees not of bearing age.

The papaw.—The native papaw (*Asimina triloba*) hardly deserves mention in the present connection on the basis of any commercial importance. Yet within the range of its natural distribution, which is much the same as the native persimmon, the fruit is very popular. It occurs rarely, if at all, east of the Hudson River, whereas the persimmon is found occasionally in Connecticut and Rhode Island. Its northern limits include most of New York and

Michigan, while the persimmon occurs in those States, as in New England, only rather rarely. Southward, the papaw reaches northern Florida and westward to and including Texas and eastern Kansas. A few choice selections from trees in the wild have been named though few, if any, have been propagated for the trade. A few nurserymen furnish seedling trees, but the demand for them is too light to justify much attention to propagation. The popular press contains an occasional article about the native papaw written as a rule by some enthusiastic lover of the fruit, but it still remains practically in the wild state. How great the possibilities may be for improvement by breeding and selection is unknown, since, as

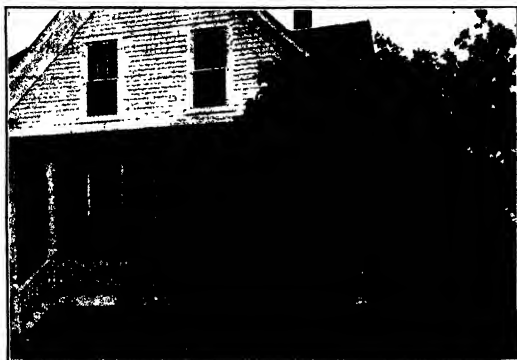


FIG. 54.—A Celeste fig tree about 20 years old in southern Alabama. A rather typical location for a fig tree in the Gulf States

with the persimmon and various other native fruits, it has not received serious attention in the line of amelioration.

Subtropical Fruits

The fruits commonly considered as subtropical represent great diversity in character, uses, botanical relationships, and in other respects. Substantially, the term "subtropical fruit" concerns those which are adapted to a subtropical climate. There is but little use for the term "tropical fruit" so far as it relates to fruit production within the borders of the continental United States. In general, fruits grouped as subtropical will endure slight frosts without serious harm whereas tropical fruits in the popular sense, at least, are restricted to those parts of the world entirely free from frost. The southernmost Florida keys comprise the only part of the continental United States where frosts are unknown. Of course many subtropical fruits are grown in tropical regions; it is likewise true that some fruits native to the Tropics are grown in the warmer parts of the

United States where occasionally they may be subjected to slight frosts.

There is some overlapping of deciduous fruits into subtropical fruit territory; in fact certain fruits classed by some writers as deciduous are considered subtropical by others. For instance the fig is commonly discussed with the latter group, but it is distinctly deciduous in habit of growth and its adaptability to the regions pre-eminently subtropical is somewhat doubtful, though grown successfully in those representing a transition from temperate to subtropical. Only a few varieties of plums and peaches are adapted even to those transition regions where the Temperate Zone blends into the subtropical and apples and cherries are not at all adapted to those regions. The climatic conditions of tropical and subtropical regions



FIG. 55.—Figs are commonly grown on bushes in the Gulf States, but a tree of large size is seen occasionally growing where conditions have been especially favorable. This view is in southern Alabama.

favor the continuous growth of vegetation. As a result the trees and most other plants are evergreen, the foliage being retained permanently and not dropping as does that of deciduous trees, at the end of the growing season. There is, in fact, no distinct end to the growing season in tropical and distinctly subtropical climates. The old leaves drop from time to time, but new ones are more or less constantly developing. During the cooler months of the year vegetative activities slow down somewhat but do not become completely inactive as in cooler climates.

An enumeration of the better-known subtropical fruits includes the following: Citrus fruits, consisting of the orange, lemon, grapefruit (formerly designated as pomelo), lime, kumquat, and citron—the latter rarely grown in this country, and not at all commercially;

the annonaceous group, consisting of the soursop, sweetsop (sometimes called sugar apple), cherimoya, custard apple, pond apple, and various others (the native papaw belongs to this group but is, of course, not found in subtropical climates; it is, moreover, the only representative of this group among the fruits which grows in the North); the myrtaceous group, consisting of the guava, feijoa, rose apple, and various others of little importance; the sapotaceous group, which includes the sapodilla, star apple, and others not much known; also various fruits not falling in any designated group, but which are of much importance—the olive, avocado, mango, pineapple, date, and the papaya, the latter sometimes called papaw or melon papaw. When the name “papaw” is used for papaya there is danger of confusion with the native papaw to which it is in no way related.

Discussion of the fruits enumerated in the preceding paragraph must here be restricted to those which have attained a status that gives them economic relationships.

Citrus Fruits

History.—The orange is one of the earliest of cultivated fruits. It is indigenous to the Indo-Chinese region and was disseminated, thence to the Mediterranean countries and eventually to America by the early Portuguese and Spanish explorers. It was probably among the first fruits brought from the Mediterranean region into Florida. The fact that when permanent settlements were first made in Florida the orange was already established and practically growing wild, proves its very early introduction and suitability to the soil and climate. The seeds were probably scattered by the Indians who obtained the fruit from trees planted by the early Spanish adventurers. Authentic records of the early Spanish missions in California show that here also the orange was among the first fruits planted, being brought from the still older missions in Lower California. The first grove plantings in California were seedlings derived from these mission oranges.

Commercial citrus development in Florida falls into two main periods separated by the “big freeze” of 1894–95. An annual production of 6,000,000 boxes in 1894–95 was cut to almost nothing the following year. Following 1896 orange growing was gradually resumed, but with the industry transferred from northern Florida to the central and southern portions of the State. A second great impetus to Florida citrus development came with the somewhat suddenly developed popularity of grapefruit as a breakfast fruit. This occurred during the first decade of the present century.

The early period of Florida citrus development was characterized by the planting of orange seedlings, though many groves were made by top-working the wild sour-orange trees that occurred scattered through the Florida hammocks, especially along the St. Johns and Indian Rivers. Nurseries used sour-orange seedlings chiefly as budding stocks, and many varieties were being propagated just prior to the 1894–95 freeze. After this disaster, further experimentation was carried on with newly introduced orange varieties and local varieties derived from seedlings of apparent merit. Of such varie-

ties only a few have won a permanent place for themselves, but these few sorts now largely compose the Florida orange crop (fig. 56).

Commercial orange growing in California may be said to date from the introduction into California in 1873 of the navel orange (fig. 57). It proved to be so much superior to any other orange then grown there that soon after its first fruiting in California in 1878 it became the leading variety planted. This most famous orange was introduced from Bahia, Brazil, by the late William Saunders of the United States Department of Agriculture in 1870. It is now generally called the Washington Navel. It originated about 1820 near Bahia as a bud mutation from a Portuguese variety, the



FIG. 56.—A grove in one of the typical orange-producing sections of Florida

Selecta. Its seedlessness, dessert quality, and distinctive character, together with its adaptability to California conditions, soon won for it a unique position in the citrus field. It has never been commercially successful in Florida.

Early experiments showed that lemon growing was well suited to California conditions when locations and sites were carefully selected and the extension of this industry since 1900 has been very rapid, analogous to the grapefruit expansion in Florida.

The citrus industry in California is very highly organized, over 70 per cent of the crop being handled through a cooperative organization which has proved a leading factor in developing improved methods of production, packing and marketing. The industry has never experienced any such setbacks as the Florida freeze of 1894-95, though some damage to fruit and young trees was experienced in the winters of 1912-13 and more recently in 1921-22.

Like the freeze in Florida in 1917, the effect was only temporary and the valuable lessons learned as a result of these visitations insure better equipment to meet such conditions in the future. The outline map, figure 58, shows the principal areas in the United States in which citrus fruits are grown.



FIG. 57.—One of the two Washington Navel orange trees sent to California in 1873 by the United States Department of Agriculture. It has suffered some ill but is now in a fairly healthy condition. The other tree of this pair, made doubly famous by having been transplanted by President Roosevelt, died several years ago. The tablet shown in the foreground was erected in 1920 in honor of Mrs. Eliza Tibbets, who received the trees and planted them at Riverside.

Varieties and stocks for Florida.—Out of the hundred or more varieties tested in Florida at different times, only five have won definite approval. These are, in order of ripening: Parson Brown, Homosassa, Pineapple, Valencia, and Lue (*Lue Gim Gong*). This list was approved by representative growers present at the citrus

seminar at Gainesville, Fla., in 1916, in a move toward standardization, thus giving a succession of fruit maturing from October to June. The first three varieties originated in Florida as seedlings, while the last is now generally regarded as a strain of the Valencia and is marketed as such. The Valencia was introduced into Florida in 1870 from the nursery of S. B. Parsons & Sons, Flushing, Long Island (originally obtained from Thomas Rivers & Son, nurserymen, Sawbridgeworth, England), and was long known as Hart's Late or Tardiff. It reached California, also from the Thomas Rivers & Son's Nursery, in 1876 and was at first called River's Late, subsequently becoming known as the Valencia Late. The identity of these two oranges is now conceded, though a number of strains differing in character have been developed. In addition to these varieties, there is a considerable production of the "blood" oranges (Ruby, Maltese, and St. Michael) and other round varieties as Jaffa, Majorca, and Mediterranean Sweet, as well as seedling oranges.

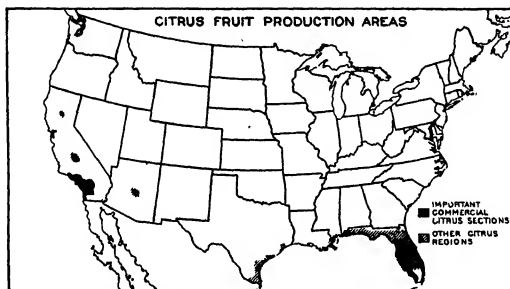


FIG. 58.—Outline map of the United States showing the principal areas in which citrus fruits are grown, heavily shaded areas indicating sections from which citrus fruits are shipped in quantity, lighter shading indicating where citrus fruits are of minor importance

There has been quite a heavy planting of tangerines in recent years, the Fourteenth Census showing 38,000 bearing and 30,000 nonbearing trees in 1919. By December 31, 1923, the total number of tangerine trees had reached 609,107, of which over two-thirds were of non-bearing age. The Dancy tangerine is the principal variety grown.

The leading grapefruit varieties are the Duncan, Walters, Hall (*Silver Cluster*), and Marsh (*Marsh Seedless*), all of seedling origin. The number of bearing and nonbearing orange and grapefruit trees in Florida in 1920 is shown graphically in Figure 59. In propagating citrus trees the sour orange is the principal stock used for planting on hammock and flat wood land. The rough lemon is preferred for the light, sandy soils of south-central Florida and for the rock reef soils in the southern part of Dade County. In recent plantings the rough-lemon stock has largely predominated, the greatest expansion having taken place in the sections to which this stock is pre-eminently adapted. On the heavier soils where the sour stock can be

grown successfully it is preferred owing to its greater hardiness, resistance to disease, and the character of fruit produced.

The trifoliolate orange is the stock principally used for budding to varieties of the Satsuma type and other orange varieties in north Florida and the Gulf coast section west of Florida. Its deciduous character and winter dormancy imparts hardiness to the variety budded on it.

Varieties and stocks for the Gulf Coast States.—The growing of oranges has long been of considerable importance in protected localities along the Gulf coast west of Florida, particularly in the Delta section of Louisiana. Seedlings formed most of the early plantings, the fruit being known as "Creole" oranges. More recently there has been some planting of the Washington Navel in this section, together with standard Florida varieties.

ORANGE AND GRAPEFRUIT TREES
BEARING AND NON-BEARING
Florida, 1910 and 1920

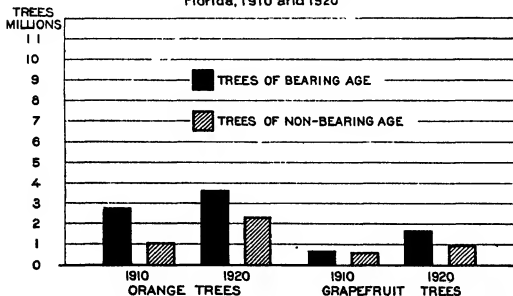


FIG. 59.—The trend towards new plantings of oranges and grapefruit in Florida is brought out in the graph showing bearing and nonbearing trees at the census periods 1910 and 1920. The growth rate has been fairly uniform, though the percentage of increase in producing grapefruit area largely exceeds that for oranges in the last decade.

The Satsuma orange varieties (kid-glove type) have proved particularly well adapted to the Gulf coast section and recent plantings have been largely of this type. The largest development has been in the region adjacent to Mobile Bay in Alabama, where the industry is well organized and has become of major importance, 15,000 acres (one-third in bearing) being under cultivation in Mobile and Baldwin Counties in 1922. The Satsuma varieties budded on trifoliolate-orange stock are the hardiest of commercial oranges but nevertheless suffer from occasional freezes in the Gulf States. A freeze in February, 1924, resulted in a crop failure during that year and the output in 1925 (about 300 carloads) was only about one-half that of the 1923 season. The fruit ripens early (October and November) and can thus be shipped before danger of injury by frost, and during a period when the supply of oranges from other sections is comparatively light.

Recently a noteworthy citrus development has taken place in the lower Rio Grande Valley in Texas. This is an irrigated district, having conditions resembling more nearly the interior valleys of the Southwest than the Gulf coast region to the eastward. Grapefruit constitutes about 80 per cent of the acreage planted. Standard varieties of oranges and grapefruit are being planted extensively. The trees used there are grown on sour-orange stock. Shipments thus far have been absorbed by the near-by Texas markets.

Varieties for California and the Southwest.—The citrus industry of California is founded on two main varieties of oranges, the Washington Navel and the Valencia; two varieties of lemon, the Eureka and the Lisbon; and one variety of grapefruit, the Marsh. The origin of the two orange varieties has already been discussed. The Eureka lemon originated at Los Angeles, Calif., in 1858 as a seedling of a Sicilian lemon. The Lisbon was introduced into California from Australia in 1874. The Marsh grapefruit, which is typically a seedless variety, was introduced in 1890 from Florida, where it originated at Lakeland as a seedling tree.

Other orange varieties such as the Ruby and Mediterranean Sweet, as well as seedling oranges, are produced in the older citrus sections but the volume is now relatively small. The Washington Navel orange matures from November to May; the Valencia from May to November, thus covering the entire year. The Valencia has been gaining in favor during the last decade and since 1919 has equaled or exceeded the Washington Navel in point of production. It promises to exceed the latter considerably in the near future. The Marsh grapefruit matures in the main citrus sections of California from May to September, while in the interior valleys (Imperial and Coachella) and in the Salt River Valley in Arizona, it ripens from November to May. Lemons are harvested throughout the year, the Eureka variety bearing its heaviest crop in summer months, whereas the Lisbon bears heaviest in the winter and spring months. The number of bearing and nonbearing orange and lemon trees in California in 1920 is shown graphically in Figure 60.

The topography of California materially influences local climatic conditions throughout a region of great extent from north to south in portions of which citrus fruits can be grown commercially. The most northern section, that of Butte County, is about in the latitude of Baltimore, Md., while the southern district, San Diego County, lies 550 miles to the south and approximately in the latitude of Savannah, Ga. The fruit grown in the northern districts matures somewhat earlier than the same varieties do in the southern part of the State (figs. 61 and 62).

In California and the Southwest generally the sour orange has proved to be the best root stock found thus far for all commercial citrus varieties.

In Arizona there are two districts where citrus fruits are being grown—in the Salt River Valley north and east of Phoenix and on the Mesa south of Yuma. The varieties grown are those most favored in California, though the time of maturity is advanced very materially by the climatic conditions.

Frost protection.—Light frosts occur with more or less frequency in nearly all citrus-growing sections with occasional temperatures

sufficiently low to cause heavy loss of both fruit and trees. Frost-protection methods are now widely practiced during the winter months, particularly in California, the Weather Bureau cooperating by conducting temperature surveys to determine the susceptibility of different localities to frost, and by providing special warnings of impending harmful temperatures.

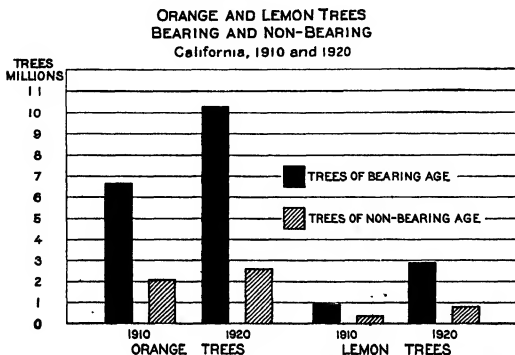


FIG. 60.—The trend toward new plantings of oranges and lemons in California is brought out in the graph showing number of bearing and nonbearing trees at the census periods 1910 and 1920. Lemon plantings increased at a more rapid rate than oranges during the last decade.

The use of oil pots is the most common form of frost protection in California and Texas. In Florida, wood fires, coke, and oil heaters are used in about equal proportion, but the majority of the groves are not protected beyond the banking of young trees with soil to protect the bud union.

Owing to the late blooming of most varieties of oranges, the crop is comparatively free from frost danger during the blooming period and it is not until the fruit has practically reached maturity that the greatest losses occur. This makes the susceptibility to harm somewhat different from that with deciduous fruit, where the losses are mainly during the blooming period. The rind of an orange is a poor conductor of heat, affording considerable protection to the interior and, consequently, when the temperature of the air is falling rapidly, that of the interior of the fruit lags to an extent that there may be as much as 7° difference between it and the outside air. This lag in temperature is often an hour to an hour and a half, and because of it the duration of low temperature frequently is of as much importance as the actual minimum reached.

Radiation is an important factor in frost injury to fruit, the outside fruit exposed to the sky being the first to freeze. The critical air temperatures for nearly ripe oranges is usually given at 26 to 27° F., but lower temperatures than this may sometimes be ex-

perienced without permanent injury, especially if the fruit is subjected to the low temperature for only a short time. The critical temperature of green oranges is somewhat higher than that of those fully matured, being 28 to 29°. Results of freezes in California have shown that there is not much difference in the hardiness of the leading varieties of oranges grown there.

When oranges begin to freeze the section of the skin exposed to the sky takes on a transparent appearance, generally known as the "watermark," probably caused by the water in the rind freezing and leaving the oil separated. On the following day these oranges can be picked out easily and are called "shiners." By timing the orchard heating with the first appearance of the "watermark," it is possible to save the fruit and yet prevent waste of fuel oil. Some experience is necessary before the fruit grower is able to use these

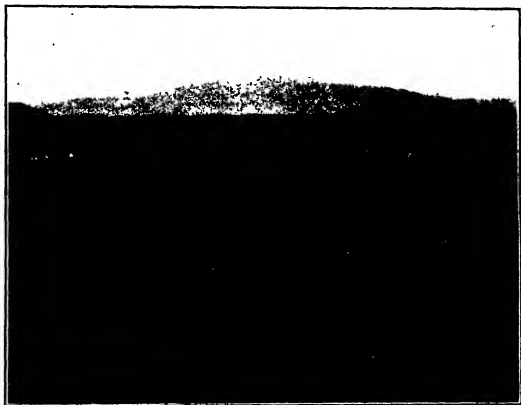


FIG. 81.—A general view in the citrus district of southern California near Riverside

methods of timing the firing; but the importance of saving oil is well worth giving the matter close attention.

Lemon trees are much less hardy than oranges. After the memorable freeze in southern California in 1913, it was common to find lemon trees entirely defoliated and among them orange trees which had lost few or none of their leaves. There is also a marked difference in the hardiness of the two principal varieties of lemons grown in California, as shown by the 1913 freeze, the Lisbon proving decidedly more resistant to cold than the Eureka. Lemon blossoms are usually damaged with a temperature of 30° F., and the small green fruit when the temperature remains at 29° for some time, but ripe lemons will not usually suffer materially unless the temperature falls below 27°.

Bud selection.—Extensive studies carried on mainly in California by specialists of the United States Department of Agriculture have shown that bud variation occurs in citrus fruits frequently enough to make it a factor seriously affecting the industry. Bud variation may occur in the line either of improvement or deterioration compared with the varietal type; it may be in fruit or tree characteristics or both. Many trees of the principal commercial varieties of citrus in California have been found on which there are limbs that produce fruit which is off-type in some particular. Not infrequently such fruit is worthless because of some undesirable characteristic. Again, superior strains of varieties have originated in this way. A variation that carries great economic significance is a tree characteristic in which a very strong vegetative growth of tree is correlated with nonproductiveness.



FIG. 62.—A typical orange grove in southern California during the picking season

It has been shown that these variations in fruit and tree represent inherent characters, though relative productiveness may of course be due to environment or other factors not inherent in the tree. Where inherent, these variations whether of fruit or tree are perpetuated in progeny trees propagated from them. The peculiar economic significance of the variation in the direction of an especially strong vegetative type of tree which is unprofitable is in the fact that such trees have often been used to furnish buds for propagation. This form of degenerative selection results from the fact that the tree of vegetative type has an abundance of twigs of a size suitable for budwood as compared with the scanty production of such twigs on trees heavily loaded with fruit. As a result, a very considerable proportion of the trees in some citrus groves were of the vigorous-growing but unproductive type.

Since the relation of bud variation to productiveness has been understood, thousands of these unproductive trees in the groves in California have been top-worked to the superior productive strains that have been located. Moreover, nurserymen have come to the point of using buds in propagating citrus trees only from parent trees with known and satisfactory performance records. Although bud variation is better known in its relation to citrus fruit produc-



FIG. 63.—An especially productive strain of the Washington Navel orange

tion than it is with other fruits, investigations have been carried far enough to indicate that it may have bearing in many directions which has not generally been recognized (fig. 63).

Cost of production.—In a detailed report issued by the Citrus Protective League of California, the late G. Harold Powell showed that in 1910 in that State the cost of production for oranges amounted to \$0.863 per box, while for lemons the cost amounted to \$1 per box. These figures did not include depreciation on build-

ings, equipment, etc. In 1920, costs (including depreciation) had risen to \$1.60 per box for oranges and \$1.67 per box for lemons, with a total cultural cost per acre of \$241.56 for oranges and \$295.52 for lemons. An investigation of the income and profits on 100 citrus grove properties ("fruit farms") in Polk County, Fla., was made during the five-year period, 1917-1921, and a preliminary report issued by the Bureau of Agricultural Economics of the United States Department of Agriculture. The average price received by the grower on the tree for grapefruit per box was \$1.67, for oranges \$2.62, and for tangerines \$3.63. The average cost of production on these properties during that period was approximately \$0.92 per box for grapefruit and \$1.02 for oranges, with a total expense per acre (for oranges and grapefruit) of \$151.80, including depreciation and some expenditure on nonbearing acreage (25 per cent of total acreage) charged as production expense.

Under conditions obtaining in Polk County, Fla., during the period 1917-1921, 46 per cent, the largest single item of expense, was for fertilizing, labor being next in rank, 28 per cent. Under California conditions in 1920, labor constituted 34 per cent, fertilizer 29 per cent, and water 7 per cent of the cost of orange production; in the production of lemons, labor constituted 39 per cent, fertilizer 17 per cent, and water 8.5 per cent of the total cost of production.

Pineapple

Though not native to the United States, the pineapple is undoubtedly indigenous to tropical America. Apparently the only question arising as to its origin in the New World is due to the early date following the discovery of America when it was found in some of the warm regions of the Old World. Although the pineapple is widely grown in the American Tropics, Porto Rico, Cuba, Hawaii, and elsewhere, the only commercial production in the continental United States is in Florida.

Pineapple growing in Florida at one time ranked second only to citrus fruits with shipments of about 1,000,000 crates annually, but a combination of cold, disease, and other factors has reduced the output to a small fraction of the former crop. Meanwhile an enormous pineapple industry has developed in Hawaii, the fruit, however, reaching the United States only as a canned product. The annual pack of 5,000,000 to 6,000,000 cases is about equivalent in bulk to the entire grapefruit crop of Florida and must be considered as an important item in our domestic fruit supply. The canned product is practically all of one variety, the Smooth Cayenne, while the Florida, Porto Rican, and Cuban pineapples are chiefly of the Red Spanish variety.

A revival of pineapple growing in Florida on a somewhat altered basis is being attempted and some progress has been made. The production in Florida in 1924 was about 90,000 crates, with about 1,000 acres set out and beginning to bear crops.

Olive

The cultivation of the olive seems to antedate historical records but as nearly as can be determined it had its origin in the Mediterranean region. It is found wild in and is considered indigenous to

Syria, Greece and northern Africa. Few fruits have a larger place in sacred literature than the olive. It was an olive branch, according to Biblical story, brought to the ark by a returning dove which first told Noah of the receding waters of the flood. Olives are grown in southern Italy, southern France, Spain, Portugal, northern Africa, western Asia, and Australia, as well as in America.

The claim is made that the olive was introduced into South Carolina in 1755, and subsequently into other parts of the South. In 1817 a colony attempted to develop an olive industry in Alabama, a grant of land having been made conditionally on the success of the enterprise. It was not prosecuted, however, and nothing came of it. A planting in what is now California is said to have been made in 1700, although the olive trees planted by the Franciscan Fathers at the missions which they established following their



FIG. 64.—An olive orchard in California

entry in 1769 into that part of the New World is commonly considered to be the beginning of olive culture there. Some of these early mission olive orchards still remain though in a much neglected and depleted condition (fig. 3), page 114.

The development of the olive industry in this country has been mainly in California and to a very limited extent in Arizona. Efforts to grow olives in the Gulf States and other Southern States has proved unsuccessful, for though the trees may grow well and sometimes abundant crops of fruit are borne, production is so irregular and uncertain as to render olive culture in the South impracticable.

The requirements of olives seem to be the reverse in certain particulars to those of pineapples. As implied in the discussion of pineapples they do not give satisfactory results under arid conditions, whereas olives do not respond well to humid conditions. Though

olive trees may endure drought to a remarkable extent, they require adequate moisture at the roots, if not in the air, as do other kinds of fruit trees in order to thrive and produce regularly and abundantly.

In California in 1919 according to the best available information there were about 24,000 acres devoted to olives in bearing and approximately 13,000 acres not in bearing. The industry is located principally in the Sacramento and San Joaquin Valleys and in the southern part of the State. In Arizona the center of production is in Maricopa County near Phoenix where according to the last census there were about 14,000 trees of which a little more than one-half were in bearing. The California olives are used largely for packing as "ripe olive" pickles and for canning. The inferior fruit is pressed for oil (fig. 64).

Avocado

The avocado, sometimes called "alligator pear," found its way from the West Indies and tropical America to Florida and south-

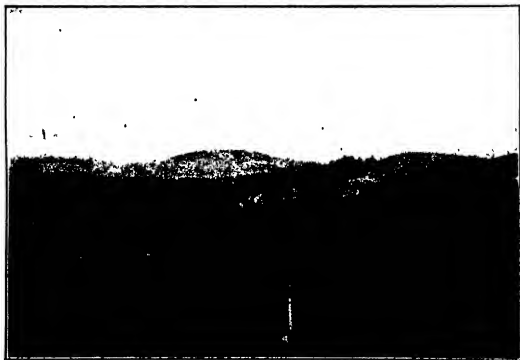


FIG. 65.—An avocado orchard in southern California. The best sites for avocados are the choicest of the lemon sites

ern California some time within the last half century, but interest in the fruit as a commercial possibility has largely developed during the last 20 years. In various parts of Mexico and Central America the avocado is widely grown and comprises an important and very common article of diet. Coming as it does from tropical regions, it is naturally highly susceptible to injury from freezing temperatures.

Three types or races of avocados are recognized—the West Indian, the Guatemalan, and the Mexican, the latter having thin skin, while that of the other two is considerably thicker. There are also other more or less well defined differences. The varieties of the West Indian race are the most tender, being able to withstand but a very

few degrees of frost without serious injury. The Guatemalan type is considerably more hardy, approximating the lemon in cold resistance, and the Mexican type is still harder, about equal to the round orange in this respect.

Avocado orchards of considerable size have been planted in the southern parts of California and Florida, and commercial production for local markets as well as limited shipment began about 15 years ago. In Florida, most of the early plantings were of the West Indian type maturing in summer and fall, though the winter-ripening Guatemalan varieties are now being given attention. Hybrids between the two races are especially promising. Preference is given to the Guatemalan and Mexican varieties in California, because of their superior hardiness. Practically all trees that are planted are budded or grafted, few seedlings now being grown. The industry has not reached a satisfactory stage as regards varieties adapted to the regions which have proven the most satisfactory for the growth of the trees, nor has the question of mixed planting of varieties for satisfactory cross-fertilization of the blossoms, been fully worked out. Avocado culture, although intensely interesting and promising in the two regions where climatic conditions are favorable, is far from the status of the grapefruit in Florida or the lemon in California (fig. 65).

Mango

The place of origin of the mango is uncertain but it is considered probable that it has been cultivated for 4,000 years as it has entered prominently into Hindu mythology and religious observance. The first introduction of the mango into the United States is believed to have been in 1833 when plants were sent from Mexico to Florida. These trees did not persist. About 30 years later seedling trees were introduced. In 1885 an attempt was made to introduce choice grafted trees from India, and other efforts followed in succeeding years, but most of the progress recorded has been made since the beginning of the present century. Because of its susceptibility to frost its culture is limited to the best protected localities in southern Florida where it is a summer crop and must be handled with great care to reach the market in salable condition. Although many varieties, chiefly of East Indian origin, have been tested, the Haden, an American-grown seedling of the Mulgoba (fig. 66), is the leading commercial variety. Budded or grafted trees only are planted. The mango is by many considered the most delicious of tropical fruits, however, the very high esteem in which the fruit is held applies only to the choicer varieties. Many of the seedling fruits possess a very coarse, fibrous texture of flesh and the characteristic "turpentine" flavor is in many cases so pronounced as to be decidedly objectionable. In the highly prized varieties these characteristics are reduced to a minimum and are scarcely to be detected at all.

Much remains to be learned regarding protection from insect pests, fungous diseases, and marketing methods before the mango industry can be considered safe for any large expansion. In the Philippines, Hawaii, and the West Indian possessions, the mango is one of the most highly prized fruits. The susceptibility of the trees and the fruit in Florida to certain fungous diseases, particularly the

"bloom blight," and its restricted distribution because of its liability to injury from frost have retarded its development. Though considerable attention is being given to its culture in the more favorable sections in Florida, it has made but very slight headway in California.

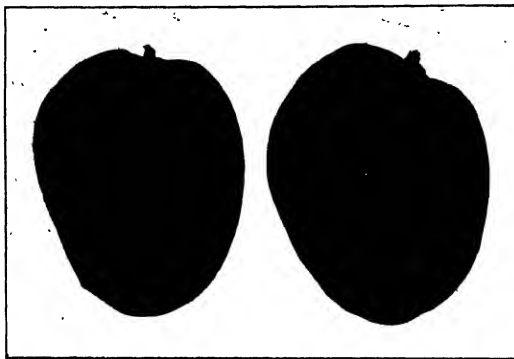


FIG. 60.—A Mulgoba mango. This is one of the choicest dessert varieties

Date

The origin of the date is apparently lost in antiquity. It has been cultivated for so many centuries in Egypt, Arabia, Persia, and neighboring countries and has been, and still is, so large a factor in the lives of the people of those countries that historically and economically it is inseparably associated with them. Attention to date growing in this country may be said to have begun about 1890 when the United States Department of Agriculture made what has been termed "the first modern importation" of date palms from Egypt to California. Since then better methods of shipping the plants have been worked out and importations have been made during the last 25 to 30 years from practically all parts of the world where promising date material was to be had. Although a subject of experiment for over 25 years, date culture has only recently reached a state where commercial production can be said to have begun. The exacting climatic requirements and the necessity for propagation only from offshoots or base suckers of bearing trees have prevented any rapid expansion of the new industry.

The leading date-producing center in this country is the Coachella Valley in southern California where the Deglet Noor from North Africa has proved to be well adapted and has become the leading variety. Other sections, such as the Imperial Valley in California and the Salt River Valley in Arizona, are promising regions but the varieties best adapted are not yet determined. The

Saidy and Hayany at present appear promising. Because of competition with cheaply grown Persian Gulf dates American growers must aim to put out a product that for eating quality, appearance, and cleanliness will command a premium on the markets (fig. 67).

Frost protection.—Although the date palm requires high temperatures with low humidity for fruit production, its resistance to cold is such that artificial frost protection is usually unnecessary after the first winter. Even the young plants, are, as a rule, sufficiently protected by a paper wrapping. In Arizona mature date palms have survived minimum temperatures of 9° to 11° F. with the loss of only the exposed leaves. The structural character of the date palm is such that the growing point, a single bud, is insulated against extremes of heat or cold.



FIG. 67.—Deglet Noor date garden at Mecca, Calif., about 20 years old

Banana

The place of origin of the banana, in common with many other fruits, is uncertain and its course of dissemination is unrecorded. Evidence exists to prove that the banana was grown in Peru and other parts of the New World before Columbus reached the shores of the Western Hemisphere. On the other hand, it is known to have occurred in some of the warmer parts of the Old World at a date so early as to render difficult of support the claims of a New World origin. The possibility of a double origin in both Eastern and Western Hemispheres has been suggested only to be set aside as being too highly improbable to merit serious consideration.

Though banana growing can hardly be said to be an industry in the United States proper, this fruit so far exceeds all other imported fruits in bulk and value, about \$20,000,000 annually, that it must be considered in any summary of American fruits. It is an important food plant in Panama, Porto Rico, the Virgin Islands,

the Philippines, and other tropical territories and is grown for local market with considerable success in Florida. The varieties grown in Florida such as Cavendish and Lady Finger are not of the same character as the imported fruit but are smaller and less attractive in appearance. They are, however, of good eating quality, and harder than the sorts grown in the Tropics. The bulk of the bananas imported into this country—45,000,000 to 55,000,000 bunches annually—come chiefly from the Central American countries with an almost equal quantity from Jamaica, Panama, Mexico, Cuba, and Colombia in the order named in relative importance. Honduras and Guatemala are the chief contributors from Central America.

Guava

The guava occurs wild in Mexico, Central America, Venezuela, Peru, Brazil, and elsewhere in South America. Authorities disagree as to its origin in tropical America but as it grows readily from seed and easily becomes naturalized, it is difficult to determine its exact region of origin. It has been carried to and is now grown in many tropical regions of the world. It has but few restrictions so far as its soil requirements are concerned. The tree can withstand very little frost without injury though it quickly recovers from such injury even when killed to the ground. In habit of growth the guava is a small tree reaching 25 feet or more in height. In the United States it is grown in Florida, and to a lesser extent, in California. Though widely distributed in Florida, a few thousand crates of fruit represent the annual production aside from the supply grown specifically for home use. The fruit is used in various ways in the fresh state and for culinary purposes, but its value is chiefly for jelly making. The "strawberry" or Cattley guava is related to the common form but is hardier and is a favorite in many regions as an ornamental shrub or small tree. The fruit is less desirable than that of the more tropical form but is fairly satisfactory for jelly making.

Feijoa

The feijoa occurs wild in its native home in southern Brazil, Uruguay, Paraguay, and sections of Argentina. It does not thrive in humid regions; hence it is a comparative stranger in this country, its culture being restricted mainly to subtropical sections of California. The fruit is eaten in the fresh state and utilized in various ways. There is no commercial production at this time beyond a limited production for local markets.

Papaya

The papaya (papaw, melon papaw, etc.) is considered native to the West Indies or other American Tropics, some writers including certain parts of Brazil in its native habitat. It is essentially a tropical plant though it withstands slight frost without serious injury. Because of the name "papaw" by which it is commonly known this plant and its fruit are frequently confused with the native papaw which is widely distributed throughout much of the country east of Kansas and Nebraska.

The papaya is an immense herbaceous plant rather than a tree in the usual sense. However, it may grow to a height of 25 feet. The fruit is spherical to cylindrical or pear shaped in form and may attain a length of 18 or 20 inches and a weight of 20 pounds. The flesh is somewhat suggestive of the muskmelon in texture and the seed cavity and arrangement of the seeds are also somewhat comparable to the muskmelon. Though native of the American Tropics, the papaya has become widely distributed in the tropical countries of the world, in many of which it is apparently much more highly valued than in America. It succeeds better in southern Florida than in other parts of the United States.

The fruits of the papaya are eaten much as melons are eaten. The milky juice of both fruit and plant is the source of a digestive enzyme known as papain. Meat is sometimes wrapped in the leaves of the plant when being cooked in order to make it tender. Various other ways of utilizing the papaya in making meats tender are practiced. The fruit is much prized by many who are familiar with it but in many cases a taste for it has to be cultivated.

There are numerous other subtropical fruits, but no special comment regarding them is included in this connection because of their small economic value at the present time.

Group Relationships of Small Fruits From a Cultural and Economic Standpoint

Two hundred and forty-nine thousand acres were devoted to small fruits in 1919, according to the census figures compiled the following year. The total yield for this acreage was reported as being 324,998,000 quarts valued at \$61,732,000. Strawberries occupied 119,395 acres with a production of 176,931,000 quarts which were valued at \$36,004,000. Raspberries were grown on 54,256 acres which yielded a crop of 61,333,500 quarts with a value of \$13,386,000. Blackberry production occupied 46,165 acres yielding 39,945,000 quarts with a value of \$7,117,900. The cranberry acreage of the United States for the same year was 16,804 which yielded 35,260,000 quarts at \$3,197,900. The commercial importance of small fruits in the fruit production of the nation is further indicated by the fact that there were, in 1924, 18,973 carloads of strawberries alone produced and shipped in the United States, with a total value of \$37,320,000.

The small fruits form a very distinct group. They are, for the most part, of native rather than of foreign origin, a distinction possessed by few other fruits extensively cultivated in the United States. Some of the small fruits, particularly the blueberry and the cranberry, are exceedingly exacting in their environmental requirements. The cranberry requires low-lying, moist soils, with a high-water table for its cultivation. Blueberries require a high water table, though not quite as high as the cranberry. Both the cranberry and the blueberry require a peculiar acid condition of the soil found in regions to which these species are native, and because of these peculiarities, their commercial culture is confined to relatively restricted areas. The blueberry is still chiefly a product of wild or semiwild conditions. Only recently have methods of propagating and cultivating the blueberry been sufficiently understood to make it possible to handle the crop as a horticultural industry.

In direct contrast with blueberries and cranberries, the strawberry is free from limitations and is one of the most widely disseminated of the cultivated fruits. The strawberry requires only a relatively short season in which to mature its fruit. On this account the strawberry industry has been established in many sections of the country to take advantage of that part of each season which presents conditions suitable for its development. As a result, the strawberry industry is widely disseminated from Florida to Maine on the Atlantic coast, from the Gulf of Mexico to Canada in the central portion, and from California to Washington on the Pacific coast, each region making its contribution to the markets as the season progresses, beginning in late December or January in parts of Florida and extending to late October and November through the agency of the so-called everbearing varieties, so that strawberry production has become practically a year-round industry in the United States.

This field record of strawberries is approached only by lettuce in respect to seasonal and geographic distribution. Other crops which possess a long season market record do so through storage facilities in addition to geographic and climatic influences, as is the case with strawberries.

According to their relationships and cultural requirements, the principal small fruits may be grouped as follows: (1) The strawberry; (2) the raspberry, blackberry, and dewberry; (3) the currant and gooseberry; (4) the blueberry and cranberry; and (5) other promising but little-cultivated plants not closely related botanically, but which are recognized in the group of small fruits, such as Juneberry, goumi, buffalo berry, flowering quince, barberry, American bush cranberry, and elderberry.

The monetary value of the small fruits of the country is significant in comparison with the other horticultural industries, as the aggregate value of small fruits is exceeded only by apples, grapes, and peaches. As the number of suburban homes and the need of food plants adapted to small areas increase, the small fruits are certain to become relatively of even greater importance.

The chief use of strawberries, raspberries, and blackberries is in the form of fresh fruit for dessert purposes. In addition, about 80 per cent of the entire commercial pack of fruit preserves consists of strawberries and raspberries, in the proportion of 56 per cent strawberries and 24 per cent raspberries. Three other small fruits, namely: Cranberries, currants, and gooseberries are used largely in the manufacture of preserves, jellies, and marmalades. Besides these, strawberries, raspberries, and blackberries, to the value of several millions of dollars, have been used in the ice-cream trade as flavoring material or as preserved, crushed fruits served as sundaes.

Small fruits, with the exception of blueberries and cranberries, are important home-garden crops. They are also cultivated by market gardeners, as well as by specialists who make it their chief business to grow one or more of the small fruits each year. In fact, there are particular regions where large numbers of farmers depend entirely on one or more of these fruits for their income. The cranberry is grown almost entirely by specialists who grow no other crop. The blueberry section of eastern Maine is unique among horticultural regions in that the industry is based on a semicultural system employing native wild plants.

Strawberry

The strawberries grown in this country are descended from hybrids of the wild meadow strawberry of the eastern United States and of a variety cultivated in Chile probably before the discovery of America, with, perhaps, a slight admixture of a European species. Through continued selection, varieties better adapted to conditions have been originated, with the result that those to-day approach more closely to the wild meadow species of the eastern United States than to the Chilean species.

Until about 1860, the acreage of strawberries was comparatively small and limited to the vicinity of cities. About that time the Wilson variety was introduced, which was firmer than any variety previously grown, and could be shipped into the city markets from a distance. Shortly after the refrigerator-car service was instituted

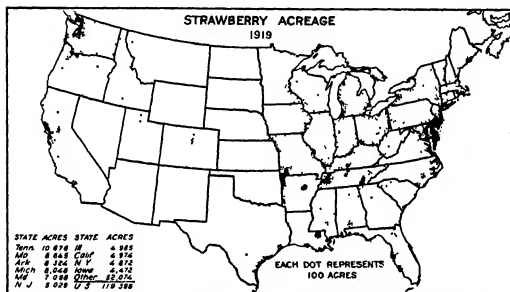


FIG. 68.—The distribution of the strawberry industry is here shown. Though there is much local production for market purposes, the important centers from which strawberries are shipped to distant markets are shown by the areas of heavy concentration. These areas are more clearly defined in the map shown as Figure 69.

other firmer sorts were originated and strawberries began to be grown farther south for shipment to northern markets, until at the present time strawberries are grown in every State in the Union (fig. 68). Strawberries are now shipped from Florida to northern markets during the period from December to April. Then in succession shipping points northward along the Atlantic coast supply these markets until strawberries grown in the vicinity of each northern city ripen. Finally, berries are shipped southward into the larger cities from the North. A succession similar to that along the Atlantic coast occurs in the Central States and again on the Pacific coast (fig. 69). Recently eastern markets have received small quantities of overbearing varieties of strawberries, so that the fruit is now available every month in the year in these markets.

Varieties of strawberries vary greatly and are adapted to widely different conditions. It is this difference in adaptation which enables the strawberry to be grown so widely. Thus, the Missionary thrives in central Florida, the Klondike in northern Florida, the

Dunlap in Iowa and in Minnesota where few others are hardy, the Jucunda on high elevations in Colorado, the Marshall in central California, and new sorts originated at the Alaska Experiment Station in the coast and interior regions of Alaska. In fact, few other crops are grown as widely.

A large percentage of the commercial strawberry crop consists of varieties which have arisen as the result of definite breeding for the production of better varieties. One of the most striking examples is that of the recent origination of new varieties for Alaska conditions. Varieties from the States were not successful. Selections were made of the wild beach strawberry and of the wild inland form. These were crossed with varieties from the States and from the resulting seedlings some have been selected which are adapted to the humid coastal climate and others which are adapted to the severe inland climate.

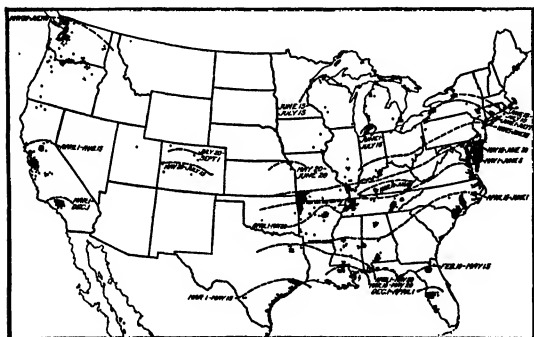
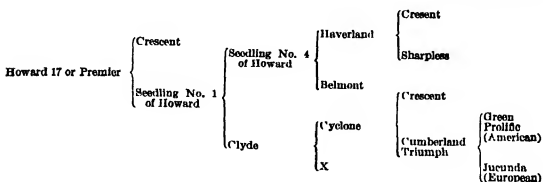


FIG. 69.—The location of each important commercial strawberry-growing district is here shown; also the periods during which the crop is shipped from each one

Two other notable new sorts have recently been introduced. A. E. Etter, located in northern California, has crossed and re-crossed many varieties and selections of wild strawberries. Among the new varieties produced is one called the Ettersburg 121, which has become the leading canning variety of Oregon. In this case the cross, as reported by Mr. Etter, was a tiny white-fruited everbearing selection of the wild strawberry growing along the coast of California with the wild Cape Mendocino Beach strawberry. The new variety is of high flavor, very firm, and, under some conditions, remarkably productive.

In 1904, the firm of A. B. Howard & Son in Massachusetts crossed the Crescent strawberry with a seedling resulting from previous breeding work. The seed was planted in 1905 and in 1906 some 800 seedlings fruited. From these was selected the variety now known as Howard 17 (in some regions known as Premier) which

has proved to be one of the best home-garden, local-market, and general commercial sorts for the northern United States ever produced. The following chart shows the ancestry of this variety and how it was developed from a long line of earlier fine varieties.



The entire development of the modern type of strawberry has taken place since about 1712, when a few plants of a strawberry cultivated in Chile by the Indians survived a six-months' voyage to Europe where, during the succeeding century, they were hybridized with the wild strawberry of the eastern United States which had also been taken across. These hybrids were brought back to America and during the last century have, through the patience, vision, and skill of many breeders, been developed into the modern strawberry.

The strawberry is extensively grown in many sections in conjunction with other berries. It is ready to harvest before the other small fruits and its labor requirements fit especially well into the management of a fruit farm. After the crop is harvested pickers can be employed in gathering raspberries, currants, gooseberries, dewberries, and blackberries. Southern New Jersey, the Hudson River Valley of New York, southwestern Michigan, and the Puyallup Valley of Washington are notable examples of regions where farm operations are based on such a succession of small fruits.

The wide distribution and popularity of the strawberry is accounted for from the fact that varieties have been developed which are adapted to widely different soils and climatic conditions, and because the labor requirements of the crop fit in well with other farm and trucking operations. It is frequently grown where other small fruits are not grown or are only crops of minor importance. In localities where the strawberry is the only or the chief cash crop, the tendency is to add other small fruits as rapidly as adapted varieties can be found.

Strawberries are grown commercially both as a farm and a truck crop. When raised as a farm crop the acreage per farm is large, frequently 50 to 100 or more acres being grown in rotation with other crops. Cultural operations under such conditions are not very intensive and the income per acre is comparable with ordinary field crops such as corn, cotton, and potatoes. The strawberry pays so much better under intensive cultivation that it is frequently grown in small acreages and as a result, a higher-grade product is obtained.

Cultural operations suited to the conditions in the various producing regions have been developed. In the northern United States the plants are usually set in early spring, hoed and cultivated

throughout the summer to control weeds, and mulched with straw or wild hay, where obtainable, after freezing weather occurs. The following spring, no cultivation is given, as a rule, until after the harvesting season is over. Depending on the rotation, weed conditions, or insect injury, the field is plowed as soon as the crop is picked or it is renovated and kept for one, two, or more crops. Renovation consists in mowing and burning the foliage, narrowing and thinning the rows, and fertilizing according to conditions.

The water requirements of the strawberry are large, especially at the season of ripening, and as a result, it has been found advantageous to provide irrigation for the crop even in humid regions. During seasons of abundant rainfall the fields equipped with irrigation will yield as much as the adjacent nonirrigated areas; but in seasons of sparse rainfall, other growing conditions, such as sunlight and temperature, are likely to be at the optimum and fields provided with irrigation facilities during such seasons may yield two or three times that of those not having water added. The dessert quality of the fruit from such irrigated fields is often superior and the duration of the harvests can be materially prolonged. Irrigation is usually practiced in localities adjacent to large centers of population and varieties which are adapted to such conditions are selected.

In the South where the ground freezes but little if at all, cultural operations peculiar to the soil and climate conditions are employed. Where growth continues throughout the winter the plants are set in the late summer or early fall months and the crop obtained from the same plants three to six months later. In central Florida the plants are set from September to November, the climate being warm enough for vigorous growth throughout the winter. Runners do not form, but fruit buds continue to form during the winter months and strawberries are shipped to northern markets from December to March or April. The Missionary, almost the only variety grown in central and southern Florida, develops good stamens and pollen during the winter months and can pollinate its own pistils. Many other sorts do not develop pollen during the short days of winter, and for this reason are not adapted to central Florida. In northern Florida the winter temperatures are lower and the strawberry can make only leaf, root, and bud growth until the warmer weather of February. In southern Louisiana and in parts of Texas similar conditions occur. The winters are somewhat colder and longer, and the crop ripens later. Most of these sections are low lying, and the water table is near the surface. To prevent injury from water the plants are commonly set on ridges slightly above the ground level. The roots are near the surface, and all hoeing or cultivation is very superficial. Large quantities of fertilizers are applied at the time the plants are set, which is just before fruit-bud formation. This course has been so successful as to become a universal practice. In central Florida fertilizers are applied at the time of setting and again at intervals during the period of fruit production.

Climatic conditions in California are so different from other sections that many special practices have been developed. Because of low rainfall, irrigation is necessary in most sections. With mild winters the plants may be set during the winter months. Under the conditions of bright sunlight, comparatively cool nights, and a

plentiful water supply, certain varieties, which in the Eastern States, produce only the usual early summer crop, are able to make fruit buds throughout the summer. By planting these special varieties, California markets are supplied with strawberries from March to November, with small quantities from the Imperial Valley during the winter months. Cultural practices in Florida and California are largely dependent upon local climatic conditions.

Strawberries are grown chiefly in matted rows in the eastern United States (fig. 70). In the extreme South and to a considerable extent in the irrigated regions of the West the plants are grown in hills, no runners being allowed to form. In some sections of California and other Western States, a spaced, matted row is grown, the runners being spaced by hand. Both the hill and the spaced matted-row systems are used to a slight extent in the eastern United States.



FIG. 70.—Strawberry culture in Warren County, Ky. The Aroma variety. Narrow rows and heavy mulch of wheat straw which keeps the berries clean are outstanding features of cultural practice for this region

Blackberries, Dewberries, and Raspberries

These three berries, sometimes called the bramble fruits, are closely related and often grown on the same farm. The cultivated varieties of the raspberry are hardier than those of the blackberry and dewberry, yet it does not withstand the climatic conditions of the South, and for this reason, its zone of cultivation is farther north than the others. Figures 71 and 72 show the regions where raspberries, blackberries, and dewberries are grown. It will be noted that the largest acreage of blackberries is somewhat south of the regions where the largest acreage of raspberries occurs.

Cultural requirements of blackberries, dewberries, and raspberries are very much the same, the plants usually being set in early spring and clean cultivation given throughout the growing season. For

the most part, the root system of all three is shallow. The dewberry and some of the semitrailing blackberries have a large and deep-growing tap root, and, for this reason, can be grown on the coarser sandy soils, such as are found in the "sand hill" section of North Carolina where a large dewberry growing section has developed as a result of this characteristic of the dewberry. By planting the strongest grade of nursery stock, a half to a full crop can be obtained the year after the plants are set. This, of course, is

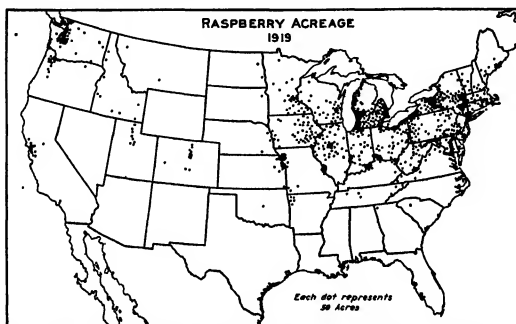


FIG. 71.—The distribution of the raspberry industry is here shown. As will be noted, raspberries are grown mainly north of the Potomac and Ohio Rivers and east of the Great Plains area and in the Pacific Northwest. Although there are several centers of production in certain irrigated areas in the Intermountain States and scattered production elsewhere, the raspberry is mainly a northern rather than a southern crop. Compare with Figure 72, which shows the distribution of blackberries and dewberries.

much more easily accomplished in the Southern States with a long growing season than in the North; however, a full crop is usually not obtained until about the third season.

The canes of the bramble fruits grow to full size one year and fruit the following year, after which the canes die and are replaced by new ones. In most sections, the dead canes should be removed immediately after the harvest season in order to give the new shoots more room and sunlight. An exception is found in the State of Washington where the old canes are left during the winter to help protect the younger canes from winterkilling. Because the canes of the various brambles differ greatly in their growth, many systems of training have been developed.

Dewberries have trailing canes, and to facilitate tillage and make picking easier, the canes are trained to stakes, one at each plant, or to a wire trellis. In North Carolina and in other sections of the South where certain diseases are serious on the dewberry, all canes, both old and new, are removed as soon as the crop is picked and a new growth developed on which is borne the crop of the following season. Lucretia, the principal variety of dewberry, was introduced about 1880, and since about 1895 has been important commercially.

Blackberries comprise two groups, the native American and the introduced sorts. Two varieties only, the Evergreen (*Oregon Evergreen*) and the Himalaya, belong to the introduced group and are grown chiefly along the Pacific coast, though the Evergreen is also grown in New Jersey. These varieties, which are very vigorous and semitrailing, are usually trained to wire trellises. The Evergreen was introduced into Oregon or Washington from England at an early date and has spread into the wild in the western parts of both States. Because of its superior canning qualities, great quantities of fruit are gathered in the wild for canning factories, and, in addition, since about 1910, hundreds of acres have been planted to it, chiefly for canning purposes. It is not entirely hardy in the East at points north of New Jersey, while south of New Jersey it has been so badly affected by the "double blossom" disease that it has not been found profitable. The Himalaya is of minor importance, being grown chiefly as a home garden fruit in California and in parts of the South.

The native American group of blackberries consists chiefly of varieties discovered in the wild and includes forms that are trailing,

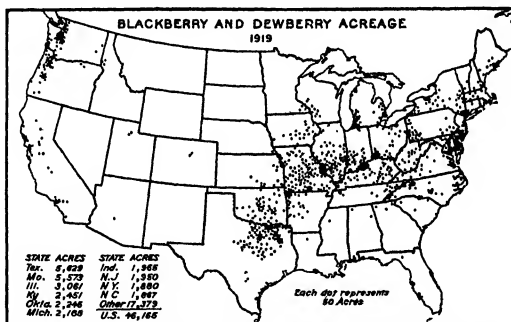


FIG. 72.—The distribution of blackberries and dewberries in 1919

semitrailing, and erect. The Logan (fig. 73), Mammoth, and Cory are nearly trailing sorts grown only on the Pacific coast. The canes are trained to wire trellises. The Haupt, Dallas, and McDonald varieties grown chiefly in Texas and the Marvel (*Florida Marvel*) variety grown chiefly in Florida are semitrailing and are trained in various ways. Training to a wire trellis is probably the most satisfactory method, though often in Texas no trellis is used. Erect-growing varieties such as the Eldorado, Lawton, and Snyder may be trained either in the form of hedge rows or in hills. In hedge rows the young canes are commonly pinched back when they are 2 to 3 feet high and made to form lateral branches. The following spring the laterals are pruned back to from 8 to 18 inches, and may or may not be supported by a wire trellis. Sometimes the new

shoots are not pinched back but are allowed to grow to full height, and a trellis used. When the plants are kept in hills the young canes may be pinched back to a height of 2 to 3 feet or allowed to grow to full height and staked. Thus, practices used in training erect-growing blackberries are not standardized, but are varied to meet particular conditions.

There are three groups of cultivated raspberries—black, red, and purple. Black raspberries have developed from the wild type of eastern North America; the red varieties are improved native red raspberries, introduced European varieties or hybrids between the two; and the purple sorts are hybrids between the black and the red. European red raspberries were introduced first but were not hardy in eastern North America, and have long since been replaced except



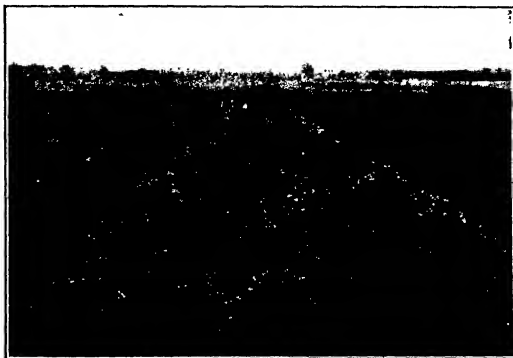
FIG. 73.—Logan blackberry field near Salem, Oreg. This variety has a long, trailing cane and is trained to a wire trellis. The fruit is used for table purposes, for fruit-juice making, for canning, and for drying.

on the Pacific coast where Antwerp, Superlative, and La France are grown to a slight extent. Native red sorts and natural hybrids between the American and European red sorts began to be cultivated extensively about 1860. Black raspberries were first extensively cultivated at about the same time, while the purple raspberries did not become important until about 1900.

The wild red raspberry is a native of the Northern States and succeeds best in northern regions, while the black raspberry is native and succeeds somewhat farther south than the red varieties.

Black raspberries are usually trained by the hill system, the young canes being pinched back when they are 18 to 30 inches high to force them to branch. The lateral branches are cut back in the spring, leaving three to seven buds to each branch, according to the vigor of the particular cane. Sometimes black raspberries are trained to stakes in which case the cane tips are not pinched back. Purple raspberries are trained and pruned in a manner similar to that for

black varieties. Red raspberries are most commonly trained to a hedge row and left unpruned during the summer (fig. 74). The *Ranere* (*St. Regis*), one of the fall or everbearing varieties, usually bears a fall crop on the tips of the new canes formed during the summer, and another crop on the same canes the following spring. For this reason, the new canes should never be pruned or pinched back during the summer, but should be pruned during the late winter. In some sections raspberries are grown in hills and tied to a stake set by each plant, whereas in others wire trellises of various types are used and the canes supported by the wires. The height of the canes varies greatly in the different parts of the country, as, for example, varieties that grow 4 feet in height in the East may make a growth of 12 to 15 feet on the Pacific coast.



Currants and Gooseberries

These fruits are natives of cool climates and are grown chiefly in the Northern States. They succeed best on heavy soils where large quantities of stable manure are applied. Owing to their root systems being shallow, they are readily injured by droughts or by allowing weeds to grow near them. Clean shallow cultivation should be practiced, at least until after the harvest season. Both currants and gooseberries grow their fruits on wood which grew the previous season. A vigorous growth of new wood should be produced each year, the canes over 4 years of age being removed to allow younger ones to take their places. Frequently all canes over 3 years of age are removed.

Varieties of currants grown in this country are for the most part those introduced early in the nineteenth century from Europe or seedlings of them. The industry grew slowly in importance until

1900, but since that time it has declined. One-half of the total commercial pack of pure fruit jelly is made from currants. The largest and most important commercial sections for the cultivation of currants are in the Hudson River Valley and near Lake Ontario in New York.

The first gooseberries grown in the United States were European sorts which were introduced early in the eighteenth century. Gooseberries are affected by powdery mildew and for that and other reasons do not succeed where the summers are hot. English varieties are of little importance, but hybrids of these with native American sorts which are better adapted to American conditions began to be grown about 1850, and until about 1900, the growth of the industry was steady. Following 1900, interest in the growing of gooseberries declined, and the acreage decreased.

The cultivation of both currants and gooseberries is being discontinued in parts of the country where the white pine abounds on account of the fact that they are hosts for the white-pine blister rust during one stage of the development of this disease. In view



FIG. 75.—Harvesting cranberries on Cape Cod, Mass. Swamp land is cleared, drained, and converted into valuable agricultural land

of the fact that the white-pine forests are of so much greater economic importance, the growing of currants and gooseberries can well be discontinued wherever the white pine is grown.

Cranberries and Blueberries

These fruits differ widely from practically all others in their soil and cultural requirements. They can not be grown on the usual upland soil but require what are commonly known as acid soils, many of which are toxic to most of the common farm crops and are undeveloped. These soils can be recognized by the character of the vegetation growing on them, for such plants as laurel, azalea, trailing arbutus, wintergreen berry, lady's-slipper, bird's-foot violet, sphagnum moss, and wild blueberries and cranberries, are characteristic of these soil types.

The cranberry was found growing wild in the cooler parts of the United States and in Canada by the early settlers and was being used by the Indians. Its commercial culture, however, did not begin on any considerable scale until 1830 or 1840. The early culture of the cranberry in the Cape Cod, Mass., district, is surrounded with many stories of historic interest. For example, it is recorded in 1832 that "Captain Henry Hall of Barnstable, had then cultivated the cranberry for 20 years," and that "Mr. F. A. Hayden, of Lincoln, Mass., is stated to have gathered from his farm in 1830, 400 bushels of cranberries, which brought him in Boston market \$600."

Marked progress has been made during the last few years, both in the production and handling of cranberries. Control measures for cranberry diseases have been worked out and the industry placed on a more dependable basis. About 28,000 acres are devoted to commercial cranberry growing in Massachusetts, New Jersey, and Wisconsin, the three principal producing States, the yield for 1925 being about 530,000 barrels valued at \$5,238,000. Figure 75 shows a characteristic Cape Cod cranberry-harvesting scene.

The cranberry succeeds best on acid soils composed largely of peat such as is found in swamps and bogs. To grow cranberries successfully, it should be possible to flood the area at will throughout the winter to protect the plants from injury by low temperatures and also at times during the summer in order to control insects. On the Pacific coast, where the character of the soil on which cranberries are grown is such that it will not hold water, flooding is impractical and protection from cold is sometimes obtained by the use of heaters. Sanding is also considered essential in Massachusetts, and areas on which cranberries are to be grown must have near them an abundant source of clean, coarse sand which can be easily and cheaply obtained. Because of these requirements and the fact that the cranberry is a native of cool climates, the area suited to its culture is limited. It is grown at present in eastern Massachusetts, southern New Jersey, on Long Island, N. Y., in northern Wisconsin, and to a small extent in Washington and Oregon near the mouth of the Columbia River. Except for about 100 acres in Nova Scotia and a field in Holland, cranberry culture is limited to the United States.

Blueberries are native of North America and their numerous wild varieties are widely distributed from Maine to Florida on the Atlantic coast, and also in parts of the Northern and Western States. The more common kinds of wild blueberries were made use of by the early settlers in New England and to-day thousands of acres are maintained under modified cultural methods.

The blueberry is grown extensively in eastern Maine on what are called "blueberry barrens" because of the sterile character of the soil. In that region the areas devoted to blueberries are adapted to few other crops except timber. When the woods are cut off, low-growing blueberry bushes take possession of the ground. The underbrush and tree growth are kept down by mowing with the scythe and by burning over every second or third year, and in this way many thousands of acres are kept with a cover of blueberries at low cost. Most of the crop is harvested by "blueberry rakes" and canned for the pie trade. This type of blueberry is not yet grown under intensive cultivation.

Although many attempts had been made to cultivate the blueberry in a manner similar to the currant and gooseberry, practically all failed because the essential requirements of blueberry culture were not understood until 1910. The greatest interest in this work is in New Jersey, but selections of the best wild forms for propagation are being made at many points from Florida (fig. 76) to Maine and west to Minnesota. Though the total acreage actually planted to these high-bush blueberries is not large their utilization of waste land, their large size, and fine dessert quality make them very promising. In this connection should be mentioned the outstanding work of Miss Elizabeth White, of New Jersey, and of F. V. Coville, of the United States Department of Agriculture. Figures 77 and 78 show characteristic blueberry plantations.



FIG. 76.—An 11 year old blueberry plantation in western Florida

Areas adapted for the cultivation of blueberries are the acid peat, peat-sand, or sandy soils having just a little higher elevation than the majority of the cranberry fields. The bushes are set about 8 by 8 feet apart and given thorough tillage throughout the growing period. By the third season they should produce a fair crop, but unless they are on the required acid type of soil and the field well drained and given good tillage, success can not be expected.

Other Small Fruits

Many other small fruits both native and introduced are grown to a limited extent. The dwarf juneberry (service berry, also shad bush) is cultivated about Atlanta, Ga., and is gathered from the wild in many parts of the United States. A species of blueberry is highly prized in Texas as a jelly fruit and is being put under cultivation there. Likewise in the northern Great Plains area the buffalo berry is prized as a jelly fruit. The goudi, introduced from Japan,



FIG. 77.—A blueberry field at Whitesbog, N. J. The plants are hybrid seedlings. The seeds were planted in June 1911, and the plants set in the field in the fall of 1916. The view shows the field as it appeared in August 1919.



FIG. 78.—A 5-year-old hybrid blueberry plant at Whitesbog, N. J.

is found in some gardens. The elderberry is being planted to a limited extent and large quantities are gathered from the wild for canning and for jelly making. A viburnum, the American cranberry bush, is used for jelly in the northern United States and is being domesticated; so also is a bush cherry from Asia, which bears when very young, is hardier than the sour cherries, and is desirable as a jelly fruit.

Grapes

When America was discovered wild grapes were so prominent in the vegetation that the name Vineland, more than once, was applied to it or to particular regions. Viticulture kept pace with the colonization of the New World.

The early adventurers and first settlers in the New World brought with them the Old World conception of grape growing which was for the purpose of making wine. It, therefore, follows as a matter of course, that references to grapes in the literature of the colonial period and in records and other sources of information concerning the times are of wine and wine making. In fact, this viewpoint continued until the middle of the last century, or even later. It was not until the period from about 1850 to 1870 that the growing of the native bunch grape for table use began to receive serious attention.

Widespread Distribution of Native Grapes

Probably no other native fruit was so abundant and so widely distributed along the Atlantic coast at the time the Pilgrims and the Puritans landed as was the grape. The New England shores were then, as now, less congenial to the grape than sections farther south, and the colonists who took possession of Plymouth Rock came from Old World regions where the grape was less common and grown with greater difficulty than was the case with those who founded Jamestown and other southern colonies. These circumstances therefore had a great molding influence in shaping the subsequent history of grape growing in America. The tracing in detail of American grape growing, a most fascinating story in itself, can not be undertaken in this connection. Only a few epoch-making events can be mentioned.

One of the earliest recorded dates of interest is by an English sea captain who visited the Spanish colonists in Florida in 1565 and who stated that 20 hogsheads of wine had been made in one season from wild grapes. Capt. John Smith commented (1607-1609) on the abundance of wild grapes in Virginia, and from the very beginning (1621 and later) similar references applying to the New England colonies are found. Moreover, they occur with considerable frequency in the literature of the entire colonial period.

Little if any distinction was made in the different types of grapes observed by the colonists, except as to color. References to blue, black, and white or yellow grapes occur. It is an obvious conclusion that those found north of Virginia comprised what have long since been designated as bunch or euveitis grapes, whereas those found in Virginia and farther south were probably Muscadine grapes, of present terminology. In fact, it seems altogether probable that John Smith (1607-1609) referred to this type of grape when he wrote:

There is another sort of grape neere as great as a Cherry, this they (the Indians) call *Messamihoe*: they bee fatte, and the juyce thicke.

There are no records, however, indicating the early culture of Muscadine grapes. The Scuppernong variety is the oldest named and the most important sort of this type. Neither the place nor the time of origin of the Scuppernong is definitely known, but it is credited to Tyrrell County, N. C., at some time prior to 1760 (fig. 79).

The fact has been stated elsewhere that the early colonists brought the fruits with them with which they had been familiar in their old homes, or else sent back for them at an early opportunity. The grape was no exception. In 1621 and 1622 the London Co., appears to have made the first attempt to grow vinifera or European grapes in Virginia. Other similar attempts followed in different regions, but with the same lack of success. The universal failure of these early vinifera vineyards was doubtless due in a large degree to destructive diseases, but it also seems probable that they suffered



FIG. 79.—Muscadine grape arbores in North Carolina. A common method of training this type of grape

from attacks of a native grape insect, the phylloxera, or root louse (*Phylloxera viticola*), to which the European grape is highly susceptible, but which the native American grapes resist successfully.

While grape history was being made in the Colonies along the Atlantic coast, the Pacific coast was not being entirely overlooked. But there the record reads very differently. The early Mission Fathers, going northward from Mexico, established the San Diego Mission in 1769 where they planted the Mission grape, a vinifera variety, which is said to have been known in Mexico as far back as 1520. Later other missions were established—at San Gabriel in 1771, at Los Angeles in 1781, and at Santa Barbara in 1786. Grapes were planted at each of these missions where the earliest successful culture of vinifera or European grapes in America is said to have occurred.

Success Built on Failures of Early Efforts

A new era in American grape growing, based on the failure of two great efforts—great for those days—began about 1800 and in the quarter century following. In those failures, and in the later

successes that grew out of them, the name of John James Dufour, II, must ever have a conspicuous place. Dufour came to America in 1796. After spending much time visiting places where grapes were growing and apparently studying the conditions carefully, he was, himself, ready to locate. This he did at a point about 25 miles from Lexington, Ky. The Kentucky Vineyard Society was organized and began the planting of a vineyard, probably, in 1799. This effort, however, failed of success and rather speedily, since the prospects were so unpromising that by 1802 some members of the company were seeking a new location. The one they chose was near the present town of Vevay, Ind., and there they proceeded to plant a vineyard.

Though this enterprise persisted somewhat longer than did the one in Kentucky, it could not endure except for a brief period. It again demonstrated that the vinifera grapes of Europe could not withstand the conditions that they were meeting in the New World. However, in the vineyard in Indiana, one or two varieties resisted the conditions better than the others and continued to grow. One of these varieties that persisted and which Dufour called the Cape grape proved to be the foreshadowing of what has come to be our native American bunch-grape industry—the most widely grown type of any grape now cultivated in the United States. It is this variety in particular, coming, as it did in sequence out of what was otherwise a twice-repeated failure that gives to Dufour's efforts their epoch-making aspect. He never realized what has long since been accepted as true that this Cape grape was, in fact, a native vine which somehow had been planted in his vineyard or had sprung up from a root already there. Later he planted the variety more or less extensively and apparently with success. Throughout this period and even until many years later the grape was valued for wine making, not for table use.

The Second Epoch in American Grape History

What has been designated as the second epoch in American grape history has to do with John Adlum who planted a vineyard on Rock Creek in the District of Columbia, and his connection with the Catawba variety which began in 1819 when he pruned a vine of it growing in Montgomery County, Md., for the cuttings. Though Adlum's first regard for this variety was for wine making, he also referred to it as "a very tolerable table grape."

Had Adlum been content simply with planting the Catawba grape himself, little might have come of the variety, but he evidently distributed it widely. Among the number to whom he sent cuttings was Nicholas Longworth, of Cincinnati, who received them in 1825. It is evident that Longworth became highly impressed with the value of this grape. Longworth's relation to the development of grape growing was such that he has been called the "father of American grape culture."

During the period from about 1825 to 1850 many vineyards were planted in widely distributed parts of the country. Grape growing began to assume commercial aspects not hitherto recognized, though it required another 25 years or more to establish the real beginnings of the present commercial development.

This historical sketch is necessarily very fragmentary. Only a few of many equally interesting events and personalities have been mentioned. A very full account appears in "The Rise of the American Grape,"⁴ on which this review is based. It remains only to record here that the breeding of grapes begun by the late E. S. Rogers of Salem, Mass., in 1851, and similar work carried on extensively through a long series of years by the late T. V. Munson of Denison, Tex., as well as the results of several other less widely known breeders, gave much impetus to grape growing. The varieties produced by these breeders fill a large place at the present time in the grape industry of the country (fig. 80).



FIG 80—A native American bunch (enavitis) vineyard in New Jersey

The foregoing review relates, as is obvious, to what was taking place in the East. Apparently not much headway had been made on the Pacific coast during the period covered by this sketch. However, an awakening in grape growing in California occurred soon after the middle of the last century. An essay by Col. Agostin Haraszthy on grape growing and wine making published in 1858, and given wide circulation by the California State Agricultural Society, so stimulated viticulture in that State that 20,000,000 vines had been planted there by 1862 (fig. 81).

In 1861 Governor Downey appointed a commission to report on ways and means to promote grape growing in California. Colonel Haraszthy of this commission visited the wine districts of Europe and procured about 200,000 cuttings and rooted vines, embracing all the best-known varieties. These were grown at Sonoma, Calif., and cuttings from them were distributed among growers in various parts of the State. During subsequent years, commercial grape growing in California based entirely on *vinifera* varieties developed more or less rapidly. The industry included the production of table, wine, and raisin varieties, with some interchange in varietal disposition depending on the demand in different lines. During the last five years extensive areas have been planted to vineyards in

⁴Bailey, L. H., *The Evolution of Our Native Fruits*

California, the total acreage in vineyards being more than doubled during this period. At the same time many thousands of acres of vineyards there have become depleted and unprofitable as a result of inroads made by the phylloxera, the insect which doubtless was in part responsible for the failure of Dufour's attempts in Kentucky and Indiana, and those made earlier along the Atlantic coast. The menace of phylloxera to the California grape industry at the present time is recognized by many. The solution of the problem would seem to be the grafting of the vinifera varieties on stocks that are resistant to this insect.

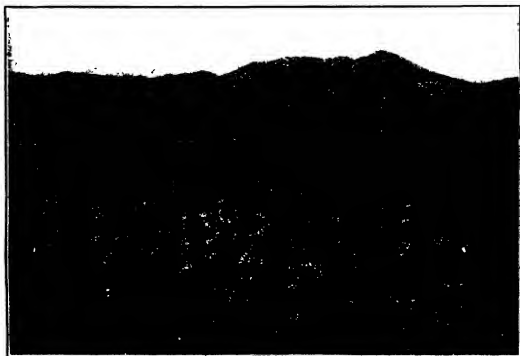


FIG. 81.—A vinifera vineyard in California in its sixth season of growth

Though not a part of the present account, it is of interest to note here that the phylloxera, a native American grape insect, found its way many years ago into some of the vinifera grape sections of the Old World, where its destruction of the vineyards was nearly complete. The restoration of the industry in those sections was made possible by the use as stocks, on which to graft the vinifera varieties, of American grape roots that were resistant to this insect.

The development of grape growing and its geographical distribution during the earlier period is shown in Figures 82, 83, 84, and in the data accompanying them. Following about 1870, there was a rapid increase in the acreage and about 1875 a temporary overproduction occurred. At about that time, however, a decline began in the production of American *euvitis*, or bunch grapes, owing to black rot and other diseases. Grape production in 1879 is shown in Figure 85, and the data accompanying it.

Changes in the Industry

The viticultural industry from its beginning has been marked by a series of "ups and downs." For instance, in the Eastern States grape prices have varied from 10 cents to three-quarters of a cent

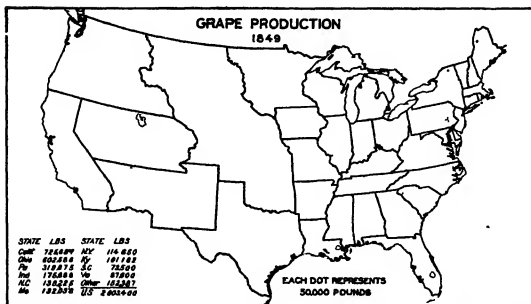


FIG 82.—In the 1849 census 32 States reported the growing of grapes, their entire product being reported in gallons of wine made. Of the 216,960 gallons reported, California reported 26.75 per cent; Ohio, 22.5; Pennsylvania, 11.8; Indiana, 6.4; North Carolina, 3.1; Missouri, 4.45, or a total of 76.67, and 26 other States reported 28.33 per cent. The total product, although not large, gave expression to the beginning, about the year 1830, of a new era in grape history, namely, the culture, use, and improvement of American *cuvitis*.

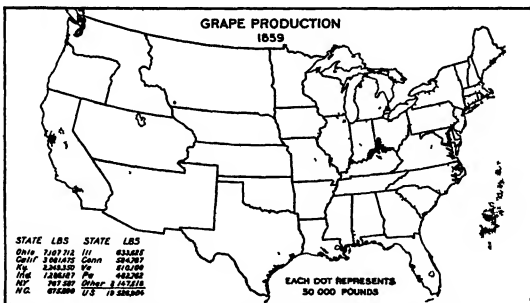


FIG 83.—In 1859 the entire grape product was reported in gallons of wine. Of the 1,927,242 gallons reported by 39 States, Ohio reported 34.9 per cent; California, 15; Kentucky, 11; Indiana, 6.8; New York, 3.7; North Carolina, 3.3; Illinois, 3.1; Connecticut, 2.8; Virginia, 2.5; Pennsylvania, 2.3; Missouri, 1.7; Georgia, 1.6; South Carolina, 1.5, or a total of 89.7, and 26 other States reported 10.3 per cent. In the South the Scuppernon variety continued as the favorite; next to it, Catawba and Warren; in California it was the Mission; in other States nine-tenths of the vineyards were Catawba. Of the Concord, Delaware, Hartford, Prohific, Iona, Adirondack, and of the Rogers hybrids little as yet was known. The decade closing with this census witnessed the birth of commercial wine manufacture in the United States.

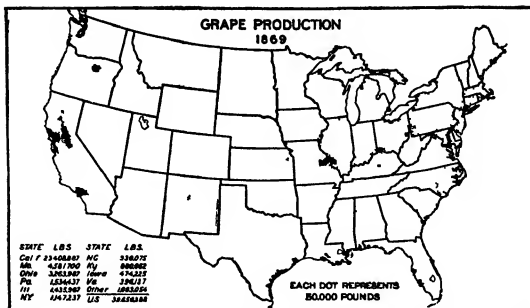


FIG 84.—In 1869 of the 3 304,899 gallons reported from 41 States and the District of Columbia, California reported 56.6 per cent, Missouri 10.2, Ohio, 7.9, Pennsylvania, 3.7, Illinois 3.4, New York 2.7, North Carolina, 2.2, Kentucky, 2.1, Iowa, 1.1, or a total of 89.9 per cent, and 33 other States reported 10.1 per cent. During this decade California introduced all the choice European wine varieties, greatly increased her grape production and the quality of the wine made. East of the Rocky Mountains there was rapid increase in vineyard acreage and in originating and bringing into culture improved varieties of American varieties. Following 1875 quite a decline occurred owing to black rot and other diseases.

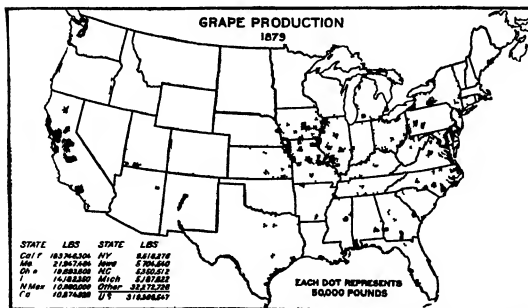


FIG 85.—Of the entire product in 1879 of 319 368 547 gallons reported by 36 States, California reported 57.5 per cent, Missouri, 6.8, Ohio, 6.1, Illinois 4.4, New Mexico and Georgia, each 3.4 per cent, New York, 2.9, Iowa, 1.7, North Carolina, 1%, Michigan, 1.6, Alabama and Kansas, each 1.08 per cent, totaling 92.5 per cent, and 24 other States reporting 7.5 per cent. From 1870 the California grape acreage increased so that in 1875 there was a temporary overproduction of wine. Raisin production as an industry began to manifest itself. The decline from 1869 to 1879 in value of grape products in the United States was due to disease injury in the States east of the Rocky Mountains.

per pound in basket lots, and bulk grapes from \$100 to \$4 per ton; and black rot, anthracnose, mildew, and insect pests have wrought havoc. In California, bulk grape prices have varied from \$150 down to \$6 a ton and even less, and in some cases hogs have been turned into vineyards to harvest the grapes. In a single decade the so-called California vine disease and phylloxera have wiped out more than 100,000 acres of what were flourishing vineyards. From 1854, when the Concord was introduced (fig. 86), up to 1883, viti-



FIG. 86.—Ephraim Wales Bull, originator of the Concord grape and the original vine. Lexington Road, Concord, Mass. Mr. Bull died in 1895. This picture was probably taken prior to 1890.

culture made its greatest growth in eastern America. From 1883 to 1903 the annual vineyard acreage increase for the entire country did not exceed 1.5 per cent. From 1909 to 1919 there was a series of exceptionally dry years and seasons in which late spring frosts and insect and disease injuries had serious effects on the vineyards and their output. The annual acreage increase was only about 5 per cent. The growth of viticulture in this country by decades since 1870 is indicated on the maps inserted as Figures 87 to 90.

Recent trends in grape production include the large increase in acreage in California as previously mentioned, the development of several thousand acres of American euveitis (bunch grape), vineyards largely of the Concord and Moore Early varieties in the Ozark region of southwestern Missouri and northwestern Arkansas, and a more widespread interest in Muscadine grape planting in the South Atlantic and Gulf Coast States. The development of new methods of using the fruit of the Muscadine type of grape has resulted in the planting of a considerable acreage, a large part of which is in the form of home vineyards. Taking the grape industry as a whole

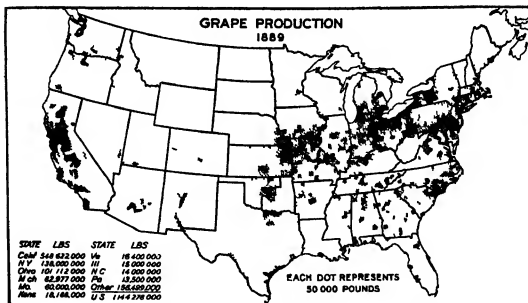


FIG 87.—Data of the 1889 grape crop show table grapes have rapidly become second, raisins third and grape brandy fourth of the most important grape outputs. The census valuation given for the entire crop of 1 144 278,000 pounds is \$2 846, 748 and shows fully 42 per cent was used for wine and brandy, 47 per cent as table grapes, and fully 11 per cent in raisins and dried grapes. Fully 35 per cent of the total output, 100 per cent of the raisin and dried grapes, 56 per cent of the wines, 90 per cent of the brandies, and 14 5 per cent of the table grapes came from California.

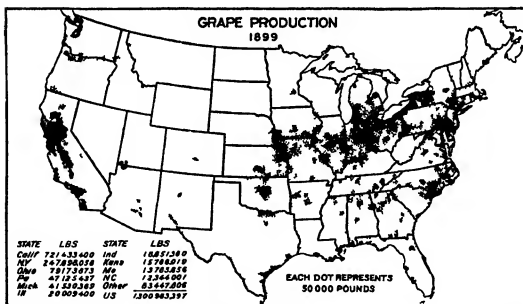


FIG 88.—Data show there were in the United States in 1899, 359 wineries, \$9,833,015 invested in viticulture, the grape products worth \$8,547,310, a remarkable increase in all grape lines, with grape brandies, champagnes or sparkling wines, dried and canned grapes as important new industries. The census gives the entire grape crop as 1,300,983,397 pounds used for 34,390,144 gallons dry and sweet wines, 2,886,527 gallons of brandy, 36,142 cases of canned grapes, 15,867 cars of table grapes, 94,884,000 pounds of raisins, 480,000 pounds of dried grapes. Of this all the raisins, dried, and canned grapes, 65 per cent of the wines, 98 per cent of the brandy, and 5 per cent of the table grapes came from California.

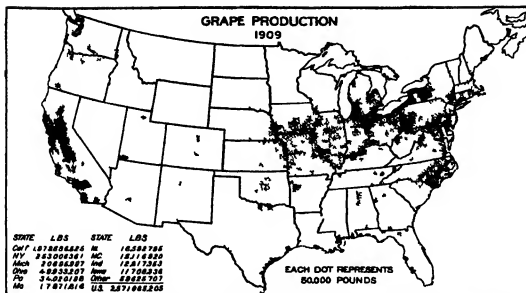


FIG 89.—The 1909 compared with the 1899 census shows nearly 100 per cent increase in acreage of vines and grapes produced and in various uses made of grapes. In 1909 there were 2,571,065,206 pounds of grapes produced and used in making 52,912,396 gallons of wines of all kinds and unfermented juices, 6,393,150 gallons brandy, 24,470 cases of canned grapes, 140,000,000 pounds of raisins, 450,000 pounds of dried grapes, and 18,640 cars of table grapes were shipped. All the raisins, dried, and canned grapes, 82 per cent of the wines, 92 per cent of the brandies, and 31 per cent of the table grapes came from California. Trade papers report 8,070,200 gallons unfermented juices made in the Middle Atlantic States.

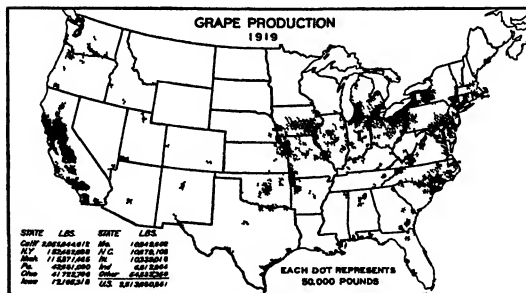


FIG 90.—The 1919 census gives the grape output as 2,513,680,861 pounds or 2.33 per cent less than in 1909, whereas their value is given at \$95,181,657 or four and one-third times that of any preceding vintage, owing to increased values occasioned by the war and the enforcement of prohibition laws. The grape crop was used in making 32,551,987 gallons of wines and juices, 1,802,421 gallons of brandy, 104,446 cases of canned grapes, 28,495 carloads of wine and table grapes, and 896,000,000 pounds of raisins. All the raisins and canned grapes, 85 per cent of the wines, 99 per cent of the brandy, and 67 per cent of fresh grape shipments came from California.

a number of special features have been developed, the most prominent of which, from an economic standpoint, being the production of raisins.

Raisins

Commercial raisin production in California was first emphasized in 1873, when nearly six thousand 20-pound boxes of raisins were marketed. For the next two decades this country's production of raisins did not equal its importations. A raisin-seeding machine was invented in the early seventies by George E. Petit, of California, but it took until 1893 to develop a trade for seeded raisins; since then the demand has steadily increased. By 1892 our raisin production equaled that of Spain. Since 1898, when this country first began

PRODUCTION, EXPORTS, AND IMPORTS OF RAISINS 1872 - 1925

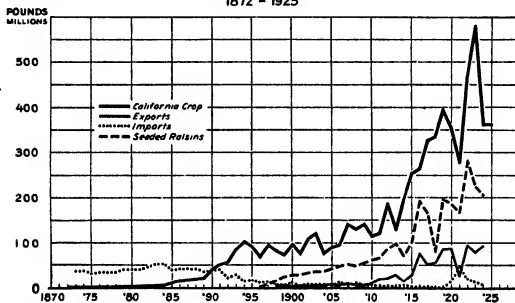


Fig. 91.—Practically all the raisins in the United States are grown in California. Up to 1896 only enough were produced to make up the difference between those consumed and those imported. By 1905 domestic production had increased to the extent of supplying the demand for home consumption. Since then an export trade has gradually developed until now this country is producing more raisins than all the rest of the world.

to export raisins, the imports have rapidly decreased, until they are now negligible. In 1919 the exports exceeded 100,000,000 pounds. The production in 1922 amounted to 470,000,000 pounds. The State of California now produces more raisins than all the rest of the world. Figure 91 shows the trend of the raisin industry in this country, including exports and imports for a series of years.

Since 1920 a considerable acreage has been planted in California to the Panariti variety, the choicest of the currant grapes, and present prospects indicate that this country will soon produce sufficient dried currants of commerce to meet domestic demands.

Table Grapes

Owing to the excellent dessert qualities of American evitis, or bunch grapes, such as the Catawba, Isabella, and Concord, table-grape shipments, as an industry, began about 1880 in the North-

eastern States, but suffered in the heavy reaction of grape values late in the eighties and early in the nineties. However, by 1895 the shipment of native table grapes again became more active. Shipments of vinifera grapes for table use from California began about this time and have steadily increased. In 1923 grape shipments for the entire country amounted to 65,354 cars. The table-grape industry in California has developed to large and important proportions. Not only are the grapes shipped fresh as harvested, but a Christmas trade based on long-keeping sorts packed in drums with sawdust (instead of cork, as is the European product) marks one of the distinctively American features of the vinifera grape industry in California.



FIG. 92.—A young vineyard of native grapes trained by the modified Munson system

Unfermented Grape Juice

Commercial manufacture and preserving of grape juice unfermented, so it can be used everywhere and at all times of the year, originated in this country and began to assert itself as an industry at the close of the last century. The annual commercial output is estimated at from 5,000,000 to 8,000,000 gallons, and a large quantity is annually put up by enterprising housewives.

Canned Grapes

In California, since 1895, canned grapes have been put up in considerable quantities, the heaviest annual output so far having been 128,125 cases, or 768,750 gallons.

America's Contribution to the Grapes of the World.

The native grapes represent a contribution of America to the fruits of the world (fig. 92). Though similar in many respects to the vini-

fera grape of the Old World they possess characteristics so distinct from that type as to render the differences more striking than their points of similarity. In the many types and varieties now available few fruits have a wider range of adaptability than the grape. The maps showing distribution affirm this statement. Throughout most of the Northern States, extending into the middle South and including the Northwest, varieties of the American *euvitis* or bunch grapes (*Vitis labrusca*) are grown; in the Coastal Plain region of the South Atlantic and Gulf States, the Muscadine varieties occur, the species represented being native to these regions; in the South Central States and through the Southwest the bunch grapes developed by the late T. V. Munson and representing the *euvitis* other than the *Labrusca* type are at home; in California the European or *vinifera* varieties comprise the entire commercial output.

Nuts

Economic Importance

Approximately \$50,000,000* worth of nuts was consumed in this country during 1919, the last year for which census data are available. Of this amount \$30,000,000 were home-grown nuts which could be definitely accounted for, perhaps \$500,000 worth were of native nuts which were neither measured nor appraised, and which therefore could be less definitely accounted for, and about \$20,000,000 worth were of shelled and unshelled nuts imported for consumption. The species of major importance, so far as monetary value of domestic crops is concerned, were as follows: Persian walnut, \$17,916,158; pecan, \$7,792,086; and almond, \$3,963,264.

Persian-walnut production was reported by the census of 1920 from 23,798 farms in 28 States, almonds from 12,845 farms in 18 States, and pecans from 102,052 farms in 29 States. It will, therefore, be seen that the ratio of total farms reporting pecans was more than 4 to 1 in comparison with walnuts, nearly 9 to 1 with almonds, and nearly 3 to 1 with the two together. Persian-walnut production is largely confined to California, Oregon, and Washington, but is of minor importance in Utah and Arizona. In other States where reported it is of scattered occurrence only. Almond production is of major importance in California alone, which in 1919 produced 15,699,748 pounds, although between 10,000 and 50,000 pounds each were reported in the States of Utah, Texas, Oregon, Washington, and Arizona. Pecan production is of major importance in Texas, Oklahoma, Georgia, Louisiana, Mississippi, Alabama, and Florida, although its yearly production exceeds 100,000 pounds in South Carolina, Arkansas, North Carolina, Kansas, Missouri, and Illinois.

* Bureau of Agricultural Economics, Nov. 22, 1924.

TABLE 4—*Persian walnut and almond acreage production, and value in California 1900 1925*

| Year | Walnuts | | | Almonds | | |
|-------------------|-----------------|-------------|--------------|-----------------|-------------|-------------|
| | Bearing acreage | Production | Total value | Bearing acreage | Production | Total value |
| | | <i>Tons</i> | | | <i>Tons</i> | |
| 1900 | 14 028 | 5 430 | | 20 000 | 2 740 | |
| 1901 | | 8 300 | | | 1 400 | |
| 1902 | | 8 570 | | | 3 200 | |
| 1903 | | 5 300 | | | 3 200 | |
| 1904 | | 7 390 | | | 800 | |
| 1905 | | 6 400 | | | 2 100 | |
| 1906 | | 7 000 | | | 50 | |
| 1907 | | 7 400 | | | 750 | |
| 1908 | | 9 200 | | | 2 900 | |
| 1909 | | 9 350 | | | 1 500 | |
| 1910 | 1 17 000 | 9 600 | | 1 14 584 | 3 300 | |
| 1911 | | 12,500 | | | 1 450 | |
| 1912 | | 11 250 | | | 3 000 | |
| 1913 | | 11 350 | | | 1 100 | |
| 1914 | 34 138 | 8 900 | | 14 947 | 2 250 | |
| 1915 | 34 453 | 14,825 | | 18 662 | 3 500 | |
| 1916 | 35 379 | 14 600 | | 20 470 | 3 400 | |
| 1917 | 45 687 | 16 500 | | 28 383 | 4 000 | |
| 1918 | 48 520 | 19 950 | | 29 242 | 5 100 | |
| 1919 | 50 900 | 28,100 | \$15,455 000 | 30 100 | 7 250 | \$3 190 000 |
| 1920 | 58 964 | 21 000 | 8,400 000 | 35,044 | 5 500 | 1 980 000 |
| 1921 | 67 626 | 19 500 | 7 800 000 | 39 968 | 6 000 | 1 920,000 |
| 1922 | 67 869 | 27 000 | 9 720 000 | 50 272 | 5,500 | 2 465 000 |
| 1923 | 69 217 | 25 000 | 10 000 000 | 53 453 | 11 000 | 2 960 000 |
| 1924 | 70 565 | 21 500 | 9 030 000 | 56 646 | 9 200 | 2,760 000 |
| 1925 ¹ | | 30 500 | 13 420 000 | | 7 500 | 3,000 000 |

¹ Acreage calculated on the basis of number of trees reported by the Bureau of the Census² From the Monthly Supplement Crops and Markets December 1925

Office of Agricultural Statistician California Cooperative Crop Reporting Service

Nut growing, although representing the youngest orchard industry of importance in this country, is now a staple pursuit in sections where it has become established. The trees require much the same degree of attention to culture as do other orchard fruits and are no less responsive to climatic and environmental influences. Likewise they are quite as susceptible to serious diseases and insect pests as are other cultivated species.

Relation of Nuts to the Fruit and Vegetable Industries

Nut culture, one of the most recent additions to commercial horticulture, not only makes a worthy financial contribution, but extends economic horticulture to territory possessing soil and climatic conditions in general beyond the range of successful fruit and vegetable culture. During normal years the bulk of pecan production is still largely from native trees in the western and central part of the range of the species. The pecan is confined mainly to an area forming an enormous gap north of the citrus area and either below the altitude or to the south of latitudes to which deciduous fruits are best suited. With the exception of the Satsuma orange belt on the Gulf coast and in northern Florida its range can not be said to overlap that of the citrus. The Persian walnut intermingles considerably with the citrus orchards in southern California and with those of other fruits farther north, particularly in the Pacific Northwest, where its range overlaps that of both deciduous and small fruits. The almond adapts itself to soils rather too dry for most fruits, although it requires a

proper amount of moisture. Wherever pecans or walnuts are adapted to the same environmental conditions as are orchard fruits, it is often practicable to use fruit trees as fillers. In the main, nuts mature at a different period than do fruits and vegetables in the same general latitude, and so form an important money crop at a time when ordinarily there is no other income.

Nuts are less perishable than most other horticultural products; they may be handled with minimum danger of injury by bruising; and under refrigeration at 32° F., nuts in perfect condition may be kept practically without deterioration from one season to another.

History

Consumption of nuts on this continent long antedated that of a majority of such fruits as are now of leading importance in the United States. They were among the staple foods of the Indians, whereas, with minor exceptions, all orchard fruits have been introduced from foreign countries by modern civilization. However, so far as known, the Indians planted few, if any, nut trees for purposes of crop production, and there is no indication that such planting as was practiced by them had material influence in improving the species, although no doubt it was instrumental in extending the range of nut production.

The Pecan

Native nuts of the more important species appear to have exercised little influence upon early civilization in North America. The pecan, now the leading member of commercial importance in this group, is not common to the sections first settled, nor were any of the important exotics successfully established. Nevertheless, numerous instances of planted pecan trees in the East were recorded on Long Island and vicinity beginning in 1872.⁶ Commercial planting may still be said to be nonexistent north of the Carolinas, although there are some exceptions in the vicinity of Norfolk, Va. Farther south the existence of occasional old trees, and the superiority over the western product of many eastern seedlings from which new varieties are constantly being derived, would indicate that a process of improvement by human planting and selection has been under way since at least early during the last century. Pecan propagation by asexual methods was first recorded by Taylor,⁷ who found that the Centennial variety had been grafted in 1846 or 1847. Following this instance there is no further record of pecan grafting until the early eighties, when William Nelson of New Orleans and the late A. G. Delmas, of Pascagoula, and Charles E. Pabst, of Ocean Springs, both of Mississippi, and E. E. Risien, of San Saba, Tex., began to graft nursery trees in considerable numbers. Mr. Risien was doubtless the first to successfully graft the tops of large forest trees.

The cracking of pecans and marketing the kernels is known⁸ to have been practiced during the early eighties by the Indians about

⁶ TRUE, ROONEY H. NOTES ON EARLY HISTORY OF PECANS IN AMERICA. Smithsonian Report, 1917, p. 446.

⁷ TAYLOR, WILLIAM A. PROMISING NEW FRUITS. P. 407, Yearbook, 1904.

⁸ Personal statements of G. A. Duerler, former president of the Duerler Manufacturing Co., candy manufacturers and pecan crackers, San Antonio, Tex., to C. A. Reed, Dec. 12, 1917.

Fredericksburg, Tex., who deftly clipped off the ends of the nuts by blows with railroad spikes and took the kernels to the villages in bags made of goatskins. The Barnhart Mercantile Co., of St. Louis, appears to have been the first to crack pecans and market the kernels in quantity. R. E. Woodson, for many years vice president of that company, states ⁹ that previous to and including the year 1884 "not more than 50,000 pounds of shelled pecans were sold to manufacturers, although more were used by small confectioners, who cracked their own supply." During that year Mr. Barnhart's company began cracking with hammers, employing a crew that "did not exceed ten persons."¹⁰ In 1888 Mr. Woodson ¹¹ invented the first hand-power cracking device. About 1895 ¹² the Duerler Co., added to their confectionery business the cracking of pecans, using only the hammer for the purpose. Shortly afterward a power machine made by a Mr. Pfeiffer, of Kansas City, appeared and was used by the Duerler employees. This machine was soon superseded by one invented by Mr. Woodson in 1900, which was run by power, but fed by hand. Since then improvements have been made upon the Woodson machine and a few other pecan-cracking machines have been invented. Several of these are now on the market. Some of the cheaper makes are fed by hand, but the larger commercial machines are equipped with automatic feeding arrangements.

Firms having headquarters in San Antonio and Tyler, Tex., St. Louis, Mo., and Chicago, Ill., are now the principal agencies for assembling and distributing both the unshelled and shelled wild pecans.

Early crops were almost wholly the result of gathering rather than of producing, as pecans were then nowhere under cultivation, and harvesting was but a matter of threshing the wild trees and picking up the nuts. The product was considered public property, regardless of actual ownership, and it was not an uncommon practice for trees to be cut down to facilitate gathering. An exceedingly small part of the entire crop was then harvested. Earliest prices on record were but a cent or two a pound. By 1900 they had risen to an average of from 7 to 9 cents. By 1910 the pecan business had assumed great volume and cracking houses were discriminating between nuts which would crack readily and release a high proportion of perfect halves and those which could be cracked only with difficulty. The latter were cleaned and polished by being made to rub together in revolving cylinders, and later were immersed in a coloring solution, dried, and placed upon the market in the unshelled condition. Generally speaking, the shells of these nuts were thick and in internal structures such that the dividing walls, rich in tannin, broke badly in cracking and became difficult to separate from the kernel particles. For many years these pecans were the only ones to which the public had access, as the shelled product was largely consumed by the confectionery and bakery trades. As a result, popular prejudice against pecans, which was long in being overcome, became highly developed throughout much of the country.

⁹ American Nut Journal, Rochester, N. Y., October, 1920, p. 50.

¹⁰ Proc. Nat. Nut Growers Association, 1918, p. 48.

¹¹ Letter to Dept. of Agr. by Mr. Woodson, dated Jan. 6, 1925.

¹² AMERICAN NUT JOURNAL, September, 1918, p. 38. RISE OF THE COMMERCIAL PECAN-CRACKING INDUSTRY.

The planting of numerous large orchards of grafted pecan trees running into hundreds of acres each, and the extensive planting of small orchards, dates back no further than 1905. Prices for cultivated pecans were early established at a high figure, for the reason that when varieties were first propagated by asexual means the parent trees were drawn upon for both scions and specimen nuts. Nut production of such varieties, therefore, was small and the demand greatly out of proportion to the supply. Nurserymen had no logical objection to the high prices which they had to pay for specimen nuts, as the higher the prices the better the argument with prospective buyers of nursery trees. The price per pound paid by the nurserymen for specimen nuts needed in illustrations often equalled or exceeded that charged by them for grafted trees. Pecan prices are still high in proportion to those of other nuts, although large profits to producers are seldom realized, as yields of the superior varieties per unit have been well below what was anticipated, and production costs much higher. The industry is now no more than at the threshold of the commercial stage. Figures 93, 94, and 95 illustrate the type of pecan orchard now found in many sections of the South.



FIG. 93.—Summer view in a southern pecan orchard. Plantings aggregating thousands of acres in single communities are not uncommon in many sections. Pecan trees require quite as intensive cultivation, spraying, fertilization, etc., as do other orchard fruits.

Although the orchard development of the pecan industry has chiefly taken place in districts outside of the native range of the species, and therefore well to the east of the Mississippi River, during recent years there has been a widespread effort to improve the product of that section by top-working the native trees to superior varieties. This is taking place on a large aggregate scale in parts of Texas, Louisiana, Oklahoma, and, more recently, in Arkansas. As a result of this work, together with other steps being taken to stimulate greater and more regular production from the wild trees,

it appears inevitable that the total output of nuts of the better grade will soon be greatly increased.

Pecans from wild trees are largely marketed through regular commercial channels. It is not improbable that this custom will continue indefinitely, despite advantages which normally accrue from cooperative selling. The pecan industry, however, is peculiar to itself in many respects. Full crops from wild trees are most irregular, and the great bulk of nuts is produced in relatively



FIG. 94.—Winter view in a typical pecan orchard of the South. Few large orchards of the most desirable varieties are more than from 15 to 18 years of age since transplanting from the nursery. Yields in excess of from 250 to 300 pounds per acre from mature trees have thus far been rare. Under more modern methods of cultivation a few of the more successfully handled orchards are now yielding 1,200 pounds or more per acre.

small quantities per farm. The market demand for pecans is such that commercial buyers are eager to pay immediate cash at fair prices, whereas the cooperatives advance only a part payment at the time of delivery and remit the remainder after the product has been sold and the handling costs deducted. To refuse cash offers under these circumstances, and to wait in order to deal through a cooperative at possibly only a few cents per pound more, does not appeal to the average farmer, when by accepting such offers the transaction of selling could be closed for the season. Therefore, in districts of wild production, cooperative pecan selling has made slight progress.

The situation as regards cooperative marketing is much more favorable in districts where pecans are produced in cultivated orchards. Here, yields are more regular, the character of the product much superior, the amount of investment involved is vastly greater, and the price per pound considerably above that of the wild pecan, and cooperative marketing has made substantial headway. At present there are two nonprofit organizations handling pecans. These are the National Pecan Growers Exchange and the Southern Pecan Growers Association, both of Albany, Ga. Together these organi-

zations are now annually selling upwards of 2,000,000 pounds of nuts. They are largely responsible for the uniformly good prices that producers are receiving and the systematic distribution of pecans over the whole country. At various other points pecans are sold cooperatively by local produce exchanges organized primarily for other commodities.

To a considerable extent the pecan producers have obtained fancy prices by developing the mail and express-order trade. However, this is steadily giving way to cooperative selling at lower gross prices, as the money, labor, and risks involved in the sale of small lots become very great. Not infrequently it is found that the net returns are little if any greater than as though the product had been marketed in bulk through a cooperative organization.



FIG. 95.—A pecan grove in northwestern Kentucky. Trees of this size and age are ideal for top-working to superior kinds

In common with all nuts sold in the shell, the demand for pecans is largely limited to the Thanksgiving and Christmas holiday trade, while shelled nuts are in ready demand during the greater part of the year. To meet this situation, the present tendency with all American-grown nuts is to develop the shelling industry in order to take advantage of the longer marketing period.

The Persian Walnut

Persian walnuts in this country were first planted in the East, probably early in the eighteenth century. Scattered trees of these early plantings and their offspring, together with later introductions, still survive in various sections, principally from lower Connecticut to the Chesapeake Peninsula, and inland west to middle-southern Pennsylvania and northwestern Maryland. It was, however, owing to plantings on the western coast that the commercial industry developed. The first plantings in California are supposed to have been made by the Franciscan monks during the establishment of the California missions in 1769 and the years that followed. The present California stock traces mainly to a planting of walnuts from Chile made by Joseph Sexton of Goleta in 1867, and to introductions direct from France by Felix Gillet, following the establish-

ment by him of the Barren Hill Nursery at Nevada City, Calif., in 1871. The pioneer work of these men laid the foundation for walnut growing in their respective parts of the State as it exists at the present time. The best of the Sexton stock, known as the Santa Barbara paper-shell type, is responsible for the bulk of the production from the southern counties of the State. Planting of the



FIG. 96.—Persian walnut cluster at ripening time. Normally the nuts automatically separate from the hulls and drop to the ground.

French types has extended from northern California into Oregon, where walnut growing is assuming considerable proportions. At present, one variety of this type, the Franquette, is regarded as being the most hardy of any now available in this country. Figures 96 and 97 give a good idea of the character of the Persian walnut at ripening time, also the way orchards look during the growing period.

The rate of development of the walnut industry may be best judged by the annual yields in tons: 5,430 in 1900; 9,600 in 1910; 19,980 in 1920; and 30,500 in 1925. The total value of the crop in 1925 was \$13,420,000. Prices per pound to the grower in 1924 ranged from 16 to 29 cents, and averaged about 23 cents.¹³

Cooperative marketing of walnuts in California has had a profound influence on the development of the industry in that State. The cooperative organization now has a membership of over 4,000 and handles approximately 87 per cent of the output of the State. The advanced business methods which it has applied have had much to do with stabilizing the industry, both in the matter of production and of selling. Costs of production have been lowered and prices



FIG. 97.—A well-cultivated orchard of Persian walnuts of the Franquette variety in northern California. The average production per acre for such orchards in this State is between 800 and 1,000 pounds, although yields above 2,000 pounds sometimes occur

raised without materially increasing the costs to the consumer. It is undoubtedly true that present retail prices are lower than would have been the case without cooperative marketing, and certainly true that the quality of the product offered is much more uniform and of a higher average grade than it would have been without such a system. As a result of these business methods and the investigations in walnut culture in California directed very largely by the State university, the industry now stands out as one of the most intensive and successful orchard pursuits of the whole country. The cooperative organization has been largely responsible for greatly increasing the distribution of nuts in the shell, and, by the use of cracking machinery, it has developed an important trade for the shelled product and an outlet for the salable parts of damaged or inferior nuts without detriment to the trade. By converting the walnut shells into carbon of a form for which there is commercial use, these parts of the nuts are now being disposed of at a profit.

¹³ Letter from California Walnut Growers Association, dated Oct. 3, 1925.

The Almond

Almonds were tested in the Eastern and Southern States by the early settlers and planters, but the results were chiefly disappointing because of climatic conditions which prevented the bearing of regular crops of nuts. The trees proved hardy in many localities, but were generally unfruitful. Planting in California began at about the middle of the nineteenth century. For many years results in that State were generally no more encouraging than they had been in the East. "In 1878 A. T. Hatch, of Suisun, Calif., planted an orchard of over 2,000 seedlings of the bitter almond, of which he budded all but about 300 trees."¹⁴ Out of the 300 varieties, 4 were selected, 3 of which soon became the leading kinds grown in the country, a distinction which they still retain. Figure 98 shows a typical almond orchard, and Figure 99 the method of drying almonds on trays in the open.



FIG. 98.—An 8-year-old almond orchard in California well cared for. The almond is closely related to the peach, but the trees grow considerably larger.

The growth of the almond industry in California, like that of the walnut, has been fairly steady. "Nut Culture in the United States," page 32, shows that in 1885 the yield for the State amounted to some 675 tons. According to the *California Fruit News* (December 11, 1920) it was 2,740 tons in 1900, 3,300 tons in 1910, and 5,500 tons in 1920. E. E. Kaufman, agricultural statistician, places the crop of 1924, at 9,200 tons.¹⁵ The December Monthly Supplement, *Crops and Markets*, of the Department of Agriculture, places the 1925 crop at 7,500 tons and the total value at \$3,000,000.

Almond prices in 1899 ranged from 7 to 10 cents a pound. By 1910 they reached 17½ cents for the best varieties. By 1920 the

¹⁴ NUT CULTURE IN THE UNITED STATES. Div. of Pom., U. S. Dept. of Agr. Special Report, 1896.

¹⁵ CALIFORNIA CULTIVATOR, Vol. LXIV, No. 3, Jan. 17, 1925, p. 71.

range was from 12 to 25 cents. On September 3, 1925, the California Almond Growers Exchange named its opening prices ranging from 19½ cents to 30½ cents.

Cooperative marketing has meant relatively as much to the almond industry as it has to that of the walnut. Like the walnut, the almond has met sharp competition with nuts of foreign production, particularly with shelled products. Sales of nuts in the shell are largely limited to the holiday period, whereas those of shelled nuts are practically continuous throughout the year. The difference in labor costs in this country and abroad has made competition with the foreign product quite impossible except as cracking has been done by machinery, and only the cheaper grades of nuts used for the purpose. By encouraging good cultural practices and



FIG. 90.—California-grown almonds in process of sundrying after hulling. After this they are taken to the central packing plant, where they are bleached by sulphur fumes, graded, and placed in bags for shipment

by conducting intensive marketing campaigns, both the walnut and almond growers' organizations have endeavored to hold down to the lowest figure the quantity of nuts which have had to be cracked and have thus avoided competition with foreign cracked goods to a very large extent.

Extension of Nut Culture

Pecans and almonds have been special subjects of exploitation. Orchard lands have been sold at high prices to nonresidents mainly in distant cities, but rarely have such so-called "investments" in nut culture exploited in this manner ended in anything but grief to those whose money was involved. There is not the margin of profit in nut growing that retail prices sometimes lead the consumer to believe. Volumes could be written on this phase of the nut industry, but it is not the primary purpose of this article to discuss the

financial welfare of those who are easily induced to place their money in something concerning which they know nothing except what is told by an agent, and over which they can exercise no possible control, nor for which there is any redress in case the venture fails to make good. The whole purport of such a discourse, if indulged in, would be only to strongly advise against any such use of savings without reliable information relative to each particular enterprise.

Almond trees require somewhat less moisture than do those of the peach, but otherwise, in the same localities, they should be given practically the same treatment in the way of cultivation, pruning, spraying, and general culture. So far as known, all varieties are self-sterile, and should be so planted that interfertile varieties blossoming at the same time will be together. Almond pollen appears to be wholly dependent upon insects for transportation from flower to flower. Under similar conditions the almond trees grow to somewhat larger sizes than do ordinary varieties of peach, trunks of from 18 to 30 inches in diameter at the base and tree heights of 30 feet being not uncommon. In point of longevity the almond tree greatly exceeds the peach, as flourishing almond orchards 40 or 50 years old are not uncommon in California. Such old trees and orchards, however, are usually of inferior varieties, or else were planted too close together, and therefore, because of crowded or other conditions, bear very little. Consequently, they throw little light as to the length of time that profitable yields may be expected from superior varieties under modern methods of culture. Some have been top-worked to other varieties or even to other species, particularly to prunes, in an effort to convert the tops into something more profitable or better adapted to local environment. As a rule, almond trees come into commercial bearing at from five to eight years after being planted in orchard form.

Pecans thrive best at altitudes lower than those required by most deciduous fruits. They rarely assume importance in this country at an altitude above 2,000 feet and are seemingly best adapted to localities less than 1,000 feet above sea level. Persian walnuts and almonds enjoy a considerable range of altitude, fully equal to deciduous fruits in this respect. Both pecans and walnuts require richer soils, more moisture, greater space for development, and, as a rule, more time to reach bearing age than do deciduous fruits. Nut trees may be used for shade or ornamentation; they may be planted so as to produce both nuts and timber; and in some localities an excellent use to make of cheap but fertile land is to plant it to nut-bearing timber trees. Pecans are among the largest hardwood trees of America and represent the world's largest species under orchard cultivation. The Persian walnut tree is not as large a grower but among nut-bearing trees of this country it ranks next to the pecan in this respect. Pecan and Persian walnut trees require more time to come into commercial bearing than do those of the almond. The former usually require from 8 to 10 years for the best of the Texas varieties, and from 8 to 12 years or more for most eastern sorts. As a rule, the more precocious varieties of the East are less dependable in regularity of bearing and in filling quality, plumpness, and flavor of kernel than the choicer varieties of that

section, which require 12 or more years to become profitable. Persian walnuts require about the same length of time to give profitable yields, as do the earlier pecan varieties.

Nut Production

With certain exceptions, the three species of nuts of greatest commercial importance are produced in the States bordering upon the south Atlantic and Pacific Oceans and the Gulf of Mexico. Climate plays a more important part in the range of profitable production of these species than is popularly realized. Fruiting buds are often destroyed under conditions which otherwise do not visibly affect the welfare of the tree. Consequently most species survive under climatic conditions entirely unsuited to crop production; also, occasional crops occur well beyond the range of regular crops. The present climatic range of regular and profitable nut culture is therefore much smaller than many established facts would indicate, although this range may perhaps be increased as better adapted varieties are found and means of overcoming adverse climatic and other conditions are developed.

Pecan trees exposed to certain conditions of humidity and temperature, particularly near the limits both north and south of their successful range, are seriously subject to winter injury to the wood. Near its northern limit the forest pecan in the river bottoms is commonly regarded as being "hardy as the oak," but while northern trees sometimes bear heavy crops, average yields are so small that profit in pecan growing beyond the thirty-eighth degree of latitude is highly uncertain. The present range of greatest profit is confined to the coastal plains sections of the States bordering on the Atlantic from Norfolk, Va., south to the latitude of De Land and Orlando, Fla., and to the south of a line extending from central Georgia west to 100 miles or so beyond Fort Worth, Tex., thence southwest to San Angelo. Within this general district no one "best" locality, so far as soil and climatic condition are concerned, has become outstanding. There are, of course, obvious advantages of one section over another in matters of adaptability of varieties, transportation, nearness to markets, and living conditions, particularly with reference to educational and social advantages. As a general rule, advantages of locality are in favor of sections where nut growing has already become a matter of community interest, as it is there that new ideas quickest become common property and that mental stimulus is keenest toward further progress. Also it is to such centers that buyers are most attracted and from which orchard equipment and supplies are most likely to be obtainable.

The southern portions of the pecan range have an advantage over sections farther north in the matter of earliness of crop maturity, but this is being overcome by developing earlier varieties for more northern use and by the use of cold storage. It has been found possible under refrigeration at from 32 to 34° F. to carry pecans from one season to the next in practically unimpaired condition, thus enabling the producer, the marketing organization, or the dealer, to deliver any variety at the precise moment that it may be desired during any time of the year. Owing to the minimum need of refrigeration while being shipped, the matter of nearness to or

distance from market centers has not yet become of special importance, in so far as the pecan is concerned.

Persian walnut production on a commercial basis appears destined to be confined to the Pacific coast for some time to come, unless what now seems highly improbable should occur and varieties sufficiently hardy for eastern planting should become available. This walnut is most uncertain in its behavior and exacting as to its environment, requiring freedom from late spring or early fall frosts and sudden drops to severe temperatures following warm spells in winter. Conditions favorable to walnut growing are seldom met with outside of favored sections in California, northwestern Oregon, and western Washington, although in Idaho, Utah, Nevada, and Arizona, especially within close proximity to large bodies or streams of water, there are now some local successes. All western districts are practically on an equal footing, so far as distance from markets is concerned, with the potential advantage perhaps in favor of the immediate coast, which, by use of the Panama Canal and increased cold-storage practice, may ultimately reduce the advantage of actual distance of other districts to a minimum.

The ripening season of almonds is so far ahead of that of other nuts produced in this country that there is no difficulty in placing the fresh product in the market well in advance of other domestic species. Owing also to the small area of production and the highly centralized system of marketing, there is no practical advantage of one locality over another with reference to markets. There are, however, advantages with regard to soil and climatic conditions, particularly in so far as freedom from frost at blossoming time is concerned. Within short distances, damage to blossoms, buds, or flowers, is much greater in one locality than in another.

The Nut Nursery

As a general rule, it is unwise for the nut grower to undertake to propagate his own trees. The growing of good nursery stock is a highly specialized industry, and requires a training very different from that possessed by the average orchardist. As a result of experience, the trained nurseryman becomes able to produce trees greatly superior to those of the amateur. Nevertheless, it is to the advantage of the planter to make a study of the varieties and types of trees he should have and not leave it with the nurseryman to make the selection. He should buy only from responsible persons. As a rule, it is much more satisfactory to buy direct from the individual or concern by whom the trees are grown, rather than through an agent. Every chance for the shifting of responsibility in case of mistakes in variety or grade should be avoided. Nut trees are sold by the nurseries according to size and not by age. In light of present knowledge, pecan trees most to be desired are those which have been budded or grafted a foot or more above ground upon young, thrifty, and vigorous stock. By the time the roots are 3 years old, the tops should be from 3 to 8 or 10 feet in height. In those parts of Texas where young trees are of slow growth the average size of the most desirable trees is from 3 to 4 feet, whereas in the East it is from 4 to 6 feet.

Persian walnuts in California are commonly grafted on 1-year-old stocks of the northern California black walnut (*Juglans hindsii*). During the following season they often attain heights of 8 feet or more. Here again, for the average planter, it is wiser to avoid extremes of size. The walnut grows more rapidly than does the pecan, and, in consequence, the average size of the nursery tree becomes one of from 6 to 7 feet.

Almonds are easy to propagate in comparison with pecans and walnuts. The usual stock until recently has been that of the almond, either sweet or bitter. At present the tendency is in favor of peach stocks, which hitherto have been used only in soils slightly too moist for almond roots.

Irrespective of species, the usual precaution in caring for nut trees at transplanting time should be followed. The roots should not be unnecessarily mutilated in digging, nor allowed to become dry. Fertile soil should always be filled in the hole about the roots, and, if dry, it should be thoroughly drenched and kept moist until the tree has started into growth. With pecans, the taproot should be cut off at from 2½ to 3½ feet below the surface. That of walnuts may be cut at from 18 to 24 inches. The almond roots are dug up practically entire.

The planting of nuts of the three species of major importance in this country in places where orchard trees are to stand, with the idea of later top-working the trees, is not considered good practice, although, theoretically, it should be possible to develop an orchard in this way. Instances are on record where this is reported to have been successfully accomplished with the pecan, but it is advisable only when the planting of nursery trees is impracticable.

Minor Nuts

In addition to the species of nuts of recognized commercial importance grown in this country, a number of others, including both native and introduced kinds, are of considerable potential value.

The Black Walnut

The most important of what may be called the secondary nut group in this country is the black walnut, a species thoroughly well known over the greater part of the country. The timber and ornamental values of this species are of recognized high order. The nut kernels are firmly established in the manufacture of taffy, cakes, bread, and ice cream, where they have no competitors from other nuts within their own particular class, either domestic or foreign. No statistics as to total production or consumption have been compiled, but a Baltimore merchant who has dealt in this commodity for many years estimates that during the fall season of 1925 approximately 1,000 barrels of kernels of about 210 pounds net were distributed from that city alone, which is the principal assembling and distributing point. The greatest production of black-walnut kernels has long been from that section of the country which includes eastern Tennessee, western North Carolina, southwestern Virginia, and southern West Virginia. In normal years the output from that district is probably greater than the total quantity handled in Baltimore during 1925.

Production thus far is almost wholly from field trees which were either left standing when the land was cleared or which have since sprung up as chance seedlings. There are, therefore, fully as wide ranges of variation in character of growth, regularity of annual crops, size, form, shell thickness, and cracking quality as in the seedlings of most other tree species. Approximately 12 of the more promising individuals of this type brought to light during the last quarter century have been propagated and disseminated by nurserymen under variety names. As such trees have come into bearing, and it has been possible to better judge their merits, a number have been discarded.



FIG. 100.—Black-walnut trees in a middle-western State grown by planting the seed in a fertile but untillable spot and top-working the resultant seedlings

Of the remaining varieties still regarded as being worthy of continued planting, the Thomas, Stabler, Ohio, and Ten Eyck are among the most promising. The Thomas is from southern Pennsylvania, the Stabler from north-central Maryland, the Ohio from the northern part of the State whose name it bears, and the Ten Eyck from middle-northern New Jersey. All have their points of excellence, but planters are finding that all are more or less subject to winter injury at latitudes but little higher than those at their places of origin. The need, therefore, is for worthy varieties from as far north as possible.

Black walnuts are chiefly cracked by the use of the hammer, and the kernels separated from the broken shells by hand. Only an insignificant proportion of the kernels is extracted in the form of perfect halves, as the great bulk appears as quarters or smaller particles. The nut kernels must be thoroughly dried before being put into close containers, as otherwise mould and decay are practically inevitable. Prices to the farmer in 1925 averaged approximately

60 cents per pound for the better grades of product. Black-walnut cracking machines of several types are now in process of evolution, but so far none are definitely upon the market. These machines are necessarily costly to manufacture, and when available in the market they will likely be designed and intended mainly for factory use.

Black-walnut planting for purposes of nut production for the present probably best be restricted to the use of fertile spots on the farm which are now not being put to otherwise profitable use (fig. 100). The species is especially suitable for roadside planting. Neither the roots of the trees nor the branches appear to interfere with the growth of grass, although there is a well-known incompatibility between the black walnut and certain kinds of shrubbery. Massey, of the Virginia Agricultural Experiment Station, reports¹² that alfalfa, tomatoes, and certain other plants have been found to perish quickly when the roots have been in contact with those of the black walnut.

The Filbert

In the Pacific Northwest the filbert is being given intensive cultural treatment, and rapid progress is being made in the development of an industry. To some extent filbert growing is being revived in the East after having been given up by earlier planters. Filbert blight, formerly regarded as an almost absolute barrier to successful culture in the East, is seldom reported. The crossing of the native hazel with the best of the European varieties is now being practiced by at least one eastern grower, and some highly promising forms have resulted. It has also been found that the failure on the part of otherwise healthy trees to bear nuts is in large part due to self-sterility of varieties and not entirely to lack of hardiness, as was formerly supposed. A considerable number of European varieties are now under test in the East.

Wherever the filbert succeeds, it is apparently the best adapted to garden planting of any species, especially where space is limited and early crops are desired. It is a comparatively small growing tree (fig. 101), an early and free bearer, no more subject to diseases and insect pests than most cultivated plants and is especially well adapted to use in chicken yards. It requires a fertile soil and good drainage, but should not be planted in land that is overly rich, as in European countries, where it has been grown for centuries, it has been found to run almost wholly to wood growth under such conditions. In planting, the trees should be spaced 20 feet each way, and varieties blossoming at the same time should be interplanted, as a great many are interfertile, while, so far as known, they are almost wholly self-sterile. Where proper varieties have not been so interplanted, pollen may be supplied by tying branches from other trees in the tops during the blossoming period. Pollinizers may be hastened into activity by holding the cut branches in a warm room for a few days. To do this successfully the stems should be placed in water both while indoors and in the tree tops.

Of scarcely less importance in filbert culture to interpollination of varieties is the matter of pruning. When young the trees should

¹² MASSEY, A. B., *Phytopathology*, vol. 15, No. 12.

be trained to single stems and grown as standards with heads of from 2 to 3 feet high. They should be pruned so as to develop symmetrical, well-balanced tops with open centers. Although it is plain that some system must be evolved for constantly renewing the wood, as nuts are usually borne only on 2-year growth, the industry in this country is still too young for definite knowledge to have been gained from practical experience as to how this should be accomplished. The English system is to twist over the young shoots during midsummer, in order to check the growth and stimulate the formation of fruiting spurs. The cutting away of these twisted branches is performed in late winter after the blossoming period is over. The leading varieties in this country are the Barcelona, Du Chilly, White Aveline, Bolwyller, and Italian Red.



FIG. 101.—Filbert trees in an orchard near Salem, Oreg.

The Chestnut

The American sweet chestnut formerly made an important contribution to the edible nut supply of the East, particularly in the mountain regions from lower New England south to northern Georgia and Alabama and west to Ohio and middle Tennessee. During recent years, however, the species has been so attacked by a bark disease that the chief problems in chestnut culture have been the establishment of present varieties in sections where there is minimum likelihood of blight infection and the development of forms resistant to that disease. The native chestnut has not yet been wholly destroyed within its natural range, as occasionally neighborhoods of trees, even within blight-affected areas, have thus far survived and "if a line should be drawn from Canadaigua, N. Y., to the southwest corner of Pennsylvania, and thence to the western edge of South Carolina, there would be found places farther west where not more than 1 per cent of the trees are infected. * * * At the

present rate of spread the blight will not complete the destruction of the native chestnut within its natural range in less than from 15 to 25 years."²⁷

The most valuable varieties thus far brought out have been the results of chance hybridization of the American sweet chestnut with the European species. Planting of the earlier kinds so developed largely took place east of the Ohio River, but being highly susceptible to blight they are now seldom found. Farther west, however, in the Mississippi Valley, and again on the Pacific coast, there are isolated plantings of pure American chestnuts and of hybrid forms which are highly promising for use in future development. These plantings are in sections where the native species grows as a forest tree scantily or not at all, and where there are no near-by plantings. The danger of infection is therefore held at a minimum.



FIG. 102.—Chinese hairy chestnut (*Castanea mollissima*), Yihalen, Shantung Province, China. Seeds of this species, which is highly resistant to blight, are being brought into this country by the Department of Agriculture for planting in the hope of reestablishing a chestnut industry.

The Japanese chestnut grown in the Eastern States for many years, although highly resistant to blight, is usually of low palatability except when roasted or boiled. This lack of agreeable flavor on the part of the Japanese species when raw, together with the nearly complete barrenness of the native varieties when not planted with others to ensure cross-pollination, has resulted in strong prejudice on the Pacific coast against chestnuts of all kinds. This is gradually being overcome, however, as the situation is becoming better understood.

The Chinese hairy chestnut (*Castanea mollissima*) (fig. 102) appears to offer greater value in combining blight resistance with palatability of nut than does any other chestnut now known. To a

²⁷ Statement by Haven-Metcalf, senior pathologist in charge of forest pathology, in an office letter dated Aug. 11, 1925.

considerable extent the species is already well established in the Eastern States. The Department of Agriculture, through the Office of Foreign Seed and Plant Introduction, is taking active steps to import large quantities of seed from northern China, with a view to its establishment in the blight areas.

The Hickories

The hickories offer greater possibilities to nut growers than is commonly supposed, despite the usual slow rate of growth of most species. A considerable number of promising varieties is now available through scions from selected seedling trees and from young grafted trees in the nursery. The grafting over of a seedling hickory top with scions of a superior kind, as is being done with other species, often gives surprising results. Such trees frequently come into bearing within three or four years. A majority of the more promising forms are either varieties of pure shagbarks (*Hicoria ovata*), or hybrids between two species of hickory, usually including the shagbark as one parent.

The Japanese Walnut

The Japanese walnut has been widely disseminated over the country during the last half century and is by no means uncommon, yet to a great extent the species is either unrecognized altogether or confused with the Persian walnut, an entirely different species. It is generally successful wherever the black walnut succeeds, but it is not entirely hardy, even at mild latitudes. Its future field of usefulness appears likely to be largely confined to garden and decorative planting. For this purpose several choice varieties can now be had from the nurserymen.

The Butternut

The butternut thus far is practically an uncultivated species. Its range is much the same as that of the black walnut, differing from it mainly by extending farther north by perhaps 200 miles and not so far south by about the same distance. It is seldom found in thick stands in the forests, and has nowhere been planted to an important extent. A few recognized varieties are being propagated by the nurserymen.

The Pine Nuts

In the West and Southwest there are a number of edible pines, from which, in productive years, the crops are of great value. The most important of these is the pignon (*Pinus edulis*) of southern Colorado, southern Nevada, northern Arizona, and northern New Mexico. The product is entirely from uncultivated mountain trees found at altitudes of from 5,000 to 9,000 feet, and which seldom bear heavy crops oftener than once in from five to seven years. The gathering, selling, and, recently, the shelling of these nuts by newly devised machinery form a business of no considerable importance.

The Pistache

The pistache nut is grown to some extent in favorable localities of the far West and Southwest. It is a familiar product in confections, where it is of chief use for coloring purposes and as a source of an agreeable, mild flavor. Under cultivation it succeeds only in warm, dry sections. Its production in this country is not yet important.

The Coconut

Coconut growing is confined to limited areas in the warmer parts of the country. It is not an industry of importance in the continental United States, being restricted to a few fairly large plantings and numerous scattered trees near the lower tip of Florida. The nuts produced are largely consumed locally by winter tourists, without assuming to enter the general market.

Miscellaneous Nuts

The Brazil nut (*Bertholletia excelsa*), the pili (*Canarium* sp.), and the lychee (*Litchi* sp.) (not strictly a nut), are not hardy in any part of the country. The cashew (*Anacardium occidentale*), and the Queensland nut (*Macadamia ternifolia*), are occasionally met with in Florida or southern California.

Insular Nut Production

Nut production in the Philippine Islands is largely confined to the coconut and the pili nut. The value of the coconut, together with its various by-products, is second in importance of all agricultural products from the islands. The greater portion of the nuts is consumed by the natives. The average yearly exports of all coconut products during the calendar years of 1922, 1923, and 1924 was slightly less than \$37,000,000.

The pili is a highly ornamental, but almost wholly uncultivated tree; it attains a height of approximately 50 feet. The quality of the nuts is held by many persons long familiar with them to be equal to that of any other in the world's market. There are several species, but the nuts alone can not be distinguished. Exports of pili nuts from the Philippine Islands amount to very little as native methods of harvesting and curing preclude safe shipment without loss by spoiling.

Nut growing in the Hawaiian Islands is thus far confined to small numbers of trees on the grounds of the Agricultural Experiment Station at Honolulu. Elsewhere, American insular nut production is of minor importance.

Geographical Distribution of the Vegetable Industry

Climate and weather, soil types, transportation, and a large number of economic factors have largely determined the present geographical distribution of the vegetable industry. It would be difficult, indeed, to determine which of the above factors has been the most important in determining the development of the vegetable industry as a whole. In the case of the individual crops, however, one

or two factors have, as a rule, been outstanding in the control of the distribution and development of that particular crop. Climate and weather are, without doubt, the most important of the natural agencies and it is significant that they are largely beyond man's control except occasionally where special methods of crop protection have been employed. The character of the soil has to a considerable degree determined the distribution of certain vegetable crop production, but the successful gardener can very materially change the nature of the soil, thus adapting it to the special needs of a given crop. From the economic standpoint transportation and market demand have ever been the important limiting factors in the development of the whole vegetable industry, and numerous failures have resulted from a disregard for the proper relationships between production and consumption.

Length of growing season.—With many crops the length of the growing season has been the important determining factor in their development in a particular locality. The location of the greater portion of the commercial sweet-potato industry in the Southern States and the more favored portions of the Central and Eastern States is not an accident but is due primarily to the fact that these regions have a longer growing season with warm nights and an abundance of sunshine and moisture. The sweet potato being sub-tropical in nature requires not only a long season but a relatively high average temperature. On the other hand the potato industry has developed to a greater extent in the northern sections of the country where the growing season is relatively short with a somewhat lower average temperature. Many of the short-season or quick-maturing vegetable crops, such as cabbage, turnips, kale, spinach, celery, lettuce, potatoes, beans, and onions, are adapted for growing well to the northward, whereas tomatoes, peppers, eggplant, melons, and sweet potatoes require a relatively longer season and are, therefore, adapted mainly for growing in the central and southern sections where the growing season is longer and the average temperature relatively high.

Temperature and humidity.—Humidity, especially when considered in relation to temperature, has played an important part in determining the geographical distribution of the vegetable industry. Humidity not only determines to a considerable degree the adaptability of a crop to a given section, but plays an important part in the control of diseases that affect the various crops. Distribution of rainfall has been one of the most important factors in promoting or retarding the development of the vegetable industry throughout the eastern and southern portions of the country during the past and it is only within recent years that this limitation has been overcome to any extent in the eastern and southern sections through the use of overhead or other forms of irrigation. The development of the large vegetable-growing enterprises such as that of muskmelons and lettuce in the western part of the country has been made possible through irrigation. This section is especially adapted to the growing of certain crops which naturally thrive under relatively dry atmospheric conditions provided sufficient moisture is supplied to their roots.

Temperature, under all conditions, is an important determining factor, each crop having its ideal or optimum temperature require-

ments. Certain crops such as cabbage, kale, spinach, celery, lettuce, beets, carrots, and turnips can withstand considerable frost at certain stages of their growth. In fact, practically all of these crops find their ideal growing conditions at a relatively low average temperature. Others, including tomatoes, peppers, eggplant, beans, and all of the vine crops are easily injured by frost and find their optimum growing conditions at relatively higher temperatures than required for the other class of vegetables. Following the trend of development of all of our important vegetable enterprises their progress can be largely traced along the lines of temperature and humidity limitations.

Topography and elevation.—The geographical distribution of the various vegetable crops has been influenced to a considerable degree by the topography and elevation both relative and actual. For example, lettuce can be grown to advantage between an elevation of 5,000 and 11,000 feet in certain parts of Colorado and at sea level or even below sea level in the Imperial Valley of California. The high elevation in Colorado provides temperature conditions suitable to the production of lettuce from June to November, whereas the low elevation and location of the Imperial Valley provides the proper temperature conditions during the winter months, at which time there is a heavy demand for the product. Vegetable production in these extreme ranges of elevation is possible only for short-season crops which are capable of maturity within the period of ideal temperature conditions. In locations where elevation controls temperature and where artificial water supply can be obtained, ideal conditions are created for the production of the short-season low-temperature crops. Similar conditions are often found in the narrow mountain valleys where the nights are relatively cool and the general climatic conditions are influenced by the near-by mountains.

Influence of streams and bodies of water.—The location of vegetable-growing enterprises have frequently been determined by streams and large bodies of water which have an important influence upon the climate and weather of the adjoining country because of their stabilizing effect upon both the temperature and humidity. A notable example of this is found in the region of the Great Lakes where a difference of 10 or 12° in temperature, or two weeks in the date of the earliest fall frost, is found within an area extending several miles from the lakes. The Japan current has a similar influence upon the western coast of the whole North American continent. The waters of the Gulf of Mexico and the Gulf Stream modify the entire climate of the Gulf coast and of the Atlantic coast region, the influence of the Gulf Stream extending as far north as the New England States and eastern Canada. The climatic conditions of the trucking areas around Providence, R. I., and Boston, Mass., are greatly influenced by the Gulf Stream, thus making it possible to grow vegetables in that region both early and late in competition with sections much farther southward.

Distribution of the vegetable industry as influenced by irrigation.—The reclamation of large areas of the arid sections of the West has been one of the most important factors in the location and development of some of the largest vegetable enterprises of the country. This is especially true of the lettuce and muskmelon industry of the Imperial Valley of California and similar industries

in Colorado and Arizona and the Bermuda onion industry along the Rio Grande River in southwestern Texas. Vegetable production in these sections would be utterly impossible without the aid of irrigation. Irrigation of various types, including the overhead or sprinkler system, has had a marked effect upon the development of the vegetable industry in certain portions of the country where there is a natural or poorly-distributed rainfall. Irrigation in the so-called humid sections has taken the form of crop insurance rather than an absolute necessity as is the case in the western arid areas.

Action of winds.—That the direction and force of winds should play an important part in determining the geographical distribution of certain types of the vegetable production doubtless seems strange to the average person, but as a matter of fact winds not only determine to a marked degree the temperature and rainfall of a given locality but the winds themselves have in many cases limited the

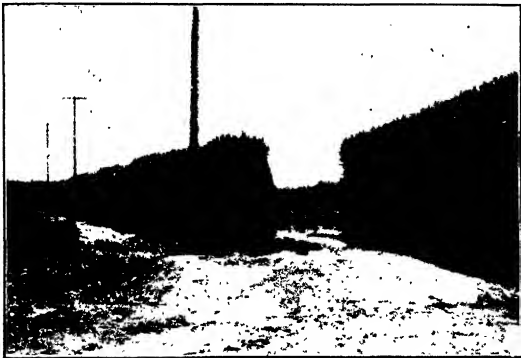


FIG. 103.—Hedges used to protect vegetable crops from winds

planting of certain crops owing to the blowing of the soil. This has been particularly true of the regions having sandy soils and of the muck soils of the Northeastern States. The blowing of sandy soils has made it impossible to grow many of the more tender crops upon them especially during the spring of the year. A similar conditions exists on the muck and light loam soils owing to the blowing away of the surface soil, leaving the seeds or the roots of the young seedlings exposed. Various methods have been employed to overcome this difficulty, including the flooding of the surface in sections where surface irrigation is practiced; the use of overhead or sprinkler irrigation to control the blowing of the muck and sandy soils, and in the erection of barriers to break the force of the winds. These barriers may consist of fences or more often of evergreen hedges or belts of growing pines or trees of some character (fig. 103). It has been found impossible, however, to plant certain crops

such as onions and lettuce on many of the muck areas on account of the inability to control the blowing of the soil. In other cases, the growing of certain of the vegetable crops has been influenced by the actual destruction of the crops themselves by hot winds or by the actual force of the wind.

Other factors of climate and weather that greatly influence the location of vegetable enterprises are clearness of the atmosphere, prevalence of sunshine, and the uniform distribution of rainfall. Among the artificial means employed for overcoming nature's deficiencies should be mentioned the large vegetable-forcing industry of the Northeastern States. Here, as in other cases, man has taken advantage of what nature has offered and has supplemented these advantages by the addition of the unnatural to the end that he has been enabled to produce certain crops in season and out of season and on a scale that is comparable with outdoor production in localities more removed from the larger markets. Local factors, such as proximity to large industrial plants which give off great volumes of smoke and gases that are injurious to plant growth, have to a certain degree been determining factors in limiting the distribution of the vegetable industry. These influences, however, are of minor importance as compared with the length of the growing season, average temperatures, humidity, and rainfall, influence of ocean currents and large bodies of water, and the action of prevailing and local winds.

Influence of Soil Types

Soil types, second to climatic conditions, have been the most important factor in determining the geographical distribution of the vegetable industry. It is singular that desirable soil types and suitable climatic conditions are frequently linked together as is the case along the Atlantic coast from Boston southward, in the Gulf coast and southern Texas regions, in the Imperial Valley of California, in the Puget Sound district, and in the region bordering the Great Lakes. Throughout the entire country striking instances are to be found where the establishment of large vegetable-growing activities have been made possible because of this splendid combination of soil and climatic conditions.

Four general soil types have played an important part in the development and distribution of the vegetable industry, these being the sandy loams, the clay loams, the alluvial or silt soils, and the peat soils. The pioneer development of the vegetable industry was mainly on the sandy loam soils of the Atlantic coast and the clay loam soils of the New England and near-by Eastern States. The early development of the southern vegetable production for northern markets was on the sandy loam soils of the Atlantic coast and on the alluvial soils of the lower Mississippi Valley. Later came the development of vegetable production on the peat areas of the Great Lakes' region and in Florida. With the reclamation of the sandy, silt loam soils and the alluvial soils of a clay-loam nature, through irrigation projects, some of the largest vegetable-growing enterprises of the United States have been developed in southern Texas, California, Colorado, and other Western States. Although irrigation has been the key to unlocking vast resources of these arid or semi-arid regions, the development of particular vegetable industries

has been closely allied with soil types, and the adaptability of the soil to the growing of the various crops has been one of the most important factors in their geographical distribution.

Influence of soil upon the growth of certain of the vegetable crops is truly remarkable. As for example, a very slight difference in the lime content or the moisture-holding capacity of a soil may determine success or failure in the growing of highly specialized crops, such as celery, spinach, or lettuce. As a general rule, the adaptability of the soil in the different localities for the growing of the various crops, has been determined by accident, as for example, in the case of the Bermuda onion industry (fig. 104), from a 2-ounce packet of seed sent by a friend to T. C. Nye, a ranch owner near Cotulla, Tex. The seed was planted and irrigated from a well, and the small trial proved so successful that Mr. Nye obtained a larger quantity

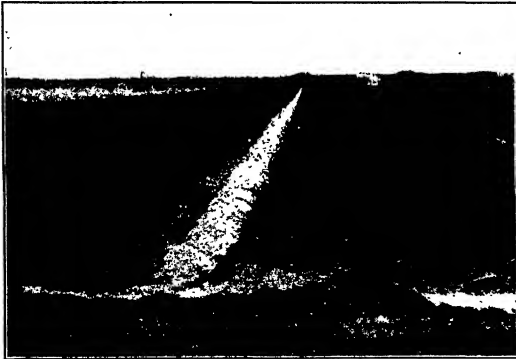


FIG. 104.—Bermuda onions near Laredo, Tex. This soil is a silt loam and quite fertile under irrigation

of seed the following year and tried the experiment on a more extensive scale. Out of this small beginning grew the great Bermuda onion industry of Texas, Louisiana, California, and other Southern and Western States.

The adaptability of the soil of the Sanford district and elsewhere in Florida for celery growing resulted from a trial that was almost accidental in its inception (fig. 105). The same was true of the lettuce industry of the Imperial Valley of California and in the high altitude regions of Colorado.

The physical characters of the sandy loam soils, which enable them to be worked early in the spring, have been an important factor in the distribution of early vegetable production. This holds true in practically every section where the sandy loam soils abound and where suitable climatic conditions are found. From the standpoint of ease of culture and quick response to treatment, the sandy loam

soils and the muck soils are in the lead. On the other hand, these soils are in many cases not so retentive of plant-food elements as the silt loam and clay soils, and, therefore, have their limitations from a vegetable production standpoint.

The adaptability of peat soils having an alkaline or lime reaction for growing vegetables was discovered by the Hollanders of the Kalamazoo, Mich., section who used peat soil in their hotbeds and coldframes for starting early plants. To-day thousands of acres of peat soils have been reclaimed, and are now devoted to the profitable production of vegetable crops.



FIG. 105.—Field of celery near Sanford, Fla., on soil of a sandy peat character

In all, the natural character of soils, while subject to modification, has proved a very important factor in the evolution of the vegetable industry and in the determination of its geographical distribution.

Peat soils.—The glaciation of the large portion of the central eastern section of the country, chiefly in the region of the Great Lakes, left depressions where lakes and swamps were formed and where ideal conditions arose for the growth and later the accumulation and preservation of the remains of grasses, trees, shrubs, and other vegetation, and is the direct cause of the millions of acres of high-grade peat and muck in Minnesota, Wisconsin, Michigan, Indiana, Illinois, Ohio, New York, and other States in this region. The settling of the sea coast, the change in the beds of streams, the choking of river channels causing the inundation of flat areas are largely responsible for the enormous peat and muck areas along the Atlantic coast, in the Gulf coast region and other sea coast regions.

Organic soil, referred to as peat and muck, is of especial excellence for the growing of vegetable crops, including onions, cabbage, celery, lettuce, carrots, potatoes, sweet corn, turnips, beets, cauliflower, and many others. This soil is also adapted to many other field and truck crops which are suitable for the climatic conditions found in various

peat-soil regions. Owing to their origin from the partial decay of plants which accumulated where they were covered or at least saturated with water, this soil type is rich in certain elements but deficient in others and it requires careful reclamation and proper management including rational fertilization to make peat soils suitable for vegetable production. Under favorable circumstances peat soil will produce maximum yields of many of the more important vegetable crops. What is said to be the world's record production of potatoes, amounting to 962½ bushels per acre, was grown on California peat soil. Yields of 500 to 700 crates of celery, 800 or more bushels of onions, 600 to 800 crates of lettuce, 20 to 25 tons of cabbage and correspondingly large yields of other vegetables are often obtained on good peat soil. (Fig. 106.)

The distribution of large peat-soil areas in the Gulf coast and Atlantic seaboard regions and in a broad belt from the New England States westward to the Mississippi, paralleling the main transportation arteries and within short distance of the large centers of population of the country has exercised a profound effect on vegetable production. Peat-soil areas are so great in extent that normal needs for vegetables adapted to these lands can be cared for on a very

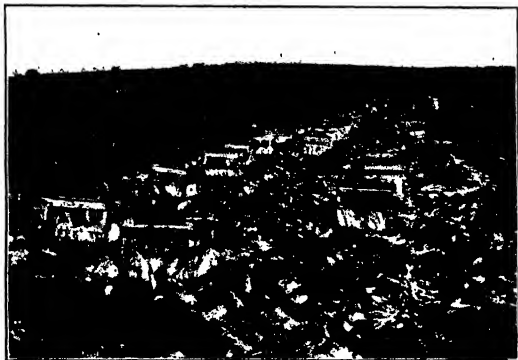


FIG. 106.—Peat areas of great extent are utilized for the production of celery, onions, lettuce, and other vegetables

small percentage of the available area of organic soils. In fact, the return from such crops should be carefully weighed against the cost of reclamation and annual maintenance before their utilization is undertaken. In the past, reclamation has often proceeded faster than economic conditions justified. Many sections have large areas of improved peat soil which can be used only for highly intensive high-value crops as none other could pay the capital charges placed on the land through reclamation. Present market demand is often insufficient to justify the growth of these vegetables.

Peat-soil vegetable production is a nation-wide industry and if developed in accordance with sound business principles, devoting only such acreage to crops as market demands justify, it is sure to continue to exercise a profound and increasing influence on the development of the vegetable industry.

Economic Factors Governing the Development of Vegetable Production

Necessity for the production of food and its relationship to the well-being of the early settlers in America was the primary economic factor in the original development of vegetable growing in this country. In the beginning, home gardens were unquestionably the basic economic factor in production and the colonists planted and tended gardens in order to supplement the meat diet of their families which was obtained through hunting. When the first settlers came to America they met with living conditions that were new to them and were unable either to live according to the standards of the country from whence they came or to conform to the living methods of the Indians. They found the Indians growing certain crops which they themselves failed to grow when they attempted to cultivate them and it was not until they were taught by the Indians how to plant and tend these crops that success attended their efforts. As the country became more settled there developed limited activities in market gardening and the sale of the products to the people who either began to concentrate in the towns and villages or who were so engaged in other pursuits that they did not have the time or inclination to grow their own supply of vegetables. At first the gardens were confined mainly to such crops as corn, squashes, and beans, all of which were native of this country, to which was added peas, onions, melons, the root crops, and other vegetables brought from the old country. The market gardener hauled or carried his vegetables to town and sold them direct to the consumer either on a market or by peddling them from house to house. This phase of market gardening exists to some extent in many sections to-day, but has been largely replaced by the truck farm which is usually located at a greater distance from the markets, the produce being handled mainly through commission houses and dealers.

Commercial vegetable production in America has developed in definite relation to the consumption of the various commodities. This relationship has been more or less disturbed during certain periods but in the main the growth of vegetable production and the increase of total population have been in direct proportion. The adoption of labor-saving devices has so increased the per capita production on vegetable farms as to change the percentage ratio between producers and nonproducers. The production of vegetable crops is especially subject to variation in yields, owing to weather and other causes, furthermore an increase of 10 per cent in yield of certain crops serves to throw the relationship of production to consumption out of balance temporarily. The concentration of population in industrial centers has had an important economic influence upon vegetable production especially as regards land values, labor supply, and transportation.

Among other economic factors that have influenced the development of the vegetable industry in the United States has been the improvement in methods of production whereby a relatively small number of persons are able to produce the food crops required by the mass of the population. Present relationships between vegetable production and consumption would be impossible without adequate transportation facilities. The growing and marketing of approximately 21,000 carloads of California lettuce in 1925, would have been a physical impossibility without the connecting railroads with their specialized refrigerator service. It is a question if transportation has not played an even greater part in the economic development of the vegetable industry than have soil and climate. Transportation in all of its phases has become the important connecting link in the whole economics of vegetable production.

It would be well at this point to call the readers' attention to the important part that has been played in the economic development of the vegetable industry by those pioneers of horticulture and plant breeders who have given freely of their time and means to the development of new and improved varieties of vegetables. Not only were the native vegetables grown by the Indians improved upon in the early days, but other native wild species were placed under cultivation and improved. The best of the Old World species were sought out and brought to America from time to time and from them were evolved new varieties better adapted to American conditions. The credit for introducing the improved varieties is largely due the early seed growers and dealers. Throughout the history of the vegetable industry in the United States the seed trade has played an important part, both in the development and introduction of improved varieties.

No crop-production industry is more subject to the operation of economic laws than that of vegetable growing. Bulky vegetables such as potatoes, cabbage, or spinach can be transported only within definite distances before the packing and haulage costs equal the market value of the product. The production of crops of this character is thereby limited to sections where economic conditions are the most favorable. Outdoor winter vegetable production is dependent on suitable climatic conditions, suitable soil, labor, and dependable transportation at a cost that is justified by the returns.

Evolution of the Vegetable Industry

Dating from the second visit of Columbus to America, vegetable growing in this country has undergone constant expansion and progress. Home gardens played an important part during the early days, but the progress was relatively slow until about 1800; then came a period of about 80 years which was characterized by rapid development of the vegetable industry. Following this the industry made rather steady progress until about 1880, when there again appeared an era of rapid development covering about 12 or 15 years. Owing to financial and other limitations immediately following this period the expansion was not so rapid until about 1907 or 1908, at which time there began a rapid development which has extended until the present. It was during this latter period that there oc-

curred the greatest concentration of population in industrial centers located mainly in the eastern part of the United States. It was also during that period that there occurred great improvement in the method of production, enabling less than one-third of the population to produce all of the raw food supplies required by the entire people.

In the evolution of the vegetable industry, it has passed from the home-garden stage through the period of market gardening, truck gardening, and truck farming. While all of these factors exist in natural proportions to-day, vegetable gardening has passed to a considerable degree to specialized production, including large outdoor industries as illustrated in the lettuce and muskmelon production in the Imperial Valley of California, the Bermuda onion industry of southwestern Texas and other sections, and the early tomato and celery production of Florida. These are but examples taken from the many illustrations that might be given. Among the most outstanding of the specialized production practices are those of early vegetable growing in the extreme South during the winter, and the greenhouse vegetable industry of the Northern States. Formerly, people were content with fresh vegetables in their season, but at present our markets are well supplied with fresh vegetables during every month of the year.

The geographical range of early production begins in Mexico and the West Indies and terminates in Canada. No sooner have fresh vegetables, grown in the northern sections, ceased to be plentiful on our markets until they are replaced with the southern-grown products, and the distribution cycle of perishable vegetables is now continuous.

During the last 30 years there has been developed a great vegetable-forcing industry, especially in the Northeastern States, which adds an important factor to the winter or out-of-season production of certain vegetables. Although the actual glass inclosed area devoted to winter vegetable growing is relatively small as compared with field culture, the investment in this branch of the industry runs well into the millions, and owing to the intensive cultural methods employed, the products are reckoned in hundreds of tons and in carloads. Supplementing the estimated 1,000 to 1,200 acres of vegetable-forcing houses there is a large acreage of unheated, sash-covered frames which are used for growing vegetables during the late fall and early spring months.

It has been estimated that the same quantity of coal burned in locomotives is required to haul the vegetables grown on an acre in southern Texas to the eastern markets as is necessary to heat an acre of vegetable-forcing houses located near the markets. The winter or out-of-season production of vegetables has numerous limitations which necessitate relatively high market prices in order to make this class of production profitable.

Special Types of Vegetable Production

Vegetable growers from the earliest times devoted thought and energy toward lengthening the season during which fresh vegetables were available. Pliny, writing about 80 A. D., notes that Antonius Muse, a physician, cured the Emperor Augustus Caesar of a danger-

ous disease by means of lettuces, which circumstance seems to have brought lettuces into esteem at Rome, after which there was no doubt about eating them and men began to devise means of growing them at all seasons of the year. Pliny also records a method for the preservation of Globe artichokes in vinegar and honey in order to have this vegetable during times when it could not be grown outdoors. Records show efforts of the Greeks and Romans to increase the variety of their diet by bringing the artichoke from the coast of Africa. In these practices are found the beginning of the forcing, preservation, and transportation systems of to-day by which our daily markets are supplied with fresh products often grown hundreds of miles from the consumer in locations particularly suitable for their growth.

The constantly growing and increasingly exacting demands for a steady, moderate-priced, high-quality supply of fresh vegetables irrespective of season or weather conditions led to the development of special types of production. The use of protective and forcing devices such as plant protectors, coldframes, hotbeds, and greenhouses have made it possible to extend the growing season or to produce tender vegetables for market in sections where weather conditions at the particular season would otherwise make such results impossible. The value of the vegetables produced annually through the aid of these special means amounts to many millions of dollars. The other important means of supplying our markets with out-of-season vegetables is through their production in warm sections and shipment by rail or water, usually under refrigeration, to markets often hundreds of miles distant.

The vegetable-forcing industry.—In the broad sense vegetable forcing may be considered as the lengthening of the growing season, or the production of vegetable crops out of regular season through the use of protective devices whereby growing conditions may be controlled. It is difficult to estimate the importance and far-reaching effects of the different phases of vegetable forcing. The production of early crops in coldframes, the growing of vegetable plants in hotbeds and greenhouses, the protection of plants in the field from frost and cold winds, as well as the growing of crops of lettuce, tomatoes, cucumbers, radishes, and other vegetables to edible maturity in the greenhouses may all properly be included. It is impossible to place an accurate estimate upon the value of plants started in protective devices or upon the value of the crop produced through the use of protective coverings during the early stages of their growth, whose production would otherwise be impossible.

The frame industry, an important phase of vegetable forcing, has developed in sections favored with an abundance of sunshine at all seasons of the year, and at the same time their climate, because of the influence of large streams or bodies of water, is mild and free from extremes of temperature. In such localities it would be possible to grow hardy crops such as lettuce during the entire winter without protection, were it not for a few cold days and nights. A very slight covering or the application of a small amount of heat, will as a rule carry the plants through in good condition. The Atlantic coast region, especially in Virginia and North Carolina, has a large and important frame industry, usually conducted in

connection with the growing of truck crops in the field during summer. Production from a comparatively small area often brings good returns, shipments from the important frame centers commonly being of a car-lot character. The frame industry is one of the interesting specialties of vegetable production (fig. 107).

Forcing house production.—Hothouse production of vegetables in the colder parts of the country near the larger consuming centers has become an important industry with an important economic bearing on total production. Glass area is now calculated in acres and the capital invested is reckoned in the millions (figs. 108 and 109). The products of the forcing industry come into strong competition with those grown in the open at points thousands of miles from the consuming centers.

Winter and special types of outdoor production.—Efforts to supply the markets with fresh tomatoes, lettuce, celery, and other popular



FIG. 107.—In certain sections where the climate is mild, but where freezing weather occurs, large quantities of crops are brought to early maturity through the aid of sash-covered frames.

vegetables during all months of the year have led to the development of great production industries in sections where climatic conditions during certain months make the growing of these crops possible. This type of vegetable growing is carried on in regions where vegetables for distant winter markets can be produced; also in favored sections such as mountain regions where summer weather is suitable for the growing of such crops as lettuce, which will not withstand excessive heat.

The great cropping system which has gradually evolved itself to meet the needs of the markets gives us lettuce from Florida, California, and elsewhere, during winter and early spring. Atlantic Coast and Great Lake States are sources of supply during spring and early summer. Rocky Mountain and Pacific coast regions contribute to the needs of the markets during summer and late autumn.

Celery is available during winter and spring from Florida and California. Summer and fall supplies come from Northern States. Storage supplies from these fields are available for the holiday season overlapping those received from southern and western sources. Tomatoes are available the year round, winter and spring supplies coming from Cuba, Mexico, southern California, Texas, Mississippi, Florida, and elsewhere. With these and other truck crops a steady succession from favored producing sections is available and it is impossible to estimate the value of the industry to the public. From a monetary point of view, it is very important, but the real value of the product in the diet is perhaps even more difficult to evaluate.

Bulky vegetables such as potatoes, cabbage, or spinach can be transported only definite distances before the packing and haulage costs equal the market value of the product. The production of crops

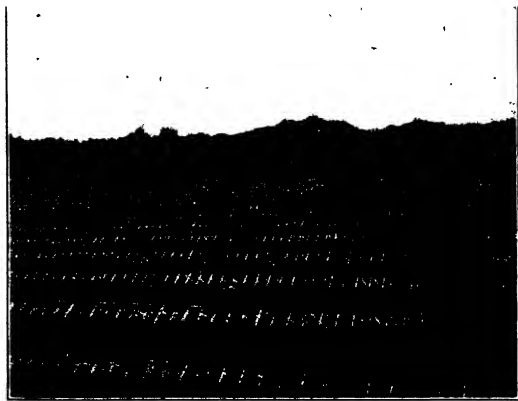


FIG. 108.—The modern greenhouse range is in reality a field covered and inclosed by glass. The view shows almost 10 acres of continuous greenhouse roof

of this character is thereby limited to sections where economic conditions are the most favorable. Winter truck-crop production is dependent on suitable climatic conditions, good soil, labor, and good transportation at costs justified by the value of the vegetables. Prices are usually determined by production costs in localities where the work can be carried on in the most economical manner.

Vegetable Growing in Greenhouses

Vegetable forcing is an ancient art, as the Romans employed forcing devices for the production of cucumbers, lettuce, and other plants out of their regular outdoor season. Apparently, Roman knowledge of forcing devices and forcing crops was carried to England, and it is generally supposed that greenhouses were in use

in that country as early as the seventeenth century. These structures were probably nothing more than ordinary buildings with glass sides, as it is quite certain that no regular structures roofed with glass and provided with artificial heat were in use in England until the early part of the eighteenth century.

In an article published in the *Florists' Exchange* in 1895, by L. H. Bailey, are found some notes regarding the early history of greenhouses in this country. According to this authority, it is probable that the first glass house erected in this country was built in Boston by Andrew Faneuil, who died in 1737. This gentleman was an uncle of Peter Faneuil, who built the famous Faneuil Hall.

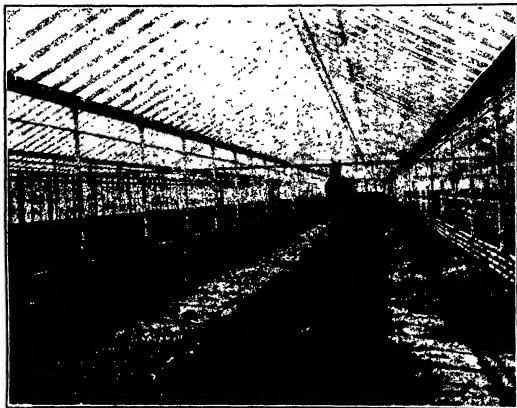


FIG. 109.—The modern greenhouse is in reality an inclosed area where the intensive culture of crops can be carried on irrespective of weather conditions. The land is plowed and often fitted with horse tools or with tractors. Heavy applications of manure and other forms of plant food are necessary to replace the heavy drain on soil fertility owing to the continuous cultivation practiced.

However, the greenhouse which is commonly considered to be the first one built in this country, was erected in 1764 in New York for James Beekman. By the beginning of the next century knowledge of greenhouses was apparently well disseminated for both Gardiner and Hepburn in 1804 and M'Mahon in 1806, give full descriptions of greenhouses and other production and forcing devices as built in those days. In Doctor Hosack's Botanic Garden in 1801, extensive glass houses were erected. M'Mahon's discussions of forcing structures as erected in his time are especially interesting. His book published in 1806 is of special value as he gives descriptions for the forcing of cucumbers and beans in the hothouse. It is believed that this is the first record of the actual forcing or bringing to maturity of vegetable crops in this country.

The greenhouse of M'Mahon's day was merely a structure fronted with glass without artificial heat for the protection of plants too tender to overwinter out of doors. The hothouses as described by this author were of similar construction but usually with at least a part of the roof of glass and heated with flues or by fermenting material placed in pits under the beds, bark being the substance ordinarily employed for the purpose. All of these early structures were modeled after ordinary building construction; indeed in some cases rooms were built above the greenhouse or hothouse in order to protect them from frost. This type of construction allowed light to enter the building only through side and sometimes end windows. In all cases the glass was carried in sash rather than being set in permanent sash bars as is now the case, the development of sash-bar type of construction being a thing of much later date. All early hothouses depended on flues or fermenting material for heat, as the use of steam in closed circuits developed in England about 1820. Curiously enough the use of hot water for heating forcing structures was a later development. The *New England Farmer*, June 1, 1831, contains descriptions of a hot-water heating plant for a greenhouse, this being a great novelty and apparently an entirely new practice.

Forcing structures built in this country during early periods were constructed of masonry, and heavy timbers to support the sash carrying the glass. The flue heater was the usual device used, but upon the introduction of gravity-circulation hot-water systems after 1830, these gradually superseded the flue heater, especially in higher grade greenhouses and conservatories. In an article written by William Saunders, which appeared in the *Yearbook of the United States Department of Agriculture* for 1897, an interesting note relative to the introduction of the sash-bar type of greenhouse appears. A quotation from this article follows:

All the glasshouses are constructed upon the fixed roof plan, consisting of skeleton framework supporting a series of light sash bars for holding glass. This method is not only cheaper than the plan of heavy rafters supporting framed sashes, but by using less woodwork, there is less shade and more light to the plants. Since the introduction of this method of building by the writer in 1850, together with the mode of glazing adopted, no other kind of roofing is used. The ordinary way of glazing window sashes is to set in the glass, fasten it with triangular bits of tin, then fill the outer surface of the sash bar with putty.

All greenhouses built previous to the latter part of the nineteenth century were for general use, as the specialized house suitable for specific crops did not begin to develop until about this time. The forcing of lettuce in greenhouses developed in the Boston, Mass., area during the early eighties and special-type houses suitable for vegetable production soon came into use. From that period until the present there has been a steady development of special structures especially suited to the needs of the various products being produced. The advancement made in equipping modern greenhouses for specific uses has been as marked as has the construction of the buildings themselves. The present-day vegetable house is in reality a structure inclosing an area of ground often acres in extent, where conditions are maintained for the out-of-season growing of tomatoes, cucumbers, lettuce, or other vegetable crops.

Different types of construction are used, but all characterized by the same principles, that is, the structures are of light but strong construction, being in many cases as much as 95 per cent glass, the aim of the designer being the admission of a maximum amount of light with as little shade as possible. The old-time idea of a heavy framework supporting sash has long since been abandoned for any save the most temporary type of structure. Steel has largely replaced wood, as much smaller parts can be used and less interference offered to the passage of light. At the present time houses or combinations of houses inclosing several acres in one large area

GREENHOUSE VEGETABLES AND VEGETABLE PLANTS
Value of Products, 1919

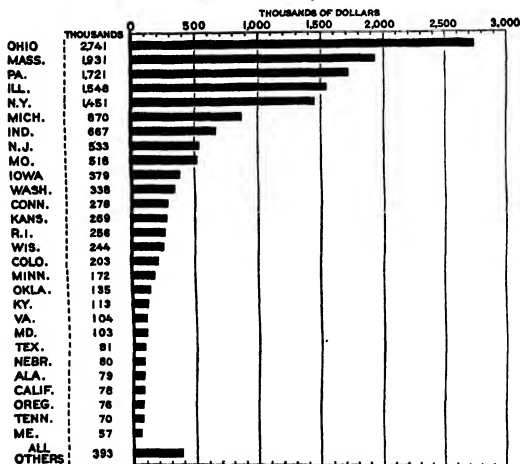


FIG. 110.—Value of greenhouse vegetables and vegetable plants produced in 1919 as shown by census figures

as shown in figures 108 and 109 are in use with entirely satisfactory results. Glass farming is no longer an industry involving the use of very small areas as we have individual ranges covering 10 acres or more of land.

Previous to 1890, the forcing of vegetable crops in the greenhouse was a relatively unimportant industry. According to the 1920 census the value of vegetable products grown in forcing structures and in greenhouses amounted to about \$15,500,000. The average gross value per acre of all greenhouse crops for that year was about \$20,000. This includes both floral and vegetable products, and it is probable that the acreage value of the vegetable products is some-

what less than this amount per acre. However, the data shows that a large area is covered by greenhouses devoted to the growing of winter vegetable crops. Figure 110 shows the value of greenhouse products by States in 1919.

The development of this great industry has been due to a number of factors. The marked excellence of certain greenhouse products such as tomatoes, cucumbers, radishes, cauliflower, and others has given rise to a strong demand for these vegetables, and has made it possible to produce and sell them in competition with the same class of plants grown in warmer sections of the country and shipped long distances to market. Although it requires from 200 to 500 tons of coal to maintain an acre of greenhouse space at suitable temperature for the season, and other heavy expenses are also involved, the census figures show that the gross return per acre is several times that



FIG. 111.—Lettuce is produced on an acreage basis in forcing structures, many of which cover several acres. The owner of this range of greenhouses in Ohio is able to harvest and handle the lettuce with a minimum amount of labor.

obtained from most intensive outdoor-vegetable production. The charges for greenhouses and their upkeep, labor costs, fuel, and other items of expense, are to a large extent balanced by heavy transportation costs from points often 2,000 to 3,000 miles distant and by the fact that the greenhouse grower of tomatoes and other vegetables is often able to place a severe handicap on shipped material through the production of a high-quality food product which can be marketed within a few hours from the time it is harvested.

Cultural methods followed are naturally of the most intensive character. Owing to the heavy expense necessary to maintain greenhouse space under suitable growing conditions, it is essential that this be utilized to the fullest extent. The land must produce crops over the greatest possible portion of the year. Naturally, greenhouses are not adapted to vegetable growing during a part of the summer, but fall, winter, spring, and early summer are fully occupied by

succession crops, it being a common practice to secure three or four vegetable crops each season. Plans are so carefully worked out that the land is often prepared and planted the same day that the preceding crop is removed. Figure 111, showing a harvesting scene in a large middle western vegetable range, gives a very good idea of the methods followed in harvesting and planting lettuce.

Much time can be saved in bringing a greenhouse vegetable crop to maturity by starting the plants in a separate place and bringing them as far along as possible before they are placed in the house where the crop is to be grown. From three to six weeks of the crop period for lettuce can be spent in the plant house. The same is true of tomatoes and cucumbers. Figure 112 shows the interior of a greenhouse containing tomatoes grown for their fruit.

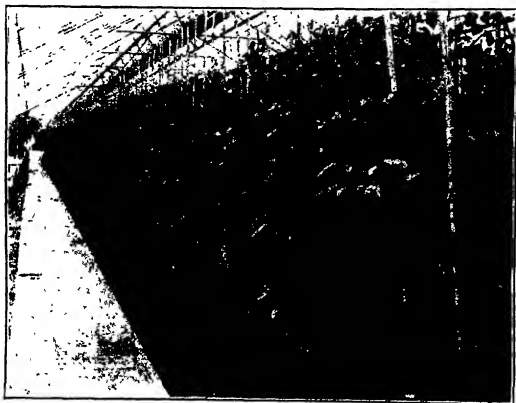


FIG. 112.—The tomato is an important and popular greenhouse crop. To conserve and obtain maximum yields the plants are trimmed and tied to supports. Yields of 10 to 12 pounds per plant are often obtained.

In order to take full advantage of all of the greenhouse space such crops as tomatoes and cucumbers are trained to stakes, wires, or other forms of support, this plan making it possible to set the plants close together, thereby procuring a maximum yield per unit of area. Figure 113 shows the interior of a house containing over an acre planted to cucumbers and trained in this manner.

Greenhouse vegetable products are harvested, packed, and handled in such a way as similar vegetables grown out of doors. Greenhouse men have long since learned that careful packing in attractive containers is well worth while, and practically all devote special attention to this phase of the work. Cucumbers are carefully graded and packed in baskets, boxes, or other suitable containers, the better grades at least being placed with the utmost care and protected in

such a way that no bruising or other injury occurs. One reason for the superior quality of certain greenhouse crops lies in the fact that greenhouse men find it necessary to control insects and diseases, and their product is usually free from such attack. Though some phases of the vegetable forcing business, such as the production of loose-leaf lettuce, may easily be overdone, there would seem to be a steady and growing demand for the quality vegetable which the greenhouse man is able to offer the trade.

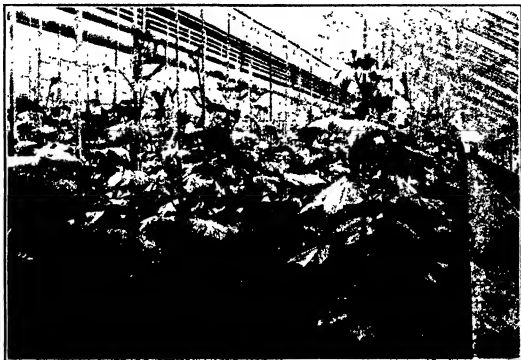


FIG. 113.—Cucumbers are one of the important greenhouse crops. In this house, covering an acre, a maximum number of plants are grown by close spacing, trimming, training, and intensive feeding.

The Vegetable-Seed Industry

Production of vegetable seeds has grown from the home-garden enterprise of colonial days to a great commercial industry. The acreage utilized for growing seed of about 30 of the more important vegetable crops for the six-year period 1917-1922 averaged about 190,000 acres. The estimated average yearly value to contract growers of the total commercial production of seed of these crops for the period 1916-1920 was approximately \$22,000,000. A very large part of this represents seed for the canning crops, chiefly peas and beans, and others of lesser importance. The value of the commercial vegetable-seed business is undoubtedly somewhat greater than these figures indicate. Moreover, the data do not take into account seed saved by the home and market gardeners.

Development of the vegetable-seed industry has been coordinate with the expansion of the vegetable-growing industries of the country. The demand for vegetables for canning and the increased use of fresh vegetables at all seasons of the year has enlarged the acreage devoted to such crops, and as a result a correspondingly increased demand for seed has been developed.

Until comparatively recent times the United States depended upon European growers for its seed supply of some of the important vegetable crops. This was markedly true of cabbage (save the Wakefield type), cauliflower, celery, and radishes. Recently, however, the seed growers of the United States have more nearly met the demands of the country, even for these items. The seed supply of many of the crops extensively grown for immediate use as well as canning purposes, such as peas, beans, tomatoes, and sweet corn, have always been produced in this country in sufficient quantities to meet the demands of the trade. At the present time the chief items of import are seed of Bermuda onions, certain classes of cabbage, forcing carrots and radishes, and a few other special items that can be more economically grown abroad.

The geography of the seed business has changed with its expansion. Peas, beans, sweet corn, muskmelons, and onions, the seed supply of which was grown chiefly in New York and in the New England States prior to 1880, are now grown in special localities in particular States where it has been found that their production can be most economically and satisfactorily carried on. In fact, out of the twenty-odd million dollars derived from seed production each year for the period 1916-1920 a very large part of this was produced in the western portion of the country.

With the enormous increase in the acreage of vegetable production there has also come a very high degree of specialization. The seed trade has to meet the demands of such exacting specialties as the vegetable-forcing industry, canning-crop production, as well as the peculiar requirements of the market gardener who plants a particular combination of crops to cover the season and to meet the demands of local consumers. Large quantities of seeds of a few standard varieties must be produced in order that the canners can pack and satisfactorily merchandise millions of cases of tomatoes, corn, peas, beans, beets, spinach, and other crops. These special features have injected into the seed business requirements which did not exist as long as the chief demand for vegetable seeds came from those who wished to plant a succession of varieties to prolong the season of production and to provide an adequate and sufficiently varied home supply of vegetables.

Although the home gardener is still an important factor in the seed trade and his requirements must be carefully considered, instead of constituting the major portion of the demand as was the case prior to the advent of the canning industry and the development of extensive truck-farming enterprises of the country, this trade, so far as volume is concerned, is an important but minor feature to-day, the major volume of seed production being absorbed by the growers of special crops, such as onions, cabbage, celery, lettuce, etc., and by the canners and truck farmers.

Not only have peculiar varietal characteristics been demanded by the special activities which make up the vegetable industry, but the wide area over which vegetable growing is developed and the fact that it is carried on practically throughout the 12 months of the year, makes it necessary to have varieties and strains suited to local as well as seasonal conditions. These features, together with market and shipping requirements and the advent of more or less serious

diseases, have led to an intensive effort on the part of plant breeders to develop varieties possessing satisfactory market characteristics which are at the same time highly resistant to certain diseases. During recent years much progress has been made in this direction, as well as in the knowledge of the methods of controlling diseases which formerly interfered with the production of seed as well as vegetable supplies.

Although there are several hundred seed dealers and distributors, there are relatively few who are really actual growers or contractors for seed growing. The list of firms engaged in the seed business probably exceeds 400, but the seed firms actually engaged in producing seed is much smaller. The business is highly specialized, requiring the expert knowledge of specialists in seed production, seed handling, and seed distribution. The trade is segregated into two general classes which may be termed the catalog or mail-order type, and the wholesale or jobbing industry. In some instances both are combined in one business as is the case with some of the largest and most progressive seed firms.

The history of the vegetable-seed business is practically coordinate with the Colonial and later history of the Nation. The first American seedsmen were growers primarily to meet their own needs; later, some of them began to import seeds to supplement their own supply and to extend the list; and still later the seed merchant appeared and this group now constitutes by far the majority. The names of Landreth, Thorburn, and Henderson are intimately associated with the early commercial development and popularization of the vegetable seed industry. In fact, several of the important items found in the vegetable-seed trade lists, such as, garden beans, sweet corn, peppers, pumpkins, squashes, tomatoes, sweet potatoes, and potatoes, are all of the New World origin. It is interesting to note that among this list are to be found several of the most important commercial vegetable crops of the Nation to-day. Potatoes, tomatoes, beans, sweet corn, and peppers are very extensively grown and have an aggregate value reaching several hundred millions of dollars.

The vegetable seed-growing and merchandising business is one of the oldest and most important developments of American horticulture. The Colonists brought from their homes in England and Holland, seeds of their favorite garden plants. Isolation and lack of frequent communication with the homeland made it imperative that home supplies of seed be provided. Consequently in 1633, Wm. Wood¹⁸ gives a list of vegetables grown in New England and adds, "Whatever grows well in England grows as well there, many things being better and larger." This does not mean that the colonies were dependent upon the Old World for their main seed supply for it is quite apparent that they were not. The first records of seed offered for sale in this country do not appear until 1763, when Nathaniel Bird¹⁹ a Newport, R. I., book dealer advertised garden seeds just arrived from London.

Wm. Davidson²⁰ the gardener in Seven Star Lane, offered in 1768, seeds of 56 varieties of vegetables and herbs and of one flower, the carnation. Some of his prices were as follows: Lettuce, 3 to 4 pence per ounce; cabbage, 9 pence to a shilling per ounce; cauliflower, 3 shillings per ounce; carnation, 4 shillings

¹⁸ PIETERS, A. J., YEARBOOK, 1898, pp. 549-550.

¹⁹ See footnote 18.

per ounce. Most of the other vegetable and herb seeds ranged from 2 pence to a shilling per ounce; peas, Early Golden Hotspur and Early Charlton, were worth 24 shillings the bushel or 10 pence per quart. Davidson dealt in seeds wholesale and retail for cash.

In Philadelphia and New York, seeds were but little advertised, whatever the trade may have been. The earliest records of seed dealing in these towns was in 1772. As early as 1784, David Landreth established himself in Philadelphia and engaged in market gardening, nursery, and seed-growing businesses. In the beginning the seed trade was a small part of his undertaking. Seeds were almost entirely imported from England but it is apparent that the seed business increased in importance for in 1848, David Landreth, jr., sold the nursery and became exclusively a seed grower and seed merchant.

In 1800, Bernard M'Mahon, gardener, seedsman, and author, opened a seed store in Philadelphia.

In the fall of 1805, Grant Thorburn began to sell seeds in New York, and subsequently built up a substantial business. During the next quarter century seed stores were opened in Baltimore, Boston, and Charleston, S. C., as well as in Philadelphia and New York, and there was a considerable trade in Shakers' seeds. These Shakers' seeds were popular as early as 1818. They were sold by regular dealers, and were peddled about the country in the Shakers' wagons.

It will be noted that the early dealings in vegetable seeds were chiefly carried on by those engaged in other merchandising enterprises. The postal facilities were so inadequate and transportation so expensive that most of the seed supplies were purchased in bulk and retailed by local dealers. It was not until the appearance of the modern seed catalogue which contained descriptions of varieties together with directions for planting and the offering of seeds in packets by mail, that the mail-order business in seeds began to assume important proportions. As early as 1823, however, Grant Thorburn issued a catalogue in pamphlet form. In 1825, it contained 87 pages; and besides the usual retail price list there was a wholesale list and a catalogue of bulbs, of flowering plants, and of tools. The catalogue business, however, did not attain large proportions until during the decade of between 1870 and 1880. It would appear that the printed sales list in the form of a catalogue was first used by the American seed trade and in fact, it marked the beginning of the mail-order business which has been expanded to cover almost the entire merchandising field.

Since 1865 the business of seed growing expanded rapidly.

Notwithstanding some importers of seeds declared in 1867 that American seed growing was a myth, there were at that time more than 2,000 acres devoted to raising vegetable and flower seeds. In 1878, J. J. H. Gregory²² estimated the total area devoted to growing garden seeds at about 7,000 acres. Of these 3,000 in the table seeds; and 50 acres, flower seeds. The remainder was distributed as follows: Michigan and northern Illinois, 1,600 acres; Pennsylvania and New Jersey, 1,000 acres; Massachusetts, Rhode Island, and Connecticut, 1,000 acres. The acreage for California is not given, but seed growing in that State was then practically confined to lettuce and onion seed, and the industry had been established for only about three years. Of the kinds of seeds which were sold in the United States, Mr. Gregory said:

More or less of half the varieties are imported. Of mangelwurzel, about all; ruta-baga, about nine-tenths; spinach, about nine-tenths; cauliflower,

²² PETERS, A. J., *YEARBOOK*, 1899, p. 559.

nearly all; lettuce, about half; carrots, about half; eggplant, about half; parsnip, about one-third; radish, about all. * * * It is the general belief of American seedsmen that foreign-grown radish seed is larger and better than home-grown. Parsley seed is largely imported. Brussels sprouts, broccoli, chicory, endive, kohlrabi, and Swiss chard are almost wholly imported, as is salsify, to a large extent. Of celery, the finest varieties are grown in this country in the vicinity of our large cities. Of cucumbers, but a few, and those of the fancy-frame sorts, are imported. Of peas, most of the hard sorts are home-grown, and probably rather more than half of what are called the softer or wrinkled varieties. The Dutch or rough-leaved turnip seeds are all home-grown. Of cabbage seed, but few varieties are imported, and these are confined almost wholly to a few early sorts. Onion seed is almost entirely an American crop.

During the following decade seed growing expanded rapidly. The census of 1890 showed that there were 596 seed farms containing 169,850 acres, of which 96,567 $\frac{1}{4}$ were actually producing seed crops. When this is contrasted with Mr. Gregory's estimate made 12 years previously, of 7,000 acres devoted to garden-seed production the rapid expansion which had taken place in the industry during the period, becomes apparent.

There are no less than 32 items of importance in the list of vegetables annually grown to supply the markets of the country. When these major groups are considered and it is remembered that each of these are represented in the trade by from two to several hundred varieties, and that the trade lists of the country, in 1921, recorded no less than 14,482 names in the 319 catalogues then summarized, the complexity of the situation becomes apparent and the difficulty as well as the magnitude of the trade problem is demonstrated. Fortunately 9,604 of these 14,482 names were used but once in the list of variety names included in these catalogues. There were, however, 4,878, distinct items entering into the trade list of American seedsmen. This is undoubtedly entirely out of proportion to the present development and needs of so large and varied an industry as that of the vegetable-growing industry of the United States.

The contribution of the Old World to the vegetable list is by no means of minor importance. Such crops as onions, cabbage, lettuce, asparagus, eggplant, muskmelons, and watermelons, were brought from the Old World; and these, together with a long list of lesser importance, contribute to the variety of products offered in our annual commercial supply of vegetables.

To bring into relief the contributions which have been made by the Old and the New World, the following list has been compiled:

A. AMERICAN ORIGIN:

| | | | |
|--------|-----------|---------|---------------|
| Beans. | Peppers. | Squash. | Potato. |
| Corn. | Pumpkins. | Tomato. | Sweet potato. |

B. OLD WORLD ORIGIN:

| | | | |
|-------------|-------------------|-------------------|----------|
| Cucumbers. | Beets. | Kale and collard. | Parsnip. |
| Eggplant. | Brussels Sprouts. | Kohlrabi. | Peas. |
| Muskmelon. | Cabbage. | Leek. | Radish. |
| Watermelon. | Carrots. | Lettuce. | Salsify. |
| Okra. | Cauliflower. | Onion. | Spinach. |
| Asparagus. | Celery. | Parsley. | Turnip. |

There are three facts which are worth noting in connection with this list: (1) It includes no hardy vegetables of American origin.

The aboriginal agriculture of the region now occupied by the United States was based on plants from the warmer regions of America. Caucasians, since 1492, have developed no American plants into general use as garden vegetables, being content with the heritage from their European ancestors and from the American natives. If potatoes and sweet potatoes are added to the list, under A, it is surprising to note that the American vegetable garden, in value of product, is more heavily indebted to the American prehistoric people than to all the world besides. This, in spite of the fact that the American growers have taken from the Indian's list of useful plants only such things as have seemed to be easily grown or suited to their style of living; also, they have accepted from the Indian only those plants which he had brought into the present bounds of the United States from tropical and subtropical regions. The Indians used many indigneous plants for food. They had not, however, brought these plants into full agricultural status, getting most of their supplies from natural planting. The incipient horticultural status which some native plants of the United States acquired with the Indians has largely been allowed to lapse. The Jerusalem artichoke is an example of a plant which has, by its persistence, stayed with the American growers, often in spite of them. It is quite possible that the growers may sometime become interested in others of the neglected list of Indian food plants.

(2) The United States extends farther south than any other region occupied by the European branch of the white race. Although it is possible within the wide expanse of the United States to match fairly accurately any climatic condition found in Europe, yet our climate as a whole is very different from that of Europe, giving much greater extremes between summer and winter. It is only in the southern countries of Europe that maize is successfully grown. The United States has always been able to grow seeds of all of section A, including tropical and semitropical plants from both the Old World and the new to better advantage than to import them. It naturally follows that American growers supply practically all of their seed requirements of these crops.

(3) The seed-growing geography of the United States has undoubtedly been influenced by the fact that all of the plants of section A are useful for their seed or their fruit, those being the parts for which they are grown. Only one plant, garden peas, of this sort, is found in section B. Further, all of the plants of section A are annuals, perfecting seed in the same growing season in which planted. As usually grown, about eight plants of section B are annuals—cucumbers, eggplant, muskmelon, watermelon, okra—lettuce, peas, some varieties of radishes, and under some conditions spinach.

Most cultivated plants in the United States depend on the annual care given them on the farm to persist. They are not adjusted to American growing conditions sufficiently to become naturalized. Plants which prove exceptions to this rule and which seem perfectly at home in parts of this country are asparagus, carrots, parsnips, turnips, radishes, salsify, and others. The watermelon can almost be called a naturalized plant in some parts of the South. Some of these wild vegetables are very troublesome weeds.

The climatic advantages which America possesses for the growing of many seeds are fundamental, but aside from them the question

of economics is most important. Based on the fact of a denser population and more severe competition, Europe has always had cheaper labor than the United States. Labor costs constitute the most important item in seed production, so this factor alone keeps certain low-priced vegetables, such as spinach and turnips, among American imports. Another important fact is that Europe has a large body of men trained to the intricate technique of seed growing and seed selection, and these men must work for much lower returns than such ability is able to demand here in the United States. These men are able to hold the seed industry in certain high-priced seeds in Europe in which the crop requires more skill in culture or breeding than we have as yet attained. In this group of vegetables are to be found forcing carrots and forcing radishes, self-blanching celery and cauliflower. The United States has no serious handicaps in climate or soil, and hopes to overcome the wage differential, and to acquire the necessary skill and training so that eventually it may grow all seeds profitably.

In the vegetable summary which follows an attempt has been made to indicate in a rough way the extent, the geography, and the returns which may be expected in connection with each sort of the more important vegetables. The part America has played in the origination of varieties, based often on the different purposes or processes in growing or handling, is pointed out.

Asparagus.—This crop is the only perennial included in the list. It is grown in all save the most subtropical sections of the country. It is not ordinarily planted for seed, but seed is saved from the same fields which yield the market product. In the past, New Jersey and South Carolina have been important seed-producing regions. Five hundred pounds per acre is a satisfactory crop of seed and this should furnish plants for 400 to 800 acres of commercial planting. Asparagus is a crop with the sexes on different plants and so the uniformity of any variety has never been very great. Moreover, the distinction between varieties is often not clearly defined. There is probably no garden plant which responds so strikingly to high culture. The United States has never depended to any extent upon Europe for asparagus seed.

Bean.—This is an American plant and the varieties used are almost all of American origin. In fact, some types can, with great certainty, be traced back to Indian agriculture, the Indian names have persisted in some cases in translated form. The beans spoken of in American catalogues as "cranberry beans" are very similar, if not identical, with beans so called by the Iroquois Indians before the advent of the white man. The name has always had reference more to the shape and size rather than the color, as the catalogues have listed white, red, yellow, and speckled cranberries. The Americans have always grown practically all of their supply of seed beans. It is impossible to properly apportion the credit for the present highly varied list of garden bean varieties between the Indian and his white successor on this continent, but it is certain that what the white man added to what the Indians gave us is comparatively small. So far no white man has claimed that he has found the original wild stock from which our beans have been developed. There is a long list of sorts grown only for dry beans which furnish the basis of a great industry.

There are so many species of beans which are grown in gardens that each should have separate mention.

The common bean (*Phaseolus vulgaris*) is grown everywhere and is used in three stages of development—the undeveloped pods as snaps, the young beans as green shelled, and the fully developed seed as dry beans. Each of these forms of use has resulted in the development of a series of varieties mainly adapted for one specific use. There are one or two varieties that are extensively used in more than one stage but they are exceptional. The seed requirements are very large. Much of that used for planting on a field scale for dry beans does not pass through the seedsman's hands. Large quantities of seed are saved also by home gardeners and some by market gardeners for their own use. The centers of the commercial seed crop are in southern Idaho and eastern Colorado, though seed is extensively grown in Michigan, New York, and Wisconsin. Garden pole beans are nearly all grown in California. A fairly satisfactory crop is 20 bushels per acre and this should plant at least 20 acres if bush type, or 50 acres if pole.

Tepary bean (*Phaseolus acutifolius*), is of very recent discovery by Caucasians in the United States. It has been grown by the Indians of Arizona and others of the Southwestern States, and its culture extends at present into Central America. It has been used by the whites only as a dry bean. There are numerous varieties but only one has been extensively planted. All the seed is home grown and is produced in Arizona and California. Wild plants of this species are to be found in Arizona.

The Lima bean (*Phaseolus lunatus*) was unknown in what is now the United States except by a few southwestern tribes. It is used as a green shelled bean and as dry beans. All the seed used is home grown, mainly in California, though New Jersey produces a little. The varieties are all of American origin.

Beet.—Beets (*Beta vulgaris*) have been developed under cultivation into types for the garden, stock feeding, and industrial uses, especially the sugar beets. The work of selection on the second and third of these types has been done very largely in Europe in the past and seed of these types was imported prior to 1914. During the war sugar-beet seed was produced in California and Michigan.

America has developed a number of varieties of garden beets. The turnip-shaped and globular beets are by far the most popular in the United States, while in most parts of Europe the preference is given to the long and half-long roots. The beet-seed crop is one of the most delicately balanced things economically that can be found. If the price rises a little we grow a share of our own seed; if it falls a little we buy it from Europe. California grows some of the seed produced in this country and gardeners in Connecticut and Massachusetts have grown garden beet seed since Colonial times.

Cabbage.—Cabbage is native in western and southern Europe, and is usually found growing wild in close proximity to the sea. There have not been many types developed in the United States. The seed requirements of the country for early cabbage of the Charleston and Jersey Wakefield varieties, and some of the summer sorts have been met by American growers. The location of our largest production is on the eastern end of Long Island. Another seed-

growing section is in western Washington, along Puget Sound. In recent years selection work has resulted in the development of varieties resistant to certain diseases. These promise good results especially with the late varieties used for sauerkraut. One acre of cabbage for seed should produce enough to plant 2,500 acres of cabbage.

Carrot.—The carrot is a plant of European origin, more extensively used in France than elsewhere. It has been grown generally over most of the United States, and seems at present destined to enjoy more extensive use. Abroad it has been developed into both forage and garden varieties. For garden use there are many types ranging from the small globular forcing carrots to long, late, heavy-cropping sorts. The United States has produced one variety, Danvers, which is half long, and it is extensively grown. California is the most important carrot seed-growing region and exports large supplies to Europe. Seed of the earlier forcing types, which require rigid selection and of which the seed return per acre is small, is imported from Europe. Home production of seed is difficult in many portions of the country owing to the presence of wild carrots, and consequent deterioration of stocks due to crossing. An acre of seed carrots should produce enough to plant about 150 acres of crop.

Cauliflower.—This member of the cabbage group of vegetables has always been difficult and expensive to grow, either as seed or as a market crop. Seed production has been attempted on Long Island and in the Puget Sound region, but so far with little success. A large-leaved, strong-growing southern type is successfully seeded near Los Angeles, Calif. Aside from this limited production most of our seed comes from northern Europe, especially Denmark, and it requires the best locations and the most skillful farmers of that intensively farmed country to succeed with cauliflower seed. America has produced no new types.

Celery.—Seed production of celery has been confined in the past mainly to France and Italy. This is especially true of the self-blanching types. For many years a portion of the seed of the green varieties has been grown in the eastern United States and in California, in addition to which California has also grown considerable quantities of the self-blanching types. During the period of the World War and the disruption of European celery-seed production a number of the leading celery growers of the eastern United States began the careful selection of parent plants and the growing of their own supply of celery seed. This work undertaken mainly as an emergency measure proved so successful that a large part of our highest-grade celery seed of the self-blanching or easy-blanching types is now being grown in a careful manner in this country. Certain celery growers in northern New Jersey are now producing from 100 to 300 pounds of high-grade celery seed as a side line, this seed being sold to seedsmen and direct to celery growers.

The production of celery seed requires painstaking care and considerable labor and is practicable only where the persons engaged in its production are in position to devote the necessary time and care to it. Two methods are followed in the production of this

seed, the one where only selected mature plants are used, (fig. 114) these being carried over the winter in frames, and the other by the use of what are termed seeders, or plants grown without particular selection from high-grade stock seed. Celery seed produced by the first method must necessarily sell at a high price in order to justify its production while that grown by the second method can be sold at a much lower price and may or may not be as desirable.

Cucumber.—Cucumbers are an Old World crop but the greater part of the seed used in the United States is grown in Nebraska and Colorado. Three types of cucumbers are grown as field or truck crop, pickling, and forcing. The first two of these are based on varieties of American origin differing but slightly from European types. The greenhouse crops are sometimes grown from imported seed but usually from seed saved by the grower himself. An acre of cucumbers for seed should supply 100 acres of crop.

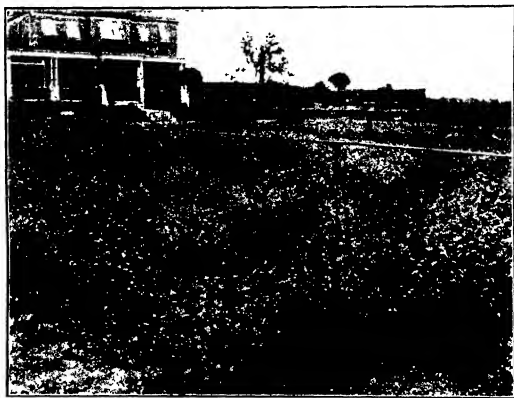


FIG. 114.—Celery seed being grown in New Jersey from specially selected plants

Eggplant.—This is an Old World plant. Our seed requirements are small and the variety most commonly grown is an American selection. Our seed is produced at home, largely in New Jersey where marked progress has recently been made in the improvement of strains through selection.

Kale and collard.—These names include the forms of nonheading cabbages grown in the United States and are of Old World origin. Collards are American in name, use, and selection, and the seed supply is mostly produced in southern Georgia. Some kale seed is produced in the United States, but most of it is imported.

Lettuce.—Lettuce, although an Old World plant, finds such congenial environment in America that not only are domestic seed requirements met but large quantities are shipped to Europe. Cali-

fornia grows the greater part of the seed (fig. 115), and an acre planted for seed will furnish seed for planting 40 acres of crop. All of our varieties are from European sources with the exception of some of the greenhouse sorts.

Muskmelon.—In Europe three well-marked types are grown—netted muskmelons, winter melons, and cantaloupes. The first two names are descriptive. The cantaloupe is a melon without netting, rather smooth or covered with warts, usually deeply ribbed with salmon flesh and a high aroma. The word "cantaloupe" as applied to muskmelons in this country is a trade misnomer and most seedsmen do not use the word in their catalogues. Muskmelon seed is grown largely in Nebraska and Colorado (fig. 116), although other sections produce limited quantities. There is no large foreign demand for muskmelon seed since the greater part of Europe grows only hothouse varieties and those of special type which are not



FIG. 115.—Lettuce being grown for seed in young pear orchard in California

grown in this country. The present muskmelon-shipping industry in the United States is based mainly on the netted melons which have been developed primarily for their shipping qualities. Among muskmelons that have been developed for home use there is a greater variety than in the case of shipping melons. Muskmelon-seed growers have paid particular attention to the development of the shipping varieties.

Watermelon.—Watermelon seed is grown in Florida, Georgia, Oklahoma, Kansas, California, Nebraska, Michigan, Colorado, New Jersey, and other States. About 10,000 acres are planted annually in the United States for watermelon-seed production. An acre of watermelons grown for seed will produce about 200 to 240 pounds of seed, and this will plant 100 acres of crop.

Onion.—During the early days of the seed industry in this country the supply of onion seed was obtained from European sources, but

onion growers in the United States, finding this source of seed more or less unreliable, began to grow their own. Later, when the seed industry in California developed the greater portion of the supply of onion seed was produced in that State. At present California leads, with Ohio, Oregon, Colorado, Connecticut, Washington, and Illinois following in their order. According to statistical data prepared by the department the acreage devoted primarily to the production of onion seed in the United States in 1918 was 7,260. This declined until in 1922 the acreage was given as 1,295. This decrease in acreage of onion seed can be explained only by the fact that a large number of onion growers have during recent years saved a supply of mother bulbs and have produced their own seed.

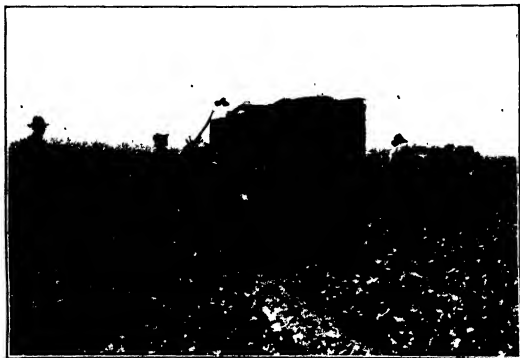


FIG. 116.—Machine used for separating seed from muskmelons in the Rocky Ford (Colo.) district

A bushel of medium size, sound mother bulbs will produce $2\frac{1}{2}$ to 4 pounds of seed, and from 4 to 6 pounds of seed are required to plant an acre of commercial crop. The average yield of onion seed per acre in 1922 was 347 pounds. The total production as reported for 1922 was 450,000 pounds.

Seed of the Bermuda onion for planting in Texas, California, and elsewhere in the United States is procured from the island of Teneriffe in the Canaries, off the coast of Africa. Seed of the Valencia onion is procured mainly from the Denia and Valencia districts of Spain. The seed of this onion is now being grown successfully in New Mexico, Arizona, and Utah and the United States will undoubtedly be less dependent upon Europe for its supply of seed of Valencia onion in the future. A satisfactory supply of Bermuda onion seed, however, has not for some unknown reason been successfully produced in the United States. There is nothing particularly difficult from an economic standpoint in the production of other types of onion seed in the United States except the

necessity for wintering over the mother bulbs and the expense of resetting them in the ground during the early spring (fig. 117). There are in various parts of the onion-producing portion of the country local growers who are very successful in the growing of sufficient seed with which to plant their own acreage and these growers frequently produce a surplus which is sold to seedsmen or more often to their neighbor onion growers.

Onion-seed production presents no particular problems and can be handled economically in conjunction with the commercial production of onions. The mother bulbs from which the seed is to be grown are selected from the commercial crop either at the time of harvesting or during the curing period. These bulbs are stored in crates and in the same manner as those intended for the market and



FIG. 117.—Seed onions a short time before the seed heads are ready to harvest

are reset on a new location in the spring. Any barn or open shed will serve for the curing of the seed heads and the threshing of the seed can be done by means of flails either on a tight barn floor or on a sheet of canvass (fig. 118). The only problem that the production of onion seed involves is the preparation of land on which to reset the mother bulbs. Where onions are grown on peat soils it is customary to reset the mother bulbs on the upland, preferably on a rich clay loam soil such as would produce a good yield of wheat. The use of fertilizers containing a high percentage of phosphoric acid is also beneficial in the production of onion seed. On the whole the labor costs in onion-seed production are not high and the superior quality of seed that may be produced by onion growers through selection and careful handling fully justify this method on the part of the commercial growers.

Pepper.—Peppers are of American origin. They were first introduced to Caucasians through the south of Europe. Our present varieties have come from Spain, Italy, the Balkans, South America, and Mexico. We have done some selection work and have improved the uniformity of imported types, but have originated few distinctive varieties. Our seed is almost entirely home grown. Our largest pepperseed-growing centers are in New Jersey, Georgia, and southern California. One acre of seed peppers with average crop will furnish seed to plant 1,000 acres for the trucker.

Pea.—Peas are from the Old World, probably from Asia, and are well adapted to most of the United States. It is necessary to have cool conditions in order to grow peas successfully and such conditions are usually found in the northern tier of States throughout the entire summer; in the Middle States in early spring and in the Gulf States during the winter. By far the most favorable pea-growing part of this country is found in the States next to



FIG 118—Onion seed drying on canvas sheets in California

the Canadian border and the optimum conditions in that strip are in the cool moist sections bordering the Pacific Ocean. The American seed-growing industry began with peas. They were first grown in New York, and the production has successively changed to Michigan, Wisconsin, and finally to the high irrigated valleys of the mountain states. Some seed peas are still grown throughout the eastern territory which was formerly the production center for the crop. The centers of seed-pea production have changed from time to time because of the varying influences of the combined effects of insects, diseases, and economic changes to which it is very difficult to give accurate rank according to their relative importance.

On the basis of number of acres employed and the value of the product produced, as well as the number of men engaged in it, seed peas exceed all other items in the list of garden seeds. For more than half a century the country has provided for its own seed requirements and there were, in 1925, more than 100,000 acres devoted to the production of seed peas.

One acre of average crop seed peas will furnish seed for only 3 acres of canner's peas and the ratio between the product of the acre

grown for seed and that required to plant an acre of canning crop is the lowest of any vegetable. In other words, it takes more acres of seed peas to plant the acreage of canning-crop peas than for any other similar vegetable or farm crop. Peas are widely grown as a home-garden and market-garden crop. From the standpoint of pea-seed requirements the canning business is the most important, requiring more than one-half of all the seed peas produced.

The majority of varieties of peas grown in this country and listed in the seed-trade catalogues are of foreign origin, but there are several sorts extensively used for canning purposes which are of American origin.

Radish.—The radish is another Old World crop, the varieties of which are almost exclusively of foreign origin. California grows all the seed requirements of the larger-rooted sorts required in this country and exports in quantity. The smaller early-forcing radishes give low yields of seed and require skill and much labor to produce and in the past, seed of these varieties has been imported. During late years excellent seed of these types has been produced in Michigan. One acre of seed should grow enough to plant 35 acres of crop.

Spinach.—All varieties of spinach, with the exception of one selected for disease resistance, are of Old World origin. The production of spinach seed is not difficult and there are numerous places in the United States where it can be successfully grown, but owing to the difference between economic conditions obtaining in Europe and in the United States, the bulk of the seed has, up to the present time, been grown in Europe. This condition has changed during the period of the war, but with postwar conditions approaching the normal, the importing of spinach seed is on the increase. Spinach seed can be harvested in California in advance of any other seed crop and a certain acreage of it is grown at an apparent financial loss because it furnishes work during slack times for a labor force which might otherwise be idle, and it brings in some revenue before other seed crops are marketed. One acre of seed should furnish enough to plant 50 acres of crop.

Squash and pumpkin.—These plants are all American in origin, and were important in Indian agriculture in what is now the United States. There are three species concerned in this group—*Cucurbita pepo*, *C. maxima*, and *C. moschata*. There is no evidence that they hybridize across specific lines though they cross very extensively within the species. Our varieties are practically all of home origin. The species are very variable and new forms are readily selected. The seed supply is all home grown, being mostly produced in Nebraska, Kansas, and Colorado. One seed acre should furnish seed enough to plant 60 to 80 acres of crop. Since seed is readily saved at home more home and market gardeners save their own supply of seed than in most other crops.

Sweet corn.—Although corn was one of the first food plants adopted by the colonists from the Indians and knowledge of the plant undoubtedly spread across the seas, neither the culture nor the use of corn, either fresh, dried, or canned, has become general outside of the Americas. Naturally all varieties of sweet corn known to American seedsmen originated in this country and the work per-

formed in improving sweet corn and in the developing of new varieties suitable for special purposes has been an outstanding contribution on the part of American plant breeders and seed growers. The production of pure seed sweet corn is a matter requiring painstaking care. Seed of but one variety can be safely produced in the same immediate locality as corn cross-pollinates for great distances and attempts to grow more than one sort of seed sweet corn on the same farm are liable to result in mixing and unsatisfactory results. Sweet-corn seed can be produced and is grown in most regions where the commercial crop is of importance. Seed production of sweet corn is limited geographically in the South by temperature and insect conditions, while the northern limit of its growth is sharply defined by the length of the growing season.

A bushel of high grade sweet corn seed can be produced from 3 or 4 square rods of ground and this is sufficient for the planting of 5 or 6 acres of crop. Many growers make a practice of setting aside a few square rods of their commercial crop, saving only plants having desirable characteristics and using ears from these for seed. The commercial seedsmen, however, is the dependence of a large portion of sweet corn growers for their supply of seed. Irrespective of whether the seed is home grown or purchased from seedsmen its quality must be assured. The home gardener desires seed of a succession of varieties, beginning with those which mature in a short period, and followed by others perhaps of better quality than the extremely early ones and yielding a uniform high-grade product either for use as roasting ears or, should he prefer, for canning. The truck gardener must have seed of varieties which possess such merit as earliness, quality, and good yield. The importance of good seed corn to the canner can hardly be over emphasized. His entire season's operations might easily be interfered with through the unfortunate selection of poor seed. Good germinating qualities and vitality go hand in hand with freedom from certain diseases.

Field selection and curing of the seed must be followed by careful handling over winter. The ears must be well cured, this being accomplished by storage on wire-bottom shelves or in slat crates stacked on shelves. Other devices embodying similar principles are also used. Figure 119 shows a sweet-corn drying house used on a New England farm. Ample ventilation to remove moisture from the corn is essential. During the storage period the seed must also be protected from low temperatures.

Tomato.—The United States leads in the production of tomatoes for the reason that, except in the south of Europe, climatic conditions are not favorable to the outdoor cultivation of the crop. In the United States conditions are such as to make it possible to grow tomatoes over the greater part of the continental domain.

The varieties of tomatoes so extensively used for home gardens and commercial purposes are all of American origin, the only exceptions being certain of the varieties grown as forcing crops under glass. The United States has in the main supplied its own requirements for tomato seed. The range of territory over which the tomato is grown, together with the fact that it is produced in Mexico, Cuba, and Florida, as a winter crop, and in the Southern States as an early truck crop, and extensively at the North for can-

ning purposes, has led to the development of a considerable number of sorts varying in size, color, texture, and season of maturity to meet the requirements of the variations of the industry and of the season during which the crop is grown. An acre of seed tomatoes will produce 60 to 80 pounds of seed or enough for planting 200 to 250 acres of the crop. The greater part of the supply of tomato seed is grown in New Jersey, Ohio, Indiana, California, and Michigan. About 5,000 acres are devoted to the exclusive production of tomato seed in the United States and in addition seed is saved from large quantities of specially selected commercial tomatoes that are used for the manufacture of tomato soup, pulp, and catsup.

At the present time seed production is carried on by special groups such as canners, forcers, and truck farmers, to provide seed supplies to meet particular needs. The canning industry has been a leading factor in this phase of tomato-seed production. Because of the

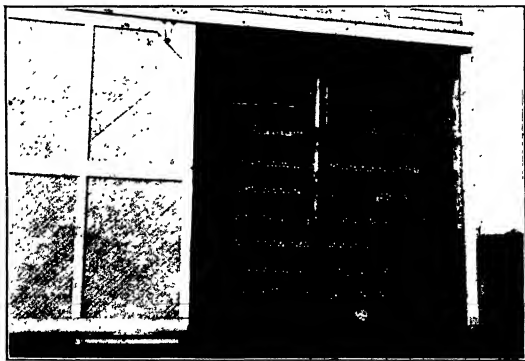


FIG. 119.—Method of storing sweet corn to dry for seed

destructive inroads of certain soil-borne diseases, as well as diseases peculiar to particular regions, plant breeders have been giving special attention to the production and selection of varieties and strains which will withstand these troubles. Particular success has been attained with varieties resistant to the wilt diseases and to the nail-head rust.

Trends in Vegetable-Seed Production

Seeds of a large number of vegetables of lesser importance than those mentioned in the foregoing are produced in the United States in quantities sufficient to meet the home-garden and commercial requirements. Climatic and labor conditions have been and are to-day the main determining factors in the development of the American seed industry. The climate of parts of California and

other arid sections of the Western States render those regions especially adapted to the growing of certain seeds which require a dry atmosphere for their curing. For example, onion and other seeds grown in California can be cured on canvas sheets spread on the ground in the open. Certain parts of California, Colorado, Idaho, Michigan, and New York are especially adapted to the growing of bean seed on account of a combination of soil, climatic, and disease-free conditions that make possible the production of superior quality seed. On the other hand, labor costs for the production of certain classes of seeds are such as to justify their purchase from European and other outside sources.

The trends in vegetable-seed production are toward standardization of varieties and strains and the procuring of those that are resistant to diseases together with high-producing quality. More attention is being given to the production of seeds to meet special requirements such as the early-forcing and greenhouse industries. Among the outstanding accomplishments are the development of rust-resistant asparagus varieties, wilt-resistant tomatoes, yellows-resistant spinach and yellows-resistant cabbage.

Cultural Practices

The Potato

The potato (botanically known as *Solanum tuberosum*, L.) is a member of the Solanaceæ or nightshade family of plants. It is closely related to the tomato, eggplant and pepper.

Origin.—The original home of the potato is admitted by all botanical students to have been in the Andean Mountains of South America. There are differences of opinion, however, as regards the country in which it originated. Some botanists insist that its native home was in Chili whereas others are equally insistent that it first occurred in Peru. The truth of the matter is that before there was any printed record of the potato it was being grown in several countries in the western part of South America. Cieca in his *Chronicles of Peru*, published in 1553, records having observed the potato being grown by the inhabitants of the country traversed by the Spaniards on their march through Colombia, Ecuador, Peru, and Bolivia in the conquest of the Incas of Peru.

This invasion was undertaken in 1538 and Cieca began to record his observations in 1541 and continued this task until the close of the campaign several years later. At that time the potato was commonly grown in localities where maize could not be successfully grown, that is in the more elevated and cooler sections. Cieca's *Chronicles* clearly show that more than one variety was being grown and he expresses his conviction that the potato had probably been in cultivation in those regions several centuries in advance of his time. It is not strange, therefore, that its botanical origin still remains undetermined.

There is every reason to believe that the plants studied by early European botanists and to which the specific name "*tuberosum*" was applied were of hybrid origin and were not entitled to be recognized as a true species. All efforts of later botanists and plant collectors to discover the parentage of the potato have met with

failure and there is little likelihood of our ever definitely determining this point. Botanically speaking the potato tuber arises as a terminal swelling of a thick and usually rather short, underground stolon. These stolons originate from the main stem of the plant, from what above ground would be the axils of the leaves, and extend outward in a more or less horizontal line and sooner or later normally swell up at their tips to form tubers.

Early history of its introduction into Europe and America.—Although there is more or less conjecture as to the exact date of the introduction of the potato into Europe it is supposed that it was first brought to Spain shortly after the Spanish invasion. From thence it is thought to have found its way into Italy and from there into central Europe during the latter part of the sixteenth century. At about the same time history records its introduction into Ireland from Virginia in one of Sir Walter Raleigh's trading vessels about 1586. It is apparent, however, that a discrepancy occurs in this account in that it implies that the potato was native to Virginia. From the description of the Virginia plant it is quite evident that the writer had in mind *Apios tuberosa*, a tuberous-bearing plant of the Leguminosæa or pulse family. There is every reason to believe, however, that the true potato was brought over in one of Sir Walter Raleigh's ships, but that they were obtained at some trading port on the west coast of South America rather than from Virginia.

Development of potato culture in Europe and the British Isles was extremely slow, during the first two centuries following its first introduction from South America about the middle of the sixteenth century. In England potatoes were little grown outside of private gardens prior to 1784; while in 1796 Essex County, England, grew 1,700 acres for the London market. In Scotland the production of potatoes up to at least 1760 was practically confined to gardens, while potato culture in Ireland was simultaneous with that of England. In Prussia it required the autocratic ruling of Frederic the Great to make potato growing general. This monarch ordered his soldiers to force the farmers to grow potatoes.

Potato development in France was somewhat slower than in Great Britain and required considerable fostering. It was well along toward the close of the eighteenth century before potato culture became at all general. As late as 1764 a Swedish writer states that the Swedes have just discovered the culture of potatoes. Mention is also made of the issuance of a royal edict designed to encourage the culture of potatoes.

The first record of the introduction of the potato into North America is found in Watson's Annals of Philadelphia, volume 2, page 420, 1844, in which he says:

This excellent vegetable was very slow of reception among us. It was first introduced from Ireland, in 1719, by a colony of Presbyterian Irish settled at Londonderry, N. H. They were so slow in its use in New England that as late as 1740, it was still a practice with masters to stipulate with some apprentices that they should not be obliged to use them. The prejudice was pretty general against them that they would shorten men's lives and make them unhealthy, and it was only when some people of the better sort chose to eat them as a palatable dish, that the mass of the people were disposed to give them countenance.

Further light is shed by Watson on page 486 of the same volume where he states:

As late as my mother's childhood, potatoes were then in much less esteem than now. The earliest potatoes, like the originals now discovered from South America, were very small, bright yellow ones, called kidney potatoes, and probably about 75 years ago, they then first introduced a larger kind, more like the present in use, which were called in New England the Bilboa. In Pennsylvania the same kind of potatoes were called Spanish potatoes.

The development of American varieties.—Prior to 1856 or 1860 the varieties grown in this country were almost, if not entirely of English or European origin. With the introduction of Goodrich's Garnet Chili seedling closely followed by Calico, Cuzco, Early Goodrich, and others, there began to arise a more or less distinct race of potatoes of American origin.

Goodrich's work.—During the years 1843 to 1847 there swept over the potato crop of Europe, Great Britain, and America a severe epidemic of late blight which reached its climax in 1845, resulting in severe famine in Ireland where the potato constituted a very important part of the diet of its people. It was during this severe and prolonged outbreak of late blight that the Rev. Chauncey Goodrich of Utica, N. Y., conceived the idea that the apparent susceptibility of the potato to late blight was probably due to its repeated multiplication by cuttings and that the only way to restore it to its pristine vigor would be to resort to sexual rather than asexual reproduction. Proceeding on this hypothesis he began to grow seedling potatoes. In 1851 through the kindness of the American consul at Panama, he received a small quantity of South American potatoes for breeding purposes. Among this lot was a strong-growing vigorous variety to which he applied the name "Rough Purple Chili," a name suggested by its rough purple-colored tubers and the country for which he assumed it had come. According to his record it was from naturally fertilized seed balls produced on this variety in 1852 that he grew a lot of seedlings in 1853, one of which was later named the Garnet Chili. This seedling was distributed in a small way in 1856 and formally introduced the following season. Several other seedlings followed, such as those previously mentioned and others, but none were destined to prove as important to the potato industry of this country and to a certain extent to other potato-producing countries of the world as that of the Garnet Chili. In fact we may regard the Garnet Chili as the forerunner of a hardier race of potatoes, which were destined to supersede the previous varieties grown. It is questionable if Goodrich himself foresaw the far-reaching results of his efforts to improve the existing varieties of potatoes.

Origin of present-day commercial varieties and where grown.—A study of the origin of our important commercial varieties affords strong confirmatory evidence of the rôle played by Goodrich in the regeneration of the potato industry.

Garnet Chili.—Originated by C. E. Goodrich in 1853; seedling of Rough Purple Chili; introduced in 1857. Now grown in a small way in Oregon to supply seed to California growers where it is planted in California for early-crop purposes. In Canada it is grown in New Brunswick and Nova Scotia in order to supply the

Bermuda growers with seed for their second-crop planting. The variety is not important commercially.

Early Rose.—Originated by Albert Bresee of Hubbardton, Vt., in 1861 from seed obtained from a seed ball produced by a Garnet Chili plant in 1860. Introduced in a limited way in 1867 as the Early Rose, the name given being suggested by its earliness of maturity and rose color of the skin of the tuber. This variety was probably more widely grown in the latter part of the nineteenth century than any other. Its popularity was no doubt largely due to its ability to succeed under widely varying soil and climatic conditions. The Early Rose can hardly be regarded to-day as a commercial variety in this country but in some other countries it is still grown to a considerable extent.

Early Ohio.—The Early Ohio was originated by Alfred Reese of Ohio in 1871 and was claimed to be a seedling of the Early Rose. It was introduced in 1875 and is grown most extensively as an early market variety in the Ohio River Valley and the Red River Valley of Minnesota, North Dakota, and South Dakota and, until the last few years, was the leading variety grown in the Kaw Valley in Kansas. Owing to its tendency to produce knobby or prongy tubers when the growing conditions are unfavorable it has largely been displaced in Kansas by the Irish Cobbler. The Early Ohio is still an important commercial variety.

Burbank (Burbank seedling).—This variety was originated by Luther Burbank in 1873 from seed obtained from a seed ball produced by an Early Rose plant. It was introduced in 1876 and for a number of years was extensively grown in the East. Diminishing yields, possibly due to lack of adaptation, or a gradual running out caused by disease or environmental influence, has led to its almost total abandonment by the eastern potato grower. It is now one of the most popular far-western varieties and shares honors with its sport, the Russet Burbank which is generally regarded as one of the best varieties from the culinary standpoint of any now grown. The true Burbank is grown most extensively in the western part of Oregon and in the Stockton districts in California. The Russet Burbank is largely grown in Colorado, Idaho, and Washington, and to a lesser extent in Oregon, Montana, Wyoming, Utah, and Minnesota.

Green Mountain.—The Green Mountain was originated by O. H. Alexander, of Charlotte, Vt., in 1878. It is claimed to be a seedling of the Dunmore crossed with Excelsior. The Dunmore is represented on Pharo's chart (see fig. 120) as being a seedling of the Early Rose, and the Excelsior is claimed to be a seedling of the Early Goodrich, which in turn was a seedling of Cuzco produced by Goodrich from one of his wild Peruvian varieties in 1856. Thus we see that the Green Mountain's parentage goes back to Goodrich's productions. The Green Mountain is at the present time one of the leading late or main-crop varieties in the northeastern portion of the United States. It is grown most extensively in New England particularly in Aroostook County, Me., northern New York, Long Island, N. Y., northern New Jersey, western Maryland, and northern Wisconsin and Minnesota. This variety is peculiarly well adapted to a cool summer climate and where there is sufficient rainfall to develop the crop. It does not so successfully withstand a protracted

spell of hot dry weather as does the Rural New Yorker No. 2, but where it does succeed it is a more desirable variety to grow because it is generally more productive and of better table quality than the Rural.

Peerless (Pearl).—The Peerless variety was originated by Albert Breece of Hubbardton, Vt., in 1862 and is claimed to be a seedling of the Garnet Chili. It was introduced in 1870. This variety is grown most extensively in the Greeley district in Colorado and to a limited extent for seed purposes in Wisconsin. Within the last few years its popularity in the Greeley section has decreased rapidly. This is largely because of the establishment of potato grades by the United States Department of Agriculture, which has resulted in pointing out the high percentage of undesirable tubers produced by this variety. The Peerless produces many over-sized, knobby, and ill-shaped tubers causing a heavy shrinkage in grading to standard grades. As a result the growers are in many cases substituting the Rural New Yorker No. 2 variety.

Peoples.—This is a russet-skinned sport of the Peerless and is grown to some extent in Colorado, Utah, and Idaho.

Triumph.—The Triumph variety was originated in Connecticut in the early seventies and was introduced in 1878. It is claimed to be a seedling of the Peerless crossed with an Early Rose seedling and is, therefore, a direct descendant of the Garnet Chili. It is the earliest commercial variety grown in this country. The Triumph is grown most extensively in Louisiana, Texas, Oklahoma, and Arkansas, and to a lesser extent in Alabama, Mississippi, southern Florida, and Tennessee.

Irish Cobbler.—The origin of the Irish Cobbler is more or less obscure. Gregory in his 1899 catalogue says: "This potato is an American variety originated here by an Irish 'cobbler,' hence its name." C. W. Ford, in volume 68 of the *American Agriculturist* page 521, 1901, says:

At the Mt. Holly (N. J.) fair about eight years ago a potato was shown which attracted a great deal of attention. No name was attached and it was called Irish Cobbler after a local shoemaker of Irish descent in whose garden the sport was discovered. About 25 years ago the shoemaker discovered in his garden among a patch of Early Rose one particular plant whose leaves were several shades darker than the others and whose bloom was purple instead of white. Being extra early and doing well in this locality the variety was grown for nearly 20 years on one farm near Burlington without change of seed.

The Irish Cobbler is most extensively grown throughout the Atlantic Coastal Plain States from Georgia to Long Island, N. Y. It is also the leading early variety of the New England States and in the Maritime Provinces of Canada. In many sections of the South it is supplanting the Triumph and, as has been mentioned, it has already very largely displaced the Early Ohio in the Kaw Valley of Kansas. The Irish Cobbler is also the leading early variety in the Louisville, Ky., district.

Rural New Yorker No. 2.—The Rural New Yorker No. 2 was originated by E. S. Carman in the early eighties, who claimed that it was a seedling of seedlings raised through several generations. It was introduced in a limited way in 1888 and to the trade in 1889. The Rural group of potatoes of which the Rural New Yorker No. 2 was the first to be introduced, and may therefore be regarded as

the forerunner of this hardy race of varieties, is perhaps the most widely grown of the late or main-crop varieties. It is much more resistant to heat and drought than the Green Mountain or members of that group. The Russet Rural, a sport of the Rural New Yorker No. 2, or a member of that group, is rapidly gaining in popularity in many sections as, for example, Michigan where it originated, and in Pennsylvania. The Rural group is most extensively grown in western and southern New York, Pennsylvania, southern Ohio, Indiana, Michigan, Wisconsin, Iowa, parts of Minnesota, Colorado, and numerous other localities.

Minor varieties.—Commercial varieties of lesser importance are the McCormick and Peachblow or Red McClure of the Peachblow group, the Charles Downing, Prolific, White Rose, Up-to-Date, Earliest of All, and a few others.

McCormick (Synonyms Late Hoosier, Lookout Mountain).—The McCormick is claimed to have been originated by the Rev. T. B. McCormick of Princeton, Ind., and was introduced in 1882. It is especially adapted to late-crop production in the South as it is easily the most resistant variety to heat and drought of any grown and seems to have the ability to produce a crop quickly during the late fall. In the Norfolk district in Virginia it may be planted as late as the middle of August and still make a fair crop. Unfortunately it is not an attractive potato to look upon, being deep-eyed and more or less roughened, nor is it of good table quality. Its sure-cropping qualities make it a favorite with the southern grower. The McCormick can not be successfully grown in the North.

Peachblow or Red McClure.—This variety is claimed to be a sport from the Improved Peachblow. It is not grown to any extent outside of Colorado where in certain sections it seems to do remarkably well. It is of little relative commercial importance.

Charles Downing (Idaho Rural, Rural).—Raised by O. H. Alexander, Charlotte, Vt. Parentage unknown. Introduced in 1877. Grown extensively in Idaho and certain sections in Colorado. It is a midseason variety and is grown for the early market in the Caldwell district in Idaho.

Prolific (Brown Beauty).—The Prolific was originated by Albert Bresee of Hubbardton, Vt., in 1861 and is claimed to have been raised from seed of the same seed ball as the Early Rose, therefore a seedling of Garnet Chili. It is grown almost exclusively in the San Luis Valley in Colorado and is little known outside of that locality except in trade channels.

White Rose.—The White Rose is grown most extensively in southern California and to some extent for seed purposes in Oregon.

Up-to-Date (British Queen).—This variety is of Scotch origin. It is grown under the erroneous name of British Queen in Oregon and California. Largely grown in southern California.

Pharo's chart.—The accompanying chart (fig. 120) prepared by Edward A. Pharo and published in 1888, represents an attempt to present in an objective manner the parentage of the then known varieties of potatoes. It also roughly represented the shape of the variety. Although it has not been possible in all cases to verify Pharo's parentage determinations from the recorded facts, it nevertheless is of sufficient interest from a historical standpoint to justify its reproduction.

Importance of the Potato

The importance of the potato as a food crop is not as fully recognized as it should be. As a world crop it exceeds, in point of total production, that of any other table food plant grown. In the United States the potato, as determined by acreage and value of the crop produced, occupies sixth place, but if considered on the basis of a table food plant it is second only to wheat. In per acre production it easily leads that of corn, wheat, and oats.

United States crop.—A study of potato production in the United States by 10-year cycles during the last 50 years shows a very interesting correlation between population increase and that of the total crop grown. The data as presented in Table 5 shows the average

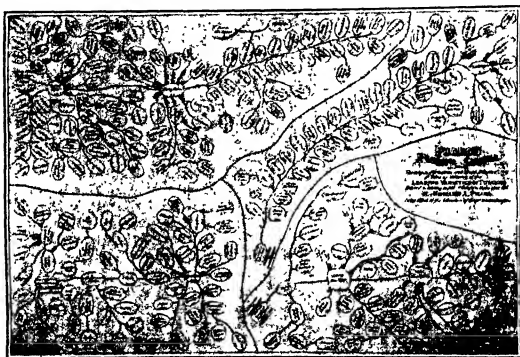


FIG. 120.—Photographic reproduction of Pharo's chart showing parentage of potato varieties prior to 1888

acreage production, bushels per acre, population and per capita bushels by decades from 1870 to 1919, inclusive. It also shows the same data for the years 1920 to 1925, inclusive. In Figure 121 the correlations between the five sets of dates are well illustrated graphically.

TABLE 5.—Average acreage, production, yield per acre, population, and per capita production by decades, 1870-1919 and six-year period, 1920-1925

| Decennial period | Area | Average production | Average yield per acre | Average population | Per capita production |
|------------------------------|--------------|--------------------|------------------------|--------------------|-----------------------|
| | <i>Acres</i> | <i>Bushels</i> | <i>Bushels</i> | | <i>Bushels</i> |
| 1870-1879..... | 1,514,000 | 132,837,200 | 87.93 | 44,453,800 | 2.98 |
| 1880-1889..... | 2,261,100 | 172,733,200 | 76.48 | 56,658,400 | 3.06 |
| 1890-1899..... | 2,831,700 | 220,895,000 | 77.60 | 69,579,000 | 3.07 |
| 1900-1909..... | 3,228,800 | 238,470,100 | 81.98 | 84,219,000 | 3.33 |
| 1910-1919..... | 3,794,900 | 262,737,100 | 69.37 | 99,342,700 | 3.06 |
| 1920-1925 ¹ | 3,697,000 | 297,163,667 | 107.87 | 110,968,600 | 3.38 |

¹ Six-year averages.

The per capita production of potatoes while reflecting the close relationship between population and production does not represent the actual average individual consumption of potatoes. To arrive at a fairly accurate estimate of the actual per capita consumption it is necessary to deduct all stock unfit for table purposes, such as the culls, frozen, and diseased tubers and the natural shrinkage in storage or in handling. In addition to these deductions one must also take into account the seed required for the ensuing crop. The percentages involved while varying in different seasons so far as all items, except seed, are concerned, are estimated to be approximately as follows:

| | Per cent |
|--------------------------------|----------|
| Culls or unsalable stock..... | 10 |
| Diseased and frozen stock..... | 5 |
| Storage shrinkage..... | 5 |
| Seed for ensuing crop..... | 10 |

The above figures, with the exception of the last, are in all probability too low rather than too high. Deducting 30 per cent from the 5-year average production of 1920 to 1924, leaves 288,363,460 bushels available for consumption or a trifle less than 2½ bushels per year for each man, woman, and child in the United States. This quantity seems relatively insignificant when compared with Germany's reported consumption of 7½ bushels, or a trifle less than three times that in this country. Assuming that these figures are approximately correct it is seen that 70 per cent of the potato crop of the United States is used for table purposes, whereas German statistics show that only about 28 per cent of their crop is used for table food. The disposition of the German crop differs essentially from that of this country as may be noted from the following summary:

| | Per cent |
|--|----------|
| Used for table purposes..... | 28 |
| Fed to livestock..... | 40 |
| Used for seed..... | 12 |
| Used for industrial purposes..... | 19 |
| Losses due to decay and shrinkage..... | 10 |
| Total..... | 100 |

The trend of potato production in the United States in so far as it relates to increasing or decreasing yields per acre is well illustrated by the data presented in Table 6 which shows the average acreage, total production, and acre yields by five-year periods from 1875 to 1924, inclusive. These data show, with but a single exception, a definite, progressive increase in both acreage and total production for each five-year cycle. The exception noted is in the case of acreage during the last period, which is less than that of the preceding one. Reference to these data show that the average production per acre during the 1915-1919 cycle was 93.4 bushels as compared with 97.9 bushels for the 1910-1914 period and 106.3 bushels for the 1920-1924 period. This low average acre production is in a large measure attributable to a rapid expansion of acreage during the war period resulting in the planting of land unsuited to the crop, or in sections where the climatic conditions were unfavorable. Poor seed was also a factor in low yields. Another interesting feature of the data is that of the decline in yield per acre from the first to that

of the fourth cycle, and the subsequent upward trend in yield from that point on. Several factors are thought to be responsible for this yield depression period of which the following are considered most important: (1) The ravages occasioned by the Colorado potato beetle during the early period of its invasion when adequate control measures had not as yet been evolved; (2) the decline of agriculture due to financial depression; and (3) a gradual depletion of the natural fertility of the soil.

TABLE 6.—Average acreage and production of potatoes by five-year periods, 1875 to 1924 inclusive

| Five-year cycles | Average acreage | Average production | Average yield per acre |
|------------------|--------------------|-----------------------|------------------------------|
| | | <i>Bushels</i> | <i>Bushels</i> |
| 1875-1879..... | 1 731,600 | 153,509,800 | 88.7 |
| 1880-1884..... | 2 112,400 | 169,316,800 | 80.1 |
| 1885-1889..... | 2 408,800 | 178,149,600 | 73.1 |
| 1890-1894..... | 2 728,600 | 190,002,600 | 69.6 |
| 1895-1899..... | 2 933,800 | 251,787,400 | 85.8 |
| 1900-1904..... | 3 062,600 | 270,924,800 | 88.5 |
| 1905-1909..... | 3 397,200 | 328,015,400 | 96.9 |
| 1910-1914..... | 3 685,800 | 380,772,400 | 97.9 |
| 1915-1919..... | 3 904,000 | 364,701,800 | 93.4 |
| 1920-1924..... | 3 876,600 | 411,947,800 | 106.3 |

¹ With exception of 1923 and 1924, the acreage and production data was taken from the 1923 Yearbook.

Similarly the upward trend in per acre yields may be explained on the basis of certain influences, as for example that of the agricultural experiment stations, agricultural colleges, the United States Department of Agriculture through its extension workers and investigators. The control of fungous and insect pests through the application of Bordeaux mixture and insecticidal compounds, the development of better seed stocks through the elimination of diseased plants and the distribution of better strains of seed, and finally, through the development of special commercial potato-producing areas in which the potato makes an optimum growth.

In Figure 121 the average acreage production is graphically depicted. In the case of production each 10-year cycle shows a fairly consistent gain from 1869 to 1925, while in that of acreage, the only disturbing figure is that for the 1915-1919 5-year period in which the acreage exceeds that of the 1920-1924 period. This exception can be explained by the large expansion in acreage as a war measure designed to guarantee an abundant supply of cheap food.

Where the crop is grown.—A large percentage of the potato crop is grown in the northern tier of States, as for example Maine, New York, Pennsylvania, Michigan, Wisconsin, Minnesota, North Dakota, and the Northwestern States. The largest potato-producing States are New York, Minnesota, Michigan, Maine, Wisconsin, and Pennsylvania. The average acreage and production of these six States for the years 1920 to 1924, inclusive, the data of which are presented in Table 7, well illustrates this claim, as their total production is 203,167,400 bushels or nearly 49 per cent of the total crop of the whole country.

POTATOES ACREAGE, YIELD PER ACRE, AND PRODUCTION 1869-1925

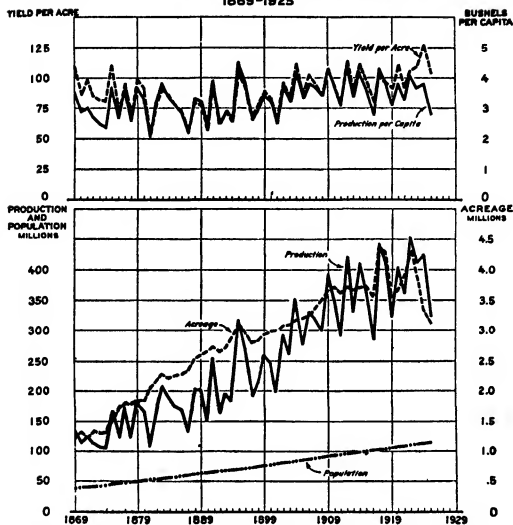


FIG. 121.—Acreage, production, yield per acre, and production per capita of potatoes, and population, 1869 to 1925

TABLE 7.—Average acreage and production of the six leading northern potato-producing States, 1920-1924, inclusive

| State | Average acreage | Average pro- duction | Average yield per acre |
|-------------------|--------------------|------------------------------|------------------------------|
| New York..... | 330,200 | <i>Bushels</i> 40,820,000 | <i>Bushels</i> 123.6 |
| Minnesota..... | 394,000 | 38,594,200 | 97.8 |
| Michigan..... | 320,600 | 35,063,000 | 106.4 |
| Maine..... | 120,200 | 31,725,000 | 264.5 |
| Wisconsin..... | 293,000 | 30,685,600 | 104.4 |
| Pennsylvania..... | 248,800 | 26,440,000 | 106.3 |

The chief reason for the heavy production of potatoes in the six States mentioned is that of proximity to large consuming centers. On account of the bulkiness of the crop and its relative cheapness, the potato grower can not afford to transport his crop any considerable distance, with the result that those localities occupying the

most favorable position with relation to markets and which at the same time have a suitable soil and climate, possess a decided advantage over less favored localities.

Environmental Factors Affecting Potato Production

The potato is generally recognized as a cool-loving plant and as a result optimum yields can only be obtained where the growing crop is not subjected to high temperatures at least during the tuber development period.

Soils.—Although the potato is not as sensitive with respect to soil as are some other crops, it nevertheless succeeds much better on some soils than on others. Generally speaking, gravelly or sandy loam soils, if well supplied with organic matter, are the most desirable types of soil for potato culture. However, under suitable conditions a satisfactory crop may be grown on a fairly light sandy soil and a medium heavy clay soil provided the heavy soil is well drained and the light soil has a good moisture supply. Muck or peat soils are also satisfactory if well drained and well supplied with available plant food. Briefly stated it might be said that any soil outside of blowsand and heavy clay may be depended upon to produce a reasonably good crop provided the climatic conditions are favorable and it is well supplied with organic matter and available plant food.

Temperature.—The potato grower must always bear in mind, when considering the question of potato production, that the potato is a cool-loving plant and, on that account, can not be successfully grown in warm climates unless planted at such time as will insure its development during the cooler portion of the year. For example, in Florida it is possible to grow an early or a very late crop of potatoes with a fair degree of success if the necessary attention is given the crop. By planting in December or January in the southern part of Florida the early crop can be grown during the cool winter and spring months; or by planting in September the late crop will be developing its tubers during the cooler weather of November and December. It is therefore evident that by a careful observance of the temperature requirement of the potato it is possible to grow potatoes with a fair degree of success even in the South. In many localities in the Northern States it has been found desirable to delay the planting of the late or main crop of potatoes until well into June in order to avoid having the plants developing tubers during the hot dry period, which usually prevails throughout the latter part of July and the greater part of August. When the planting is so timed in the North so as to have the major part of tuber development taking place during the latter part of September and early part of October, the chances for obtaining a profitable crop are very much enhanced. Western New York and southern Michigan are good examples of localities where it has been found desirable to delay the planting of the late crop.

In this connection it is interesting to note Smith's²¹ observations upon the relation of temperature to yield:

In the United States the potato has made its greatest development in the cooler sections of the country, where the mean annual temperature is between

²¹ SMITH, W. J. THE EFFECT OF THE WEATHER UPON THE YIELD OF POTATOES. U. S. Dept. Agr. Monthly Weather Review, May, 1915, pp. 222-228.

40 and 50° F. and where the mean temperature in July is not over 70° F. Further, the greatest yields of potatoes per acre are in those States where the mean annual temperature is below 45° F., and where the mean of the warmest month is not far from 85° F.

Moisture.—Careful, experimental studies have disclosed the fact that it requires 400 to 600 or more pounds of water to enable the potato plant to produce 1 pound of dry matter. This data serves to emphasize the importance of moisture to the potato crop during the period of its growth and particularly so during the development of the tubers at which time the plant is subjected to its severest test.

The importance of soil moisture to the plant may be emphasized from another angle, that of its relation to the nutrition of the plant. All plant food must go into solution before the delicate root hairs can transport it to the leaves of the plant there to be elaborated into a form that can be utilized in the upbuilding of plant tissue or in the storage of starch in the tubers. It is well, therefore, in considering the advisability of growing potatoes in any particular locality, to ascertain the normal rainfall during the growing season and its distribution during that period. In the best potato-growing regions the average total rainfall during the period between planting and harvesting late potatoes varies from 12 to nearly 18 inches.

The potato from the crop standpoint.—From the crop standpoint the potato may be considered under two main divisions: (1) The early or truck crop; (2) the late or main crop. The early or truck crop is confined almost wholly to the Southern States, whereas the bulk of the late or main crop of potatoes is produced in the northern tier of States. Roughly speaking the early crop constitutes less than 15 per cent of the total production in the United States.

Early crop-production centers. The fact that the bulk of the early crop is shipped to distant markets has led to the development of distinctive commercial production centers or areas such as the Hastings district in Florida, the Savannah district in Georgia, the Beaufort and Charleston districts in South Carolina, Beaufort County in North Carolina, the Norfolk and Eastern Shore districts in Virginia, the Eastern Shore of Maryland, the Louisville district in Kentucky, Columbia, Tenn., Fort Gibson, Okla., Fort Smith, Ark., the Eagle Lake, Wharton, and Brownsville districts in Texas, the Alexandria, St. Francesville, and Lafourche districts in Louisiana, and the Mobile and Baldwin County districts in Alabama. In addition to the foregoing the following early-production centers in the Northern States might be mentioned southern New Jersey with Salem and Bridgeton as centers, the southern part of Suffolk County, N. Y., the Kaw Valley in Kansas, the Orrick district in Missouri, the Kearney district in Nebraska, the Caldwell district in Idaho, and the Los Angeles district in California. Many other localities might be mentioned such as Vero, Wabasso, Moore Haven, Plant City, and Kissimmee in Florida, etc.

Late or main-crop production centers.—Considering the extent of the crop produced there are relatively fewer concentrated late potato-producing commercial areas than in the case of the early. This may be partly explained on the basis of a longer growing crop season, a larger percentage marketed locally, and, what is probably more to the point a less intensively specialized industry. There are, however, certain well-defined and fairly intensive areas of production

as for example Nassau and Suffolk Counties, N. Y., Aroostook County, Me., western New York, the northern half of the lower peninsula in Michigan, the north-central portion of Wisconsin, the Red River Valley of Minnesota and North Dakota, the Greeley, San Luis Valley, and Montrose districts in Colorado, the Idaho Falls, Burley, Blackfoot, and Twin Falls districts in Idaho, Multnomah, Marion, and Clackamas Counties in Oregon, the Yakima and Wenatchee districts in Washington, and the Stockton and Los Angeles districts in California. Although this list by no means includes all the commercial-production centers that might, or possibly should, be mentioned, it will serve to call attention to some of the outstanding and more widely known ones.

Interrelation of the early and late crop.—The early or truck crop is supplementary to the late crop in that it bridges over the gap that would otherwise occur during the summer season if only a late crop were grown. In addition to this it makes it possible to offset any serious shortage of the late or main crop by increasing the acreage of the early crop particularly in those sections in which the crop is normally marketed from the latter part of March to the latter part of June or early July. The relative ease of such crop expansion is well illustrated by the short crop of 1916, which was followed by a 90 per cent increase in production from the 16 Southern States over that of the preceding year.

Relation of intensive production to distribution.—The distribution of the potato crop from intensive production centers is largely governed by the season of the year in which the crop is marketed, and the competitive areas seeking the same markets. In the case of the late crop the quality of the stock and the excellence of its grading is an important factor in increasing the radius of its distribution. Volume of crop in a given locality insures better and more satisfactory transportation facilities and a keener competition on the part of independent buyers. It also makes cooperative marketing of the crop a much simpler proposition.

Practices Followed in Growing Potatoes

In the production of potatoes there are certain cultural practices which, if carefully followed, tend to insure good yields. These practices involve the selection of suitable soil, crop rotation, plowing and fitting the land, fertilization, variety to grow, good seed, size of seed piece or set, rate of seedage, depth of planting, pre-emergence tillage, cultivation of plants, spraying for insect and fungous pests, roguing, harvesting of crop, storing, and care of crop in storage.

Selection of soils and crop rotation.—The type of soil best adapted to potato culture has already been mentioned, but, as yet, nothing has been said as to its previous cropping. A definite system of crop rotation in which a leguminous crop precedes the potato crop is generally regarded as the safest plan to follow if best results are to be obtained. In northern latitudes, particularly in sections where clovers can be more successfully grown than alfalfa, a three-year rotation is perfectly feasible provided care is exercised in keeping the land free from soil-inhabiting potato diseases. Where alfalfa is grown instead of clover, a longer rotation is necessary. The shortest practicable rotation with alfalfa is four years. Many growers

practice a five to seven-year rotation. There are many localities, particularly in the South, where a crop of potatoes is grown upon the same land each year. In such cases other crops, such as corn, rye, cowpeas, velvet beans or soy beans follow the potato crop.

Plowing and fitting the land.—Depth of plowing should be based upon the character of the land. If the surface soil will permit of plowing to a depth of 9 to 10 inches or more without turning up too much subsoil it will insure better root penetration of the plants and at the same time will increase the moisture holding capacity of the soil. With a shallower top soil the depth of furrow should not exceed that of the surface soil by more than an inch as it is not



FIG. 122.—Dropping seed potatoes by hand in Virginia in furrows opened by plow

advisable to turn up more than half an inch to 1 inch of subsoil in any operation. Where the underlying subsoil is compact or verging on hardpan the use of a subsoil plow will very materially aid in providing a better seed bed.

Fertilization.—The economic use of plant food for the growing crop should be given careful consideration. It is manifestly uneconomic to use from 1 to 1½ tons of a high-grade commercial fertilizer when 1,000 to 1,500 pounds will produce practically the same result. A material reduction in the quantity of commercial fertilizer can be effected by plowing under leguminous or even non-leguminous cover crops. Where barnyard manure is available it is more economical to supplement it with commercial fertilizer than to place sole reliance on the manure alone as it is an unbalanced food, being high in nitrogen and very low in phosphoric acid and potash. When barnyard manure is so supplemented the commercial



FIG. 123.—Planting potatoes with a hand planter in Wisconsin. Land is check-rowed.



FIG. 124.—A two-man horse-drawn potato planter in action. This machine as now constructed opens the furrow, distributes the fertilizer, drops and covers the seed, and marks the next row.

fertilizer should be low in nitrogen and high in phosphorous and potash.

Good seed and its use.—Good seed may be defined as being true to varietal name, free from mixture, vigorous in growth, productive, and as free as possible from tuber-borne diseases. Use a good-sized seed piece, 1 to 1½ ounces in weight, and do not space too wide apart. Early varieties may be planted in rows from 30 to 32 inches apart with the sets spaced 8 to 10 inches in the row. Late varieties should be given more space, say 32 to 36 inches between rows, and 9 to 11 inches between sets in the row. Figures 122 to 125 illustrate primi-



FIG. 125.—A one-man horse-drawn planter in operation

tive methods of planting potatoes as compared with more modern methods.

Cultural requirements.—During the period elapsing between seed-age and the emergence of the plants the surface of the ground should be kept loose and free from weeds. This is best accomplished by means of a light harrow so constructed as to permit of slanting the teeth, by a weeder, or a plank drag. Cultivation of the plants should be deep at first and shallower at each subsequent cultivation. Tillage should cease when the plants begin to develop tubers. Insect pests should be controlled by insecticidal applications and diseases by fungicidal preparations of which the Bordeaux mixture is the best example. Figures 126 to 128 illustrate methods of culture employed in Aroostook County, Me. Figures 129 and 130 show the spray-mixing platform and the traction sprayer used in the preparation and application of spray material for the protection of the potatoes from insects and fungous pests.



FIG. 1-6 —A two horse cultivator is used to loosen the soil between rows of potatoes in advance of the horse hoe.



FIG. 1-27 —Horse hoeing the potato crop with a single-furrow winged horse hoe prior to emergence of the plants.



1: 128 —A later stage in horse hoeing the potato crop. Note the ridging of the plants.



1: 129 A convenient spray mixing equipment greatly reduces the labor cost of spraying. The water is pumped from the spring with a gasoline engine and wooden pump. Each step in mixing Bordeaux and filling the sprayer except that of transferring the stock solutions is a gravity process.

Harvesting and storing the crop—Harvesting the crop is generally considered the most laborious operation connected with potato production. The crop may be dug in either of three ways: (1) By

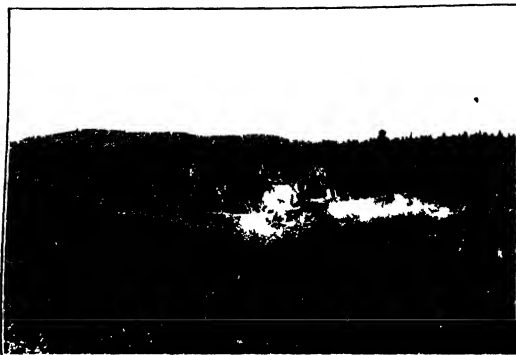


FIG. 130.—The pump must have sufficient power to convert the spray into a fine mist which forced through suitable nozzles to effectively protect the potato plant from insect injury and early and late blight infection.



FIG. 131.—The old and laborious method of harvesting potatoes.

hand (fig 131), (2) plowing the tubers out with an ordinary plow or nonelevator type of digger (fig 132), and (3) by a horse or tractor-drawn elevator type of digger (figs 133 and 134). The man

labor involved is successively less from hand digging to the elevator type of digger. In some sections the elevator type of digger is provided with an attachment that collects and drops the potatoes in

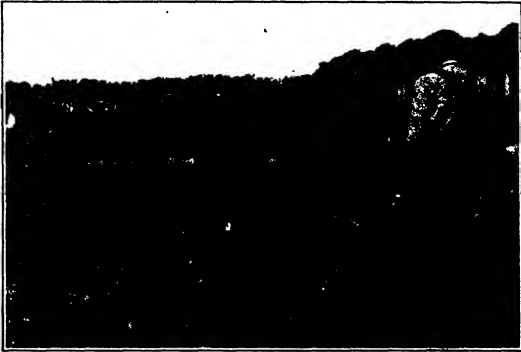


FIG. 132.—The harvesting of potatoes is facilitated by the use of a turn plow



FIG. 133.—A horse-drawn elevator type of potato digger

approximately bushel piles as dug. Different practices prevail in different localities with respect to receptacles used in gathering the crop and in transporting the potatoes to the storage house. For example a splint basket is used to gather the potatoes and a barrel

in which to haul them from the field in northern Maine. In western New York the slat bushel crate is used to both gather and transport the crop. A $\frac{5}{8}$ -bushel peach basket is used instead of the slat crate in southern New Jersey, whereas in the West the wire basket and the 2-bushel sack are most commonly employed.

Storage.—The object of storage is that of keeping the product stored in as good condition as possible. It also serves another very important purpose, namely that of distributing the crop throughout as long a period as is economically desirable.

Economic influence of farm machinery.—Comparative studies of the relative man-labor hours involved in the production of farm crops by hand and machine methods illustrate in a very striking manner the economic value of farm machinery. According to



FIG. 134.—A tractor-drawn elevator type of potato digger

Quaintance²² the man-labor hours required in 1866 to produce an acre of potatoes, yielding 220 bushels, averaged by the hand method 108.9 hours, while in 1895 the same crop was produced by machinery with an expenditure of 38 hours. On the dollar and cents basis the average cost of man labor by hand-method production was \$13.18 per acre, while by the machine method the cost was reduced to \$5.97, or a 54.68 per cent decrease in cost of man labor. As considerable improvements have been effected in farm machinery since 1895 it is possible to claim still greater economies than are indicated in the data submitted. It is evident that if the potato, as well as other farm crops, had to be produced under existing labor costs, without the use of farm machinery other than the crude implements of 1866, the price for these products would be materially increased to the consumer.

²² QUAINANCE, H. W. INFLUENCE OF FARM MACHINERY ON PRODUCTION AND LABOR. *AM. Econ. Assoc.*, 5, No. 4, pp. 1-103, 1904.

Sweet Potatoes

Sweet potatoes are believed to be of American origin and furnish another example of the many important New World contributions to the horticultural food crops. Records of the voyages of Columbus contain references to sweet potatoes and specimens were carried back as proof of the wonders of the New World. According to Sturtevant²³ the sweet potato is one of our most widely distributed food plants, being grown in tropical, subtropical, and temperate countries lying in a broad belt parallel to the Equator, and covering a very large part of the inhabited portions of the globe. They were cultivated in Virginia shortly after its first settlement, perhaps as early as 1610, certainly by 1650.²⁴ It was found to be especially adapted to the congenial and sandy loam soils of that region, and its culture spread to other locations to which it was adapted. During the early history of the country, it was highly esteemed and an important article of diet among the settlers.

The sweet potato being of tropical or subtropical origin thrives best in locations where the growing season is four to five months in length, with rather high average temperatures. However, it is adapted to growing in a large portion of the United States, but more especially to the southern portion where both the climatic and soil conditions are particularly adapted to it. A light, well-drained, sandy-loam soil with a clay subsoil is the ideal for growing sweet potatoes. As a farm crop it fits well into the cropping system of the Southern States, gives good yields on soils of medium depth and fertility, does not require especially close cultural attention, its running habit making it an effective aid in weed control, and, in addition, the potatoes can be stored by simple and effective methods, thereby making it available both as a local food product and for marketing during a large portion of the year. These and other points of advantage have made the sweet potato our second most important vegetable crop.

Large areas of soil suitable for sweet-potato growing are to be found throughout the southern portion of the country where climatic conditions are especially suitable for growing the crop. The maps, Figures 135 to 142, show the development and distribution of commercial sweet-potato growing in the United States beginning with 1850, each dot representing 20,000 bushels. Although commercial production can undoubtedly be pursued to better advantage in substantially the areas indicated on the maps, sweet potatoes are produced with very satisfactory results in many other localities, some of which are as far north as Canada. The sweet potato is deserving of a much wider use, especially as a home-garden crop.

Aside from climatic and soil requirements, transportation or means of getting the crop to market is of primary importance when considering the planting of sweet potatoes on a commercial scale. The crop is both bulky and heavy and can only be shipped within certain limited trade territory.

Another and equally important consideration which commends the sweet potato to the attention and consideration of southern

²³ STURTEVANT, E. LEWIS. STURTEVANT'S NOTES ON EDIBLE PLANTS. 27th Ann. Rpt. N. Y. State Dept. Agr. 1918/19. Vol. 2, Pt. 2, Rpt. N. Y. Agr. Exp. Sta., 1919, Pt. 2.

²⁴ WILLIAM, E. VIRGINIA 48, 1650. Force Coll. Tracts 3, No. 11, 1644.

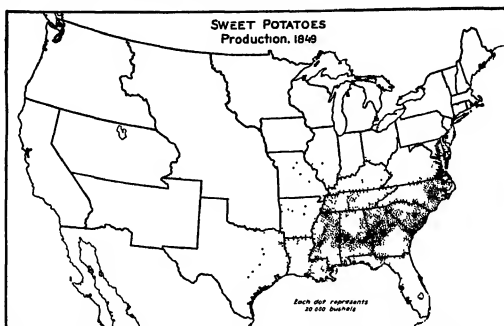


FIG. 135.—In 1849 production of sweet potatoes was largely in six Southern States east of the Mississippi River

farmers is its adaptability as a part of a balanced system of diversified farming. It is in large potential, if not actual, market demand, and one of the vegetable crops which can be grown extensively. A million acres are now devoted to the growing of sweet potatoes in the Southern States and other millions of acres of light textured soils are still available for the growing of the crop. Sweet potatoes may well be grown on a large number of farms where none are now produced, thereby adding to the farm income, also insuring against the hazards of single-crop farming.

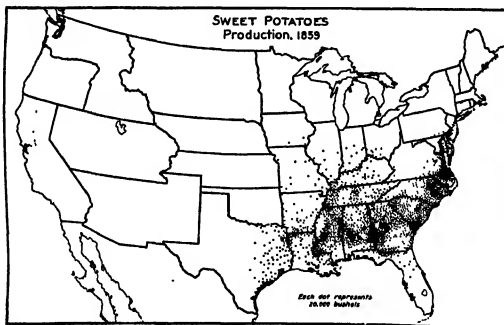


FIG. 136.—No change in the bulk of production is to be noted in 1859, although some extension of area is seen. New Jersey and Delaware show increases, and Iowa and California are added to the States growing sweet potatoes

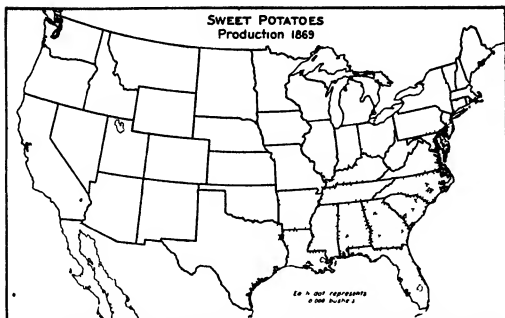


FIG. 137.—In 1869 production had fallen off somewhat in the six Southern States, had increased in New Jersey and Florida, and extended into Kansas.

Crop rotation in growing sweet potatoes is important from the standpoint of soil improvement, increased production, and the control of diseases. By following a rotation which includes crops having different feeding habits, and by plowing under green manures, the fertility of the soil is improved, and larger yields of all the crops included in the rotation are realized. In sections where the potatoes are dug for early markets the land should immediately be sowed to some such crop as crimson clover, and in regions where the potatoes are not harvested until late fall, rye, winter oats, or barley, or some similar crop should be sowed to occupy the land over winter.

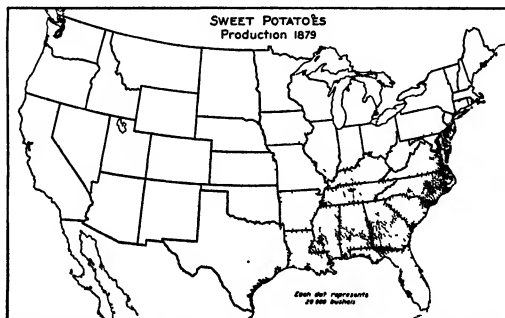


FIG. 138.—There was little change in production in 1879 over that of 10 years previous except for slight further extension in Virginia, Florida, and Kansas.

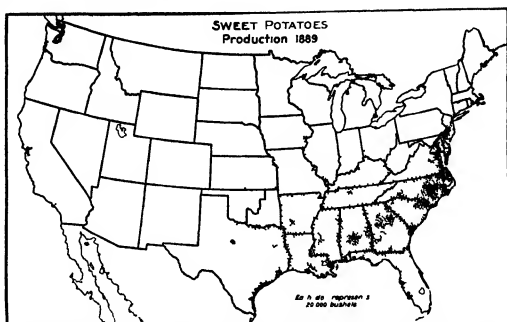


FIG. 139.—In 1889 an increased production is shown in Texas, Louisiana, Arkansas, and Kansas. Nebraska is added to the States growing sweet potatoes.

Only general suggestions can be made in regard to specific rotations as these must be selected with reference to local soil and climatic conditions. In all cases the rotation should include as many soil improving crops as possible, due regard being also paid to the growing of products for which there is a market or a home need.

The procuring of seed stocks of desirable varietal and other characteristics is one of the most important problems confronting the sweet-potato grower. Although the crop is among our oldest, the building up of desirable seed stocks of the best commercial sorts has been neglected. Even our best kinds do not possess all desirable characters, but much can be accomplished in building up

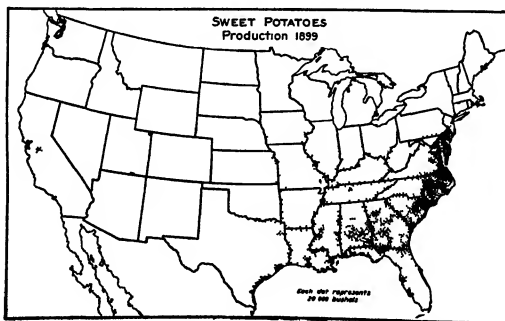


FIG. 140.—In 1899 there was a further increase in production in New Jersey, Virginia, and North Carolina. Oklahoma appears as a producer.

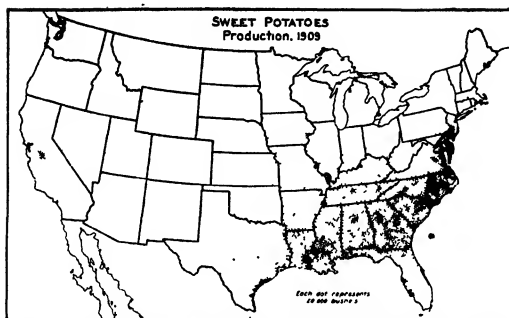


FIG. 141.—In 1909 there appears a marked concentration of production in certain States, notably New Jersey, the Eastern Shore of Maryland and Virginia, North Carolina, and southern Louisiana. Arizona is added to the list of producing States

satisfactory seed supplies by employing proved principles of selection. In some sections where the sweet-potato industry is well established and of commercial importance, the State of New Jersey (fig. 143) and the Eastern Shore of Virginia, being conspicuous examples, much has been done in the way of building up and making available in commercial quantities seed stocks of the well-known Jersey type of sweet potatoes. Seed certification is receiving attention and bids fair to accomplish as much for the sweet potato as it has for the potato. Individual growers have it in their power

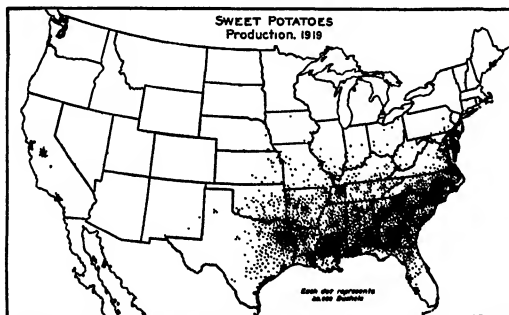


FIG. 142.—In 1919 the tendency toward concentration of production in certain areas is even more noticeable than 10 years previously. The producing area is extended in Ohio and Iowa, and New Mexico shows for the first time

to safeguard their seed supplies through intelligent field selection for freedom from stem rot, scurf, and for desirable market type, productiveness, general vigor, and healthfulness. Comparative tests using carefully selected seed stocks versus ordinary commercial stock have showed differences of as much as 25 per cent in yield in favor of the carefully selected stock. Good seed is fundamental to all crops and especially so in the case of the sweet potato.

The actual growing of sweet potatoes is an operation which closely follows the methods used with other field crops. Plowing and preparing the soil presents no special problems, except the exercise of care to avoid too deep plowing, as deep soils give long, stringy, misshapen potatoes (fig. 144). Plant production is different from the methods used in establishing other vegetable crops in the field, slips or draws taken from the seed stock bedded in plant beds (fig.



FIG. 143.—Field of sweet potatoes in New Jersey grown from selected stock

145) or hotbeds being employed in most sections for starting the crop in the field. In some cases vine cuttings are taken from plants already established and used for planting additional acreage. Seed-bed sanitation, and the treatment of seed stock to prevent transmission of certain seed-borne diseases to the field are important factors in the production of high-grade sweet-potato plants. Transplanting machines are well adapted for setting sweet-potato plants (fig. 146). Sweet-potato plants can be grown and set in the field on a large scale without difficulty, the establishment of the crop on a large acreage offering no special problems.

On account of its simple cultural requirements, the sweet potato is often neglected, and it is altogether probable that yields could be much increased through the giving of better care in the field. It gives fair yields on only moderately fertile soil, but nevertheless the use of manure, when available, and commercial fertilizers nearly

always gives profitable crop returns. It demands only moderate amounts of moisture, but when this is lacking, responds well to sparing irrigation. Its habit of growth is such that it smothers

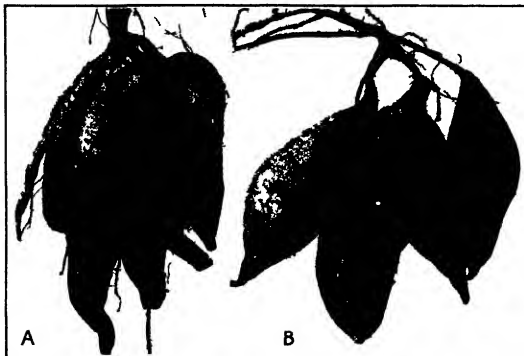


FIG. 144—A Effect of deep soil on shape of sweet potatoes. B Soil of moderate depth tends to produce short chunky sweet potatoes.



FIG. 145—A typical sweet potato plant bed such as is employed by the growers of the Virginia, Maryland and Delaware region.

many weeds. It does not require expensive field control methods for insects and diseases. Cultivation for the most part can be performed with horse-drawn tools, little hand work being needed.

Harvesting and handling of sweet potatoes are features of the work, which must be carried on with exacting care, as the roots must be carefully handled to avoid cutting or bruising. The product should be promptly transported to market or to a storage house, built according to proved principles. No vegetable lends itself more suitably to farm storage than does the sweet potato, and a simple, inexpensive type of storage house capable of keeping sweet potatoes for periods of four or five months with minimum losses from decay.



FIG 146.—Plant-setting machine employed for setting sweet potato and similar plants. The machine waters the plants as they are set.

may be built at small cost. Successful storage of sweet potatoes depends on (1) the use of well-matured stock of suitable varieties, (2) careful harvesting and handling to avoid cutting and bruising, (3) storage in a heated type of house where they can be cured for several days at temperatures ranging from 80 to 85° F. with free ventilation, and (4) after curing the temperature to be reduced to about 55° F., and maintained there for the storage period. During storage sufficient ventilation must be given to prevent accumulation of moisture inside the house. The type of house which has been found to be best adapted to the keeping of sweet potatoes is a one-story, wooden, double-walled, insulated structure as shown in Figure 147, provided with ventilators in floor and ceiling, and with heating equipment such as stoves or a hot-water plant. Fortunately mechanical ventilation equipment has been found unnecessary, thereby simplifying the construction of the house and lessening the amount of attention required. On account of the comparative ease with which sweet potatoes can be grown and kept, their adaptability to farming systems, their popularity as an article of diet, and other but perhaps equally important considerations, this vegetable is destined to become increasingly popular.

Root and Related Crops

Root vegetables, including beets, carrots, parsnips, salsify, radishes, turnips, etc., are practically all of Old World origin, but assumed considerable importance as food crops early in the American colonization period. In addition to the ease with which many of the root crops could be produced under early-settlement conditions in America, these products were readily stored for winter use and thereby added greatly to the variety of the food supply of the colonists.

Nutrition specialists have during recent years so emphasized the value of root crops in the diet as to greatly increase the popularity of this class of vegetables. The storage of root crops in cellars and outdoor pits in the North has extended the marketing season for the home-grown product through the winter and into early spring months while the production of carrots, beets, and radishes in the South has become an industry of such magnitude that the more important markets of the country now receive a supply of fresh root vegetables throughout the winter.



FIG. 147.—Sweet-potato storage house having top and bottom ventilation and provided with a stove for heating

Beets

The common garden beet is a native of southern Europe and ancient Roman writers bear testimony of the esteem with which it was held by the people of that time. It was introduced into England in 1656, but it is not definitely known just when it was brought to America. According to Sturtevant, only one kind, the red beet, was listed in M'Mahon's catalogue in 1806. In 1828 four kinds were offered for sale by Thorburn and the beet has been very common in American gardens since that time. Although beets are even to-day

one of the minor commercial vegetable crops, and not included among the 20 most important truck crops, its commercial production is very general and it is especially important for home gardens.

Among the earlier varieties of beets in America was the Bassano, a white-fleshed beet with red markings. This was followed by the Egyptian of Vilmorin and later by the improved or Crosby's Egyptian which was first listed in Gregory's catalogue for 1885. Much credit is due Weyman Brothers and other gardeners of the Arlington, Mass., district for not only bringing the Crosby's Egyptian beet to a high state of perfection, but for maintaining the strain reasonably true to type throughout the period since its introduction (fig. 148).



FIG. 148.—Characteristic block of early beets grown under irrigation on a Massachusetts truck farm

Included with the beet is the Swiss chard, which has recently become popular as a summer greens on account of its tender growth during even the warmest weather. The Swiss chard, unlike the beet, has no enlarged underground root and is grown for its tender leaf stems and leaves only. The tender tops of beets have long been used as early spring greens, but the chard fills a place in the list of summer garden vegetables, and in this respect excels the beet.

The sugar beet, grown extensively in certain parts of the United States for sugar production, is also used as a garden vegetable. Its culture is practically the same as the ordinary beet, but it retains its quality better during winter storage than does the ordinary beet and has found extensive use as a table beet during the winter months. The sugar beet, unlike the garden beet, is used exclusively for cooking, being first boiled, then cut in slices and fried, and then served as a vegetable with meat courses. Owing to the high sugar content of the sugar beet, its food value is relatively high, and in addition it contains considerable mineral salts so essential to a well-balanced winter diet.

Carrots

Eastern Europe and adjoining portions of Asia are accredited with being the original home of the carrot. This vegetable was known to the ancients, and Pliny mentions it in his writings, but it was not until about the sixth century that the carrot came into prominence in England. According to Sturtevant, carrots are mentioned as being grown in Virginia in 1609 and in Massachusetts in 1629. They were mentioned in Brazil in 1647, and carrots were among the Indian foods destroyed by General Sullivan near Geneva, N. Y., in 1779. Thus it will be seen that carrots were among the early introductions of vegetables to the United States during the colonization period and like the beet soon became a staple home and market-garden product. The carrot has been more in favor as a field crop than the ordinary beet, immense quantities being grown for stock feeding, and handled in the same manner as mangels or stock beets (fig. 149).



FIG. 149.—Carrots grown as a field crop following early potatoes and in a rotation including corn, potatoes, tomatoes, and other truck crops on a large truck farm in Rhode Island.

Through all history the carrot has been especially prized for its excellent table qualities, and recent publicity on the part of nutrition specialists has greatly added to its popularity. At present, our markets are well supplied with both fresh and stored carrots the greater part of the year. The carrot is found on the tables of all classes and is included among the 20 most important vegetable crops grown for the markets of the United States. The value of the 1924 carrot crop is given as \$3,603,000. This, however, does not include the many thousands of bushels grown in home gardens and for stock feeding on farms. The production of carrots for the market is confined mainly to two varieties—the Danvers half long and Chantenay—although special strains and varieties have been developed for use in certain sections.

Parsnips

According to the writings of Pliny, the parsnip was one of the most esteemed of vegetables during the time of Emperor Tiberius' reign, who had them brought annually from Germany where they were said to be grown in great perfection. The parsnip is a native of the Caucasus section of Europe; in South America about Buenos Aires, and also in the Saskatchewan Red River regions of North America. It has become naturalized in the northeastern part of America. According to Sturtevant the cultivated parsnip was brought to the eastern section of America by the earliest colonists. It is mentioned at Margarita Island by Hawkins in 1564 and as being cultivated in Virginia in 1609. The parsnip was widely grown in Massachusetts in 1630. Like the carrot it was among the Indian foods destroyed by General Sullivan in western New York in 1779.

Parsnips do not possess the wide range of cultural adaptability of the carrot and it does not thrive in the warmer parts of the country to the same degree as does the carrot. For this reason it has not been grown to any extent in the South as an early-shipping vegetable but its production has been confined mainly to the northern sections where it is grown as a summer and fall crop. It can, however, be grown throughout the South as both an early-spring and late-summer crop.

Parsnips can be stored in pits or cellars or, as is the usual practice, left where they are grown until wanted for use during the winter and early spring. The flavor of the parsnip is improved by being allowed to freeze, but it loses its flavor and food value very rapidly after growth starts in the spring, and any that remain in the ground should be dug before growth starts and stored in a cool pit or cellar until used.

The parsnip has great value as a food and forms one of the important crops grown in home and market gardens of the northern United States. Like the beet and the carrot, the parsnip is a biennial and produces its seed the second season. There is a popular belief that parsnips which remain in the ground through the winter or those that grow wild the second season are poisonous. The many cases of poisoning attributed to the parsnip are, however, directly traceable to the poison hemlock (*Cicuta maculata*), which grows wild and which is often mistaken and eaten for the parsnip.

Parsnips, like carrots and beets, will produce an enormous quantity of food on a relatively small area of rich land, and for this reason are especially adapted for growing on small areas. Both American and European seed-trade catalogues offer several varieties of parsnips, but the Hollow Crown is probably more universally grown than any other.

Salsify

Salsify, commonly known as oyster plant or vegetable oyster, is of Mediterranean origin, and was well known as a vegetable by the people of the fifteenth and sixteenth centuries. Although salsify belongs to an entirely different family of plants than does the carrot and parsnip its method of culture and habit of growth are practically the same. Salsify was evidently introduced into America during the early days of colonization as M'Mahon in his catalogue issued

in 1806, includes it in his list of American garden vegetables. In 1822, John Lowell says, "though it has been in our gardens for 10 years, it has not been extensively cultivated for the market." This point bears no special significance as none of the vegetables of this character were extensively cultivated for the market at that time and we may conclude that salsify was well known among the early settlers of the United States.

The roots of salsify have a characteristic flavor similar to that of the oyster and it is from this that it gets the name "oyster plant." Like the parsnip, it is rich in food value and produces heavily on rich, deep soil. The roots may either be dug in the fall and stored for winter use or allowed to remain in the ground the same as for the parsnip. Only one variety of salsify has gained general popularity in the United States, this being the Mammoth Sandwich Island. Another type of salsify grown to a limited extent and known as "black salsify," has roots that are long, black, and tapering, but have a bitter taste which must be extracted by soaking in water before they are prepared for the table. The first mention found of black salsify is in Spanish literature and it was introduced into England from Spain, and later to the United States. However, it was grown in American gardens in 1806. It was first known in Spain about the middle of the sixteenth century for its supposedly medicinal qualities as a remedy for snake bite. Black salsify is not extensively grown and is generally considered inferior to the regular white type.

Radishes

Radishes, though not included among the major commercial vegetable crops in the United States, are grown almost universally throughout the country, both in home and market gardens. China is accredited with being the native home of the radish, but it is found growing wild in the Mediterranean region and is mentioned frequently by ancient writers. Radishes were extensively cultivated in Egypt at the time of the Pharaohs. The Greeks appear to have been acquainted with three varieties of radishes, and Moschian, one of their physicians, wrote a book on the radish. Tragus, in 1552, mentions radishes that weighed 40 pounds, and Matthiolus, in 1554, declared having seen them weigh 100 pounds each. The radish is supposed to have reached England about 1548 and was eaten raw with bread, but for the most part in the form of a sauce as an appetizer for meats. M'Mahon mentions 10 sorts in his list of American garden vegetables in 1806.

The radishes of our American gardens present a wide variety of form and color, among which are those adapted to early-spring culture and to late-fall growing and winter storage. The so-called winter varieties which have been introduced into this country during comparatively recent years from Japan and China attain enormous size and can be kept until midwinter in a cool cellar. Early radishes are now extensively grown in the South for shipment to northern markets, and are also one of the important crops grown locally in sash-covered frames for the northern markets. The radish, while accredited with being relatively low in food value from a nutrition standpoint, is considered one of the best early-spring vegetables, especially as a carrier of mineral salts and for the supplying of

vitamin C. Fresh radishes are recognized for their value in warding off scurvy and other diseases which result from a restricted diet mainly of salt meats.

Turnips

Although turnips do not appear in the list of the 20 most important field and garden vegetables in the United States, their value both as a farm and garden crop, is extremely great. The turnip is supposed to be a native of Russia and Siberia and the Scandinavian Peninsula and is of ancient culture. Columella, A. D. 42, says that the two varieties of turnip are both grown for the use of man and beast, especially in France. Pliny refers to five kinds and in one place he mentions the broad bottom flat turnip, and the globular as the most esteemed. Matthioli, in 1558, speaks of having heard of long and purple sorts that weighed 30 pounds. In support of this report in California, about 1850, a turnip is recorded of about 100 pounds weight. The first turnips introduced into England were believed to have come from Holland in 1550. The turnip was brought to America at a very early period as in 1540 Cartier sowed turnip seed in Canada during his third voyage. They were cultivated in Virginia in 1609 and in Massachusetts in 1629. They were plentiful about Philadelphia in 1707. They are also mentioned in South Carolina in 1779. The common flat turnip was raised as a field crop in Massachusetts and New York as early as 1717.

Turnips can be grown under a wide variety of conditions and with a minimum of care and cultivation. An ounce of turnip seed sown broadcast in the home garden in midsummer, will produce all the turnips that the ordinary family can consume during the winter months. The old adage "sow turnips on the twenty-fifth of July, wet or dry" indicates the ease with which the crop can be grown. They are used as a food for man and for farm animals. Their storage is comparatively easy. Few diseases and a comparatively small number of insects molest them.

The yield of turnips under suitable conditions is generally large and though turnips ordinarily sell for a comparatively low price they form one of the important catch crops of our vegetable gardens and farms. In the South turnips are grown as an early-spring crop, also as a late-fall crop, the late crop being allowed to remain in the ground and furnish an abundant supply of excellent top greens during the winter and early-spring months. In southern Canada and in certain of the Northeastern States, great quantities of the late-keeping rutabaga type turnips are grown. The rutabaga yields heavily, can be stored economically, and is now shipped to practically all parts of the country, including the southern markets during the winter months.

Onions

The onion is one of the oldest and most interesting of the vegetable crops, and although its native country is unknown, it is believed to be of Eastern origin. Sturtevant in his *Notes on Edible Plants*, says: "Perhaps it is indigenous from Palestine to India whence it has extended to China, Cochin China, Japan, Europe, North and South Africa, and America." It is mentioned in the

Bible as one of the things for which the Israelites longed in the wilderness and complained about to Moses. Herodotus says in his time there was an inscription on the Great Pyramid, stating the sum expended for onions, radishes, and garlic, which had been consumed by the laborers during its erection as 1,600 talents. Wilkinson says that paintings frequently show a priest holding them in his hands at the altar. The onions of ancient Egypt were apparently mild and were consumed by all classes. That progress in the development of superior sorts was made early in the history of present-day civilization is shown by the fact that as early as the time of Agrippa, the Roman Colonies grew a Russian sort which sometimes attained a weight of 8 pounds.

In view of the popularity of the onion in early times, it is not surprising that early explorers, including Columbus, brought seed of various types of onions to the New World. According to De Candolle, Humboldt says that the primitive Americans were acquainted with the onion. Onions are mentioned by W. Wood in 1684, as cultivated in Massachusetts, and in 1779 were among the Indian crops destroyed by General Sullivan, near Geneva, N. Y. In 1806, M'Mahon mentioned 6 varieties of onions. In 1863, Burr mentioned and described 14 varieties. In 1883, Vilmorin described 60 varieties, thus showing the importance of the onion in early present-day horticulture.

Home and commercial gardeners and truck growers have always looked upon the onion as one of the most important of their crops. Although it has not been grown in a large acreage way, as compared with some other vegetable crops, nearly every home garden and most market gardens have space devoted to onion growing. In a commercial way, onion growing has developed with population increase and the building up of transportation systems without which the marketing of onions would not be possible.

The onion is exceedingly cosmopolitan in its climatic and soil requirements, and no vegetable is more widely grown, as it thrives over a very large part of our cultivated areas from South to North. The commercial onion-growing districts are located in several widely separated areas, many of these remote from centers of population where exceedingly diverse soil and other conditions prevail. Soils used vary from peat to loam and even clay although the latter type is not desirable. It can be grown and supplied fresh from some part of the United States during practically all seasons of the year. We have Bermuda type onions from the South during late winter and early spring. Pacific coast onions during spring and summer, and main-crop or storage onions from the northern regions during autumn. Our markets are never bare, indeed it is so easy to grow and market onions that there is always great danger of overproduction, as the per capita consumption of onions is low and will perhaps never approach that of some other vegetables.

Onion growing in the United States has developed along several distinct lines—the production of green or bunch onions; onion sets, these being onions grown from seed but of small size from crowding; bulb onions grown either from seed, seedlings, or sets.

The production of green or bunch onions for early markets is of considerable importance in certain localities, chiefly along the south

Atlantic coast. Multiplier and top onions and Bermudas are the kinds most widely used for this work. Ordinary onions grown from sets and sometimes from seed, are pulled while small and used as green bunching onions. A small area devoted to bunch onions often brings large returns, and this form of onion is very popular with market and home gardeners.

The production of onion sets is another form of onion growing that commands considerable attention. This industry is especially developed in the sections around Chicago, Ill., and Louisville, Ky. The production of sets is carried on by seeding thickly (fig. 150),

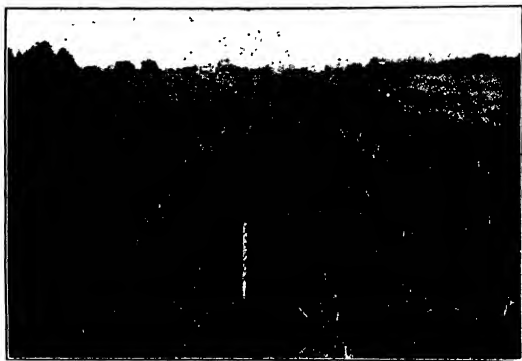


FIG. 150.—Field of onions grown for sets. In the growing of sets 15 to 25 pounds of seed is sown to the acre so that the plants crowd each other and produce a small but mature bulb

this causing reduced growth with premature ripening, after which they are harvested, cured, and stored for the next season's use. The increasing use of sets instead of seed for the starting of the field crop for the growing of bulbs has caused more attention to be devoted to the onion-set industry. Sets are popular with the home gardener, few gardens being established without planting a quart or two of onion sets. In sections where it is difficult to get satisfactory crops direct from the seed sets are often used. When early bulb onions are desired, they may be obtained earlier through the use of sets than from seed (fig. 151).

Bulb onions are by far the most important form of onion grown in this country. The crop is commonly divided into early and late, but there is much overlapping, and such a classification is one of convenience only. As divided, the early crop includes the so-called Bermuda type, and other similar, soft-textured onions not suitable for storage. The late crop includes the northern storage sorts, but considerable quantities of Valencias or Denias, Prizetakers, Bermudas, and others are included in this classification, based largely

upon the locality from which the onions come. The map shown in Figure 152 indicates the distribution of the onion industry in the United States. The early crop is produced in Texas, California, and Louisiana, whereas the intermediate and late crop comes from a large number of the northern and eastern States. The Denia or Valencia is a separate and distinct type of onion now attracting a great deal of attention in this country, especially in the semiarid portions of the southwest, where conditions seem especially suited to its growth.

Bermuda onions.—Several varieties of Bermuda onions are grown in this country, all being characterized by flat shape, mild flavor, and poor keeping qualities. The bulk of the commercial acreage of Bermuda onions grown in this country for early spring marketing is a winter crop, therefore, mild weather conditions are required.



FIG. 151.—Northern main-crop onions for storage are grown to a large extent on muck soils. Although hand culture is required for most of the production operations, yields are unusually large, and when satisfactory prices can be obtained returns justify the attention the crop requires. This illustration shows an eastern field on muck soil.

Although the plants will withstand considerable frost they are seriously checked, if not killed, by cold weather and will not mature at the usual time. They require a very rich soil which can be obtained only by the selection of one that is naturally rich with subsequent applications of manure and commercial fertilizer. The industry has developed in southern Texas, in Louisiana, and California, where the bulk of the commercial crop is produced. Bermuda onions are being grown in other sections, but have not attained marked commercial importance outside the districts mentioned. Like many other vegetables the acreage of Bermuda onions could be greatly extended provided markets could be obtained for the product.

According to data gathered and compiled by the Bureau of Agricultural Economics, the acreage devoted to Bermuda onions in

1921, was 18,510; in 1922, 15,970; in 1923, 15,220; in 1924, 13,540, and in 1925, 12,830. Highest production was obtained in 1921 with 2,872,000 bushels, and lowest production in 1922, with 2,167,000 bushels.

Cultural methods employed in the growing of Bermuda onions are essentially the same as those for ordinary onions. As the greater portion of the crop is produced in regions having uncertain rainfall, irrigation is almost universally followed (fig. 153). The trans-

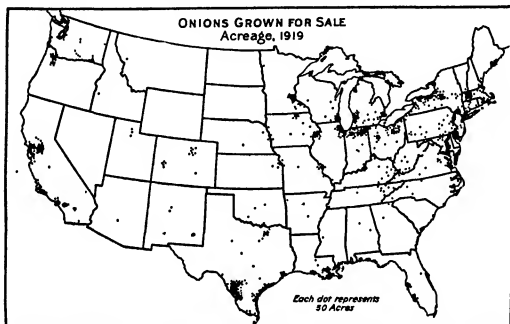


FIG. 152.—Distribution of the onion industry in the United States in 1910, including Bermudas, Valencias, and others

planting process is employed for the starting of the greater part of the crop, necessitating the use of a great amount of hand labor. Seeds are sown in specially prepared outdoor beds from the middle of September to the middle of October, and the seedlings transplanted to the field November 15 or later. At the present time seed supplied for the Bermuda crop comes from the Canary Islands and the procuring of adequate supplies of high-grade seed is one of the greatest problems confronting the growers of this type of onion. From $3\frac{1}{2}$ to $4\frac{1}{2}$ pounds of seed are required for starting plants for an acre of onions. This makes it possible to select only the best plants, rejecting any not coming up to the standard. Efforts have been made in the past to establish an American Bermuda onion-seed industry, but as yet this has not met with success, and it is probable that growers must for some time to come continue to depend on foreign-grown seed.

Fertilizer practices and cultural methods are essentially the same as those for other onions. Harvesting takes place as soon as the bulbs have reached marketable size and show evidences of maturity. In many cases they are pulled before the tops die down, but too early harvesting is liable to cause spoilage in transit to market. The grower usually wishes to get his onions to the market as early as possible, in order to take advantage of opening prices and is often tempted to harvest too soon.

The Bermuda onion is very perishable. It can not be stored for any considerable period, and is adapted only for marketing as soon as it has been harvested and field cured. Markets will consume only limited quantities, and as the entire crop must be handled during a few weeks, it is obvious that there can not be any considerable increase in the Bermuda-onion acreage.

Valencia onions.—Valencia, Spanish, and Denia are names applied to a group of nearly spherical, light-yellow or straw-colored, mild-flavored onions appearing in large quantities on our markets during fall and winter. In the past practically all the supply of this onion has been imported from the Provinces of Valencia and Denia, Spain, where the production of this type of onion is an important industry. In that country two distinct types of onions are grown. The first, and early-maturing sort is called the "babosa," which is a large, flat, white onion, soft, and a poor keeper, and can be shipped comparatively short distances only. This onion does not appear on our markets, going almost entirely to England and other near-by places. This onion matures in May, when shipment begins. The other, the true, Valencia type, appearing on our markets, is known as the "grano." It is harvested in July and if not shipped



FIG. 153.—The Bermuda onion crop is practically all grown under irrigation. Through the use of a canvas dam these men are flooding one strip after another of the field.

at once is stored in long, low sheds of bamboo, with thatched roofs and elevated floors, the structures being somewhat similar to a corn-crib, where they may be kept for months.

Although the possibilities of Valencia onion growing in this country have been appreciated for many years, it is only within the last few seasons that it has attracted commercial attention. The semiarid portions of the Southwest proved to be best suited to this type of onion. It is there that the commercial development of the

Valencia onion is taking place. According to available information, one of the earliest, if not the first, attempts to grow them in the United States came about through the purchase in San Francisco in 1886, by C. C. Morse, of 50 crates of imported onions, which had attracted attention on account of their fine appearance. Seed grown from these at Santa Clara was purchased by William Henry Maule, who introduced it in 1888 as Prizetaker. Later, about 1910, trials in New Mexico and elsewhere of seed imported and distributed by the Department of Agriculture, showed that Valencia onions of the highest type could be grown in this country.

The cultural requirements of this type of onion are similar to those of other onions. The time and method of establishing the crop depends upon climatic and other conditions. In the South

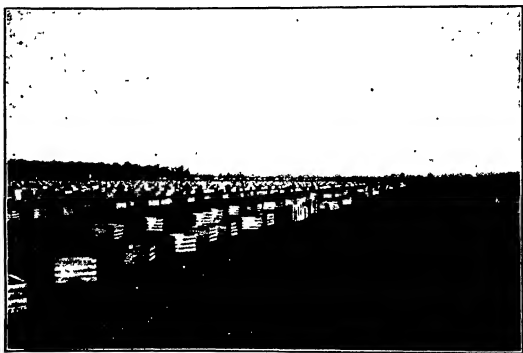


FIG. 154.—A field of northern storage onions harvested and ready for topping and crating. Such fields as this often yield as much as 500 bushels per acre

where the growing season is long, the field crop is established either through the use of seed sowed in the field, or through the use of hotbed or greenhouse-grown seedlings. Many of the best growers believe that the use of hotbed-grown seedlings give the best results. Further north seedlings are used almost exclusively. For the southern California, New Mexico, and Arizona crops, the seed is sowed in the hotbed about October, and the plants set in the field about January. Harvesting usually takes place from midsummer to autumn, depending upon the time of planting. Valencia onions are good keepers.

The procuring of an adequate supply of seed of a good character is perhaps the most important factor in the development of the Valencia onion-production industry in this country. Experience gained in the past seems to indicate that it is difficult to maintain the true Spanish type of onion for any considerable period of time in this country. All of the seed of this type which has been produced in this country tends to give an onion of the Prizetaker type rather

than the golden-colored, mild-flavored Valencia. There would seem to be no good reason why an adequate supply of seed of a character which would give a high-grade crop could not be grown in the United States. At the present time dependence must be placed on foreign supplies often of unknown quality, or upon native seed too often produced without regard for the principles of high-grade seed growing.

Main-crop onions.—Late or winter-storage onions come from many parts of the country, being of commercial importance in no less than 19 States, including Iowa, Kentucky, New Jersey, Virginia, and Washington, which are usually classed as intermediate States. California, Colorado, Idaho, Illinois, Indiana, Massachusetts, Michigan, Minnesota, New York, Ohio, Oregon, Pennsylvania, Utah, and Wisconsin are the important producing States. Exclusive of the intermediate States the acreage for the seasons 1921 to 1924, inclusive, averaged 38,450 acres.

Onions are one of the important peat soil crops and much of the storage supply comes from peat-soil regions (fig. 154). Cultural practices followed in the growing of onions are of a special character and require an abundance of hand labor, in fact, no vegetable crop has higher labor requirements than does the onion. The northern storage crop is established in the field by the use of seed or in some cases by sets. Planting in narrow rows for hand or light tractor cultivation is universal. Hand wheel hoes and hand weeding have been the accepted methods for keeping the crop clean, but labor scarcity is gradually bringing about the development of special labor-saving tools for the handling of the crop. Light tractors drawing gang seeders are being successfully employed for planting the crop. Special gang cultivators handled in the same way make it possible to work the crop with minimum labor.

Within recent years much progress has been made in the development of labor-saving devices for the harvesting and handling of the commercial onion crop. Pulling by hand and laying two or more rows together with the tops protecting the bulbs from the sun is still practiced. Topping by hand with shears is largely practiced, especially in the case of small areas, but power-driven toppers are employed by most large commercial growers. Figure 155 shows such machine in operation. In some cases the onions are allowed to remain in the windrows until sufficiently cured to make immediate topping possible. In other cases the onions are taken up, placed in slat crates, and these stacked in the field until they have dried sufficiently for topping. Whatever method is followed, care must always be taken to prevent sunburning or sprouting. These troubles are especially liable to occur while the onions are in the windrows, but may also occur in crates in the field. To make successful storage possible necessitates the use of well-matured onions carefully harvested to avoid bruising, and well cured in the fields.

The storage of types of onions adapted for keeping is not a difficult matter, requiring the use of simple and inexpensive equipment. Onions produced in southern locations where the crop is matured during the early part of the season can not be stored in natural storage during the hot summer months, but no difficulty is experienced in keeping the northern-grown late crop which matures dur-

ing late summer. Onion storage houses employed for the northern crop consist of double-walled, insulated structures, usually of frame, but sometimes of masonry, with ample provision for ventilation and sufficient heating equipment to keep the temperature above freezing (fig. 156). Farm storage of onions is a practice which could be followed to good advantage by many growers who now make a habit of selling their crop as soon as harvested, when prices are frequently low.

Other onion crops.—Although other members of the onion family do not compare in importance with bulb onions, garlic, leeks, shallots, and chives are of considerable importance, being much used for flavoring soups, stews, and other foods. Garlic is a crop of importance in a few of Southern States, chiefly Louisiana, Texas, Arkansas, and also California, and is shipped from the producing regions in quantities. The cultural requirements of these related



FIG. 155.—Onion-topping machine in operation. Where a topping machine is not used the tops are removed from the onions by means of sheep shears or knives.

crops are very similar, being characterized by need for highly fertilized, well-drained soil, careful attention to all details, and much hand labor. They are crops which can not be expected to occupy large acreages as market demands are limited.

Greens and Salad Crops

Green foods form a considerable portion of any well-balanced human diet, and throughout the world's history of vegetable growing, frequent reference is found to the production and value of those crops, the leafy portion of which was eaten. This group includes cabbage, kale, spinach, lettuce, and many others. During the early days of our history a record of six crops known as the "cole" crops, including cabbage, kale, and the turnip, were most frequently referred

to. The term "cole," as applied to cabbage and other crops of this group, comes originally from the Latin *caulis*, which means stem or cabbage, this being transposed to *caul* and later to *kohl* in modern German, also to *kaal* in Danish, to *kaol* and *kol* in the Breton language, and to *cal* in Irish.

The generic name of *Brassica* as applied by botanists to the group had its origin in the names *bresic*, *bresych*, and *brassic* of the Keltic and Latin classes from whence probably emanated the names *berza* of the Spaniards and *verza* of the Portuguese; *varza* of the Roumanians; while *krambai* and *crambe* are the names applied by the Greeks and Latins. The original term of the Indo-Germanic tongue was *karambha*, meaning vegetable, and *kohl*, meaning stalk like *caulis*, which would account for the origin of the term stalk vegetable.

The species of this group are all of Old World origin and mainly of the European and Mediterranean region. A number of them like



FIG. 150.—After field curing the onions are placed in storage until needed for market. Ventilated storage houses of a type of construction which will protect the onions from freezing are employed

cabbage are found growing naturally in the districts near the seashore and are mainly plants that thrive in mild or uniform temperature climates, especially those locations that are free from extremes of temperature. On the whole the entire list of salad crops do best under fairly cool and moist conditions. They have a wide range of distribution, however, and in the United States can be grown in the extreme southern portion during the fall, winter, and early spring months and in the central portions during the early spring and the fall and in the extreme northern portions during late spring, midsummer, and early fall.

The fresh product of practically the entire group is available on our markets throughout the year, being grown either in the open under seasonal conditions, or as is the case with lettuce in hothouses, during certain periods of the year. Increased demand for fresh

salad crops in the United States during the last decade has been extremely great, owing to a certain degree to the importance that has been attached to these crops in the diet by nutrition specialists.

Cabbage

Cabbage is the most important of the so-called greens or leaf crops and one of the 20 leading vegetable crops grown for the market in the United States. Cabbage is now grown over the most of the world, the original plant occurs wild in the sea province of England, on the coast of Denmark, in northwestern France, and elsewhere. Cabbage was introduced into America at an early period and according to Sturtevant,²⁸ Cartier at the time of his voyage in 1540 sowed cabbages. In 1779 cabbages are mentioned among the Indian crops about Geneva, N. Y., and in 1806, M'Mahon mentions for American gardens 7 early and 6 late sorts. In 1828, Thorburn cata-



FIG. 137.—Typical field of early cabbage

logued 18 varieties. In 1869 Gregory tested 60 named varieties in the experimental garden and in 1875, Landreth tested 51 varieties.

Development of varieties of cabbage has been conducted largely in Holland and Denmark and our American gardeners have in the past been largely dependent upon European seed growers, both for the origin of new varieties and for the general seed supply. Recently American plant breeders and seed growers have developed new strains and are now supplying large quantities of superior strain and quality of cabbage seed. Recent improvements have, however, been mainly along the line of earliness, compactness of head, and uniformity in cutting period. Improvement has been especially marked in the matter of shortening the cutting period of early cabbage, making it possible to remove the entire crop at two, or at most, three cuttings, covering a period of a few days only.

²⁸ See footnote 23, p. 9.

Formerly, American markets were dependent for the most part upon stored northern cabbage for the entire winter supply. Although great quantities of northern-grown fall-maturing cabbage are still carried in storage warehouses and marketed during the winter months, this supply has been supplemented by the production of great quantities of southern-grown early cabbage which is marketed mainly after the first of February, and continuing from various localities until the early cabbage of the northern States is ready for marketing.

About 30 years ago there developed in the seacoast region south of Charleston, S. C., an important early-cabbage industry, the seed being sown about October 10, the plants set in the open ground the latter part of November or early December, and the crop marketed during April and the first 10 days of May. This is now preceded



FIG. 158.—A 40-acre field of cabbage plants near Charleston, S. C.

by the production in Florida, Louisiana, and southern Texas and is followed by the later crops from the Norfolk, Va., region, the Eastern Shore of Virginia, and southern New Jersey (fig. 157). Similar production has developed on the Pacific coast, which provides a continuous supply of fresh cabbage throughout the greater part of the year.

To give some idea of the enormous proportions of the early southern cabbage industry, one concern at Charleston, S. C., placed an order for 1 ton of cabbage seed of a particular variety, and a solid field of 40 acres of cabbage plants (fig. 158) is not an uncommon sight in the region south of Charleston. Southern-grown or so-called "frost-proof" cabbage plants are now shipped in carload lots from several of the south Atlantic and Gulf coast regions. These plants find a market throughout the Northern, Central, and Eastern States, and the resultant crops come upon the markets at various periods of the early summer. Occasionally portions of the

southern early crop are lost through freezing in December or January, but, as a rule, very little damage results from cold, and with a normal rainfall a heavy crop is produced. Cabbage is one of those crops which requires an abundance of nitrogenous plant food in the soil, and therefore lends itself readily to a forced growth obtained by heavy initial applications of fertilizer supplemented by side dressings of nitrate of soda and complete fertilizers during the growing period.

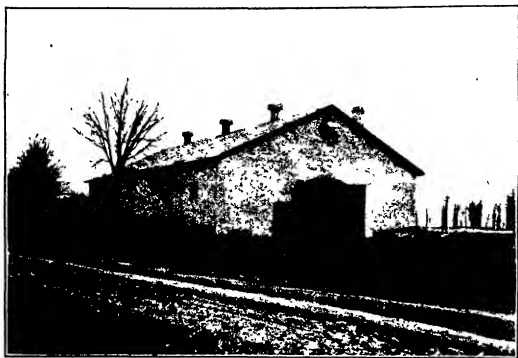


FIG. 159.—Exterior of a cabbage-storage house in Michigan

In the northern cabbage sections, including Wisconsin, Michigan, New York, and other States of the northern group, cabbage is grown as a late or field crop, both for immediate marketing and for storage. The greater portion of the early crop of the South consists of the small pointed heads of the Wakefield type; however, larger quantities of Copenhagen Market and other early varieties are now being grown. In the North the plantings are mainly of either the Danish Ballhead or late Flat Dutch types, although the Danish type of cabbage is now being grown very extensively for storage purposes.

Cabbage production, both in the early-crop sections and in the North, is extremely subject to fluctuation in price and to market conditions. Cabbage being a part of the standard living of a large percentage of the people of industrial centers, is consumed in large quantities. However, this consumption is to a considerable degree influenced by labor conditions and the resultant purchasing power of the labor classes. Overproduction of cabbage recurs at frequent intervals, depending upon acreage and yields. Thus far no possible means have been found for predetermining the market requirements for cabbage and the growers who plant a uniform acreage from year to year and grow cabbage in rotation with other crops are as a rule making a fair profit when the results of three to five years are averaged. Cabbage growing, especially the late crop in the North fits

into several farm rotations, especially where dairying or some other line of livestock farming is practiced. The sale of cabbage, however, on a large scale is handled on a tonnage basis. Cabbage growing on a small scale as, for example, in the general market garden, can be handled on the retail or small-quantity basis, using the pound as the unit of measurement. Cabbage is one of the most universally grown of the home-garden crops. By successive early, medium, and late plantings, a supply of fresh cabbage may be had for the table practically throughout the year, especially where suitable storage facilities are available for taking care of the late crop (figs. 159 and 160).

Nutrition investigations have shown that there is perhaps no other leaf vegetable that contains so high a percentage of mineral salts and vitamin content as cabbage, and when properly prepared it is one of the most wholesome foods.



FIG. 160.—The interior of a cabbage-storage house in Michigan, showing method of storing heads on shelves, with surplus piled in center of driveway to be used for early marketing

Kale

The various forms of kale are extremely variable and have been under cultivation from the most remote periods. The chief characteristics of the kales are that the plants have an open habit of growth and do not head like cabbage nor do they produce an edible flower like the cauliflower and broccoli (fig. 161). Some are grown as ornamental plants owing to their curling habit and the beautiful colors of their leaves. In the United States the kales are grown most extensively in the South and along the seacoasts where the late winter and early-spring climate is mild. In the Norfolk, Va., section a large acreage of kale is grown each year, the seed being sown in the fall on ridges, the plants thinned, and the crop marketed at almost any time during the winter. One advantage of the ordinary type of kale is that it does not have to be cut and used at any

specific time as does early cabbage, but may remain where grown and be cut and marketed whenever conditions warrant. Overgrown kale requires more trimming of the outer leaves than a younger product, and if allowed to remain too long before cutting it becomes somewhat tough and of inferior quality.

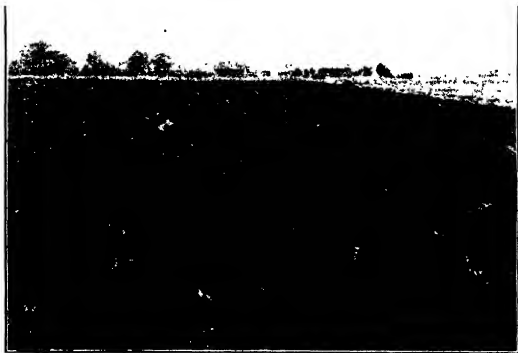


FIG. 161.—Field of kale showing habit of growth

Brussels Sprouts

Brussels sprouts are a form of cabbage, which instead of making a large single head, produces a number of buttons or small heads about an inch in diameter along its stem where the leaves are attached. By pulling away the lower leaves these heads are given room to develop and are highly esteemed for their delicate flavor and superior quality. Brussels sprouts were not being grown extensively for the market until recently when a large industry developed in the Delta region of Louisiana. At present brussels sprouts are packed and shipped in quart boxes like strawberries and are being offered for sale on our leading markets during the winter and early spring months.

Cauliflower and Broccoli

The differences between the highly improved varieties of broccoli and the cauliflower are slight. However, in the unimproved forms the differences are considerable. The main difference, however, lies in the fact that broccoli requires an entire year for its growth, whereas the cauliflower may be brought to maturity in from three to five months. The first notice of broccoli, according to Sturtevant, is quoted from Miller's Dictionary, edition of 1724, in which he says: "It was a stranger in England until within these five years and was called 'sprout colli-flower' or Italian asparagus."

In 1806 M'Mahon mentions the Roman or purple, the neapolitan or white, the green, and the black. In 1821 Thorburn names three varieties and in 1828 in his seed list he mentions four. Cauliflower is placed under the same botanical name as broccoli, to which as already noted, it is similar except in its period of growth.

Early writers on the growing of cauliflower all stress the importance of properly protecting the plants, as they are more tender than those of cabbage or even of broccoli. In France and in the early days of gardening in the United States belljars or glasses or some similar protection were recommended for the rearing of early cauliflower plants.

Cauliflower production in the United States, especially in the eastern sections and in California, has reached a point where it is considered as one of the important vegetable industries. Many persons prefer cauliflower to other forms of the cabbage group, and though it does not contain the mineral salts in the same proportion as does cabbage, it is considered to be a more refined dish and large quantities of it are consumed. The main difference between cauliflower and broccoli as compared with cabbage and kale is that in the case of the cauliflower and broccoli it is the fresh inflorescence or flower that is eaten, whereas in the case of the cabbage and kale the leaf growth is the part used.

There are a number of crops belonging to the cabbage group which from a commercial standpoint are of a secondary nature, but are grown and used in considerable quantities. Among these should be mentioned the form of loose heading cabbage known as collards grown so extensively during the fall and winter months throughout the Southern States. In fact, no southern garden is considered complete without its bed of collards. The special feature about collards is that during the winter, after the plants have been subjected to considerable cool weather, they form a loose head or cluster of blanched, tender leaves which are cooked and eaten the same as cabbage and are of excellent flavor. Another method of using collards is to sow the seed rather thickly in rows about 1 foot apart, then cut the young plants for use as greens when they are about 6 or 8 inches in height. Various forms of rape are also used in the same manner.

Another crop which is extensively grown for home use in the Southern States is that known as kohlrabi. This is a dwarf-growing plant, the stem of which expands at the surface of the soil resembling a turnip. It is not known where this type of cabbage developed, but it is largely used in the same manner as turnips and is especially adapted to growing in the home garden, although it is frequently found on our markets.

Mustard

Two or three forms of mustard are used as greens in the United States including the wild or field mustard. However, the white mustard which appears to have been originally brought from central Asia is most commonly cultivated. The improved white mustard is mentioned in connection with American gardening in history as early as 1806. The young leaves cut close to the ground before the second series of rough leaves appear are sometimes used as a salad

or as an ingredient of salads to lend a pungent flavor. The older tender leaves of mustard, however, are the part most extensively used, these being boiled and served as greens.

Water Cress

Water cress and a number of land cresses belong to the same family of plants as do cabbage, kale, and broccoli, but are more like the mustard in quality and use. The list of cresses include the so-called bitter cress, pepper root of which the crisp root stalks are eaten and taste like water cress, scurvy grass which Captain Cook mentions having found about the Strait of Magellan, lamb's cress which thrives in temperate and subtropical regions and many others. Cuckoo flower, lady's smock, mayflower, or meadow cress has a piquant savor and is used as water cress. Most of the cresses named are found growing wild and are gathered during the early spring and used as greens.

The commercial growing of water cress is becoming quite an important industry in sections of the country where limestone springs abound. As for example, in the Ozark region of Arkansas and southwestern Missouri, streams of water which are fed from springs flowing out of the limestone are literally choked with the growing water cress. Water cress is highly esteemed as an ingredient of salads to which like the mustard it gives a slight pungent flavor. In sections where the cress grows naturally the beds of the streams are frequently broadened into shallow ponds from which the cress is cut at regular intervals, packed in barrels or baskets with a block of ice, and sent to the market. One of the special requirements of water cress is that it have an abundance of lime and in a few cases greenhouse men have made a fair success of growing cress on beds of soil which have been heavily limed and prepared with facilities for frequent watering. The bulk of the cress reaching our markets, however, is grown in the regions having natural springs flowing out of the limestone rock.

Lettuce

Lettuce is mentioned among the earliest cultivated vegetables of Old World origin. Doctor Sturtevant in his *Notes on Edible Plants* found references to its use by the Persian kings about 550 B. C., and its medicinal properties were noted by Hippocrates about 430 B. C.; praised by Aristotle in 356 B. C., and was mentioned again by Gale in 164 A. D., who gave the idea of its being in very general use at that time. Among the Romans, lettuce was very popular and Columella in 42 A. D. described 4 distinct sorts. In 79 A. D., Pliny enumerates 8 or 9 sorts and Palladius, in 210 A. D., implies varieties and mentions the process of blanching. In China its culture can be traced to the fifth century, and about the year 1340, Chaucer in England used the word "lettuce" in his prologue where he says: "Well loved he garlic, onions and lettuce."

Historical writings contain numerous references to the cultivation of lettuce during the early settlement period of the United States, and in 1806 M'Mahon mentions 16 sorts for American gardens. In 1828, Thorburn's seed catalogue offered 13 kinds. In the report of

the New York Agricultural Station for 1885, 87 varieties were described with 585 names of synonyms, and the number of both varieties and synonyms is much greater at present. The abundance of literary and historical references to the cultivation of lettuce proves conclusively that it was not only of ancient culture, but that it was considered of importance and plentifully grown by all peoples throughout the period covered by modern history. It is not definitely known when the heading sorts first came into popularity, but according to Doctor Sturtevant, figures given in the sixteenth century indicate that the heading type of lettuce was even then well known.

From the earliest colonization period, lettuce has been grown in home gardens in America, but only within the last 25 or 30 years has it become a major commercial vegetable crop. According to fig-



FIG. 162.—Packing head lettuce on a truck farm in northern New Jersey

ures compiled by the Bureau of Agricultural Economics, the commercial lettuce acreage in the United States was 31,460 in 1921, and increased to 63,060 acres in 1924, and to approximately 86,400 acres in 1925. The production increased from 9,000,000 crates in 1921 to 13,653,000 in 1924. The total farm value of the commercial crop for 1924 is given at \$18,671,000, and estimates for 1925 place the value at \$24,767,000. This estimate does not include the small lots which were marketed locally or consumed on farms and which add materially to the total value of the crop.

Lettuce is one of the most intensive of the 20 major commercial vegetable crops in the United States (figs. 162 and 163). Its cultivation requires considerable hand labor and though the yields and returns are often relatively high, lettuce growing is subject to many limitations, making the industry one of the most uncertain in vegetable production. Perhaps no other crop requires such definite cli-

matic and soil conditions as lettuce, and for this reason, the large commercial production has developed in certain localities such as the Imperial Valley in California, the high altitudes of Colorado, and the lake region and coastal country of the Eastern States where suitable soil and climatic conditions are found for the production of the crop at various seasons of the year. Lettuce is one of the few vegetables which lends itself to production during the spring and the fall in the intermediate section, in the northern and high altitude sections during the summer, and in the southern and low altitude regions during the winter. Lettuce is essentially a short-season crop, but its requirements during that period are extremely exacting, consisting mainly of suitable temperature and moisture conditions.

Any rich, well-drained soil which is reasonably free from acidity

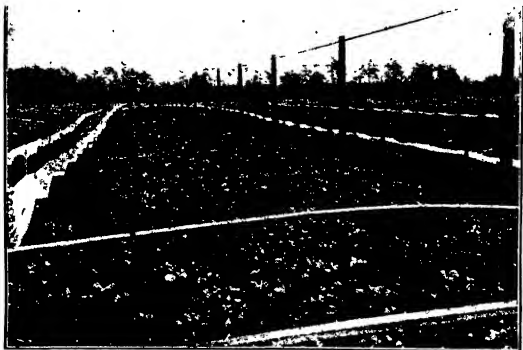


FIG. 163.—Lettuce growing in cloth-covered frames in North Carolina. Large areas are frequently covered with cloth in this manner for the growing of winter lettuce

will grow good lettuce, provided moisture and temperature conditions are suitable. Commercial lettuce production is located, however, mainly upon the sandy loam soils of the West, the South, and the east coast, also on the alkaline muck areas of the Great Lakes' region. During recent years, the outdoor production of lettuce for the markets has been supplemented by the growing of thousands of tons of greenhouse lettuce. Recently, the tendency on the part of the consumer has been to use the hard-headed western types of lettuce and the growers of the loose-leaf sorts of the Grand Rapids type and the less solidly headed eastern sorts generally have found some difficulty in marketing their product in competition with that of the western growers. Florida has been an important factor in the production of winter head lettuce, growing mainly the Big Boston type which finds ready sale on the markets of the East.

Lettuce is extremely rich in certain of the essential vitamins and mineral salts, and, therefore, has come to be considered an essential

part of the diet throughout the year. Formerly, lettuce was prized in the spring, but its period of use has been extended to every month in the year, making it one of the most important of our commercial vegetable crops.

Spinach

Spinach, popularly known as "the broom of the stomach," is one of the oldest known cultivated vegetables. Doctor Sturtevant found it mentioned in a Chinese work of the seventh or eighth century. It was known as "a prince of vegetables" in Spain in the twelfth century. It occurs in 1351 in a list of vegetables used by monks on fast days. In England the name "spynoches" occurs in a cook book of 1390 compiled for the use of the Court of King Richard the Second. There is no early record of its introduction into America. M'Mahon, in his book published in 1806, mentions the prickly seeded spinach as being the hardiest kind to be sown early, followed by the smooth seeded, round-leaf kind for later sowing.

Spinach is included in the list of the 20 major vegetable crops of the United States. According to figures compiled by the Division of Crop Estimates, Bureau of Agricultural Economics, the commercial acreage of spinach in the country during 1924 was 24,590, the total production being 10,298,000 bushels, valued at \$6,437,000. The acreage is estimated at 30,250 for 1925, with a yield of 11,248,000 bushels, valued at \$6,802,000. The above figures do not include 9,750 acres in 1924 for canning, grown mainly in California and Maryland, with an estimated yield of 46,100 tons, and 11,190 acres grown in 1925 with a yield of about 33,100 tons. The total 1925 crop for all purposes is estimated at 41,440 acres with a farm value of \$7,483,000.

Spinach is adapted to almost universal cultivation throughout the greater part of the United States and is one of the crops which especially lends itself to winter culture in the South, reaching its greatest importance as a truck crop in parts of southern Texas, and along the south Atlantic seaboard, particularly in the vicinity of Norfolk, Va. Marked progress has been made during the last few years in the development of strains of Savoy spinach which are especially resistant to diseases. One of these is the result of work done by the Virginia Truck Experiment Station at Norfolk to meet a demand on the part of the Virginia growers who were suffering serious losses on their fall-sown spinach from a disease known as "yellows." The development of this strain of spinach has been so successful that it is now being used for fall planting wherever any difficulty is experienced with this disease. Spinach has become very popular as a food during recent years, owing largely to investigations made by nutrition specialists, the results of which have brought out the value of spinach in the diet.

In southern Texas the crop is packed primarily in bushel baskets and shipped to the northern markets by rail. The crop grown around Norfolk, is moved for the most part in ventilated barrels with canvas or burlap covers. Spinach harvesting in this section is carried on at any time during the winter when weather permits and the market and the price justifies, and is completed in the spring before extremely hot weather. Following the Norfolk district the supply of spinach is obtained from points on the eastern shore of Mary-

land and up the coast through New Jersey (fig. 164), Connecticut, and eastern Massachusetts. Before the summer crop has all been harvested in the northern sections, late summer and fall plantings are being made in the South, thus affording an almost continuous supply throughout the year.



FIG. 164.--Typical field of spinach growing on peat soil in the Great Lakes region

Celery

Celery, like lettuce, though of Old World origin has now become one of the important specialized vegetable crops of the United States. Like lettuce its large-scale production has become localized in sections where a suitable combination of soil and climate, together with adequate transportation facilities, are found (fig. 165). This is particularly true of the Imperial Valley of California, of the peat-soil areas of the Great Lakes region (fig. 166) and of the sandy-loam and clay-loam soils of the Northeastern States. Another important celery-producing section has developed on the peat soils of Florida. The seasonal production of celery has also become more or less definitely divided, the Great Lakes and northeastern section producing the summer, fall, and the early winter storage crop, California following during the winter months, with Florida supplying the markets during the late winter and early spring. The early or summer crop of the northeastern section is marketed from the latter part of June through July and August. The fall crop is marketed from the fields during September, October, and until about the middle of November (fig. 167). Following this the markets are supplied from this region, the celery being stored either in field trenches or in houses. In a few cases cold storage is employed for holding celery for winter market. The bulk of the crop grown in the northeastern States, however, is marketed either direct from the fields where it is grown or from field-storage trenches (fig. 168).

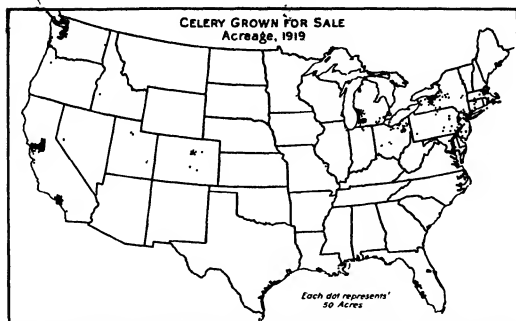


FIG. 163.—Map showing distribution of the celery industry in the United States. Each dot represents 50 acres

California and Florida crops are marketed direct from the fields by means of refrigerator transportation. Under the present distribution the market for celery is supplied practically throughout the year.

Celery is one of the most intensive of the vegetable crops from the standpoint of gross acre income. The costs of production are relatively high but on the other hand the returns are such as to make celery one of the most profitable of the vegetable crops. It is not uncommon for growers of early celery to produce 48,000 to 52,000



FIG. 166.—A typical field of celery grown on the peat lands of the Great Lakes region
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plants on an acre or a little over 4,000 dozen, selling all the way from 50 cents to \$1 per dozen. A gross income of \$3,000 an acre, while far above the average for the country, is frequently obtained. The production of celery, however, presents a number of economic problems making it a highly specialized crop which requires special equipment and treatment. Labor costs are high and the control of diseases, and in Florida the control of insects, present serious problems. Owing to the great quantities of celery that can be produced on a relatively small area the total acreage for the United States is not large as compared with some other vegetable crops. According to statistics prepared by the Division of Crop Estimates the acreage for 1925 was 22,600. The production is given as 6,757,000



FIG. 167 —Packing celery for the market in the field

crates valued at \$12,491,000. California leads with nearly 6,000 acres, New York is second with slightly less than 5,000 acres, Florida a little over 4,000 acres, Michigan a little less than 4,000 acres and New Jersey about 1,500 acres. Other States producing celery in commercial quantities in their order are Colorado, Ohio, Pennsylvania, and Oregon. In farm value the Florida crop stands highest, being approximately \$5,000,000.

Dandelion

Improved forms of the wild dandelion are frequently grown for salad purposes, the seed being sown in the late summer and the plants carried over winter either in beds or in the open ground with slight protection. The tops are sold as greens early in the spring, either blanched by covering with straw or in the natural green form. Dandelion greens are highly prized by many people, but no very large industry in the production of dandelion has been developed. The present production is mainly in the vicinity of the large eastern cities, the product being sold on the local market.

Chicory and Endive

Chicory, sometimes called witloof, is grown as a greens or salad crop in a small way throughout the United States, especially in home gardens. This plant produces a root similar to salsify, these roots being stored in a cellar under moderate temperature during the winter and the succulent leaf stems forced under a blanket of straw or some similar covering material. The root is also used as a mixture with coffee.

Endive, sometimes called escarole, was brought into use during the colonization period. It was used at a very early period by the Egyptians and Greeks and reference to it frequently appears in history. As grown in the United States, it is not among the crops

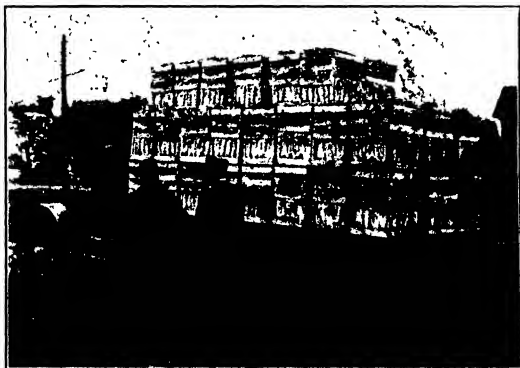


FIG. 168.—Hauling celery from the field for the market

of major commercial importance, and its production is confined mainly to market gardens and for home use. Small shipments of this excellent salad crop are made.

Sorrel

Sorrel or sour dock is a native of Europe or northern Asia. According to Sturtevant, it is cultivated in the gardens of Great Britain and used the same as spinach or in salads. In the time of Henry the Eighth it was held in great repute. The common sorrel, says McIntosh, "has been cultivated from time immemorial as a spinach and salad plant." In the United States to-day sorrel finds its principal cultivation near, and use in, the larger cities of the East.

Chinese Cabbage

Pe tsai or Chinese cabbage is grown in many localities, especially near the large eastern markets. The demand for Chinese cabbage is

limited and a comparatively small acreage is required to supply the markets. Pe tsai can be used in a number of ways but is usually cooked and creamed in much the same way as is employed for cauliflower.

A number of additional crops are used for greens and salads, in fact, almost any tender succulent growth can be used for this purpose. Among the recent introductions of the salad crop is the udo, a Japanese perennial plant, which has been mentioned under perennial crops, but which requires special cultural methods in this country. Among our native plants the young, tender shoots of the common pokeweed are frequently used as greens in the early springtime. Although the berries and possibly the mature leaves of the pokeweed are poisonous, the young and tender shoots, as they come through the ground in the spring, are palatable and make an excellent spring greens, being prepared in the same manner as asparagus.

Leguminous Vegetables

Beans

Historically, beans, peas, and other members of the pulse family are among our oldest cultivated food plants. Early writers of various nationalities make frequent mention of beans and related crops, and this group of plants has exercised a profound effect on the history of the world. Proof of the antiquity and importance of this group of plants is found in the fact that earliest records seem to prove that the broad beans (*Vicia faba*), this being the bean of history, is apparently native to Asia, while the so-called kidney bean (*Phaseolus vulgaris*) is of New World origin, having been found in America by the earliest explorers. Closely related botanically, it would seem reasonable to conclude that both groups must trace back to a common ancestry, and that their world-wide dissemination is the result of influences about which we have little information.

Two types of beans, the kidney, including field and garden varieties, and the Limas, are of great importance to New World horticulture. The broad beans are grown only in cooler sections of the country, chiefly Canada, while the soy bean (*Glycine hispida*) and the cowpea (*Vigna sinensis*) are of great importance, and though not, strictly speaking, horticultural crops, they are largely used as food and in truck-crop rotations. In fact, it would be difficult to maintain soil fertility for vegetable production without the aid of these plants. They are nitrogen gatherers and add large quantities of organic matter to the soil, making it possible to make the best use of commercial fertilizer. The velvet bean (*Mucuna utilis*) is another important member of this group of plants, thriving only in the warmer sections, where it is extensively used as a forage and green-manuring crop.

Various classifications are used for purely horticultural species of beans, but from an economic standpoint they can be divided into kidney beans green and dry, and Lima beans green and dry. This does not of course include other types mentioned in preceding paragraphs, whose comparative economic importance is much less than

these. Large quantities of kidney beans are used as green snap beans for market and canning, while the consumption of dry beans for canning with pork and otherwise, in soups, and for storage and later use after soaking is enormous.

Climatic requirements of beans.—No group of plants presents wider variations in climatic, particularly temperature requirements, than is found among different types of beans. The broad bean will thrive only under cool conditions, whereas velvet beans are adapted to growing in regions of high temperatures, but need generous supplies of moisture. Of the types of greatest horticultural importance we find wide differences in climatic requirements. The Limas are at home only where moderately high temperatures prevail. The kidney beans are less sensitive to cooler conditions but at the same time grow luxuriantly in southern sections, especially those varieties produced

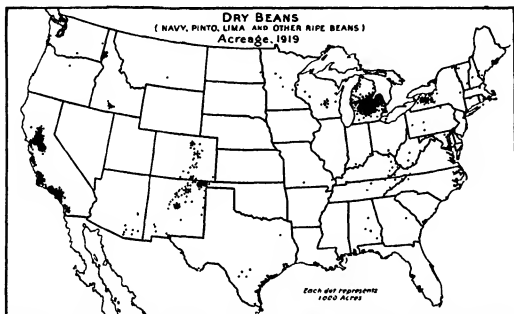


FIG. 169.—Map showing distribution of the dry-bean industry in the United States in 1919

as green snap beans. The tepary bean (*Phaseolus acutifolius*) thrives under severe temperature and moisture conditions such as are found in the Southwest. Beans are grown on a wide variety of soil types, the sandy loams of the Gulf coast and Atlantic seaboard regions producing large quantities of green beans. The heavier soils of the North and West are adapted for the growing of both dry and green beans. Dry beans can be produced in the South, but insects and diseases limit commercial production.

The map, Figure 169, shows the distribution of the dry-bean industry, including Limas and others. The companion map, Figure 170, shows the distribution of the snap-bean industry. This industry is divided into two distinct parts—the growing of beans for market, and their production for canning. The latter phase of this subject is discussed under canning crops.

Dry beans.—Twenty years ago dry beans were our second vegetable crop, being outranked only by potatoes. Since that time sweet potatoes have taken second place. Beans, however, are firmly estab-

lished in the esteem of the public, and sure to continue to occupy an important place in our food requirements. The 1919 census showed that the acreage devoted to dry beans that year was 1,161,682, with a production of 14,079,093 bushels, valued at \$61,795,225. According to the data gathered and compiled by the Bureau of Agricultural Economics, the dry-bean acreage of all types in the United States for the years 1924 and 1925 was 1,545,000 and 1,579,000, with crops amounting to 14,856,000 and 19,100,000 bushels, respectively. The farm value of the crop on December 1 was \$55,239,000 and \$62,388,000 for the two years. Moreover, production figures gathered by the bureau for the years 1922, 1923, 1924, and 1925, as shown in Table 8, indicate that there is a steady increase in bean production and consumption.

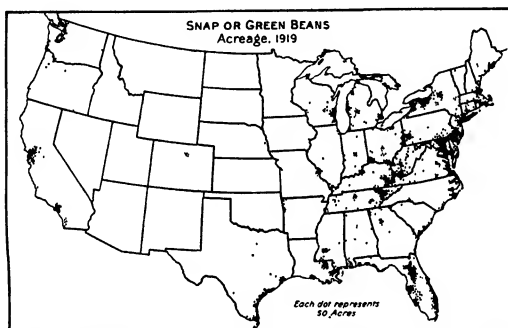


FIG. 170.—Map showing distribution of the snap bean growing industry in the United States. Each dot represents 50 acres.

TABLE 8.—Acreage, production, and value of dry beans in principal producing States, including beans for seed purposes, 1922–1925

[In thousands, i. e., 000 omitted]

| | Acreage | | | | Production | | | | Farm value, Dec. 1 price | | | |
|-----------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|--------------------------|---------------|---------------|---------------|
| | 1922 | 1923 | 1924 | 1925 | 1922 | 1923 | 1924 | 1925 | 1922 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Bus.</i> | <i>Bus.</i> | <i>Bus.</i> | <i>Bus.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> |
| New York..... | 108 | 130 | 140 | 132 | 1,512 | 1,660 | 1,820 | 1,426 | 5,746 | 6,591 | 6,916 | 6,560 |
| Michigan..... | 458 | 596 | 587 | 614 | 4,800 | 6,532 | 6,848 | 8,289 | 17,553 | 21,556 | 18,421 | 24,453 |
| Wisconsin..... | 8 | 10 | 10 | 12 | 76 | 90 | 85 | 152 | 274 | 390 | 399 | 423 |
| Montana..... | 4 | 23 | 34 | 40 | 52 | 264 | 408 | 500 | 179 | 977 | 1,946 | 1,326 |
| Colorado..... | 81 | 170 | 200 | 320 | 405 | 1,360 | 986 | 2,240 | 1,782 | 5,082 | 2,957 | 5,276 |
| New Mexico..... | 63 | 60 | 110 | 114 | 196 | 345 | 560 | 809 | 591 | 1,440 | 2,030 | 1,317 |
| Idaho..... | 25 | 45 | 60 | 72 | 364 | 990 | 1,346 | 1,584 | 1,238 | 3,564 | 5,619 | 4,377 |
| California..... | 324 | 299 | 161 | 240 | 5,846 | 4,094 | 2,254 | 4,080 | 20,048 | 18,776 | 11,721 | 16,736 |
| Total..... | 1,072 | 1,314 | 1,371 | 1,544 | 12,762 | 15,965 | 13,297 | 18,650 | 47,711 | 58,306 | 49,269 | 66,656 |

Good seed of a suitable variety, moisture in moderate amounts, soil of good texture, reasonably supplied with plant food, a well-prepared seed bed, careful and rather shallow planting in rows wide enough for horse cultivation, and thorough shallow cultivation, are some of the important factors in dry-bean growing. Harvesting is accomplished by using an implement which loosens the plants from the soil, two rows being harvested at a time and left in a windrow. In some sections beans are left in bunches or in windrows in the field until ready for threshing. In other regions they are stacked around poles until dry enough to thresh. The threshing of the commercial crop is usually accomplished with custom machines which operate on the same principles as grain threshers.

Practically all features of dry-bean growing are similar to other field crop operations. The plant does not require much hand labor as practically all operations can be performed with the aid of machinery. The plant is leguminous in character, and when properly handled can be made a desirable member of the farm rotation. It is, moreover, well adapted to large areas, particularly in the Northwest, where the choice of crops is limited. It presents no special storage problems except in the South, and the weight and bulk per acre are small, making it possible to grow it profitably in sections not having the best of transportation facilities. Consumption capacity of our markets is the factor which must be given especial consideration in deciding dry-bean acreage.

Green beans for market.—Information showing the total acreage and value of the snap-bean crop is not available. Thousands of market gardens around the towns and larger centers of population, devote considerable areas to growing snap beans, but much of this does not appear in census or other statistical data. Information showing the acreage and production of green beans for shipment has been gathered by the Bureau of Agricultural Economics. The data covering the years 1924 and 1925 as shown in Table 9, gives a comprehensive idea of the distribution and relative importance of the green-bean industry.

TABLE 9.—Acreage and production of snap beans, 1924 and 1925

[In thousands; i. e., 000 omitted]

| | Acreage | | Production | |
|---|--------------|--------------|----------------|----------------|
| | 1924 | 1925 | 1924 | 1925 |
| EARLY CROP | | | | |
| | <i>Acres</i> | <i>Acres</i> | <i>Hampers</i> | <i>Hampers</i> |
| Alabama..... | 1,000 | 680 | 52,000 | 45,000 |
| California..... | 2,000 | 2,000 | 215,000 | 480,000 |
| Florida..... | 10,780 | 20,330 | 1,484,000 | 1,063,000 |
| Georgia..... | 1,850 | 1,260 | 104,000 | 66,000 |
| Louisiana..... | 4,800 | 7,060 | 422,000 | 525,000 |
| Mississippi..... | 2,800 | 2,120 | 157,000 | 142,000 |
| North Carolina..... | 2,680 | 3,200 | 316,000 | 326,000 |
| South Carolina..... | 4,490 | 3,840 | 364,000 | 304,000 |
| Texas..... | 3,080 | 4,720 | 361,000 | 364,000 |
| Virginia, Norfolk, and Eastern Shore..... | 3,720 | 5,720 | 480,000 | 424,000 |
| LATE CROP | | | | |
| Illinois..... | 600 | 550 | 48,000 | 37,000 |
| Maryland..... | 2,550 | 2,750 | 175,000 | 275,000 |
| New Jersey..... | 5,400 | 10,000 | 1,082,000 | 1,190,000 |
| Tennessee..... | 2,260 | 1,400 | 264,000 | 147,000 |

Methods followed in producing this crop follow established cultural practices for similar plants. Considerable hand labor is required for the picking, making it more suitable for growing in limited acreages than in large fields. It is a short-season crop, requiring only a few weeks from seed time to harvest, and gives quick returns.

Peas

A very large proportion of the peas grown in the United States are sold fresh or canned. Seed, and use as split peas, or otherwise, in soups, constitute the other principal purposes for which dry peas are grown. The canning of peas is a great industry and will be discussed elsewhere.

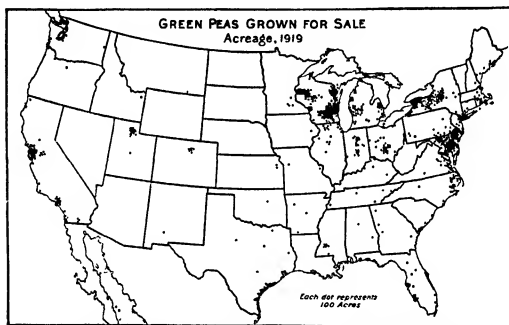


FIG. 171.—Map showing distribution of production of green peas grown for the market in 1919

Fresh peas for market are a deservedly popular table vegetable. They are grown in most home gardens throughout the United States, and thrive only at seasons when the temperature is cool to mild. Heat and excessive humidity are distinctly harmful to peas. It is not surprising that a large pea-producing industry has developed in sections where climatic conditions are favorable. In 1925, according to data compiled by the Bureau of Agricultural Economics, about 25,000 acres were devoted to the growing of green peas for market, the production amounting to about 1,750,000 hampers. North Carolina, California, Mississippi, Florida, New York, Virginia, South Carolina, and other States are important contributors to the supply of early peas (fig. 171).

Garden peas are more discriminating in their cultural requirements than beans, but given suitable weather and soil conditions can be grown without special difficulty. The hand picking of peas for market is a task of considerable magnitude. Peas have the advantage of being a short-season crop which gives quick returns, and land devoted to peas during early spring may be used for later

crops of other vegetables, making it possible to obtain larger acreage returns for the season.

Peanuts

Peanuts were found in ancient mummy graves in Peru by E. G. Squier exploring in 1877, also by W. E. Safford in 1887. This would seem to prove conclusively that the peanut is a native of the New World. According to tradition, peanuts were introduced into Virginia during the early days of colonization presumably by the slave traders as food for the slaves. Jefferson spoke of its culture in Virginia in 1781, and it is mentioned as a garden plant by M'Mahon in his book published in 1806. The culture of peanuts in Virginia apparently started in the region around Jamestown where the crop thrived from the start because of what is now known to be almost ideal soil and climatic conditions for their development. During the early days peanuts were grown largely in gardens and in small patches and a few were roasted and sold on the street in the towns of Virginia and later in New York and other eastern cities.

It was not, however, until about the time of the Civil War that peanuts became of any considerable importance as a commercial crop. Necessity for some crop that would yield a cash return caused the farmers of Virginia and North Carolina to plant peanuts as a regular farm crop immediately following the Civil War. Thomas Rowland of Norfolk, who is referred to as the father of the peanut industry in America is accredited with the establishment of the first regular peanut business. Norfolk was a small place in those days and the farmers of the vicinity brought their crops of peanuts to this market by boat. According to an article written by P. D. Gwaltney of Smithfield, Va., published in the *Smithfield Sentinel* of May 6, 1898, the first peanut market was established at Mill Swamp, Va., by Lemuel Womble who "traded in" the small quantities offered by the farmers in the neighborhood and made his first shipment consisting of a few bushels to Norfolk by the Thomas & Adams packet. This was before the Civil War and there was a continued increase in acreage in that community, some crops reaching 400 or 500 bushels and a few large farmers in Southampton County raised nearly 1,000 bushels each, but these were exceptionally large crops. The price of peanuts in those days was about 75 cents per measured bushel. They were not weighed nor were they carefully assorted when picked from the vines. After the war, an impetus was given the peanut business and in a few years it was the principal money crop of Isle of Wight, Surrey, Sussex, Southampton and adjacent counties, also in parts of North Carolina. The popularity of the peanut spread following the Civil War owing primarily to the development of the sale of fresh roasted peanuts.

The peanut crop of the United States occupies about 1,000,000 acres each year, the annual production amounting to approximately 750,000,000 pounds. The farm value of peanuts is perhaps not far from 5 cents per pound from year to year, but aside from its actual cash value, it has many advantages which commend it to the careful consideration of the southern farmer.

In common with other popular food crops, the rise of the peanut in the esteem of the public has been due to its outstanding charac-

teristics. Being a leguminous crop closely related to beans and peas, it possesses the high food value of other members of this family and has qualities which make it possible to use it in many ways not common to other members of this group of plants. Formerly, it was used almost entirely for eating from the shell but in time it came to be used for the making of candy, cakes, and other similar products. Within the past few decades other uses for peanuts have rapidly developed and at the present time large quantities are employed for the making of peanut butter, peanut oil, and as salted goods. The meal resulting from the manufacture of peanut oil has been found to be a most excellent source of protein as an ingredient of dairy and poultry feeds. Peanut hay is a valuable feeding material and when properly cared for adds materially to the farm return.

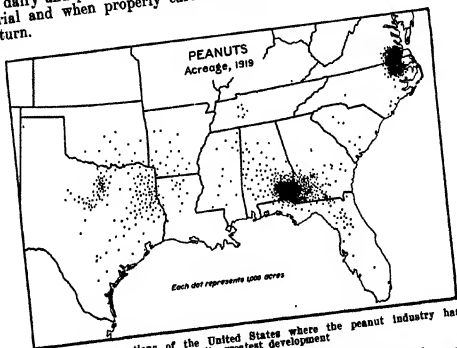


FIG. 172.—The sections of the United States where the peanut industry has reached its greatest development

Distribution of the peanut industry.—In common with the sweet potato the peanut is especially adapted to the South, as it requires a long growing season and light textured soils, both of which are found in the Southern States. As a matter of fact the peanut-growing industry in this country can be increased many times in the South before difficulty will be experienced in finding climatic and soil conditions suitable for the crop. The future growth of the peanut industry in the United States depends upon economic conditions and not upon our ability to grow the crop. The map, Figure 172, shows the sections where the peanut industry has reached its greatest development. Although the industry is especially intensive in some regions such as eastern Virginia, North Carolina, and southern Georgia, it is well distributed over most of the Southern States. The peanut is suited to established or desirable cropping plans for most of the region in which it is adapted. Although a leguminous crop, it can not be looked upon as a soil improver, when the roots bearing the nodules containing the nitrogen gathered from the air are removed from the soil in harvesting. Certain types of harvesters

sever the plant between the pods and the roots, thereby leaving most of these valuable parts in the soil. When such harvesting is practiced the plant does not exhaust the soil to the same degree as when the entire plant is removed, but the peanut should be treated as any other farm crop which removes large quantities of highly concentrated plant food from the soil, and means taken to restore this material to the soil. Good cropping plans, including the peanut, may readily be worked out and followed. Work carried on at the Pee Dee Experiment Station, at Florence, S. C., over a period of years shows that it is possible to grow peanuts, sweet potatoes, and a forage or hay crop in rotation with constantly increasing yields of these products and an apparent increase in soil fertility. Such rotation gives carbohydrates, proteins, fats, and forage for a balanced livestock ration. Rotations of a similar character can be planned for the entire area to which peanuts are adapted.

Other and equally potent reasons exist for the wide distribution of the peanut. It is an excellent addition to the group of southern crops which have made diversification possible. A few acres of peanuts on a farm is a splendid insurance against total loss of farm income. It ranks high in food value, a pound of shelled peanuts containing as much energy as a pound of meat. From the point of view of animal nutrition, it has many things in its favor, proof of this being found in the fact that there is a strong and growing demand for peanut products for use in the preparation of highly concentrated dairy and poultry feeds.

Soil.—Light soils are best, a sandy loam being ideal. Heavy, dark-colored soils discolor the pods and interfere with the penetration of the "pegs" into the ground. Millions of acres of almost ideal land for peanuts are to be found throughout the South. It must be well drained, moderately fertile, and reasonably free from trash which would interfere with the planting and cultivation of the crop. Peanuts are usually planted on land which has been devoted to some crop which has left little trash, and it is very necessary that the land be reasonably free from weeds, especially crab grass.

Fertilizers.—With proper attention to crop rotation only moderate applications of commercial fertilizer are necessary to obtain good crops of peanuts. In many cases fertilizer residues from preceding plantings of potatoes or other heavily fertilized crops may be sufficient for the peanuts. The important point in the whole matter is that peanuts can be produced without expensive applications of plant food. They are perfectly at home on soils with moderate fertilization, which have been maintained in a reasonable degree of productivity through the practice of farming systems within the reach of any operator, and which include the intelligent combination of crop rotation and commercial fertilizers.

Peanut seed.—High-grade seed is just as important with the peanut as with corn, wheat, or any other farm crop. Poor seed is usually responsible for failure to obtain good stands with resulting decrease in yield. The cereal crops of the country have been increased many millions of bushels each season through the use of good seed, and the same opportunity exists with the peanut. As is the case with many other crops, the individual grower of peanuts has it in his power to build up good strains of peanut seed which

may be constantly improved from year to year. The same results may be accomplished through cooperative efforts on the part of a few neighbors, large associations or commercial growers of peanut seed who have the proper viewpoint and who are willing to give the matter the painstaking care and attention which the production of strictly high-grade peanut seed demands. Whatever the methods employed, good peanut seed should always be used. The difference between a good and a poor stand may be enough to make a handsome return on the additional cost of the good seed. Moreover, high-quality peanuts which command the best prices can not be grown from scrub stock. If a crop which will return the highest price is to be expected, seed of high yielding qualities must be employed. Figure 173 shows a characteristic field of peanuts grown from good seed.



FIG. 173.—Field of peanuts planted from selected seed and having a good stand. Crop grown in rotation with corn.

Cultural care.—The planting, cultivation, and care of the peanut is somewhat different from standard practices followed with the cultivated field crops produced in the sections to which the peanut is adapted. However, no great amount of special equipment is needed, and this should not be a limiting factor in the growing of peanuts. Soil preparation presents no special problems, being the same as for other field crops. Care should always be taken to either use soil free from trash or at least to bury trash so deeply that it will be out of the reach of planting and tillage tools. The seed may be planted either shelled or unshelled. The use of shelled seed allows more careful selection of good plump peas, and when the seed is carefully handled usually gives a more uniform stand. Breaking of the thin skin covering the peas or other rough handling is sure to injure the germinating quality of the seed, lower its vitality, and result in poor stands with lowered yields. Large-podded sorts, such as the Virginias, may be easily shelled by hand,

with less chance of injury than is the case with machine-shelled seed. The small types such as the Spanish are more difficult to shell by hand, and it is practically necessary to use a machine. When mechanical shelling is used, care must always be taken to avoid injuring the seed. In any case the seed must be carefully sorted by hand and all injured, moldy, immature, or undersized peas removed. Several years' work at the Pee Dee Experiment Station at Florence, S. C., shows that peanut seed may be shelled as much as six months before planting time without injury to its vitality or reducing the crop. From this it is evident that peanut seed may be prepared for planting during the winter months when most growers have the time to give the work close attention.

Uses.—The peanut is now grown for two distinct purposes; (1) as a market or money crop with peanut hay as a by-product, or (2) planted either between rows of corn or as a special crop for forage. The crop grown with corn or other similar plantings is often har-



FIG. 174.—Inexpensive implement adapted to the digging of peanuts. A. The curved bar is so arranged that it will cut off the roots just below the peanuts. B. Same implement in operation.

vested by hogs. Hogs are also employed in most of the commercial peanut sections for utilizing peanuts left in the ground at harvesting time. A very important industry, the production of specially cured hams, has been built up as a result of this practice. Peanuts grown for forage and harvested by hogs may be looked upon as an important soil-improving crop, as the land is thus supplied with organic matter and the nutriment contained in the peanuts and vines is nearly all returned to the soil. Peanuts grown for the market require special methods of harvesting and curing. Removal from the soil should be done with a type of implement which severs the roots just below the pods, leaving the nitrogen-bearing nodules in the soil. Harvesters built with a sharp knifelike cutter, so attached that it runs a few inches below the surface, accomplishes this in a satisfactory manner (fig. 174). By employing equipment of this character, most of the nitrogen gathered by the plants is left in the soil for the use of later crops.

Perhaps the most important factor in obtaining high-grade peanuts is the care given and the methods followed in handling them

while in the field. Through long experience growers have found that bright, sweet, plump, clean peanuts can be obtained only by lifting the entire plant, with the exception of the lower roots, from the soil with the peanuts adhering, and stacking them around small poles to which two crosspieces have been nailed a few inches above the ground. Curing in windows may succeed now and then in sections where there is little rainfall at harvesting time, but the farmer who follows this method is always taking a great risk of losing his crop. In removing the plants from the soil care is taken to keep them straight as the pods are placed next the pole. This is done for the reason that it protects them from the weather, keeping the pods bright and clean and allowing them to cure slowly as the vines dry, giving a maximum proportion of plump peas. By stacking the peanuts a bright hay with the leaves practically all adhering

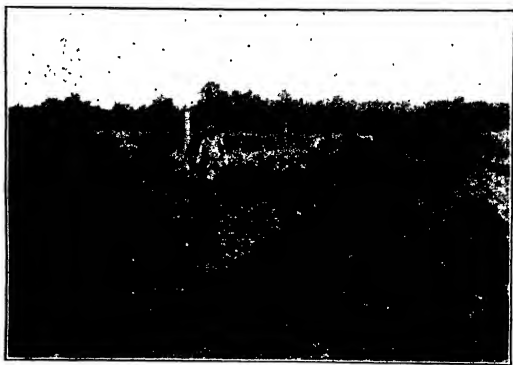


FIG. 175.—Method of curing peanuts by stacking the vines around small poles

is obtained, and good peanuts and hay can seldom be secured unless the stacking method is followed (fig. 175). The more general adoption of these methods throughout the entire peanut-growing sections of the country is recommended as a desirable practice wherever peanuts are grown for harvesting other than with livestock.

Handling.—The development of machinery for the picking of the pods from the vines has done much to extend and increase the peanut-growing industry. Hand picking is slow and it is difficult to handle a large crop without the aid of mechanical pickers. Before the development of machinery for removing the pods from the vines, peanut picking frequently lasted all winter. A satisfactory peanut-picking machine must remove the pods from the vines with a minimum amount of breakage of the pods, as broken pods and cracked and damaged peas lower the value of the product (fig. 176). The use of mechanical pickers is necessary in the production of the crop

in a large way. Peanuts are bagged, using sacks about 32 by 36 inches, which hold approximately 4 bushels.

The hay is a valuable by-product as it has a feeding value fully equal to clover or alfalfa. It often represents a considerable part of the farmer's profit, and should be carefully handled so as to conserve its full value. If the peanuts are as dry as they should be when the picking is done, the hay may be baled which makes it more convenient to handle (fig. 177).

Storage for peanuts must be dry, well ventilated, and of such nature that they can be protected from rats, mice, and other animals. Few growers have suitable storage for peanuts, and the crop is usually moved from the farm as soon as picked. However, the farmer would often find it advantageous to hold his crop on the farm. The disposition of the peanut crop by the grower is effected



FIG. 176.—Type of picking machine used for removing peanuts from the vines

by direct sale to buyers, sale on commission, through growers co-operative associations, or otherwise. The marketing of the crop follows established methods discussed elsewhere.

Few southern crops are capable of yielding a wider variety of product, aside from its familiar use for eating out of the shell.

Peanut oil is used in large quantities for the making of margarines, soaps, and other manufacturing purposes, and as a salad oil. The crushing of peanuts is carried on in cottonseed-oil mills, using practically the same equipment as employed for cottonseed. Peanuts can be stored and kept until the cottonseed-crushing season is over and then handled, thereby greatly extending the length of the season over which the mill operates. Peanut oil sells in competition with other food oils and the profitableness of crushing peanuts depends on the market price of peanuts and the price of oils, whose price affects that of peanut oil. Shelled peanuts contain from 40 to 50 per cent of oil, the exact amount depending upon the variety,

their dryness, and maturity. A ton of unshelled peanuts yields from 500 to 700 pounds of oil, about the same quantity of meal, the remainder being shells. During the early days of peanut-oil manufacture there was little demand for the meal, as its feeding value was not appreciated. This was due in a large measure to the general practice of crushing the peanuts in the shell which resulted in the production of a low-grade oil, and a meal which had low feeding value. Meal made from unshelled stock has only about 25 per cent protein, whereas that from shelled, graded, and cleaned stock may have as much as 45 to 50 per cent protein. Moreover, oil made from high-grade shelled stock is far superior to that from unshelled goods.

It is impossible to estimate the quantity of shelled peanuts used in the United States annually for the manufacture of peanut butter. High-grade peanut butter is appetizing and has high food value. Pound for pound it contains more protein than round steak, but costs less. Formerly looked upon as a delicacy for the use of invalids and for light luncheons, it has become a standard food, being used in large quantities by all classes.

The quality of peanut butter can not be above that of the raw product, it being necessary to employ high-grade peanuts and per-



FIG. 177.—Peanut hay being baled as it comes from the peanut-picking machine

form every manufacturing operation with painstaking care (fig. 179). Most of the high-grade peanut butter is a blend of two or more varieties, Spanish and Virginia types being employed. Roasting, blanching, or the removal of the thin inner skins; removal of the germs or hearts, and hand picking are all essential to obtain a high-grade product. Good peanut butter can be made only from stock which is suitable for serving on the luncheon or dinner table. Grinding is accompanied by the addition of a small quantity of salt, and the product is sealed in suitable containers.

Numerous confections are being made from peanuts, and the quantity of peanuts that are now shelled and used for manufacture far exceeds their use in the shell. Millions of pounds of peanuts are consumed on farms, and owing to their adaptation to a large part of the South, their suitability to a place in established cropping systems, their high food value, and the wide diversity of uses, the peanut is to be regarded as one of the most important of our southern crops.



FIG. 178.—Interior of peanut-butter factory, showing method of hand picking the roasted peanuts before grinding into butter

Special Crops Grown as Vegetables

Sweet Corn

Corn is a native of the Western Hemisphere and is of greater economic importance than any other crop of New World origin. Proof of its origin and antiquity is found in many places and comes from numerous sources, as, for example, in Peru, it is recorded that Squier found thick, short ears of maize, a jar of maize (apparently shelled), and other equally convincing evidence in the burial places of the early peoples inhabiting that country. Tschudi describes two kinds of maize which were taken from tombs, apparently dating back to the dynasty of the Incas. It was held in such high esteem by these people that their palaces were decorated with the ears, stalks, and other parts of the corn plant, wrought in gold and silver. In some cases entire fields of maize were represented.

According to Sturtevant's *Notes on Edible Plants*, the first mention of corn in North America seems to have been in the Icelandic

Sagas. At Hop, supposed by Professor Rafn,²⁶ to be in the vicinity of Taunton River, Mass., Karlsefne,²⁶ in 1006, "found there upon the land self-sown fields of wheat where the ground was low, but vines where it rose somewhat." Karlsefne is said to have sent two Scotch people to explore and when they returned "they brought back a bunch of grapes and a new sown ear of wheat."

Corn was brought back by Columbus when he visited Cuba in 1492, and was described by him as "a kind of grain called maize of which was made a very well-tasted flour." In South America in 1498, maize was brought to Columbus off the coast of Venezuela. During De Soto's invasion in 1540, maize was found everywhere along his route from Florida, Alabama, and to the upper part of the Mississippi. Throughout the early history of the discovery period, there are numerous references to the production of maize by the Indians. Corn was considered sacred by many of the South American tribes "the corn stalks with many ears or with double ears being considered as sacred things but not as deities." The ears were suspended by branches of willow and were worshipped, especially those the grains of which were of various colors. On the coast of Peru says De la Vega the sowing is done by ancient Peruvians "by making holes with thick stakes into which they put the heads of fish together with two or three grains of maize." This, says De la Vega, was in vogue among the Indians in some parts of Mexico and it is described in part by Bancroft for the ancient Aztecs.

The Navajo Indians have the tradition that "all the wise men being one day assembled, a turkey hen came flying from the direction of the morning star and shook from her feathers an ear of blue corn into the midst of the company." It is probable that the traditional blue corn of the Navajo Indians was one of the earliest forms of sweet corn cultivated by the early settlers. Seedman's catalogues of the present day include Black Mexican, a type of sweet corn that has been handed down from the earliest days.

"In 1620, Miles Standish,²⁷ exploring for the Pilgrims, found the fields in stubble, for it was November, and finally under a heap of sand a basket full of corn, some yellow and some red and others mixed with blue." It is interesting to note that the Pilgrims employed an Indian named Squanto to teach them how to grow corn by placing three fish, similar to herring, underneath each hill. It is significant that seedsmen still catalogue a variety of corn known as Squantum. It is also significant that this Indian, Squanto, was in reality the first agricultural agent employed in the New World, for he demonstrated to the colonists the proper methods of growing corn and other crops ordinarily cultivated by the Indians. It was not, however, until about the beginning of the nineteenth century that sweet or "sugar" corn came into prominence as such.

Sweet corn is not referred to by Jefferson in his Notes on Virginia, 1781; nor by M'Mahon, 1806. Thorburn, in 1817, does not mention it. However, in 1801, Bordley²⁸ mentions the "sweet corn having a white shriveled grain when ripe as yielding richer juice in the stalks than common corn." In 1832, sweet or sugar corn is mentioned among the garden vegetables by Bridgeman. It is probable that the

²⁶ See footnote 23.

²⁷ See footnote 23.

²⁸ New England Farmer, June 14, 1823.

first corn that can be considered as a true sweet corn was brought to Plymouth by Lieut. Richard Bagnoll, who was with General Sullivan in his expedition against the Six Nations in 1779. This was called "papoon" corn, and was the first of the species seen in Plymouth. It soon became more and more distributed and was extensively cultivated for culinary purposes. In 1851, Buist in his "Family Kitchen Garden" mentions two varieties. In 1866, Burr describes 12 varieties, and Thorburn, in 1881, listed 16 varieties.

In 1854 Schneck, in his "Gardener's Text Book," mentions the Extra Early, the Eight-Rowed Sweet, and Stowell's Sugar, "which have been brought into notice within a few months." In 1858 Klippart, in the Report of the State Board of Agriculture of Ohio, mentions in addition the Mammoth Sugar, "the yellow, blue, and red sugars," and says "these are all mere sports from the New

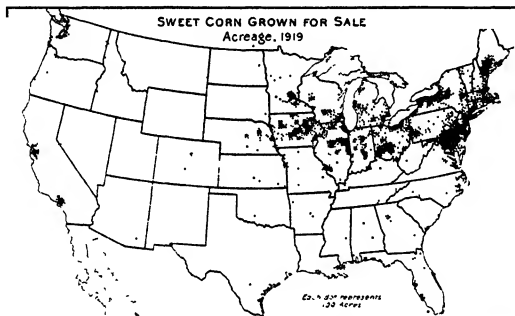


FIG. 179.—Map of the United States showing distribution of sweet-corn acreage for market

England and are not desirable." From it will be observed that the present-day varieties of sweet corn had their introduction mostly after 1850, and that the development of new varieties was rather rapid during the period between 1850 and 1880, at the end of which period approximately 30 varieties were listed. The development of special strains and varieties of sweet corn for specific purposes has gone on constantly since 1880, but a number of the varieties that were in general use at that time are still planted extensively. The recent popularity of yellow sweet corn of the Golden Bantam type has added a distinct chapter to the history of special types of sweet corn in America.

The map, Figure 179, shows the distribution of acreage devoted to sweet corn for the market in 1919.

American seedsmen catalogued sweet corn under 699 variety or synonymous names in 1921, but it is safe to assume that by the law of averages as applied to seed-trade catalogues about 50 variety names will cover the distinct varieties of sweet corn now grown in

America. Of these not more than 10 are of special importance and 5 will include 75 or 80 per cent of the commercial production. Golden Bantam, Howling Mob, Whipple's Yellow, Country Gentleman, Early Evergreen, Late Evergreen, Mammoth White Cory, Early Minnesota, Crosby's Early, and Mammoth Sugar constitute the list of most important varieties. Special strains of the leading varieties have been developed for certain markets and for canning, but it is significant that some of the older varieties are still highly prized by discriminating growers and consumers. Figure 180 shows the method of packing sweet corn in hampers for marketing which is employed in New Jersey.



FIG. 180.—Sweet corn in New Jersey being packed in hampers for marketing

Tomatoes

The tomato is a native of tropical America and according to Bancroft was eaten by the wild tribes of Mexico who called it to-mati. Humboldt says that it was called *tomati* and was sown among maize by the ancient Mexicans. The tomato is mentioned by Acosta in 1590 as among the products of Mexico. The European names "mala Peruviana" and "pomi del Peru" would indicate that it came to Europe from Peru. According to De Candolle the tomato would appear to be of Peruvian origin. The tomato was introduced into Europe during the early days of American discovery and was given the French name of *Pommes d'Amours* or "love apple." The date of its appearance in England is given as 1596, and Gerarde says in his second edition as quoted by Sturtevant "that these 'love apples' are eaten abroad prepared and boiled with pepper, salt, and oil, and also as a sauce." In 1656 Parkinson mentions the tomato as being cultivated in England for ornament and curiosity only, and Miller in 1752 says that they were much used in soups in his time. Sturtevant states that "in 1812 they were an article of field

culture in Italy, especially in Sicily whence they were sent to Naples and Rome, being extensively used in Italian cookery." Tomatoes are mentioned as growing in Virginia by Jefferson in 1781. In 1802, they were introduced in Salem, Mass., by an Italian painter, but he found it difficult to persuade the people even to taste the fruit. T. S. Gold, secretary of the Connecticut Board of Agriculture, wrote: "We raised our first tomatoes about 1832 as a curiosity, made no use of them though we had heard that the French ate them. They were called 'love apples.'" Prior to about 1834 the tomato was almost wholly unknown in this country as an esculent vegetable and in the History of the Massachusetts Horticultural Society, it is said that in 1844 this vegetable was then acquiring the popularity which makes it so indispensable.

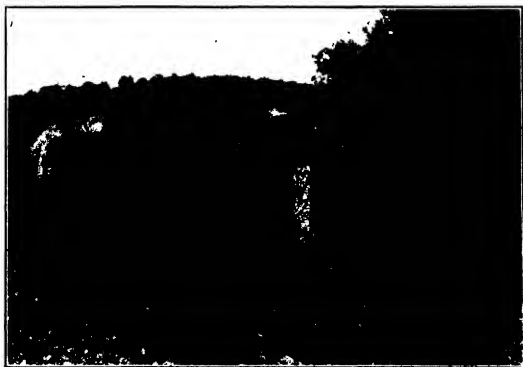


FIG. 181.—Method of growing early tomatoes by pruning and training to stakes practiced in various parts of the North

It is a significant fact that the tomato, though of American origin, was not known to North America or was not cultivated by the North American Indians, and that it was used in European countries possibly a hundred years before it found use in America. There are abundant evidences that the tomato or "love apple," as it was called, was considered poisonous by the majority of the American people prior to 1835. Elizabeth Clark, who was born in Trenton, N. J., in 1833, related during her lifetime how when as a child she gathered and ate the "love apples," but when caught in the act was rushed to the doctor by her parents with the fear that she had been poisoned and would probably not survive. Shortly after 1840, however, the use of tomatoes became quite general. The editor of the *Maine Farmer* in 1835 states "tomatoes are cultivated in gardens in Maine and are a useful article of diet and should be found on every man's table."

The real development of the tomato as it is found in the gardens of to-day did not begin actively until about 1870. A. W. Livingston, of Ohio, brought out the variety known as Trophy, this being followed by such varieties as Acme, Beauty, and others of that period. The development of the canning industry about this time also tended to popularize the use of tomatoes and created a demand for varieties to meet special requirements.

During recent years the development of the early-tomato industry of the South (fig. 181) and the tomato-forcing industry of the North has extended the season for fresh tomatoes to include practically the entire year. The first carloads of tomatoes of the winter season now come into the United States from points in western Mexico. These are followed by the early crop from southern Florida, and, as the season advances the shipping of fresh tomatoes mainly in the green or tinted stage, progresses northward through Florida, southern Georgia, the Crystal Springs, Miss., section, eastern Texas, the

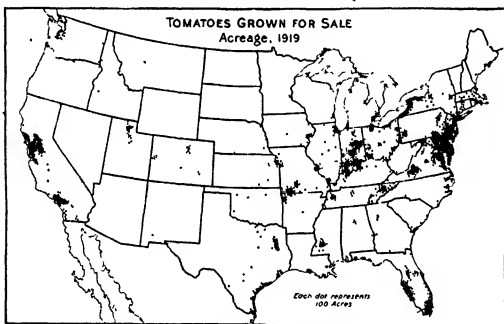


FIG. 182.—Distribution of the acreage of tomatoes grown for the market in 1919

Humboldt, Tenn., section, and thence northward until the early frost line is encountered. Hothouse tomatoes, which are now grown in large quantities in the Northern and Eastern States, fill in the gaps in southern production throughout the winter and spring season. Fresh tomatoes are shipped in car lots from more than 25 States, but the bulk of the early stock comes from 8 States. The shipments of tomatoes in 1925 amounted to approximately 27,898 cars. This, however, did not include the great quantity hauled to local markets by wagons and trucks. The map, Figure 182, shows the distribution of the acreage of tomatoes grown for the market in 1919.

Eggplant

Eggplant is closely related to the tomato, but is of Old World origin. Sturtevant in his *Notes on Edible Plants* makes numerous references to its being grown in the fifteenth and sixteenth

centuries, with one reference as far back as A. D. 595. The white and yellow sorts have long been grown for ornament, but it is the purple variety which is most commonly grown for the market. It is not known just when the eggplant was introduced into America, but its introduction was evidently during the early days of settlement. Several varieties are now grown in American gardens, but the greater part of the commercial or market crop is of the dark purple Black Beauty type. Eggplant is grown on a considerable scale throughout the southern trucking regions for early spring marketing, also very extensively in market gardens of the Northeast and warmer parts of the Central West. The eggplant requires plenty of heat and moisture and a highly fertilized soil with good cultivation. In past years when plenty of manure could be procured, it was the custom of the Norfolk growers to apply 40 tons of manure to an acre where eggplant was to be grown. At present it is no uncommon practice with these growers to apply 2 tons of commercial fertilizer to the acre. The yield of eggplant is large under favorable conditions.

Eggplant is grown for the market throughout the warmer parts of the country, but the carload shipments are confined to seven States, Florida, South Carolina, and the Norfolk section of Virginia furnishing the bulk of the shipments.

Peppers

Sweet peppers as grown in home gardens and for the markets are of American origin, the parent type of the present sorts having been cultivated by the natives of Barbados and in Peru, where the fruits were eaten green and before they assumed their red or ripe color. According to Sturtevant, peppers were eaten in large quantities by the ancient inhabitants of tropical America. Peppers were taken to Spain by Columbus in 1493. The pepper is mentioned in England in 1548 and the plant was carried to India by the Portuguese.

The growing of peppers for the early market has become an important industry throughout the southern trucking regions. As a rule, the plants are started in hotbeds, transplanted to coldframes and later to the fields when the weather has become sufficiently warm to make it safe to do so. Within recent years the demand for the large sweet peppers of such varieties as Chinese Giant and Ruby King, has increased wonderfully and during the season of 1925 approximately 2,326 cars were shipped to the larger markets in addition to the thousands of bushels that were hauled direct to the markets. During recent years there has developed an important industry in growing and canning of pimiento peppers in certain parts of the South where the work was originally started by the home demonstration agents.

Special types of peppers are grown in many sections, especially near the large eastern markets. In New Jersey, for example, great quantities of a mild hot pepper are grown for the foreign trade in the New York marketing area (fig. 183). Quantities of Chili or hot peppers are grown in the Southwest for use in the making of hot sauces. In the vicinity of New Iberia, La., large quantities of a small hot pepper known as Tobasco pepper are grown and are all

used at New Iberia for the manufacture of Tobasco sauce which is in demand for use on meats and sea foods, especially oysters.

Attempts to grow the true Paprika pepper in this country have met with failure. This pepper is grown largely in Bohemia and the pulverized dried pepper, known as Paprika, is imported in considerable quantities.

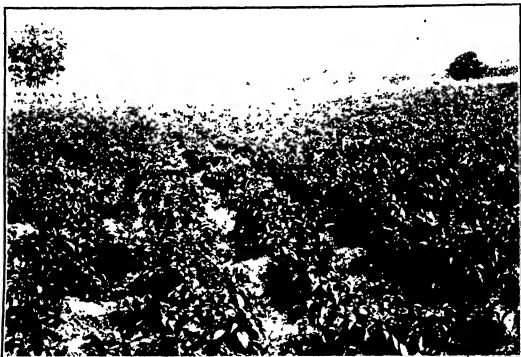


FIG. 183.—Special type of pepper grown in New Jersey for the eastern markets. These peppers are shipped in great quantities, mostly in barrels containing about 3 bushels.

Vine Crops

Vine crops, classed as vegetables, include muskmelons, watermelons, cucumbers, pumpkins, squashes, and certain of the gourds which are used as food to some extent. Historians credit the Old World with the muskmelon, watermelon, and cucumber, also some of the pumpkins, but the squashes and certain species of pumpkins and gourds are considered of American origin. In no instance do either the names or descriptions that would apply to our various species of squashes and pumpkins, appear in any of the early European writings. American horticultural writers lay particular stress upon the squashes and pumpkins, especially those grown by the Indians. The term "melon" was used by the early travelers and writers to signify watermelons and gourds, and has even been indiscriminately applied to pumpkins and squashes, so that it is difficult to trace the origin and history of the vine crops, especially those of American origin.

Distribution of the vine crops was rapid, due to the ease with which the seeds could be carried from one point to another. In addition, the seeds of pumpkins, squashes, and watermelons were considered as having medicinal qualities and were also used as food, thus increasing their distribution to all parts of the country. This was notably true among the American Indians who were natural traders and

lived largely by barter with other nations with whom they were at peace. This fact will readily explain the finding of melons and other species of the vine crops which were of European origin growing in all parts of the southern United States within a brief period of years after their introduction. There are indications that Columbus on his second voyage brought with him seeds of many Old World crops and these were planted or traded to the natives for seeds of New World species. Explorers who followed Columbus undoubtedly did the same thing until there was a very general distribution or interchange of species between the two continents.

Muskmelons

Muskmelons are native of the tropical regions of the Old World, but whether the ancients knew the melon is a matter of doubt. Pliny, writing in the first century, says: "A new form of cucumber



FIG. 184.—Distribution of muskmelon acreage in 1919

has lately appeared in Campania called melopepo, which grows on the ground in a round form," and he adds: "In addition to their color and odor, that when ripe, though not suspended, the fruit separates from the stem at maturity." According to De Candolle, "the culture of the melon is not very ancient and the plant has never been found wild in the Mediterranean region, in Africa, in India or in the Indian Archipelago."

Columbus is recorded by Doctor Sturtevant as finding melons at Isabella Island on his return from his second voyage, and on this basis the first grown in the New World are to be dated 1494. Once established in this country, melons spread rapidly as in 1535 Jacques Cartier mentions the Indians at Hochelega (now Montreal) as having muskmelons. In 1540, Lopez de Gomara, in the report of the expedition to New Mexico makes several references to melons. In 1583, Antonis de Espejo found melons cultivated by the Choctow Indians. Melons are mentioned by Vinegas as growing on the

Colorado River in 1758. In 1565, melons are reported by Benzoni as abounding in Hayti but, melons appear not to have been planted in the Bermudas in 1609.

Muskmelons are said to have been grown in Virginia in 1609 and are mentioned by Hudson as found on the Hudson River during the same year. Muskmelons are mentioned by Master Graves in his letter of 1629 as "abounding in New England," and again by William Woods in 1629 to 1633. In 1673, the melon is said to have been cultivated by the Indians of Illinois, and Father Marquette pronounced them excellent, especially those with red seed. In 1683, some melon seeds were sown by the Spaniards on the Island of California. The Indians about Philadelphia grew melons preceding 1748, according to Calm.



FIG. 185.—Typical field of muskmelons grown under irrigation in the Imperial Valley of California. Note the irrigation furrows between the rows of muskmelons

Muskmelons are now well distributed throughout the temperate and subtropical regions of the world and are produced for the market in no less than 33 or 34 States of the United States. About 23 States are producing and shipping muskmelons on a car-lot basis, the more important shipping sections being in California, Colorado, Arizona, Arkansas, Texas, Georgia, North Carolina, Virginia, Indiana, Michigan, Maryland, Delaware, and New Jersey. Altogether about 32,000 acres are planted each year to muskmelons in the United States, exclusive of home gardens and the production is approximately 11,000,000 standard crates or about equal to 32,000 standard cars. The map shown in Figure 184 indicates the distribution of the muskmelon acreage in the United States according to the census figures in 1919.

Two factors have been of greatest importance in the development of the melon industry in the United States: (1) The opening up of vast tracts of sandy or alluvial soils under irrigation in California

(fig. 185), Colorado, Arizona, and elsewhere in the West, and (2), the development of transcontinental refrigeration transit. Coupled with these factors, there has been waged an extensive advertising campaign to popularize the use of muskmelons in the large eastern cities. Figure 186 shows a typical muskmelon field in the Eastern States.

Marked progress has been made during recent years in the improvement of varieties and strains of muskmelons to meet special shipping and marketing requirements, but the condition still exists to some degree as described by Herera, the Spanish writer, who, in 1513, wrote: "If the melon is good, it is the best fruit that exists, and none other is preferable to it; if it is bad, it is a bad thing." The fault, however, lies largely with the growers and is due either to a preventable diseased condition of the vines or to the picking of the melons for shipment before they are sufficiently mature.



FIG. 186.—Typical field of muskmelons as grown in the eastern United States

The addition of the better-keeping melons, such as Honeydew, Casaba, and the Persian or Odessa types, to our list of varieties has greatly extended the marketing season for muskmelons in this country. These varieties are for the most part natives of, or at least have been introduced into this country from, southern Asia, and are found at their best in the low, hot river valley and delta regions of that country. They were first grown in the United States under climatic and soil conditions similar to those of Asia, but their culture has gradually spread to include all of the warmer southern and irrigated southwestern sections of the United States. Formerly the long-keeping melons of the Casaba type were on our markets during the late fall and early winter only, but during recent years their period has been extended and they now appear on our markets about midsummer or even earlier and continue until midwinter, the latest offerings being grown in Mexico. Although these melons

keep reasonably well, their period of storage is necessarily limited to less than 100 days, except under the most favorable circumstances. The flavor of the winter or keeping melons is so different from that of the regular muskmelons as to render them unappreciated by a considerable part of the American population, and the demand for this type of melon is, therefore, more restricted than that of the regular muskmelon in its regular season. Some of the keeping melons, like the Santa Claus or Christmas melon or the Khiva winter melon, grow to enormous size; the latter, as grown in the Salt Lake country under irrigation, has attained the length of 24 inches and weighing 36 to 40 pounds. The flesh of these melons is almost pure white and extremely thick, and, when properly ripened, is juicy and edible nearly to the rind of the melon. As this type of melon becomes more popular and greater attention is given both to its culture and storage, it will undoubtedly become a more important factor in our melon industry.

Watermelons

Watermelons were cultivated by the ancient Egyptians and are represented in their paintings. The actual mention of the watermelon under the Hebrew name "Abbatitchim" is found in connection with the history of the Hebrew exodus from Egypt. Figures of melons are found carved on the monuments of ancient times in Egypt and the watermelon still forms an important food and drink of the Egyptians for several months in the year. Originally, it was thought that the watermelon came from southern Asia because of its general cultivation in that region. However, it is not found growing wild in southern Asia which would rather disprove the theory of Asiatic origin. It is, however, found growing in the wild state in tropical Africa on both sides of the Equator and Livingston in his travels saw districts literally covered with it and the natives and various wild animals eagerly devoured the wild fruits. In the wild state the watermelon frequently has a bitter flavor which can not be detected from the appearance of the fruit. The natives cut open the fruits and first taste the juice to see if it is good or bad. According to De Candolle the proof of the antiquity of the watermelon in the north of Africa is found in the various names under which it is known, these names being in the Arabic and other ancient languages. Its cultivation evidently spread into Asia as there is a Sanskrit name which would bear out this belief. The watermelon was not, however, introduced into China until the tenth century of the Christian era, where it is called "si-kua," which means melon of the west.

Watermelons are mentioned by Master Graves as abounding in Massachusetts in 1629, and before 1664, according to Hilton, watermelons were cultivated by the Florida Indians. In 1799, watermelons were raised by the tribes on the Colorado River. It is easy to discern how both the muskmelon and the watermelon could spread so quickly to all parts of the American continent owing to the ease by which the seeds can be carried and planted. It is notable also that the American Indians have from the earliest records shown themselves to be especially fond of watermelons.

Watermelons are grown for the market over a wide range of territory, especially in the warmer sections of the United States. According to statistics compiled by the Bureau of Agricultural Economics and covering the five-year period from 1920 to 1924 inclusive, there was an average yearly movement of approximately 50,000 carloads, exclusive of those marketed locally or shipped in less than car lots. The average area planted to watermelons was approximately 155,000 acres, or a little over 2 acres per car. Georgia, Florida, Texas, South Carolina, Alabama, and Missouri are the most important watermelon-shipping States. Figure 187 shows the distribution of the watermelon industry in the United States according to the census figures of 1919.

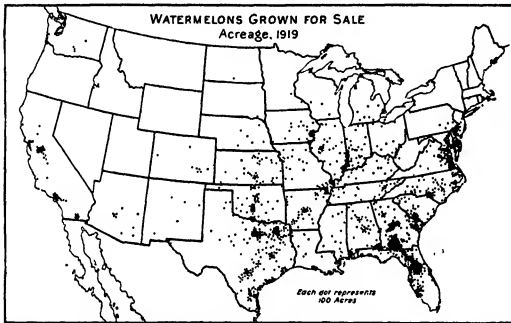


FIG. 187.—Acreage of watermelons grown for sale according to the census of 1919

Watermelon shipments from southern Florida and Texas begin in April, and the season gradually moves northward until the end of the summer, or about October 1, in the more Northern States. The ideal market melon is one weighing 28 to 32 pounds, which loads 800 to 1,000 to a car, although melons as small as 18 pounds and loading 1,500 to 1,600 to a car, are sometimes shipped (fig. 188). Watermelons are grown extensively on new land that is being cleared and put in condition for other crops or are grown on old land in the regular farm crop rotation with cotton, corn, cowpeas, oats, and other crops.

Although watermelons can not be considered a staple vegetable food, but more or less of a luxury, they are in great demand and the commercial watermelon industry is developing rapidly. Attracted by the success of the Georgia melon growers, the farmers of the Carolinas and of other States along the coast as far north as New Jersey have given the production of melons special attention, and though the type of melon produced has varied with local conditions, this expansion of the industry has greatly increased the popularity of the watermelon as a commercial crop. Varieties of watermelons adapted for long distance shipment have been devel-

oped and during recent years greater attention has been given to combining better flavor and edible qualities with good shipping qualities. At present the varieties grown most universally in Florida, Georgia, and the Carolinas, are Florida Favorite, Tom Watson, Irish Grey, Georgia Rattlesnake, and Thurmond Grey.

Where the melons are grown for near-by markets, the variety known as Kleckley Sweets is extremely popular on account of its thin rind and splendid flavor. The Kleckley Sweets, however, is not adapted for long-distance shipment. The Chesapeake Bay and Potomac River sections of Maryland and Virginia have long been noted for the production of splendid quality watermelons which have been largely transported to the market by boats.

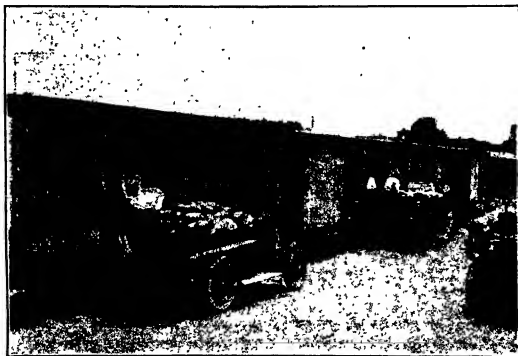


FIG. 188.—Loading early watermelons in Florida. From 1,000 to 1,000 melons are loaded in a car

Recently, there has been introduced into California, Colorado, and other of the Western States, a small round watermelon known as the Christmas melon, which, when matured late in the season can be kept well into the winter. This melon was probably introduced from Russia by a group of Russians located at Rocky Ford, Colo. When well grown these melons are about 10 inches in diameter, have an extremely thin rind and fairly solid flesh. Owing to the very thin rind they do not withstand shipment and must be carefully packed in crates with excelsior to protect them. A rather unique method of storing these winter watermelons as practiced by the Russians, who are said to have introduced them into this country, is to submerge the melons in barrels of weak brine and keep in a cool place, but where they will not be subjected to freezing. In this manner the melons are said to keep in perfect condition until midwinter and to retain an excellent flavor. Although, as already stated, watermelons do not possess a high food value, their refreshing qualities make them especially desirable for cultivation in the greater part of the United States.

Cucumbers

Historical references extending fully 3,000 years B. C. allude to the antiquity of the cucumber and beyond doubt it is of Old World origin. De Candolle, after reviewing the references made by the various writers, concludes that it is a native of India. However, he states that it has never been found growing wild in that country. Doctor Hooker is quoted in Sturtevant's work on edible plants as being of the opinion that the cucumber grows wild in the Himalayas. The cucumber is said to have been brought into China from the west between 140 and 86 B. C. Cucumbers were known to the ancient Greeks and Romans, and Pliny even mentions their forced culture.

Cucumbers were grown by Columbus at Hayti in 1494. In 1535 Jacques Cartier mentions cucumbers as being cultivated by the



FIG. 189.—Field of early cucumbers near Charleston, S. C.

Indians in the section which is now Montreal. In 1539 De Soto found in Florida cucumbers, as he described them, better than those of Spain, and in 1562 Ribault mentions that they were being cultivated by the Florida Indians. In 1584 and again in 1609, Capt. John Smith reported cucumbers as being cultivated in Virginia. In Massachusetts they are mentioned in 1629 by Rev. Francis Higginson. Cucumbers were seen in Brazil by Nieuhoff in 1647, and by Father Angelo in 1666. It is evident, therefore, that the cucumber was brought into America during the time of the early settlers, but that it was used in the Old World countries during the earliest historical times.

Early spring production of cucumbers for the northern markets has now reached large proportions in certain of our Southern States (fig. 189). The first plantings are made in the southern and central parts of Florida in January, and as the season progresses, the plantings are made farther northward, including northern Florida,

southern Georgia, South Carolina, the tidewater section of Virginia and Maryland, and so on up the coast to Boston, Mass. According to the Division of Crop and Livestock Estimates of the Bureau of Agricultural Economics, there were approximately 36,640 acres planted for car-lot shipment in 1925 and during the year 8,464 cars were shipped to the markets. This is in addition to the cucumbers grown in the greenhouses and the small patches in market gardens and marketed locally, also those that are grown in home gardens for home consumption (fig. 190).

Production of cucumbers for the market in the United States has been largely confined to one variety known as the White Spine, although there are several more or less clearly-defined strains of this variety being used. Cucumbers as grown in the Southern States for the northern markets are an extremely precarious crop, owing (1) to their susceptibility to diseases and (2) to the uncertainty of

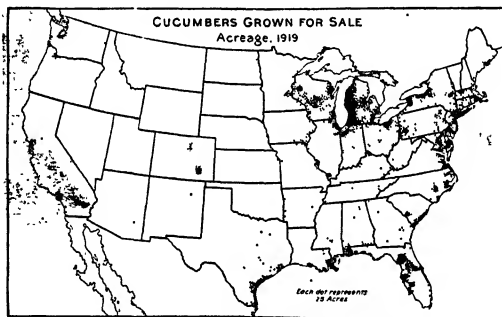


FIG. 190.—Distribution of cucumber acreage in 1919

the markets. The leaf diseases of the cucumber can ordinarily be controlled by spraying, but certain soil-carrying diseases can be controlled only by crop rotation and the avoidance of planting cucumbers on land that has been in any vine crop for a number of years preceding.

Marketing conditions are uncertain from the standpoint of over-production or limited purchasing of the consuming public. As cucumbers are more or less of a luxury, comparatively few are sold at times when the industrial classes are idle. The southern early crop of cucumbers (fig. 191) comes in competition with those grown in northern greenhouses and those produced in hotbeds or coldframes in the Norfolk, Va. section and other regions having a mild climate suitable for growing the crop in this manner (fig. 192). A very large acreage of cucumbers is planted annually, mostly in the North-east States for pickles, and special varieties are used for this purpose.

One rather significant point about the whole cucumber industry is that well grown, fresh, washed, and graded cucumbers that are

packed in neat attractive hampers or baskets often find ready sale on the markets even at a time when ordinary field-run stock is not paying for handling. The season of 1924 was especially disastrous

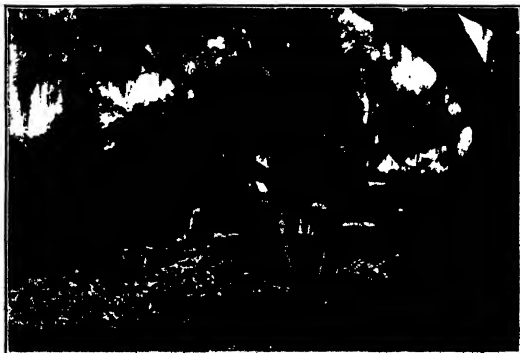


FIG. 101.—Packing early cucumbers in hampers in South Carolina



FIG. 102.—Cucumbers are grown in frames in the Norfolk, Va. section and after the weather has become warm the sash and frames are removed. The overhead pipes are for irrigation

for the early cucumber growers of the South Atlantic coast and the South generally, but during this time the growers who were producing fancy cucumbers in sash-covered frames in the Norfolk region

were making money, the main difference being in the quality and handling of the product.

The gherkin is a small species of cucumber about the size of an egg, or a little larger, covered with short soft prickles, which is eaten while young and tender either cooked or pickled. As the gherkin is very productive only one or two plants are necessary to supply the ordinary family. The market for this form of cucumber is extremely limited. This species of cucumber grows well in Jamaica and other islands of the West Indies. It has also been found growing wild in Brazil and is considered to be of American origin, probably a native of Jamaica. Its adaptability in the United States is mainly for growing in home gardens, truck gardens, and for commercial handling on a small scale.

Pumpkins and Squashes

Early historical writers and botanists have failed to establish beyond a doubt as to whether our common squashes and pumpkins are native of the Old World or America. Certain of the gourds are frequently mentioned by early writers but mainly in connection with their use as vessels for containing water, wine, and other liquid. De Candolle in his investigations finds that the principal varieties of *Cucurbita maxima* are the great yellow gourds which grow to an enormous size; these include the Spanish gourd, Turban gourd, and others. No mention is made, however, of this species being found growing wild in Abyssinia, Egypt, or other African countries. Although the pumpkins are cultivated in southern Asia as in other parts of the Tropics, the plant has not been found growing wild. No similar species indicated by the ancient Chinese authors have modern names of gourds; pumpkins now grown in China are of foreign and southern origin. There is no less uncertainty with respect to pumpkins and melons cultivated by the Greeks and Romans. Certain species of the familiar Cucurbitaceæ are found growing wild in Africa, but on the other hand out of 10 known species, 6 are certainly wild in America. No record is found in the works on Brazil or the West Indies which refer to the ancient cultivation or of wild growth of the Cucurbitaceæ. We find that a century after the discovery of Virginia and 20 to 40 years after its colonization the colonists made use of some fruits of the Cucurbitaceæ. There is other indication, however, that *Cucurbita maxima* was introduced into America by Europeans and that *Cucurbita pepo*, which is the common pumpkin, was of American origin. Several species of the genus *Cucurbita* grow wild in Mexico and in the southwestern part of the United States. Botanical indications are in favor of Mexican or Texas origin of the common pumpkin.

Pumpkins and squashes, regardless of their origin, have been grown in America since the early days and whether the seeds were first obtained by the Colonists from the Indians or the opposite is a question that can not from present historical references be ascertained. Although the pumpkin has attained considerable commercial value and widespread home use in the United States, it has not reached the proportions of an industry such as has the watermelon, muskmelon, and cucumber. It is true that certain of the squashes, especially the Hubbard and marrow types, are grown in considerable

quantities in certain sections and are shipped to the leading markets in carload lots. In fact, the growing of these squashes constitutes quite an industry in Wisconsin, Michigan, and New York, and in certain of the New England States.

The so-called summer squashes are now grown extensively in the South for shipment to the northern markets. Recently there have been brought into prominence two or three varieties of the smaller type of squashes, notably the one referred to as Kitchenette and the other as Table Queen, and these are being used extensively for baking and serving in the same manner as sweet potatoes. The quality or flavor of these small squashes is perhaps in no way superior to the Hubbard or marrow squash, except that they are of a more convenient size for serving in halves or quarters as individual portions. The common types of pumpkin, such as are grown in cornfields, have considerable value from a stock-feeding standpoint, thus making the group of pumpkins and squashes one of considerable economic importance among our American food and feed crops.

Canning Crops

From a small beginning about a half century ago the growing of vegetable crops for canning has developed until in 1924, according to data gathered and compiled by the Bureau of Agricultural Economics, tomatoes, sweet corn, peas, asparagus, snap beans, spinach, cabbage for sauerkraut, and cucumbers for pickles grown for canning or manufacture occupied about 1,100,000 acres and produced raw products having a farm value of about \$66,000,000. This does not include any portion of these vegetables grown for marketing in the fresh state.

Modern canning methods make it possible to grow the crops in sections where natural conditions are most favorable, as the canned product can be transported anywhere irrespective of temperature or other similar factors, as properly packed canned goods will keep under conditions fatal to fresh goods. At the outset many canning enterprises began in sections where soil and other conditions were not especially favorable, and there has been a gradual shifting of the industry to sections where maximum crops of the highest grade can be obtained. Although there is some overlapping, our present supplies of canned peas, corn, tomatoes, asparagus, snap beans, and other vegetables nearly all come from regions which are well defined and bounded by definite lines of demarcation. Wisconsin, for example, produces about half the peas canned in the United States. Illinois, Iowa, Maryland, New York, Ohio, Maine, and other States contribute to the sweet corn supply, but this crop is more cosmopolitan in its requirements and produced with equal ease over a larger part of the country. Practically all the canned asparagus is produced in one small region in California.

Vegetable canning crop production is a development of the last few decades. It had no great commercial importance previous to 1890, and its greatest growth has taken place within the last 20 years.

Canned vegetable foods are of prime importance to the housewife who has the responsibility of planning a daily menu which will supply a properly balanced ration. Tomatoes, peas, sweet corn, asparagus, beans, and other vegetables are available at all times as canned

foods and can be kept on the pantry shelf for long periods. The food value of the canned vegetable is high; it is wholesome and appetizing, and has many of the qualities of the fresh product.

From the canning-crop growers' point of view these crops are of prime importance. They gave him over 1,000,000 acres of crops, many of these being well adapted to established or desirable cropping systems. The canning factory in his neighborhood gives him a ready and dependable cash market for his canning crops. It is a significant fact that canning-crop localities are usually prosperous ones. It is not surprising that canned vegetables are popular with the consumer and that the growing of canning crops has developed into its present importance.

Tomatoes for Canning

The development of our extensive industry in the canning and the preparation of various products from tomatoes is a development of the last half century. It occupies a leading place among the vegetable-canning crops covering large areas and producing several hundred thousand tons of products each year. Fig 193 shows the growth of the tomato-canning industry from the time that statistics became available. It is interesting to note the steady and increasing use of this vegetable in the form of canned tomatoes and the various products made from this wholesome and popular vegetable.

The tomato is a crop requiring a moderately warm climate and a long growing season for its best development. In the Northern States where the frost-free season is too short for maturing the crop out of doors it can be grown by starting the plants indoors, thus prolonging the season several weeks. By following this practice, it is possible to grow tomatoes in a commercial way in regions where the industry could not otherwise flourish. In climates where its growth is not interrupted by frost, the tomato is a perennial plant, but in the portions of the United States where the tomato has attained its great importance, it is treated as an annual.

It is not particularly sensitive to the types of soil on which it is grown, but it must have a moderately warm season, ample supplies of moisture and land of reasonable fertility. These and other factors have influenced the development of the industry in certain portions of the United States. The geographical distribution of the industry is indicated in Figure 194, each dot representing 100 acres of tomatoes grown for canning or manufacturing of tomato products. Although many of these factories may be operating under serious economic disadvantages, the map shows that tomatoes for canning and manufacturing are being grown and packed over a considerable portion of the United States. Although the high temperatures and hot sun of the lower South are not well suited to the growing of tomatoes for canning, and the northern limit of their growth is established by the short-growing season of the northern portion of the United States, it does not follow that the present distribution of the industry is in all cases sound. As a matter of fact, it has undergone marked readjustments, shifting from less favored sections to other regions where maximum yields of high quality tomatoes can be obtained at lower costs. It has moved from regions adjacent to large centers of populations where both land and labor costs are

CANNED TOMATOES, CORN, AND PEAS
Number of Cases, 1885-1925

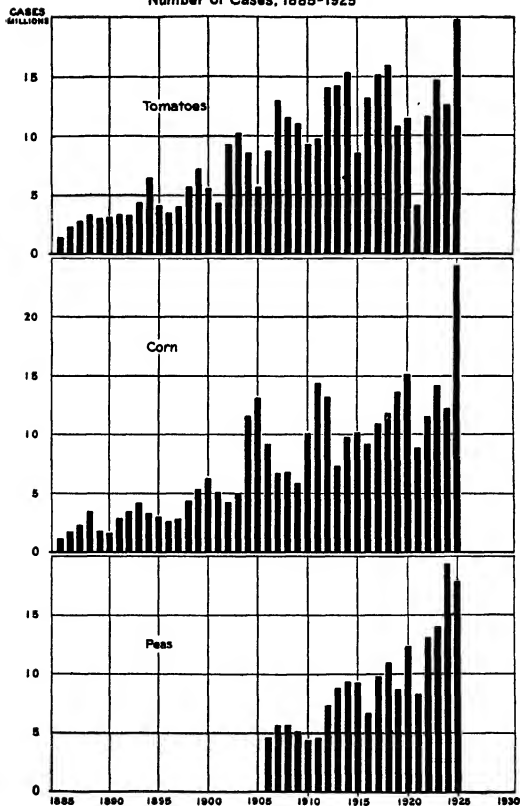


FIG. 198.—Growth of the canning of tomatoes, corn, and peas during the period 1885 to 1925

steps in insuring an abundant acreage of land suitable for the successful growing of canning-crop tomatoes as well as other farm crops. Many growers not content with having their soil in good physical condition and well supplied with organic matter, add materially to its resources by sowing cowpeas, soy beans or other similar plants between the rows of tomatoes at the last cultivation, the resulting growth being plowed or disked into the soil after the crop season is over. Successful canning-crop production can not well be carried on without crop rotation.

How cannors obtain tomatoes.—The production and canning of tomatoes requires a close working arrangement between growers and cannors. A large portion of the crop used for canning and manufacturing purposes is grown under contract between the canner and the grower, although some are grown by cannors who maintain farm departments, producing the crop on land either leased or

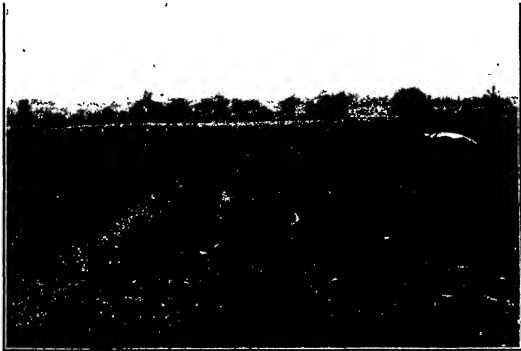


FIG. 195.—Large areas are required to produce the heavy tonnage of tomatoes needed for canning and manufacturing

owned by them. Buying on the open market is practiced to a certain extent, especially in some sections where surplus material is purchased and canned or used for the preparation of other tomato products. Few cannors depend on buying their entire supply on the open market, preferring to contract for at least 90 per cent of their requirements. In the past, misunderstandings have often existed between growers and cannors but both should realize that their interests are in common. Although the farmer may have no direct financial interest in the tomato cannery, it gives him a market for his crop, and there should be sufficiently close relations between the growers and the cannors to permit the employment of every agency to increase the yields and make the industry a profitable one for both. Figure 195 shows a field of tomatoes grown for the cannery.

Seeds and plants.—Low yields of canning tomatoes are often due to the use of poor seed of unadapted varieties. Next to poor soil

the greatest menace to the tomato-canning crop is poor seed, this sometimes being promiscuous cannery-run seed, which is saved from catsup and tomato-pulp manufacture. Cannery-run seed is often a mixture of varieties, frequently carries diseases affecting the fruits as well as the young plants, and is never saved from selected plants.

Satisfactory tomato seed suited to the grower's conditions can be purchased from dealers who have made a specialty of its production, or it may also be provided by individual growers or associations of growers saving their own seed. If the individual grower desires to work alone, he can select a few plants of the type he desires and save seed from these. Two ounces of high-grade tomato seed should start plants to set an acre, and it is not a difficult matter to save enough seed for the establishment of a considerable acreage. If it is advisable for an association of growers to combine and produce seed for the use of all, the work can readily be done by one grower who has especially favorable conditions for the work. Where fields are set aside for seed purposes, individual plants of the desired type should be marked and the product of these plants taken for seed, the remainder of the crop being used for commercial purposes. The importance of good seed to the grower of canning-crop tomatoes can not be overestimated. It is one of the first and most important forms of crop insurance.

With good seed of high germination and strong vitality to start with, the procuring of well-developed plants—another and very essential part of tomato growing—is largely a matter of the use of the right equipment and the practice of care on the part of the plant grower. Strong, stocky plants can be obtained without special difficulty, provided the necessary precautions be taken. The methods to be employed in procuring these plants must be determined, to a large degree, by the geographical location of the grower, by the equipment available, by the time in the season the plants are needed, and by the desired size of the plants themselves. The growing season can be lengthened several weeks by growing the plants indoors, as it is possible with proper facilities to have them well advanced when set in the field.

Several well-defined plans and methods are widely followed for procuring plants for the establishment of the canning crop. Within recent years much attention has been given to the growing of plants in seed beds in the South during early spring, and the shipment of these plants to northern growing regions for field use. Millions of plants are produced and used in this way each year, but growers generally are inclined to regard the use of southern-grown plants as in the experimental stage.

Early plants can be grown in the North through the use of protective devices such as greenhouses, hotbeds, and coldframes. Four thousand to six thousand tomato plants are necessary for each acre and the handling of these requires a large amount of equipment. Though the seedlings are usually started in flats or in beds where they require little room, they must be transplanted and given more space. When set about 2 inches apart in each direction, at least a dozen standard hotbed sash are required to cover enough plants to set an acre. Growers having several acres of tomatoes find it expensive to provide protected space for plant growing. In warmer

locations cheaper facilities, such as cloth-covered frames are used, simplifying the problem, but it still presents difficulties. The use of southern outdoor-grown plants is due in a large degree to the difficulties experienced in growing early plants in large quantities in northern locations.

In some of the commercial canning sections the production of tomato plants in an open seed bed is a common practice. The seed bed established on a specially prepared area with a southern exposure, and protected by trees or other windbreaks from north winds is preferred. The seed is drilled in rows and no transplanting is practiced. Plants can not be obtained as early by this method as when the greenhouse, hotbed, or other protective device is used, but in certain important canning regions plants can usually be obtained from open beds as early as they are wanted. When the work is properly done very good plants may be grown in this manner. In some sections excellent results are being obtained by farmers' associations, usually under the leadership of the county agent, in growing their supplies of tomato plants in this way. One man is capable of growing the plants for a large acreage and the cost is not great. Whatever method is used the aim should be to procure stocky, disease-free plants, which can be moved to the field without materially checking their growth.

Although it is necessary that weeds be controlled, deep cultivation should be avoided. Frequent, very shallow stirring of the soil is desirable, but this should be done with tools which will not injure the rather shallow root system of the tomato and discontinued when the vines cover the ground. Cultivation should not be carried on when the vines are wet, as this tends to spread the spores of leaf blight fungus.

Picking and handling tomatoes.—One of the greatest difficulties in the production of high-quality canned tomatoes lies in getting the tomatoes to the cannery in first-class condition. Tomatoes should be picked when in prime condition for the purpose for which they are to be used. For canning they should be ripe but not overripe. The grower must pick his tomatoes often and deliver them to the cannery promptly. There is a tendency to pick at too infrequent intervals, with the result that many overripe and partly decayed fruits are included, causing the grower to be penalized for a thing he could easily avoid.

Successful canning-tomato growing depends on the practice of good farming methods, the use of good seed and good plants, careful planting, clean cultivation, and the many other factors governing successful crop production. Recently established tentative grades for canning-crop tomatoes should prove a distinct help in placing the crop in the canners' hands in the best possible condition.

Sweet Corn for Canning

The canning of sweet corn began in a small way in Maine about 1850, the development there being followed very shortly by a similar enterprise in Maryland. From these small beginnings the industry has spread to many States and increased in importance until from 200,000 to 300,000 acres are required to grow sufficient corn to supply the demand for the canned product.

The growing of sweet corn for canning is carried on in a number of the Northern States including Iowa, Illinois, Maryland, Ohio, New York, Indiana, Maine, Minnesota, Wisconsin, Michigan, Nebraska, Pennsylvania, and elsewhere. The distribution of the industry is shown in Figure 196. The congenial climatic and soil

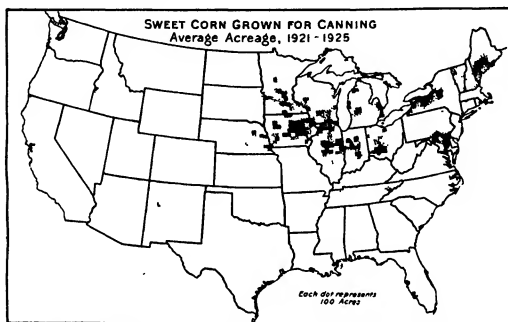


FIG. 196.—Average acreage of sweet-corn production for canning during the period from 1921 to 1925

conditions found throughout these States are largely responsible for the crop having attained its present importance in these areas. Sweet corn is a tender plant, easily injured by frost, and one which will not withstand excessive heat. This limits its production to those sections where there is a frost-free season of from 85 to 120 days and at the same time an average temperature that is not too great.

To can corn economically and in accordance with modern sanitary standards requires a considerable investment in factory and equipment. The canning season is short, and in many cases the factory is idle during the remainder of the year. These conditions usually necessitate the handling of a rather large pack and a correspondingly large acreage. Corn grown as a canning crop has a rather low relative acre-value and can not be economically produced where land is scarce and high priced. Corn is an attractive crop to the farmer because it is harvested while green and is not as exhausting on the soil as field corn. It also yields considerable quantities of green fodder which can be used for silage or dry feed or turned into the soil as green manure.

In general, sweet corn is adapted to the same range of soil conditions as are suitable for field corn. It is more sensitive to climate and somewhat more exacting in its soil requirements, a medium loam well supplied with organic matter usually giving best results. Where heavy clays are used, their physical character should be improved by turning under large quantities of organic matter in the form of stable manure or green-manuring and soil-improving crops. Irre-

spective of the type of soil selected, good drainage is absolutely essential to the production of a large crop. Drainage is in fact more important for sweet corn than for field corn, and land which is sufficiently drained for field corn will in many cases not give good crops of sweet corn.

A farming system that will keep the soil in a high state of fertility through the use of crop rotations, commercial fertilizers, stable manure, lime, and similar agencies is to be looked upon as essential to the production of good crops of sweet corn. Rotations best adapted to each farm can be determined only after studying all conditions. Improved yields of canning-crop sweet corn may be obtained by giving attention to several limiting factors, one of the chief of these being the practice of crop rotations to bring the land to a higher state of fertility.

In most of the sweet-corn-canning districts contracts are entered into between cannery and growers whereby the cannery is assured a definite acreage of raw product. The labor of harvesting sweet corn for the cannery is not great and it is possible for individual farmers to grow a considerable acreage. Practically all of the sweet corn packed is contracted for several months in advance with individual growers. Contracts are sometimes made on a sliding scale, the price depending on quality, but more often on the basis of a fixed price for a given variety and practically always contain a clause governing the time of harvesting and delivery to the cannery. In many cases the dates of planting are controlled by the cannery. In this manner the factory can assure itself a constant and uninterrupted supply.

Some cannerys maintain a farm department and produce at least a portion of their own supply of corn. This plan has many advantages, such as giving the cannery better control of growing methods, but adds to their responsibilities. As a rule cannerys adopt this method only when they feel it necessary to safeguard their supply of corn for canning.

Good seed is of prime importance to the grower of sweet corn for the cannery. A bushel of good seed is sufficient to plant about 6 acres and the difference in cost of seed of unknown quality and that of proved performance is too trifling to justify the grower in taking chances on crop failure from the use of poor seed. The production of sweet-corn seed is more difficult for the individual grower than that of some other vegetable crops as corn mixes readily over long distances. In sections where large acreages of only one variety are grown, it should not be difficult to obtain stock free from danger of mixture. The main dependence of the grower of canning-crop sweet corn for his seed supplies is on the commercial seedsmen who specialize on the work. Irrespective of the source of the seed, it should be carefully tested in advance of the planting season. This work can be readily performed by the use of the rag doll seed tester. The best practice is to test each ear individually so that those having low vitality can be rejected. The importance of good seed with a high germination can not be overemphasized, as the securing of a good stand and the ultimate crop depends largely upon this factor.

The harvesting and handling of sweet corn for canning is usually supervised very closely by the cannery buying the crop. The corn is in prime condition for canning for a very brief period and it must

be handled quickly. The canner usually arranges a succession of plantings and varieties, so that he will have material to keep his plant in operation for as long a period as possible. The corn is in prime condition for canning when it is in the best stage for roasting ears and should be handled before it passes this stage. The usual method of harvesting is to go through the field snapping the ears and throwing them on the wagon fitted with a suitable frame. In some cases the farmer receives the husks and cobs for feeding, whereas in other cases these are placed in silos at the cannery and used by the canner for winter-feeding operations. The fodder which always contains a considerable quantity of corn makes excellent silage, and the majority of canning-crop growers use it for this purpose.

Yields of canning-crop sweet corn vary widely. According to data gathered and compiled by the Bureau of Agricultural Economics, the average yield for the three-year period 1923 to 1925 was slightly over 2 tons per acre, but in 1924 it was only 1.7 tons per acre. The value per acre for this same year was only \$24. In 1925 the value of the crop rose to over \$37 per acre. Owing to the unfavorable conditions prevailing during the crop season of 1924, both yields and acreage value for this period are abnormally low. Yields of 5 to 7 tons per acre are often obtained by the better growers. The farmer who makes most money out of the growing of sweet corn for canning invariably obtains yields much above the average. The net returns obtained depend on the yield, the cost of production, and on the price received. With canning-crop sweet corn it is especially necessary that every practicable economy be employed for increasing crop yields. It is a crop which can not be neglected or relegated to the poorer portions of the farm.

Peas for Canning

Green peas are one of the three most important canned-vegetable commodities of this country, being exceeded in tonnage only by tomatoes and sweet corn. In common with the other important vegetable-canning crops, its history as such is not old, as the industry started about the middle of the last century around Baltimore, Md., and its growth has been gradual until it is now a very important enterprise in several of the Northern States. According to figures gathered and compiled by the Bureau of Agricultural Economics, the acreage of peas grown for canning in 1925 amounted to over 230,000 acres, with a production of about 214,000 tons, having a farm value of \$12,652,000. Of this great crop 111,700 tons were grown in Wisconsin, 34,200 tons in New York, 17,200 tons in Utah, 7,600 tons in Maryland, with the remainder coming from Illinois, Michigan, Indiana, Ohio, California, and other States. Figure 197 shows the distribution of the canning-crop pea industry. The growth of the industry is also shown by Figure 193. In cases where acreage figures were not available they have been calculated by allowing 70 cases per acre.

The production of canning peas was at one time restricted to the Middle Atlantic States, but the industry soon spread to other sections ~~where~~ ^{where} even better conditions were to be found. It is essentially a ~~stable~~ ^{stable} industry.

cool-weather crop—in fact, the young plants will endure some frost without serious damage. The crop is grown most successfully in those regions where spring is a little slow in changing from cool to warm weather. The period of harvest is too brief, and the other hazards of the crop are too great for its successful production in parts of the country where conditions are unfavorable.

The growing of peas for canning and the packing of the product is a specialized industry. For economic reasons many canning factories handle other crops, thereby lengthening the season over which the plant can be kept in operation. However, sections which are ideal for the growing of one canning crop are usually not so well suited to the others. As a result most large pea canneries specialize on this crop and handle smaller quantities of other canning crops which can be grown in their locality.

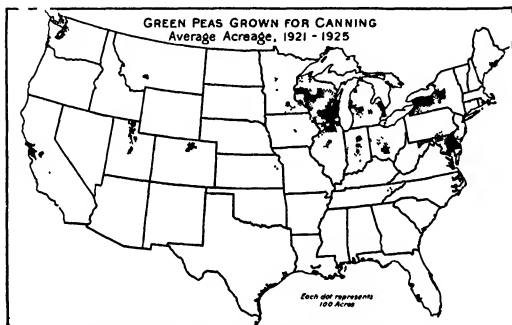


FIG. 197.—Average acreage of green peas grown for canning from 1921 to 1925, inclusive

The pea crop is usually grown under contract, the canning company specifying the varieties and acreage to be planted by each grower. In a few instances the canners themselves own or lease land upon which they grow a portion of the requirements of their factory. Whatever method is employed in providing a supply of peas, the canners usually assume general direction of the crop, including the selection of the land and in many cases supply the seed to the growers at about one-half actual cost. A strong field force is an important part of the canners' organization, as the peas must be harvested at the proper stage of maturity and delivered to the cannery with promptness and dispatch. The production and canning of peas must be carried on with the utmost care for in no other way can a high-grade product be obtained.

Canning-crop peas succeed on a wide variety of soils provided they are well drained but not so porous that they lose moisture rapidly. Clay loams, well supplied with humus and lime, are well adapted to the crop. More depends on the drainage, fertility, and

general condition of the soil than upon slight variations in type, such as from heavy loams to light loams. Extremes of any character are to be avoided. The land must be clean, and well supplied with organic matter. In brief, as indicated by this discussion, land for canning-crop peas must be the very best land on farms where crop rotations, including the use of a group of unrelated crops, have been employed for maintaining soil balance and aiding in the control of insects and diseases which are liable to attack the pea crop.

Thorough soil preparation is absolutely necessary for peas, as a fertile deeply prepared, mellow seed bed is one of the chief essentials in successful pea culture. Being grown without cultivation the operations before planting will influence, in part, the water content of the soil for the crop season. The preliminary preparation will also largely control the development of the root system and influence the extent of weed infestation.

Being a leguminous plant, and possessing the ability of other members of this group to gather nitrogen from the air through the agency of the nodule-forming bacteria the plant does best when grown on inoculated soil. Areas, especially those which have been devoted to the growing of peas and related crops, already have sufficient inoculation, but when there is need for the treatment crop yields are materially increased by inoculation.

The character of the seed used in establishing the canning crop of peas is of prime importance. Great losses have occurred through the employment of unadapted varieties or through the use of mixtures of good and poor sorts. Canning peas are of two general types, the smooth early type, the Alaska being a widely used representative of this group, and the wrinkled or so-called sweet varieties, including such sorts as Horsford Market Garden, Admiral, and others. According to available information about 55 per cent of the canning crop of peas consists of the Alaska type, while the wrinkled sorts constitute the remainder of the pack. Especial trouble has been experienced through the use of spurious Alaska peas, which, having very long, heavy vines do not ripen uniformly and rarely give more than a small crop of usable peas at one time. If mixed with purple-flowered varieties some peas will darken on processing and the canned peas will not be salable. Various remedies having to do with seed supply are employed for these troubles. Some canners have adopted the plan of producing their own supply of seed from stock of proved performance and under controlled conditions. Most canners do not, however, wish to become seed growers as they have problems enough without adding this. Perhaps the most widely followed plan is to purchase seed from commercial growers who grow their seed under rigid inspection and who exercise precautions to keep their stocks true to name and free from mixture. Whatever the source of the seed the canner can not afford to take chances.

The production of peas on the scale required in modern canning has brought about the adoption of cultural practices of a distinctive character. In most sections the peas are drilled in the same manner as wheat, rye, and other grains, but covered about 4 inches. In a few locations they are drilled in rows and cultivated. With broadcast seeding no cultivation is attempted or, as a matter of fact, possible. The crop soon covers the ground with a dense

mass of vegetation which usually controls weeds. However, if the land is badly infested with weeds, if it has not been properly prepared, or if conditions for the peas are not otherwise satisfactory, weeds and grass may gain the upper hand with serious damage to the crop. The need for thoroughness in all cultural practices is evident.

In the early days peas were gathered and shelled by hand. Market demands soon made this method too slow and costly. Harvesting by cutting with an ordinary mowing machine fitted with special lifting guards and a bunching device soon came into vogue. Following the mower the peas are loaded, vines and all, upon wagons (fig. 198) and are hauled to the viner. The introduction and improvement of the viner, or machine for shelling the peas and separating

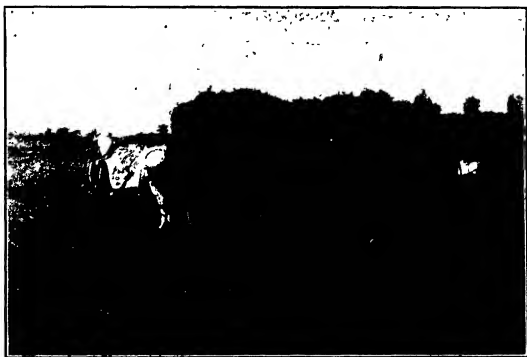


FIG. 198.—Canning-crop peas are harvested and handled in much the same way as other field crops

them from the vines, was the most important factor in the development of the pea canning industry on a large commercial basis. With the aid of these machines it is possible to handle the crop as quickly and expeditiously as is the practice with the grains. The peas can be hauled from the field and fed into the viner with a pitchfork. Figure 199 shows peas being unloaded from wagons into a battery of viners which serve a large Wisconsin packing plant. Silage is made from the vines and is a valuable by-product for feeding purposes. In some cases it is returned to the farmers who supply the peas to the cannery, usually on a pro rata basis at nominal cost, but in other cases it is fed to livestock by the canning company. The use of local vining stations makes it possible to feed the pea silage near the place where it was grown, thereby saving long-hauling costs. These vining stations may be several miles from the cannery as truck, trolley, or other transportation makes it possible to trans-

port the shelled peas only to the cannery, thereby greatly extending the area from which the plant can draw its raw product.

In 1925, the canning-pea crop had an average farm value of over \$50 per acre. It requires from 4 to 5 bushels of seed to plant an acre of peas. Yields of 2 tons or more of shelled peas per acre are obtained under favorable conditions. The use of good land, high-quality seed, and the practice of careful cultural methods are all necessary to obtain these increased yields.

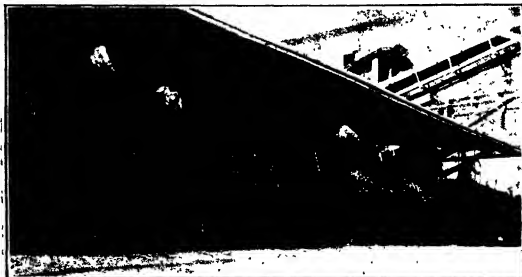


FIG. 199.—Viners fed from the wagons with pitchforks separate the peas from the vines. Labor-saving devices, making possible the handling of large acreages of canning-crop peas, are largely responsible for the great extent of the pea-canning industry.

Miscellaneous Canning Crops

Although tomatoes, peas, and sweet corn represent a large portion of the annual value of the vegetable-canning crops, certain others, including asparagus, cucumbers for pickling, cabbage for sauerkraut, snap beans, Lima beans, beets, and spinach have a high annual value and are of great economic importance to both the producer and consumer.

Cucumbers for Pickling

That the public is fond of cucumber pickles is shown by the fact that almost 100,000 acres are devoted to the crop each season, with the average annual production for the period of 1921-1925 amounting to almost 4,000,000 bushels. The average crop for this period allowed 1 bushel to each 30 persons in the United States. On the basis of first-grade pickles this would mean the enormous number of about 2,810,950,000 pickles. A considerable part of the pickles, however, are of larger size than standards and the actual number is much less.

Cucumbers for pickling are usually planted for that specific purpose and are handled in a somewhat different manner than is the case with the market crop. Some attention has been devoted to the possibilities of marketing the early portion of the crop while prices are high and using the latter parts for pickling. This plan has little to recommend it, as varieties suitable for market are not good pickling sorts. Vines which have been allowed to produce market size cucumbers

seldom give worth-while yields of high-grade pickles, and other difficulties stand in the way. The pickling industry has developed in several portions of the country but like all other highly specialized crops it has attained its greatest importance in sections where climatic, soil, labor, and other conditions are particularly favorable. A few States produce a large part of the crop. Although some changes in proportionate acreage occur from season to season, the most important States are Michigan, Wisconsin, Indiana, Iowa, Colorado, Minnesota, California, New York, Illinois, Ohio, Missouri, and Washington. Pickling cucumbers appear to be especially adapted to sections having good soil and where the summer temperature and climate are moderate, with an abundant and well-distributed rainfall. The growing season must be sufficiently long but on the other hand the long summers of the South are not especially favorable for the growing of pickles. Insects and diseases have much to do with

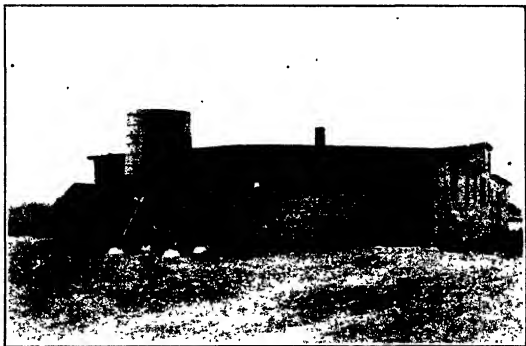


FIG. 200—Cucumber pickle salting station

the distribution of the pickle industry. This phase of the subject will be discussed elsewhere.

The growing of pickle cucumbers can be successfully prosecuted only when given the most painstaking care. In the first place, the acreage must be located within easy access to a salting station. As a rule, the crop is grown under contract between farmer and pickle manufacturer, the acreage being located within a few miles of a salting station where the cucumbers are received and salted for later shipment to the factory. Figure 200 shows a characteristic cucumber pickle salting station with water tank, pump house, inside unloading platform, and housing a number of salting vats or tanks. That the industry is profitable to the good grower is shown by the fact that some salting stations have been in operation in the same location for as much as 40 years, individual growers having had acreage for 20 years or more. Like all other intensive crop indus-

tries, it is not popular with the man who dislikes work which demands close attention, for cucumbers can not be neglected.

In common with other intensive crops cucumbers demand good soil. A rich sandy loam with a clay subsoil is recommended, but other kinds of soil are used with good results. It is particularly desirable that the land be well supplied with organic matter either in the form of manure, or the decaying remains of previous crops of grass, clover, alfalfa, or others. Rotation is as desirable for cucumbers as for other crops and it is especially desirable that this crop follow some unrelated one, as many of the insect enemies and diseases affecting cucumbers may hibernate in the field or remain in the soil from one year to another.

Good seed of an adapted variety is one of the first and most important factors to be considered. Some of the pickle manufacturers supply their growers with seed for planting. Whatever the source it should be of unquestioned purity and of the type demanded by the buyer. Seed treatment for the control of seed-borne diseases is required by the best growers. This work can be done most advantageously by the agency supplying the seed, as it can be treated in large lots at relatively small expense. In the past thick planting has been the practice, but this makes a heavy mat of vines which cover the ground and makes it very difficult to pick the crop. Thick planting, with resulting difficulties in harvesting, is responsible for much of the trouble experienced in obtaining satisfactory results with the cucumber-pickle crop. Old methods called for hills from 3 by 6 feet to 6 by 6 feet apart with three or four plants to each hill. Many growers now plant in 7-foot rows, the hills being $3\frac{1}{2}$ feet apart, and thin to one plant in a hill. By following this method the ground is not fully covered which makes it possible to cultivate and harvest without difficulty and at the same time good yields are obtained. These single plants make a large growth, frequently attaining a diameter of an inch or more, and having from 12 to 20 lateral branches, all of which may bear cucumbers. The highest-grade cucumbers are from 1 to $3\frac{1}{2}$ inches long, and as a rule are sold by weight, these sizes bringing the highest price. The plants will bear over a longer period if no cucumbers are allowed to mature, and it is to the advantage of both grower and buyer to harvest frequently.

Harvesting must be by hand which is not difficult when thin planting is practiced. The cucumber-pickle crop brings good returns per acre. It is a cash crop, and it would be difficult to find one better suited to the farmer who wishes to supplement his regular farm work with a few acres of cucumbers, thereby obtaining a substantial increase in his income. There are few better methods whereby an energetic boy or girl can earn ready money. Many who are located near a salting station and who can procure land which is suitable make enough from an acre or two of cucumbers to defray school expenses for the year.

There would seem to be little danger that the growing of cucumbers for pickles will be overdone. It requires much hand work in harvesting, and is not adapted to large-scale production. The work requires close attention, especially during harvesting time, and does not appeal to those who wish to be free to come and go at their

pleasure. The farmer or other person with the right land who is within reach of a salting station and who can make satisfactory arrangements for the sale of his crop is likely to find it a very attractive undertaking.

Asparagus

The production of asparagus for canning is a very much localized industry, as the entire commercial production comes from two States—California and New York. According to available information 26,400 acres of the 26,530 acres of the canning crop in 1925, was located in California. The production that year amounted to 47,600 tons, with a farm value of \$3,795,000.

Production methods followed in growing canning-crop asparagus are similar to those employed for the table crop. White asparagus is used for canning, this being obtained by ridging the rows early in the season and cutting the spears several inches below the surface. Nearly all vegetable-canning crops must be handled with all possible speed, but this is especially necessary with asparagus. Canning companies formulate their plans so that the asparagus can be transported to the factory and canned within a few hours of the time it is cut.

Snap Beans

Snap beans for canning are produced in commercial quantities in a number of States. According to data gathered and compiled by

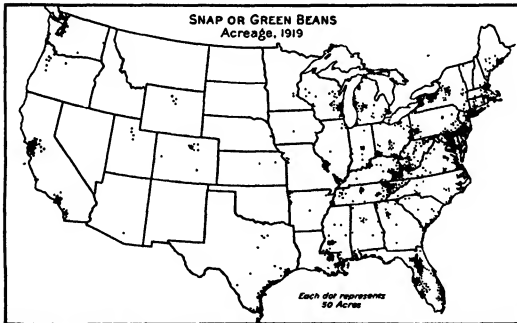


FIG. 201.—Acreage planted to snap or green beans in 1919 according to the census figures

the Bureau of Agricultural Economics, the acreage in 1925 amounted to 30,980 acres with a production of 66,000 tons. The yield was 2.1 tons per acre, having been 2.3 tons in 1921, 2.4 tons in 1922, 2.1 tons in 1923, and 1.9 tons in 1924. The most of the snap-bean canning crop comes from a few States. New York led in 1925, with 6,370 acres, while Wisconsin had 3,610 acres, Michigan 3,000 acres, Maryland 2,950 acres, Colorado 1,650 acres, with Louisiana, Maine, Cali-

foria, Oregon, Pennsylvania, Tennessee, Utah, Washington, and other States producing the remainder of the crop. The distribution of the green-bean-growing industry is shown in Figure 201. This map is based on acreage, each dot indicating 100 acres, and including both canning and market-crop green beans. The location of the canning crop is indicated in the acreage figures given in the text of this paragraph.

Canned snap beans are rapidly gaining in popularity with the consumer, but they are a rather difficult crop for the grower to handle as the harvesting must be done by hand.

Cabbage for Sauerkraut

The production of cabbage for sauerkraut making has assumed large proportions during recent years. Like the canning industry, sauerkraut production is centralized at points which are adapted to the production of the particular type of cabbage required for making sauerkraut, namely, a solid head which suffers a minimum of loss in outside trimming and which has a small tender core. The development of sauerkraut canning in tin cans makes this delicious and healthy commodity available for use under practically all conditions.

Formerly sauerkraut was shipped mainly in barrels or kegs and was subject to a certain amount of spoilage loss. Under the present method of canning in No. 3 cans, it is an easy matter for the housekeeper to keep two or three cans on her pantry shelves for use at any time. Considerable quantities of sauerkraut are still sold in bulk by grocers, especially in sections where the population relies upon sauerkraut as a regular part of its diet. The commercial sauerkraut crop is practically all grown during the latter part of the season, and the manufacture of the product is carried on during late fall. New York, Ohio, Wisconsin, and Michigan are leading producing States, but additional supplies come from many other sections.

Spinach, beets, green Lima beans, cauliflower, pickling onions, and many other vegetables enter largely into the canned, preserved and pickling products of the United States, some of these constituting considerable industries in themselves and should be included in any comprehensive survey of the vegetable products grown for canning and preserving.

Perennial crops

Asparagus, rhubarb, and horse-radish are the most important perennial crops of our American gardens, and all three were brought into this country during early days of colonization. Later, the Japanese vegetable known as Udo was introduced and is grown to a limited extent as a perennial crop in the United States. Asparagus heads the list of perennial vegetables in commercial importance and the demand for this special early spring vegetable is rapidly increasing.

Asparagus

According to the Treasury of Botany and Sturtevant's notes asparagus is a native of Europe and is found growing wild in parts of Great Britain near the sea, and in the southern parts of Russia and Poland the waste steppes are covered with it, and it is eaten

by horses and cattle as grass. Pliny also mentions a sort that grew in his time near Revenna of which three heads would weigh a pound. This would indicate that the Romans had varieties or strains of asparagus that were fully equal to anything now grown in this country. The Romans of the time of Cato, about 200 B. C., knew it well and Cato's directions for culture would answer fairly well for the gardeners of to-day. Pliny, writing in the first century mentions asparagus, praising it highly, especially the wild forms, and recommends transplanting it to the wild places that are unfitted for other forms of agriculture.

It is not definitely known when asparagus was brought into this country but probably during the early days of English settlement. In the Middelbury (Vt.) Register of June 29, 1917, there appeared the following statement:

There is an asparagus bed on the Elias Lyman farm at the "Point," town of Hartford, which was started 101 years ago, and continues to this day to yield an annual and generous crop. The bed has never been replanted with new roots, but because of an intelligent making of the original bed, its favorable location and its never neglected cultivation, it has maintained its existence and has given its owners in this present season and the first year of its second century a supply free from defects and in every way of the best quality. This bed from the first has ever been free from asparagus rust that has now become so frequent in all sections of New England.

It was not, however, until after 1850 or 1860 that asparagus was planted extensively by commercial growers in this country. During recent years the expansion of the commercial asparagus industry has been rapid and widely distributed. According to figures compiled by the Bureau of Agricultural Economics, the commercial and canning acreage of asparagus in the United States during 1925 was approximately 56,000. The acreage of asparagus both for table and canning is increasing rapidly, the most important increases being mainly in California, New Jersey, and South Carolina. Asparagus is one of the first of our early-spring vegetables, and has increased greatly in popularity during the last few years. The present increase in acreage of asparagus is justified by the demand for both the fresh article during the spring months and to meet the requirements of the asparagus-canning industry. Asparagus is especially adapted to growing on low, alluvial, and loamy but well drained seacoast soils; it withstands and in fact seems to benefit by the presence of a small percentage of salt in the soil and responds readily to heavy fertilization. The recent development of rust-resistant varieties of asparagus has practically revolutionized the industry through increased yields and improved quality.

Asparagus rust, which is caused by a parasitic fungus (*Puccinia asparagi*), is a native of the Old World and was first found in America in 1896 near New York City. Within 10 years the rust had spread to all the asparagus-growing regions of the United States and caused serious losses everywhere. Control measures such as dusting and spraying were for the most part ineffective, but it was soon discovered that certain new strains, developed in Europe under rust conditions, resisted rust attacks better than our old strains, which had lost any immunity that they might once have possessed. In 1906 the Massachusetts Asparagus Growers' Association secured the cooperation of the United States Department of Agriculture and the Massachusetts Agricultural Experiment Sta-

tion in a breeding project, and J. B. Norton of the Bureau of Plant Industry was assigned to the work. Varieties from all over the world were collected at Concord, Mass., and subjected to rust-epidemic conditions. Not one plant was found to be completely immune to rust, but in 1908 selections were made of the most resistant ones and seed produced in 1909. From the lots of seedlings grown in 1910, one male plant, A 7-83, of unknown American origin, and a female plant, B 32-39, from Reading Giant, procured from Sutton & Sons of Reading, England, were crossed and gave the best progeny of the hundreds of combinations. From this combination came the first resistant strain, which was named Martha Washington.

The male plant, Washington, and the female plant, Martha, with other female plants, were removed to the Arlington Experimental Farm, near Washington, D. C., the crowns being separated into several divisions and planted in an isolated bed for breeding purposes. Several new female plants were added from time to time as they showed their value as producers of good seedlings. Notable among these was a giant female taken as a seedling from a bed of Reading Giant grown by C. W. Prescott at Concord, Mass., in 1910. This plant was named Mary, and in combination with the male plant, Washington, has given the newest-named strain—Mary Washington.

As asparagus is one of the very first green vegetables to appear in the spring, it is desirable for planting in home gardens and in market gardens serving roadside markets and local town or village trade. On the basis of average yields, an acre of asparagus will produce about 3,500 pounds, or 1,750 bunches of 2 pounds each. On the same ratio of production, 100 plants in the home garden would yield about 85 pounds during a cutting season of six to nine weeks or an average of nearly 2 pounds per day. It is reasonable to expect a planting in the home garden, through superior fertilization and care, to yield at a higher rate than would be obtained under field culture, especially after four or five years from planting. Much depends, however, upon the care exercised in the original making of the bed and the selection of well-grown plants for setting. On account of their rust-resistant tendencies, the Washington varieties are recommended for planting throughout the East, both in the home garden and in field culture. In California varieties adapted to canning are largely used.

Rhubarb

The various species of rhubarb are found distributed fairly well over the Old World with one species accredited to the Himalayas. The parent species of most of our rhubarb (*Rheum rhaponticum* Linn.) is accredited to southern Siberia and the region of the Volga. This species, which is the commonest of rhubarbs, was introduced into Europe about 1608. In 1806 M'Mahon mentions rhubarb in American gardens and says the "footstalks are very frequently used and are much esteemed for tarts and pies." J. Lowell in the Massachusetts Agricultural Repository, 1822, says "thirty years ago we were strangers to rhubarb, now in general use and constantly in our markets, and we are indebted for its introduction to an amateur in the State of Maine." T. S. Gold, of Connecticut, wrote "that his

father purchased a small package of pieplant seeds in 1820 and raised the first plants then known in this vicinity." The seed was sold by Thorburn in 1828.

Rhubarb is adapted for cultivation throughout the northern portion of the United States having natural rainfall and where the temperature goes sufficiently low in winter to freeze the ground to a depth of 4 inches or more. Throughout this territory rhubarb is found in home gardens and in certain sections near the larger eastern cities, has attained considerable importance as a commercial crop. Rhubarb has not become an important shipping crop as has asparagus. Plantings of 3 to 5 acres in market gardens are common, and in a few cases plantings of 20 to 30 acres are to be found. Rhubarb can very often be grown on hillsides and on rough land which is unsuited to the production of the more intensive garden crops. It is one of the earliest of our spring vegetables and owing to its splendid acid qualities, is in great demand for the making of pies, tarts, and for sauce. Rhubarb is of little value as a canned vegetable by itself, but makes an excellent sauce or dessert when canned in combination with strawberries or raspberries. Where it is canned straight for winter use in making pies, it is generally placed in No. 10 enamel tin cans with plain water as a filler.

For the last 30 or 40 years, there has developed quite an important rhubarb-forcing industry during the winter months, mainly in specially constructed houses. Two methods have been followed in the forcing of rhubarb. By the first, and most important method, the roots are plowed from the soil during the late fall and allowed to lie exposed to the weather and become frozen with the earth attached to them. The chunks of frozen earth surrounding the hills of rhubarb are then removed to cellars and placed on a concrete floor or on staging, and the space between the lumps of frozen earth filled in with loose soil. The temperature is carried at 45° to 65° F. and water is applied as needed, usually about once a week, care being taken, however, to guard against overwatering. The cellar in which the rhubarb is being forced should be kept practically dark in order to produce a uniform color, blanched product with leaf blades about the size of a man's hand. The second method of forcing rhubarb is by means of special houses with heavily insulated walls and moderate stove heat. The frozen chunks of rhubarb roots are handled in these houses in the same manner as in cellars. Small quantities of rhubarb can be forced where grown under a portable coldframe banked with manure, or by lifting the frozen hills and placing them in an ordinary cellar. The leaf stems of forced rhubarb are usually much more slender than those grown in a natural way. Rhubarb in the home garden can also be forced by placing boxes or bottomless barrels over the hills, banking around them with horse manure to provide heat and covering with glass.

Rhubarb requires a rich soil and should be fertilized during the summer in order to enable the plants to store up reserve food in their roots from which the strong crop of edible leaf stems are produced. Rhubarb production is essentially a local proposition and is dependent mainly upon near-by markets. However, with the increased demand for vegetables, rhubarb production has great possibilities as a commercial industry.

Horse-Radish

According to Sturtevant's "Notes on Edible Plants," horse-radish came into eastern Europe from the Caspian through Russia and Poland. Both the leaves and the roots were eaten in Germany during the Middle Ages, but their use in England was not common until a much later period. Horse-radish was included by M'Mahon in 1806 in his list of garden esculents. Although horse-radish has been in general cultivation for market purposes in the United States for the last century, its production is not on a large scale and commercial growing is limited to a few well-defined areas. Another species of horse-radish is grown along mountain streams in Japan, but this species has never become important in the United States.

The production of horse-radish for the market requires a large amount of labor and special soil conditions, therefore, it is not adapted to a wide range of commercial growing. Two methods of production are followed, the older method being to plant crowns or small roots vertically in the soil and allow these to remain two or three years and sometimes longer in order to produce marketable roots. The improved method, and the one now followed by the majority of the commercial growers, is to select seed roots which are about the size of a lead pencil and 5 or 6 inches in length during the fall while the marketable crop is being harvested. These seed pieces are either buried, mixed with soil in a pit, or are carried over in barrels of sand in a cool cellar. In the spring just as soon as the ground can be worked the seed pieces are planted in shallow furrows, placing them almost horizontal and covering slightly with earth. Later the soil is removed from all but the lower portion of the root and the rootlets and buds that have formed toward the upper portion removed and only one leaf crown allowed to remain at the top of the seed root. The soil is then replaced and this process repeated two or three times during the growing season, the object being to develop a large, straight, and smooth root that is free from branches and practically uniform in thickness throughout its length.

Horse-radish requires a rich, reasonably moist soil, and plenty of plant food in order to make a rapid growth. It is adapted to growing in home gardens throughout the northern sections. Its use is entirely as a condiment, especially with cold meats and with fish and oysters, to which it adds zest and a pleasing flavor. The usual method of preparing horse-radish for use is by first peeling the roots, then grating them and mixing with vinegar. Horse-radish is usually marketed in barrels or by the ton, the price varying according to the supply and demand. Twenty barrels will weigh a ton and the price as a rule varies from 7 to 15 cents a pound.

Farm Gardens

This discussion of vegetables would be incomplete without at least a brief reference to the importance of the farm garden. According to the census figures gathered in 1919, farm gardens were reported by 5,090,293 or 78.9 per cent of all farms in the United States. The value of the products of the farm gardens amounted to \$344,865,728, an average value of \$68 per farm reporting.*

* Report of the Fourteenth Census: Agriculture—Farm Vegetables.

Farm Gardens, by States

Among the several States, the proportion of all farms reporting farm gardens in 1919 varied from 31.5 per cent in Arizona and California to 92.6 per cent in West Virginia. Farm gardens were reported by 90 per cent or more of the farms in 4 States, namely, West Virginia, Virginia, Delaware, and Pennsylvania; by 80 to 89.9 per cent of the farms in 21 States; by 70 to 79.9 per cent of the farms in 9 States; by 60 to 69.9 per cent of the farms in 5 States; and by less than 60 per cent of the farms in the remaining 9 States.

In five States the value of the products of the farm gardens in 1919, exceeded \$15,000,000, as follows: Texas, \$18,023,859; Pennsylvania, \$16,989,459; North Carolina, \$15,848,541; Ohio, \$15,646,395; and Missouri, \$15,354,668. The average value of the products of the farm garden per farm reporting was \$100 or more in 7 States, as follows: Rhode Island, \$120; Massachusetts, \$117; Nevada, \$117; New Jersey, \$116; West Virginia, \$108; New Hampshire, \$104; and Connecticut, \$101.

Vegetables produced in farm gardens while usually reckoned at values lower than those obtaining on the markets should be valued at a much higher rate for the reason that they supply the farm home with the essential type of food and increase the variety in the diet of the farm family. Where little or no attention is given to the vegetable garden by farmers and where no definite arrangement is made for the purchase of vegetables, there is always lacking from the diet of the farm family the essential elements of a balanced diet. The claim made by many farmers "that it does not pay to plant and care for a garden and that it is cheaper to purchase vegetables on the market" is not borne out in fact, as no other similar area on the ordinary farm yields so great a return either for the land occupied or capital invested as the farm garden. Furthermore, it has been found that where the vegetables are not grown on the farm, that they are seldom, if ever, purchased in the same quantity and of the freshness of those grown on the farm.

It is significant that in the sections of the country where the best general farming methods are followed, there are also found the best farm gardens, and conversely in farming sections where the farming methods are less perfect, there also are found the poorest farm gardens.

According to the census figures obtained in 1920, Texas stood at the head of the list as regards total value of farm gardens, this being explained by the enormous size of the State. Pennsylvania, a much smaller State, stood second, and it is in Pennsylvania that we find some of the finest farm gardens in the United States. When it comes to the value of individual gardens, Rhode Island, the smallest State in the Union, stands at the head of the list with an average value of \$120 per garden. This may be accounted for by the fact that in Rhode Island the value of land is extremely high, thus stimulating intensive production.

It is significant that the percentage of farmers having gardens is highest in the Northeastern States and lowest in the Rocky Mountain and Pacific Coast States. The highest average value of all farm gardens is found in the New England section. The average

value of farm gardens in the Southern States is relatively low, owing to the fact that in the past it has generally been considered impossible to raise vegetables during the long, hot summer season. Recently a campaign has been conducted by the State extension forces to stimulate interest in the production of vegetables at all seasons of the year, and in certain of the Southern States there are now thousands of farms on which an all-the-year garden is maintained, the slogan being "two fresh vegetables from the garden every day in the year."

The figures and comparisons given for farm gardens in the United States does not include the many thousands of small gardens cultivated on town lots and in city backyards, the aggregate value of which will reach into the millions of dollars. Vegetable gardens were promoted during the World War as a means of supplying food for local consumption. The experience gained by city, town, and village gardeners during the war period has led many to continue their gardening operations so that the present value of this feature of home gardening is very large, but there is no way of determining its exact value. The experience of the gardeners has also taught them the value of fresh vegetables.

The significant fact in connection with the home garden is not, however, the value in dollars of the individual garden but the aggregate or total for the country, which is above one-third of a billion dollars. Added to this is the great advantage of supplying the family with vegetables that are fresh and wholesome.

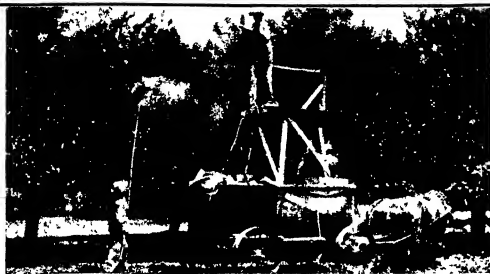
Present Trends in Vegetable Production

The reader has no doubt been impressed with the enormous proportions that the various commercial vegetable crops have attained, both as regards money value and quantity of product. The writers have endeavored to portray the history, distribution, and relative importance of the various crops, together with a composite picture of the vegetable industry as a whole.

The trends of the vegetable industry during the last 10 or 12 years have been very decidedly toward specialization and production of many of the more important crops on a large scale in certain rather well-defined locations. The concentration of population in the large industrial centers has to a large degree eliminated the personal equation between producer and consumer and has more definitely commercialized the production and handling of vegetables on a large scale. The trends have also been toward reduction in the number of varieties grown, greater uniformity in production practices, and the establishment of definite standards of grade and pack to meet the market requirements.

The adoption of labor-saving machinery and improvement in cultural practices have increased both the man power and acre production on the truck farms of the country. As indicated in the foregoing pages, the old-fashioned market garden with its numerous crops is rapidly giving way to the specialized truck farm on which a comparatively small number of individual crops are grown on an extensive scale. The trends have also been toward closer cooperation among growers and to a more definite working understanding between the growers and the dealers.

DISEASES AND PESTS OF FRUITS AND VEGETABLES



BY M. B. WAITE, W. W. GILBERT, N. A. CORB, and W. R. BEATTIE, *Bureau of Plant Industry*; F. E. BROOKS and J. E. GRAF, *Bureau of Entomology*; and W. B. BELL and W. L. MCATEE, *Bureau of Biological Survey*.

REFERENCE has been made in the earlier pages to the influence that the Old World fruits, vegetables, and nuts have played in the development of American horticulture. When the first settlers came to America, as has been stated they found certain native fruits and vegetables being used by the Indians, and these together with other wild species were domesticated and used by the colonists. Old World species were brought over from time to time as the colonists gained in experience and were added to the list of native sorts, gradually forming the basis for our present American horticulture. The colonists had not gone far in the domestication of the wild American species or in the introduction of those from the Old World until they met with certain disease and insect troubles. Not only did the native diseases and insects attack the cultivated fruits and vegetables, but along with the importation of Old World species came the diseases and insects which preyed upon them.

Coming down through the years covering the development of American horticulture from Colonial times, there has been a constant increase, both in the number of species and the destructiveness of diseases and insects and other forms of life that have preyed upon the various horticultural crops. It was not until comparatively recent years that active steps were taken to study the life history of the many horticultural pests and in still more recent years to quarantine against the introduction of additional pests. During the early days the demands for perfection in the product of horticulture were not so exacting as at present, nor were the diseases, insects, and other pests so numerous either as to species or as to individual numbers. During the course of time, injury from horticultural pests became so marked as to require concerted action calling for investigation to determine means of combating these pests.

Numerous references in the following pages allude to both the development and spread of horticultural pests and to the history of measures formulated for their control. Marked progress has been made in the control of diseases of such crops as asparagus, cabbage, beans, tomatoes, potatoes, peas, lettuce, celery, and spinach through the breeding and selection of disease-resistant strains and varieties. In many cases these resistant strains are exceptionally vigorous and possess excellent marketing and edible qualities in addition to disease resistance. Just how far immunity from the attacks of diseases and insects may be obtained through the breeding of resistant varieties and strains is problematical, but the progress already made indicates wonderful possibilities.

Combination treatments to control two or more pests or more than one type of infestation are being worked out, so that the general control of horticultural pests is constantly being made more simple and effective. The development of special equipment for spraying, dusting, fumigating, soil sterilizing, and various other control operations has rendered more effective the various control measures and resulted not only in effectiveness but in more economical treatment.

Similar progress has been made in the development of fungicides and insecticides as well as in the improvement of their application. Numerous disease and insect infestations have appeared and gradually spread over the entire country, but in most cases satisfactory measures have been perfected before the spread has caused any very great damage. With the more general acceptance and application of control measures, infestation and injury become less and less, and there is the possibility that in the course of time, when the proper control measures are universally applied, infestation can be practically eliminated. So long, however, as there are in every fruit-growing neighborhood neglected orchards, and in every vegetable section careless methods of control of the diseases and insects of vegetables, we may expect a continuity of infection and injury. Marked progress has been made in certain sections of the country in the control of diseases and insects through the agency of spray rings by which all the growers of a given community employ one man to handle the spraying of the entire community. By this method the fight against destroying agencies is timely in its application and is performed in the proper manner, with the result that a higher degree of control is obtained than where the work is conducted individually.

The aid given the growers by the State agricultural colleges and experiment stations in furnishing timely information on the control of the various pests has had a marked effect. It is not too optimistic to suggest that in the course of years the work of combating the pests of horticulture may be so thoroughly organized and conducted as to obtain practically complete control. The economic factor of cost will undoubtedly remain through all time and must be reckoned as a legitimate part of fruit and vegetable production costs.

The consideration of horticultural pests as contained in the following pages has for convenience been divided into several groups as follows: Fruit diseases and their relation to the fruit industry, fruit

insects and their economic importance, diseases of vegetable crops, the insect enemies of vegetables, the relation of nematodes to the fruit and vegetable industries, and birds, mammals, and other animals in relation to fruit and vegetable production. Though all of these contribute to the problem of producing marketable horticultural products, they have for convenience been treated more or less separately in order that the reader who is interested in any one phase of the problem may the more readily obtain the information he desires.

The Influences of Diseases on American Fruit Culture

The diseases of fruits and fruit trees, the blights, leaf spots, rusts, fruit spots and rots, root rots, and physiological diseases and winter injuries have had an important economic effect on American fruit and nut culture. The scientific research in plant pathology devoted to solving the causes of these diseases, the life histories of the parasitic organisms concerned, the physiological disturbances involved, as well as the study of remedial and control measures, have exerted a profound influence not only on fruit culture but on other lines of scientific research helpful to agriculture. It is almost equally true that for the last 40 years American fruit growers have exerted a dominating influence on the development of plant pathology.

At the meeting of the American Horticultural Society (previously the Mississippi Valley Horticultural Society) in January, 1885, held in connection with the World's Industrial Exposition at New Orleans, La., a group of gentlemen met informally and urged the then Commissioner of Agriculture, Norman J. Coleman, to start investigations on the diseases of fruits and other plants at Washington. This group consisted of Parker Earle, the president of the horticultural society, his son, F. S. Earle, a horticulturist and trained mycologist and plant pathologist, T. J. Burrill, S. M. Tracy, C. E. Bessey, and others.¹ Their efforts were successful. A mycological section of the Division of Botany in the Department of Agriculture was established July 1, 1886. A first report of this section and the first of a series of reports followed in due course. Annual reports of investigations, bulletins, circulars, and other publications have been issued from time to time ever since.² So far as the writer can determine there is no printed record of the informal action which, it is supposed, had an important influence in causing Commissioner Coleman, who three years later became the first Secretary of Agriculture, to start plant pathological work at the seat of the Federal Government. However, F. S. Earle, in a paper on "the fungoid diseases of the strawberry" read at this meeting and printed in the report³ made the following statements:

In closing these hasty notes, I wish again to call the attention of the society to the importance of securing some provision for the systematic study of the fungi and their relations to our agricultural and horticultural interests. This could perhaps be brought about through the instrumentality of the Department of Agriculture, and, in fact, a beginning has already been made in this direction.

¹ Conversation with the writer by T. J. Burrill at the University of Illinois in 1898 and subsequent conversation with S. M. Tracy, of the University of Missouri, at Washington.

² Annual Report U. S. Dept. Agr. for 1886.

³ Transactions Amer. Hort. Soc. for 1885, held at the World's Industrial Exposition at New Orleans, La., pp. 51-52.

as is shown by the carefully prepared series of water-color drawings of fungi in the exhibit of that department in the Government building.

If the measure for establishing experiment stations in the different States, that was advocated by this society at its meeting here two years ago, should become a law, then this subject could receive the attention due to its importance by employing a competent person at each station to collect material and make experiments under the direction of a central office, connected with the Department of Agriculture if you please, that should be provided with a complete library and all of the apparatus necessary for the most thorough investigation.

Professor Riley, the entomologist of the Department of Agriculture, has created a very similar system for conducting his researches, having his assistants located in different parts of the country.

Such an organization as is here briefly outlined once established and we could hope in time for results that would be of the greatest importance to all the material interests of the country.

It should be noted that Mr. Earle's statement urged not only the organization of research on plant pathology in the Department of Agriculture, but also urged the establishment of experiment stations in the different States, which will be discussed further on.

It is not easy to analyze historical movements 40 years later with incomplete, scattered, and fragmentary records and no doubt with much of the important thought of these brainy, far-visioned pioneers in this field developed in unrecorded conversations. Putting all the known facts together, however, there is little doubt that the action taken by the men meeting at this great exposition was the culmination of a series of activities, scientific researches, horticultural observations, and conversations; in other words, from one point of view it was the end of a series of events as well as the beginning of another series. We may briefly summarize some of the most important activities and conditions previous to 1885 which led to this action.

Ever since the days of Linnaeus and even to some extent before, the science of botany had been steadily developing. Not only had the higher plants been classified and named, but in even greater numbers the lower plants including the parasitic fungi which cause one class of diseases and many of the bacteria had been discovered, named, and classified, and in a few cases even bacteria causing diseases of plants had been discovered, notably Burrill's discovery of the pear-blight bacillus in America (1878-1880) and Walker's bacterial hyacinth disease in Europe (1883-1899). Most of the investigations on the fungi up to this time had been made from the standpoint of the fungus itself rather than from the point of view of the disease it produced on its host plant.

A few men in Europe, notably Sorauner and Hartig in Germany, Millardet and Prillieux in France, and Berkeley in England, were studying plant diseases as such. In America, Burrill, beginning his work at the University of Illinois in 1872, was the most conspicuous example, but by 1885 his pupil, F. S. Earle, also J. C. Arthur, and perhaps a very few others had begun the study of plant diseases.

Discussions of plant diseases in literature date back to Bible times, and the writings of Aristotle in Greece and Pliny in Rome are sometimes quoted. There were several German textbooks previous to 1850, and in 1854 to 1857 M. J. Berkeley, in a series of papers which appeared in the *Gardeners' Chronicle*, gave the first general scientific treatise in English upon vegetable pathology. In 1874, however, Paul Sorauner of Germany published his "Hand Book of

Plant Diseases" and Robert Hartig his book on "Important Diseases of Forest Trees." For the first time the student had an up-to-date textbook. There were no American textbooks available at this time on plant diseases and in fact no available textbooks in English until several years later.

Plant physiology had been built up into a really great branch of the science of botany. Mostly in Europe but to some extent in America continued investigations on the physiology of plants had built up a great amount of accurate, recorded information and accessible literature on this subject. Many well-organized textbooks—mostly European, largely German, but some American—had become available to students and investigators of this subject.

On account of their influence on plant pathology the important discoveries and methods of research developed by Pasteur and his students in Paris and by Koch and his students in Berlin on the bacterial diseases of animals deserves special mention. At this time they were just at the height of their activities in making their phenomenal discoveries. Some of Pasteur's work preceded Koch's slightly. Koch's great work on the bacillus of tuberculosis appeared in 1885.

Another thing occurred at that time which, undoubtedly, exerted a profound and stimulating influence on the practical side of plant pathology. This was the discovery by Millardet at Bordeaux, France, of the efficiency of the copper sulphate-lime mixture, which bears the name of Bordeaux mixture, in the treatment of the black rot and mildew of the grape. Two native American parasitic fungi of our wild grapevines, the black-rot fungus and the downy-mildew fungus, along with the insect pest, the phylloxera, had been accidentally introduced into France with collections of American native grapes. Millardet, a very able botanist, was employed by the French Government to investigate these diseases. In the fall of 1883, almost by accident, he found that this copper-lime mixture, which had been spattered onto some grapevines along the roadway to prevent stealing of the fruit, had in some way prevented the attacks of these two fungi. He followed up this clue by investigating the problem thoroughly from 1883 to 1885. By the aid of a brass worker named Vermorel, who improved the Riley or Barnard nozzle by introducing the degorger so that it would spray this slushy mixture, the spraying of plants began in earnest. It is difficult to estimate the far-reaching importance of this discovery.

Scientific plant pathology was fairly well started. Very little practical progress, however, had been made in controlling diseases by spraying. Thousands of plant diseases were well known as to their cause and even as to the life histories of the organisms. In general, however, mycologists and plant pathologists, or the few who could be called plant pathologists, were helpless when it came to a demand for a practical remedy. It is not true to say that no progress had been made up to this point. Sulphur had been used for dusting against the rose mildew and a few other diseases. Liming of the soil had been found effective for clubroot of the cabbage. Eradication was practiced with many diseases and rotation of crops and various other cultural methods had been employed. Most of

these methods were developed on purely empirical grounds without any guidance whatever from the science of plant pathology or mycology.

One thing is certain, namely, that the discovery of the effectiveness of Bordeaux mixture against the vine diseases in France attracted wide attention not only on the part of scientific men, but of horticulturists, especially grape growers and fruit growers. As indicated below, many devastating fungous and other diseases were prevalent in the United States. The American grape industry, which had been developing in the eastern United States along entirely new lines with native American grapes, had become a really great horticultural industry. At first the grapevines were little attacked by the native fungous diseases, but as usual with extensive new plantings, the fungous diseases increased. Black rot and mildew had become so prevalent as seriously to threaten the industry. These formerly somewhat obscure native diseases mildly attacking the fruit and foliage of the wild grapes had multiplied and spread to an alarming extent with the growth of the cultivated vineyards. The grape growers were insistent that something should be done to help them. The horticultural literature of that period contains frequent appeals. In this connection it is not surprising, therefore, that the first efforts of the newly established (1886) mycological section of the Division of Botany were concentrated on the fungous diseases of the grape. This continued for several years after the title of the section was changed in 1887 to the Section of Vegetable Pathology, and in 1893 to the Division of Vegetable Pathology and Physiology.

These early pathological studies, however, were by no means limited to grape diseases. The very first report of the mycologists treated of a newly introduced citrus scab in Florida, of pear blight, celery diseases, potato diseases, and even diseases of grasses, and the subsequent reports cover a wide range of the diseases of fruits and vegetables and other cultivated crops and of forest trees.

About the beginning of this century, as the data accumulated concerning the knowledge of the plant diseases, and especially methods of controlling them, it became increasingly evident that fruit growers and farmers were not putting into practice to a satisfactory extent the known methods of control. For example, the control of apple scab by spraying had been very carefully worked out. So had the control of grape diseases by the same methods. Control of peach yellows by rooting out the trees and of pear blight by local eradication and disinfection had been developed, but still many orchardists were not fully practicing the methods which had been discovered. This was equally true in other lines of scientific progress in agriculture, not only in insect-pest control but also in general agricultural methods of crop growing, rotation of crops, etc. Seaman A. Knapp was a pioneer in urging and developing demonstration and extension work. It was evident that a new type of worker was required in agriculture to make the knowledge available to the farmer and to put this knowledge into practice. This movement culminated in the Smith-Lever Act. There are now extension departments in the State universities and extension pathologists in nearly every State in the Union.

Still another group of activities has called for action on the part of plant pathologists and has resulted in putting into use accumu-

lated research knowledge on fruit diseases. In 1910, Congress passed the Federal insecticide act, modeled somewhat after the food and drugs act and aimed at raising the standard of insecticides and fungicides and preventing the interstate shipment of fraudulent or misbranded materials for use in pest control. In 1912, Congress passed the Federal plant quarantine act and provided for the appointment of the Federal Horticultural Board to enforce the same. The Federal plant quarantine act was designed to prevent the introduction of foreign pests not occurring in the United States or not widely distributed therein, and also to prevent the interstate movement of such pests. In the enforcement of both these regulatory acts the science of plant pathology was applied to agriculture and fruit culture and a number of plant pathologists were employed. The States also have similar regulatory acts for the control of the manufacture and sale of insecticides and fungicides as well as for the control of the distribution of fungous and insect pests and other contagious material which can cause fruit diseases.

Plant Pathologists

T. J. Burrill, of the University of Illinois, may be regarded as the pioneer American plant pathologist, one who studied the diseases of plants and especially of crop plants from the standpoint of the plant and its disease rather than from the standpoint of the fungus. When the writer was leaving his laboratory to go to Washington in the summer of 1888, he made this statement: "There are only about 10 plant pathologists in the United States. There are many professional botanists and a good many mycologists who are studying the fungi, but there are very few who are studying plant diseases, and there is more work on plant pathology being done now at Washington than anywhere else in the country," or words to that effect.

It should be noted that this progress, with a single exception of that made by Burrill himself, had all been made in the eighties. It should further be noted that there were very few colleges which gave the necessary training in mycology, bacteriology, physiology, and general botany to equip a man for scientific research on plant diseases, and none of the colleges had established courses in plant pathology. This indeed was practically true for another decade, and not until about the beginning of the present century or shortly after were definite courses established at the colleges for training investigators in plant pathology.

The establishment and development of these special courses in plant pathology by the American universities is now very general and forms one of the epochs in the development of plant pathology in America. The colleges, therefore, have supplied the trained men to fill the positions created in the progress of this branch of application of science to horticulture and agriculture.

The group mentioned above, led by Doctor Burrill, as representing the greatest concentration in 1888 of plant pathologists in America, consisted of only four scientific workers—F. L. Scribner, B. T. Galloway, Erwin F. Smith, and Effie A. Southworth. Professor Scribner had just resigned as the head of this section and Doctor Galloway was promoted to the leadership. The resignation of Pro-

fessor Scribner and the promotion of Doctor Galloway and others made a vacancy at the bottom of the list which brought the writer to join this little force. The success of Doctor Galloway in organizing and developing plant pathological work is so well known as scarcely to need comment here. His further success jointly with his associate, Albert F. Woods, in organizing the Bureau of Plant Industry in 1901, of which he became the first chief and Doctor Woods the assistant chief, constitutes one of the striking developments of agricultural research in this country, if not in the world. The evidence of the growth of this work is perhaps best presented in the number of scientific workers engaged. Newton D. Pierce was added to the staff in 1889, David G. Fairchild in 1890, Walter T. Swingle and Herbert J. Webber in 1891. The importance of the early discoveries in the cause and control of fruit diseases and of other plant diseases made by these pioneer investigators attracted wide attention. Every time a new treatment or new facts about a disease were worked out the fruit growers called for more. By 1893, when Fairchild resigned and Woods came to fill his place, there were nine scientific plant pathologists at Washington. By 1900 this number had reached about 20; by 1905 about 30; by 1910 about 40 scientific workers. In the early days by far the greater part of the pathological work was on fruit diseases and most of the increases were in fruit pathology work, but later the whole field of plant pathology was covered, less perhaps than half of this work was on fruit pathology prior to 1910. By 1920 there were 209 plant pathologists on the official pay rolls of the Bureau of Plant Industry engaged in research work, of which 182 were permanent appointments and 27 temporary; in addition, 9 were employed by the Federal Horticultural Board and 3 by the Insecticide and Fungicide Board, making a total of 221 plant pathologists of the various grades from junior pathologists to the full professional grade.⁴ About 35 of these were engaged in fruit-disease work. By 1925, 200 professional plant pathologists were permanently employed, about 40 of whom were engaged in fruit-disease work. It should be pointed out that nearly half this force is now permanently stationed in the field at various points over the country and that 11 men are engaged in regulatory work. No attempt has been made to give the figures for the assistants below the professional grade. The laboratory and field assistants and the clerical force involved probably somewhat exceed in numbers the professional workers. In spite of this small army of investigators, and notwithstanding the progress which has been made in the 40 years of research work at the Department of Agriculture, the problems appear to come thicker than ever, and there is now more call for research work and investigation of fruit diseases, for example, than there are workers to do it.

Plant Pathology at the Experiment Stations and Universities

Notwithstanding the impetus given to the study of fruit diseases by the establishment of the section later made a division, devoted to this work in the Federal Department of Agriculture it should not be

⁴These figures were supplied from official records by H. E. Allanson, assistant to the chief of the Bureau of Plant Industry.

implied that no progress had been made before that time. The foundation had been laid and well perfected by the development of the science of botany both in Europe and America and to some extent elsewhere in the world. Furthermore, a very considerable amount of work was going on in this country in the study of the fungi and in plant physiological investigations and even in other lines of soils, crop rotation, fertilizers, plant nutrition, etc., all of which are helpful in pathological investigations. This work was done mostly at the colleges and universities, but already there had been established by several States special State experiment stations separate from the colleges and devoted to agricultural research work. Most of the attention of the early State experiment stations was given, however, to chemical research on crops, soils, and fertilizers, testing of varieties, crop rotations, and such matters. They were in fact largely modeled after the famous Rothamsted station in England. At only one of these, namely, the New York Agricultural Experiment Station at Geneva, was any pathological work being carried out. J. C. Arthur held the position of plant pathologist there from 1883 to 1885 and issued several reports mostly on pear blight. Farmers and fruit growers and those interested in the progress of agriculture evidently thought these stations were a good thing, and agitation was begun for the establishment of a Federal-aided experiment station in every State in the Union. Parker Earle in a president's annual address at the Mississippi Valley Horticultural Society, New Orleans, La., February, 1883, made a strong plea for the establishment of experiment stations.⁵

There was rather widespread agitation for more experiment stations at that time and subsequently. Several bills were introduced in Congress but none of them was enacted. On July 8 and 9, 1885, as the result of a circular invitation sent by Commissioner of Agriculture Norman J. Coleman, a meeting of delegates from agricultural colleges and experiment stations met in Washington for the purpose of promoting and discussing the "fundamental truths of agriculture, the question of agricultural experiment stations and the relation they should hold to this department, the best methods of bringing about Congressional action and of harmonizing the interests of the different State institutions and the Department of Agriculture." This conference, although not resulting in immediate action, undoubtedly had a very great effect. These two instances are cited merely as high points in the agitation which resulted finally in the Hatch Act of March 7, 1887, and its amendment of June 7, 1888, definitely establishing and financing the State experiment stations beginning July 1, 1888.

In Commissioner Coleman's address⁶ to the convention held at Washington in July, 1885, he devoted one section to advocating the study of diseases of plants. The Hatch Act specifically states "that it shall be the duty and object of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals, the diseases to which they are severally subject, with the remedies for the same." Provision was thus made for

⁵ Transactions of the Miss. Valley Hort. Soc., 1883, fourth annual meeting, New Orleans, La., February 21-24, 1883, p. 9.

⁶ Proceedings of a Convention of Delegates from Agricultural Colleges and Experiment Stations. U. S. Dept. Agr. Special Rpt. No. 9, 1885, pp. 11-12.

eventually taking up the study of plant pathology in every State in the Union. In general, this provision was well carried out though not in all States from the start. There were not enough professionally trained plant pathologists to go around, in fact, if positions were created at the stations. The colleges and universities, however, especially those of the Middle Western States, began rapidly to supply the demand, and sooner or later every State experiment station and university had one or more active workers conducting original research in plant pathology.

Two outstanding things have happened favoring the development of research work in plant pathology since the general establishment of experiment stations by the Hatch Act. The Adams Act of March 16, 1906, provided additional funds for each experiment station "to be applied only to paying the necessary expenses of conducting original researches or experiments." In the administration of these additional funds many plant-disease projects and especially fruit-disease projects have been financed and developed. The other matter of importance is the increasing amount of State appropriations supplementing the Federal funds, thus greatly increasing the work of the experiment stations, and in this development plant pathology and fruit diseases have taken a large part.

Mention has already been made of the extension service and of the Smith-Lever Act. This activity which is educational in its primary aim has resulted in a considerable increase in the number of plant pathologists at work in this country. Extension service, which was initiated at Washington, is now almost wholly decentralized and handled in the States in connection with the State universities and experiment stations. Most States now have a well organized extension department distinct from the regular university work on the one hand and the experiment station work on the other. Some States have added materially to the Federal appropriation for this work and this line of activity has become a very important part of the application of plant pathology to agriculture and specifically to the control of fruit diseases. There are now extension courses at the State universities, extension lectures and demonstrations in the field, extension bulletins and circulars, news sheets and press service in the newspapers and other printed matter, and especially during the last five years dissemination of timely information and instructions by radio.

Mention has already been made of the regulatory work by the Federal Government on fungicides and insecticides under the insecticide act of 1910 and of Federal quarantine work under the Federal quarantine act of 1914. The Federal activities are limited to materials or plant pests entering this country from foreign sources or shipped interstate. But the States also have passed laws for the control of insecticides and fungicides and for the control of plant pests. While the Federal Government has control of the movement of materials or pests from foreign countries and between the States, so the States on the other hand have control of materials or pests which originate within their boundary. This principle is deeply rooted in our fundamental laws; in fact, is provided in the Constitution of the United States.

In some States the organization for handling the regulatory work is located in connection with the State university or experiment sta-

tion and in others it is located at the State capitol under the direction of the State department of agriculture. Whichever plan is followed, the fruit grower has at his service within the State a force of trained plant pathologists and an organization devoted to keeping his spraying materials and other insecticides and fungicides up to a high standard, to preventing fraud in the manufacture and sale of these materials, and also to protecting the industry from the introduction and movement of plant pests.

No attempt will be made here to assemble the data regarding the personnel of plant pathologists in the universities, experiment stations, and State departments of agriculture engaged in research, extension, and regulatory work. The increase in the number of plant pathologists, though somewhat more recent, has exceeded the number of workers engaged in the Federal service, and it is safe to say that the number of these workers in the States is probably more than double those in the Federal service.

General Effects of Fruit Diseases and Direct Losses

The reasons for the great development of plant pathological research in the United States during the last 40 years are mainly two: (1) The destructive and sometimes even disastrous effects of these plant diseases against a background of the very large size and the newness of the industry, and (2) the enterprise, progressiveness, and openmindedness of the American fruit grower and farmer, and those who represent him in Congress and the State legislatures. Some evidences of the latter are indicated in the historical sketch above. Some examples of the former may now be considered.

At every meeting of State and other horticultural societies, even of shippers and storage men, almost without exception the subject of loss by diseases forms a prominent part of the discussions.

Peach yellows in the early eighties swept the Delaware-Chesapeake peninsula and wiped out the orchards which were delivering to the markets in a favorable year 7,000,000 half-bushel baskets of peaches, and by the end of that decade drove eastern peach culture largely to the near-by Blue Ridge and Allegheny Mountains. In the Michigan peach belt certain districts were swept by the yellows until the peach was nearly exterminated there. On replanting, this was repeated, and sometimes it has occurred a third time. At present writing this disease is on the wane, no doubt in part owing to the application of control measures by eradication, but certainly in part due to unknown natural causes. (Figs. 202 and 203.) On the other hand, two other peach diseases have assumed prominence—the “little peach,” which, like the yellows, has been checked somewhat in recent years, and the “phoney” disease, a very little known and as yet unclassified peach malady, but commercially serious, which is slowly spreading over the great peach belt of Georgia.

Pear blight has been the most serious scourge of the pear orchards of the eastern United States, wiping out the industry repeatedly in the large sections during nearly a century. Later, it continued its devastation in the Rocky Mountain orchards and finally in the first years of this century it swept the Bartlett pear orchards of Califor-

nia, exterminating about a quarter of them before it was brought under control. It is doubtless the greatest limiting factor in American pear culture and is scarcely less so at certain times on many varieties of apples. The disease has not only caused immense losses to the annual fruit crop and to the twigs and branches of the trees



FIG. 202.—Typical peach-yellows shoots, including a cluster of shoots commonly called "witches'-broom".

which limits their production, but shortens the life of the trees and often wrecks whole orchards or orchard districts. It practically wiped out the LeConte pear industry as well as other oriental pears in the Gulf States in the late eighties and early nineties. Researches on this disease and the life history of the bacteria causing it have developed a fairly satisfactory method of fighting it when conditions are not too seriously unfavorable and the variety of pear not too susceptible, and efforts are being made to breed resistant varieties of desirable qualities and resistant stocks to overcome the collar blight, body blight, and root blight form of the malady.

The various fruit spots and leaf diseases of the apple have constituted one of the major problems in apple culture (figs. 204 to 210), especially in the eastern half of the United States but more or less both east

and west. Apple scab in cool, humid districts or districts where there is a humid spring has been a most serious pest. Apple bitter-rot and blotch have been especially serious south of the southern boundary of Pennsylvania across the country from the Atlantic

to the Great Plains. Apple cedar rust has flared up within the last 15 years in many apple districts of the eastern half of the United States and has become a major disease demanding urgent action.



FIG. 203.—Method of controlling peach yellows by eradication. Many acres of peach orchards have been destroyed in the effort to eradicate this disease, which is now on the decline

Even the arid and semiarid orchards under irrigation have not been entirely free from fungous pests, for the apple powdery mildew has attacked them to the point where it had to be fought vigorously.

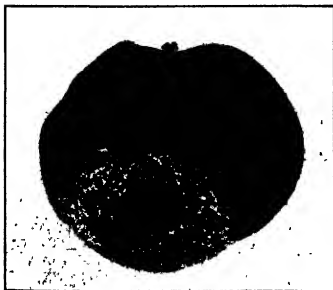


FIG. 204.—Cedar rust on an apple fruit

Although these diseases have all been brought under control to a greater or less extent, they have all changed the rating of otherwise desirable varieties, and they have all taken a rather severe toll on the industry even after practical methods of fighting them have been developed. Furthermore, the cost of fighting these diseases is usually greater with any given orchardist than all taxes, Federal, State, and county. In general, the operation of controlling them constitutes one of

the four or five major operations in the production of the fruit. Peach brown rot (fig. 211) and to a somewhat lesser extent the peach-scab fungus, as well as the leaf-curl fungus, occupy even more

The brown-rot fungus is relatively insignificant or almost absent in the intermountain peach, plum, and cherry orchards, and nearly so in the Pacific coast orchards of California. Brown rot as a prune disease, occurs to some extent in California, but increasingly so in Washington and Oregon in spite of the dry summer weather. The reason for this is that there is sufficient rainfall and moisture in the spring for this fungus to attack the blossoms of prunes and cherries; and again, the fall rains begin in time for it to attack the ripening prune crop. The gumming fungus which attacks the peach



FIG. 205.—Cedar rust on the underside of apple leaves



FIG. 206.—The terminal twig growth of an apple branch, showing rosette. This is a physiological disease

and some other stone fruits finds the mild rainy winters of California entirely congenial. The spores of this fungus germinate during the late fall rains and seriously attack the twigs and the buds and reach their climax during the blossoming period in the spring just as the rains cease. It is fortunately rather easily controlled by a single dormant spray made in late November or early December. The peach leaf curl is also able to survive Pacific coast conditions since its spores germinate in the bud scales in early spring before the close of the winter rainy period. It also is controlled by a single dormant spray made at any time during the winter.

The black rot (fig. 212), mildew, and other fungous diseases of the grape have already been mentioned. These are native American diseases of our native wild grapes on which they live without usually producing any very serious condition. There is no more striking illustration, however, of the influence of plant diseases on horticulture than the effect of these diseases in the humid eastern half of the United States. These fungous diseases together with an insect pest, the phylloxera, have so far almost completely prevented the cultivation of the European vine with all its choice varieties of more than a thousand years of breeding and selection in the Old World. There is some question whether European grapes will fully stand the climate of the eastern United States even if these fungous and insects pests were not present. The hot, humid weather of late June and July, especially the alternating warm moist weather with dry sunny weather, presents a physiological condition to which the vinifera grapes are not adjusted. But the thing that happens in the Eastern States when the phylloxera root pest is avoided by grafting on American roots is that the black-rot fungus and the downy mildew take the vines in spite of persistent spraying with Bordeaux mixture. Even our native American grapes are severely attacked by these diseases with more or less increasing severity to the southward, but as a rule the pure natives are less seriously attacked than those which have been crossed with the European grape and carry a fraction of the European strain. Varieties like the Delaware, Niagara, and Brighton are more severely attacked than the Concord.

West of the Rocky Mountains all this is changed. The uniformly dry, sunny summer climate furnishes exactly the conditions to which the vinifera grapes are physiologically adapted. In the main grape-growing districts of California, soil moisture is supplied by winter rainfall supplemented in certain sections by irrigation. In other districts irrigation is depended on primarily for soil moisture, but the entire growing season is rainless or nearly so. The black rot and downy mildew, the worst two fungous diseases of the Eastern States,



FIG. 207.—Apple bitter-rot, showing infections of individual fruits and a mummy resulting from the complete destruction of the fruit by the disease

find conditions impossible or nearly so for their development. The grapes are not entirely free from fungous diseases, however, since the powdery mildew thrives under these special conditions.

The apple cedar rust, formerly called the orange rust of the apple, furnishes a striking example of the importance of plant diseases in fruit culture. It also is one of the best illustrations, with its background of pure science, of the help afforded in controlling a serious orchard pest. The fungus which causes this disease is native to the eastern half of the United States on the wild crab apples and

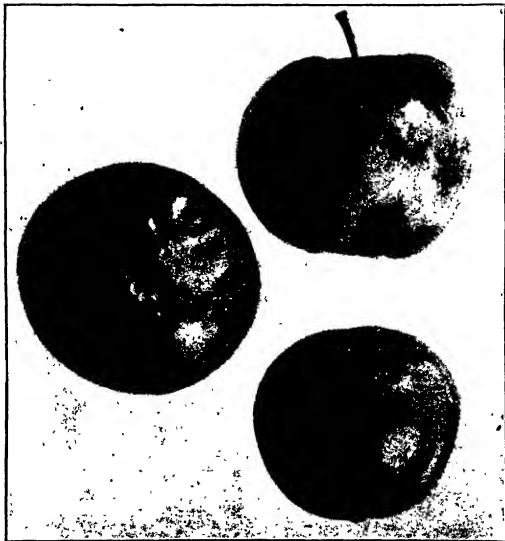


FIG. 208.—Apples infected with apple blotch

has its alternate generation on the common red cedar. (See figs. 204, 205, and 213.) Scientific research in mycology by Professors Farrow and Taxter at Harvard University, following discoveries on other species of rust in Europe, had given a pretty complete life history of this fungus and its relation to the two classes of host plants. The important facts are that this fungus lives part of its life, about 20 months, on the red cedar, that it comes into fruiting in the spring of the year, then matures its spores and wind-blown sporidia. These bodies can not live and multiply on the red cedar, but can attack the wild crab apples, or some related species, and these only. The



FIG. 200—Apples infected with scab. The smaller specimen shows the deforming effect of this disease.

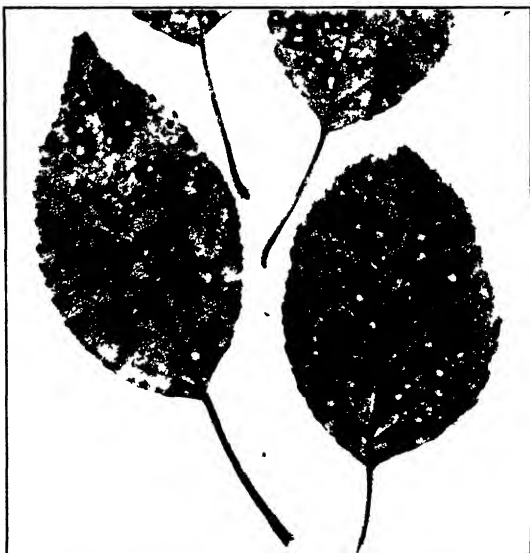


FIG. 210—Apple foliage infected with apple leaf spot (black rot).

sporidia from the red-cedar fungus, however, attack the young leaves and fruit of the crab apples and related apples, forming on them the orange-colored rust. The spores produced in early sum-

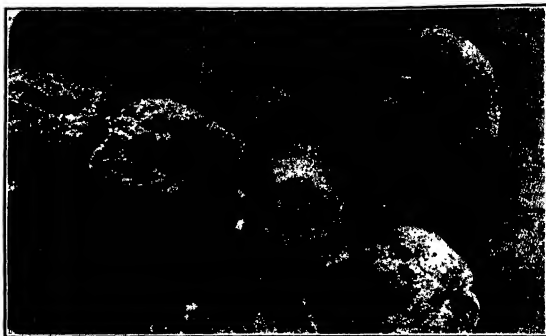


FIG. 211.—Peaches infected with brown rot. This disease also affects plums, prunes, and cherries

mer on the apples can not attack the apple but can only live and multiply by transferring to the red cedar. The fungus, therefore, having lived about four months for one growing season on the apple, must go back to the red cedar to reproduce and complete its two-year life cycle. It is necessary, therefore, for the development of this disease to have not only the rust fungus present, but to have the red cedars in reasonable proximity to the crab apples or their relatives. When the cultivated apples of Old World origin were brought to America the fungus was evidently not adjusted to this new host plant. For nearly 300 years after the settlement of Jamestown, the apple was cultivated in the presence of the cedar-rust fungus without serious trouble. Then it began mildly to attack the apple during the last few decades of the last century, becoming destructive



FIG. 212.—Black rot of the grape

only in a very few places and on some varieties little used in horticulture. In the first decade of the present century it began to develop as a serious orchard pest on Wealthy in the Middle States and since 1908 on the York Imperial in Virginia, West Virginia, and the Appalachian fruit district generally. It is now one of the major apple pests in fruit districts wherever the red cedars are abundant. Even before its attacks became serious, eradicating the red cedars was suggested as a method of preventing this disease, and when this fungus became abundant in the Appalachian fruit belt it was again urged and is now being put into practice quite widely but by no means completely in the vicinity of apple orchards in the Eastern States.

In the irrigated intermountain orchards and those of the Pacific Northwest the common fungus fruit spots and leaf blights of the eastern United States are absent or almost entirely so on the pear and apple. Essentially the same thing is true regarding the common fungous diseases of the peach, plum, cherry, and other stone fruits. The apple powdery mildew, only occasionally serious in the Eastern States, constitutes a rather prominent pest in this district, often requiring special spray treatment. There are two different kinds of apple anthracnose peculiar to this region that attack both the branches of apple trees and the mature fruit.

Aside from the two anthracnose diseases which make apple cankers in the Pacific Northwest, there are some half dozen other apple cankers attacking orchards mainly in the Eastern States. The European apple canker occurs in the extreme Northeast and extreme Northwest. The blister canker occurs more or less across the country east of the Rocky Mountains, mainly in apple orchards to the southward, but is most severe in the Mississippi Valley. The black rot and the bitter-rot fungus both make apple cankers in the Eastern States, the bitter-rot occurring mostly to the northward and the black rot occurring both North and South. Fungous root rots of several different species constitute a serious pest, especially in apple and peach orchards. Here again there are some half dozen different species of fungi involved and it should be pointed out that these root-rot fungi are able to attack trees in the desert, irrigated, and in the Pacific coast orchards nearly to the same extent as in the

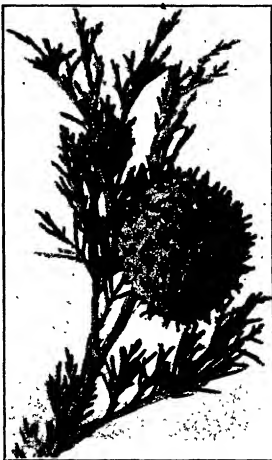


FIG. 213.—Cedar-rust galla on red cedar, beginning to exude spores

humid regions, since the soil has to be supplied with moisture, either naturally or artificially, for the orchards to thrive. Dry air conditions, therefore, are not a complete protection against this type of pest.

The fungous diseases of citrus trees and fruits have long attracted attention in Florida. The orange, both the round orange and the tangerine, the grapefruit, the lime, and the lemon have a long list of fungous pests, some of which are very serious. Citrus scab was introduced into Florida from the Old World about 1885 or shortly before and constitutes one of the major pests of citrus fruits in Florida and other Gulf Coast States (fig. 214). Citrus melanose is regarded as an even more important fungous disease than the scab fungus, and these two diseases require special spraying schedules

for their control. Some of the most serious economic diseases of citrus attack the fruits during the long period while they hang on the trees in winter or while they are in transit and on the market. The melanose fungus, though serious as a young fruit and foliage disease, is still more serious as producing a stem-end rot, and in this destructive work it is joined by another parasitic fungus, and these two stem-end rots constitute perhaps the most serious pests of this subtropical fruit industry. In California there is another fruit rot called brown rot which attacks the lemon and has made no end of trouble. These truly parasitic rots of oranges and lemons are aided by another rot fungus, a common blue



FIG. 214.—Citrus scab on young citrus fruits

mold, which comes in and exaggerates the injuries but also further attacks fruits whose skin has been punctured or which has been otherwise roughly handled or delayed in transit. The citrus canker introduced in comparatively recent years (fig. 215) has never been allowed to become very destructive, but it resulted in one of the most energetic fights in the history of American fruit diseases.

Even among the bush fruits, the blackberries and raspberries, and strawberries we find that each group has a special set of fungous diseases of the fruit, foliage, and canes which constitutes a continual source of annoyance and loss to the grower.

As already indicated in the case of the orange the troubles do not cease after the fruit is picked. There is a large number of fungi, some of which get their start on the fruit while it is still growing or after it approaches maturity; others of which develop wholly after

picking, but all of which attack the fruit while it is in the packages, in storage, in transit, or on the market. One of the recent features of progress in plant pathology has resulted in the study of these fruit rots and causes of spoilage in transit and storage and on the market. Some 30 fungi are found in this country attacking the apple alone while on the market. One of the interesting things brought out by this line of research is that all ordinary fruits, such as apples, pears, peaches, etc., are virtually alive after they are picked. The decay and spoilage, therefore, are not to be looked upon in the same light as the decay of meats or other prepared or cooked food products, but that the decay and spoilage of fresh fruits is the problem of keeping living material under living conditions. This is brought out rather strikingly in the case of the physiological or nonparasitic diseases like apple scald, in which the disease is produced by the emanations of the apples themselves in tightly closed packages. The remedy which has been found for this trouble, namely, wrapping the apples in oiled paper which absorbs the poisonous gases, still further illustrates the fact that these fruits are living objects. Ordinarily, a dead apple is a brown rotten apple and a dead spot on the apple is a brown discolored decayed spot.

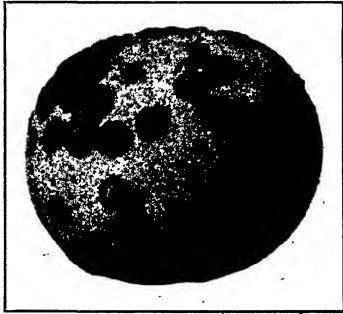


FIG. 215.—Citrus canker on grapefruit

Physiological or Environmental Diseases

As indicated in the foregoing pages, parasites are not the only causes of the diseases of fruits and other plants. Our fruit and nut trees and vines grown in the open are subject to weather conditions not only during the growing season but throughout the winter. As our orchard fruits blossom and in most cases are dependent on insects for pollination during the uncertain spring weather and as fruits and fruiting plants are living things, they are keenly subject to their surrounding climatic and weather conditions. The main environmental factors influencing the diseases of fruits may be classified as follows: Weather conditions, such as temperature, moisture, and light, and chemical conditions.

For each of these factors there may be an optimum condition at which trees and plants do best; there may be adverse conditions beyond the maximum or minimum at which they are killed or near which they are permanently injured, prevented from fruiting, or ruined commercially. Conditions that are optimum for a tree or

other plant, or adverse, as the case may be, at one time during the season, or during the life of the plant, may not be equally favorable or unfavorable at some other time or at another period in the life of the plant. The study of these subjects in relation to plant growth is largely covered by the science of plant physiology and its special branch, ecology. The study of the adaption of the various species and varieties of fruits to these varying conditions forms an important part of horticulture. When critically unfavorable conditions are approached so that the plant is either killed, poisoned, stunted, injured, or prevented from fruiting, the injured plant and the causes which produced it become the subject of study by the plant pathologist. These various factors not only produce disease directly, but they also indirectly bring about susceptibility, resistance, or immunity in varying degree to parasites. They have, of course, direct effects on the parasites themselves just as they do on the host plants.

In a general article of this character it is not possible to discuss this extensive and complicated subject at all completely. Only a few examples may be given to illustrate their direct effect in producing disease or their secondary effect in favoring parasites.

Temperature.—Everyone knows that temperature is all-important to the life and health of a fruit tree and scarcely less so to the condition of the fruit after it is picked, since fruits are made up of living cells. Winter injury to fruit trees and vines constitutes one of the great hazards of fruit growing. It occurs in almost endless varieties of types such as the killing of dormant buds of peaches and other fruits, the killing of the trunks and bodies of the trees, injury to the collars at the ground line, and the killing of the roots. An important thing to note is that winter injury is not always a matter merely of low temperature, though it occurs more or less habitually along the extreme northern border of the culture of each fruit. On the other hand, it is usually due to a combination of warm weather, perhaps abnormally warm weather, and a cold spell which may even be very moderate. For this reason, winter injury to peaches, or even to the trunks of the trees, is very common in the Carolinas and Georgia, and winter injury to the trunks of young cultivated pecan trees has occurred repeatedly in southern Georgia and adjacent Gulf coast sections. The cultivated varieties of sweet cherry are usually very hardy in western New York, southern Canada, and Michigan, but the trunks of young trees are very commonly injured in the vicinity of Washington, D. C. In general, the northern limit of the cultivation of any fruit is determined by the minimum temperature which it can withstand. Along the northern limit of its range the tree is frozen to death or severely injured by occasional extremely cold spells.

The upper surface of the large branches of fruit trees, especially apples and peaches, when exposed by bending over with a load of fruit or by overpruning of the center of the tree, are sometimes so heated by the direct rays of the noonday sun in June and July that the tissues are killed clear to the wood. The bark and cambium are heated beyond the maximum temperature which they can endure. They die either rapidly or slowly, often unnoticed, but a year or two afterwards a great dead strip is found on the upper surfaces of the limbs. The slightest protection by the foliage due to the

position of some of the branches can often be observed to be a complete preventive of this trouble. This is the true summer sun scald. An entirely different combination which has been termed winter sun scald is due to very low temperatures, usually considerably below zero, followed by bright, clear, intense sunny weather. This occurs invariably on the southwest sides of the trunks of the tree, only occasionally reaching up to nearly vertical branches and is considered to be produced by the horizontal rays of the afternoon sun, around 3 o'clock, rapidly warming up frozen trees. This type of injury is widely distributed, but is most common in our midwestern and Rocky Mountain States where occasionally thousands of trees are injured in exactly the same position. It is sometimes complicated with straight winterkilling from low minimum temperatures, but winterkilling of the trunks occurs more or less indefinitely, or all around the tree, or in the heartwood from the center outward.

Apples, pears, and occasionally other fruits are sometimes heated by the sun in exposed positions on the tree to the extent that a circular area is actually cooked and a large round dead spot results. Around the margin of such an area where the tissues are injured but not killed and where growth is slightly checked the color in some cases is higher than normal. In others, the red coloration is delayed. This sunburn of fruit is not very common. It usually occurs only at temperatures approaching or above 100° F. in the shade, but the temperatures in the sun where this effect is produced go to about 125° or 130°. The writer has observed it several times on tomatoes and muskmelons in the Eastern States where the air temperatures reached 100° or a little above. There is little doubt that the stunting effect of excessive heat is often produced without the actual deadening or browning of the fruits. This injury by maximum temperatures is not limited wholly to fruits directly exposed to the intense rays of the sun. Apples are often so heated, even on the shaded inside portions of the tree that they develop water-soaked and eventually brownish areas in the flesh and sometimes premature breakdown of the fruit in storage. The foliage also may be checked in a somewhat similar manner. Abnormally hot spells often injure the foliage in varying degrees, causing the leaves to color slightly, to die at the tips, and margins, and to drop prematurely. This injury may be associated with insect injury and is distinctly more severe when the leaves have been subjected to too much moisture during the period immediately previous to the exposure to heat.

Moisture.—Fruits as well as other plants require just the right amount of moisture to do their best. As a rule, the various fruits and fruit trees are more exacting as to their requirements for soil moisture at the roots than for the moisture surrounding the top of the plant or tree.

One of the trying conditions in humid America which often causes plants, even those fairly well adapted, to suffer is a rainy, humid, cloudy period, such as sometimes occurs in June or July during the period of most active growth, followed by a very dry period. These conditions are especially trying to young, newly formed foliage which grows during the moist period with loose tissues and wide open breathing pores adjusted to the limit to the humid conditions and is then subjected for another period of perhaps two weeks or more

to very dry air. Tipburn and margin scald have been observed frequently to be a direct result of such conditions. Sickening and yellowing of the leaves and premature dropping of the foliage sometimes long after the crucial period are often traced directly to these conditions. The vinifera grape is a fine example of a plant which apparently can not withstand such intense changes, though in case of this fruit as well as many others the direct physiological effect is often complicated by the presence of fungous diseases which seize the opportunity of the moist weather to infect the plant to an abnormal degree.

An intensely rainy spell following an intensely dry spell is scarcely less serious in many cases, especially to introduced European fruits. It often causes the fruits to crack open from a trouble called rain cracking. Japanese plums may sometimes crack in many different directions over the surface so that the fruit is utterly destroyed. Apples often crack at the calyx and at the stem end and sometimes burst open completely from the stem to the calyx. The checking of the growth of the outer layers of the fruit followed by sudden increase in growth and expansion of the interior by moisture is easily seen to be the cause of such trouble.

Light.—Although fruit trees are not as sensitive to maximum intensities of sunlight as certain ferns or mosses for instance, nevertheless, it is a factor which continually has to be kept in mind by the plant pathologist. It is a question whether the powdery mildew of the peach and apple, which are well known to be more severe in the drier sunny regions of the United States, are not influenced as much by too great intensity of light as by aridity. Another example of the effect of light on a plant in health and disease is the gooseberry. This plant produces larger and healthier foliage and larger fruit crops in partial shade.

Chemical conditions.—Although the fruit tree gets its carbon from the atmosphere taken in through the breathing pores of the leaves and separated from carbon dioxide through the energy of the sunlight, and though it gets its oxygen from the atmosphere, these are constant factors which do not ordinarily enter into the question of health and disease except in stored fruits, vegetables, plants, or cuttings which are smothered or otherwise abnormally treated in storage. Fruit trees get their minerals and nitrogen compounds as well as their water almost wholly from the soil, and these constituents occur in varying quantities and proportions and have a profound effect on the plant in health and disease. It is true that fruit trees may be poisoned by gases emanating from factories, chemical works, smelters, etc., and perhaps in some rare cases from volcanic gases originating naturally. It is also true that in stored products chemical injury may result from various sources, and plants may be asphyxiated from lack of oxygen. Furthermore, poisons produced within the tissues of the plants may produce breakdowns, or, emanating from the surface, may produce injury to the skin. A striking example of this is the disease known as apple scald on stored apples and a rather remarkable new type of remedy by absorbing these poisonous gases through the use of oiled wraps.

The chemical constituents of the soil and the plant foods which they supply to the growing fruit tree or vine, the presence or absence

of suitable constituents and the proportion of these various elements and compounds—in other words, the balance of the plant foods exert a profound effect on plant diseases. An example of this is nitrogen starvation. Even though supplied fairly well with all the other chemical elements necessary to growth, and with no injurious materials in abnormal concentration, a plant without sufficient nitrogen grows sickly and pale and yellow. A peach tree suffering from this type of minimum chemical effect, when looked at from a distance, may readily be mistaken for a case of peach yellows. One of the best evidences of nitrogen starvation is often obtained by making an application of nitrate of soda around such a tree, following which in a week or two perhaps combined with cultivation, the tree will be found well on the way to recovery. The leaves will have begun to turn dark green, and if not too greatly checked, new growth with new foliage may have begun to push out. Potash hunger, so well worked up on cotton and truck crops like potatoes, probably also occurs on fruit trees in a less evident manner, mostly on lighter soils where the trees are dependent on artificial fertilizers. The root system of most fruit trees, reaching far into the subsoil, enables them to get their potash probably more readily than shallow-rooted annual plants. The effect of mineral constituents of the soil on growing fruit trees, important as it may be, is not often a conspicuous cause of definite diseases in the humid regions excepting in calcareous areas, or where lime is applied artificially to plants which can not tolerate any slight excess of lime in the soil. Oranges in Florida are thrown into a sudden state of chlorosis or mottle leaf when even an ordinary dressing of lime is applied to these light sandy soils. The pecan will not grow on marl or limestone soils where all the other conditions are reasonably favorable. Organic matter or humus-forming material of any kind, such as stable manure, straw, leaves, and cover crops, corrects the effects of too much lime and enables the trees to grow out of the difficulty.

There is a group of chlorotic diseases apparently associated with lime, occasionally occurring on a great variety of plants in the humid eastern United States but very common in the arid portion of the country. The western peach rosette, the apple rosette and chlorosis, frenching of the grape and similar symptoms on many kinds of fruit trees and other plants occur very commonly west of the 100th meridian which passes through the central portion of the Dakotas, Nebraska, western Kansas, Oklahoma, and Texas.

The apple orchards of the Wenatchee and Yakima Valleys were at one time severely affected with chlorosis and rosette. The growing of alfalfa in these irrigated orchards, and allowing the crop to remain in the orchard year after year, has proved to be an almost complete remedy for this condition. It takes three to four years to get the full effect of the treatment. These western physiological diseases are obviously due to excesses of certain materials in the soil; these accumulate there because of a scanty rainfall and the lack of a sufficiently free downward movement of the irrigation water to wash them away. These diseases are intensified by arid conditions and corrected by moisture and humus-forming materials.

Actual alkali injury may be regarded as an extreme and certainly a different type from these physiological poisons. It may also

represent a striking example of too great a maximum of a chemical constituent in the soil, which results in plant injury and death. These alkalis are mainly sodium carbonate, sodium chloride, and strange to say, potassium nitrate, a most valuable fertilizer and plant food when in proper concentration in the soil. Sodium salts often enter into the complex composition of injurious alkalis, and lime and magnesium compounds which are so often beneficial to soils in the humid regions also form a part of them. At any rate, it is safe to say that a large number of physiological diseases of several different types, which occur mainly in the arid regions and about many of which very little is as yet known, are due to an excess or to unbalanced quantities of chemical constituents in the soil. It has even been stated that in the Old World the accumulation of these conditions under irrigation has been the cause of the abandoning of entire civilizations. It is not too much to hope that scientific research in plant pathology and physiology, together with the study of the chemistry, biology, and physics of the soil, and with the development of engineering in the way of water supply, may develop methods of meeting these difficulties in the future. One thing is certain, that as far as fruit culture is concerned, certain districts in the irrigated regions of the West have already been abandoned on account of the presence of diseases of this type.

The Origin of American Fruit Diseases and the Origin of Fruits as Related to Their Diseases

The cultivated fruits and nuts of the United States are of two sources of origin as shown on page 112: (1) Those derived from native wild fruits and nuts of North America and to some extent of South America, and (2) those introduced from the Old World and having their origin there. Since the fungous and bacterial parasites producing disease have also had their origin in both the Old World and the New there are four possible combinations of fungous parasites and their hosts in the American fruit-disease problems:

- (1) Native American parasites on fruits of American origin.
- (2) Native American parasites on cultivated fruits of Old World origin.
- (3) Old World parasites on Old World fruits.
- (4) Introduced parasites on fruits of American origin.

From lack of knowledge it is not quite possible to classify definitely all of the diseases of the American fruits into these four groups, some of the fungous parasites having wider distribution than any one species or perhaps any one genus of their host plants. In some cases the fungi are identical both in the Old World and in the New and merely transfer from one related species or genus to another related species or genus in the New World. An example of this sort is the commoner of two blackberry orange rusts. This rust extends around the world in the North Temperate Zone and changes from one species of host to another in its great world-encircling span. The species of blackberries and raspberries are not the same even on the two sides of the American continent. It is not always an easy problem to determine the exact native origin of a fungous parasite of a cultivated fruit or of other crop, especially in the case of intro-

duced plants. In many cases, perhaps in the majority of instances, the evidence of the foreign or native origin may be rather clear or even beyond all dispute. In case of newly introduced parasites of the last 40 or 50 years, during which the fungi have been extensively studied and collected, the evidence is often definite. On the other hand, in case of certain fruits and their diseases introduced in early Colonial days, 150 years ago or more, and now found widely distributed or even on native related host plants, it is not so easy to be certain of their introduction from foreign sources. A number of these parasites were unknown in this country until extensive plantings began coming from the Orient, and then as they began to appear they were rather easily traced to their sources across the Pacific. On the other hand, the European parasites of fruit trees, plants, vines, etc., coming in many years ago have a more obscure origin. There is also a group of virus diseases which are contagious and transmissible, but with which there are no bacterial or fungous parasites associated which can be seen under the microscope and classified, and these present a still more difficult problem as to origin. The physiological diseases can be dismissed from this discussion, since they are not dependent on the presence of any parasite or contagious, infectious material, but solely on environmental conditions which may occur anywhere in the world.

Native American Diseases on Fruits of Native Origin

The black-rot and the downy mildew diseases of native American grapes form a striking example of this type of disease. The fungi causing these two diseases are native on the wild grapes of the eastern United States. As pointed out elsewhere (p. 467), the *vinifera* grape is not successfully grown in the humid portion of the United States. These two fungi are factors in the culture of this fruit. On account of repeated failure of the *vinifera* grapes, eastern grape culture in the United States had to be based on the development of horticultural varieties of native origin. The Catawba and the Concord are of this class, and shortly after they were brought into cultivation they were planted extensively and became a feature of eastern American grape growing. These are supposed to be of pure native origin. Later, other varieties such as the Delaware, Niagara, Moore Early, Brighton, and others were produced and took their place with the Concord and Catawba. This latter group, however, was partly hybridized with the *vinifera* or European grape, and while in general the varieties are fairly resistant to these fungous diseases as compared to the pure *vinifera* they are less resistant than the pure natives, and for this reason they are more difficult to grow and more difficult to protect by spraying and otherwise from fungous diseases.

Pecan scab and probably all the other fungous diseases of this nut also present an example of this class. Pecan scab was first described on the hickory from southern Illinois, on which it rarely occurs. Later it was found on the pecan, but occurs rather rarely on this host on the wild trees in nature. When the pecan became extensively cultivated, however, and especially when the varieties or seedlings are moved from western semiarid sections of its range to the

more humid eastern sections along the Gulf coast, it has spread until it has become a first-rank disease of this extensively planted nut tree. Many varieties are commercially resistant to this fungous parasite but certain varieties otherwise desirable are so susceptible that they are being abandoned in cultivation for this reason alone.

The native blackberry and raspberry of the eastern United States have a number of fungous diseases, such as the two orange rusts, anthracnose, mildew, etc., which are caused by native parasites and which commonly occur on the wild brambles of several different species.

Native American Diseases on Cultivated European or Old World Fruits

As above indicated, the native black-rot and downy mildew parasites of eastern grapes have severely attacked the European grape in America. These two fungous diseases, aided by the insect pest *Phylloxera*, doubtless caused the failures of the early attempts to grow vinifera grapes in the Eastern States. Under the arid conditions of the Pacific coast and adjacent arid and semiarid districts mostly west of the Rocky Mountains, the European grape thrives, but these two fungi have proved sufficient to suppress or very greatly retard the culture of this fruit even when grafted on resistant roots in humid America. It is somewhat doubtful whether these fungi alone are accountable for the failure of the European grape in the eastern United States. Climatic conditions including humid, rainy, hot weather at irregular intervals from about the 1st to the 15th of June and alternating through the summer with fairly dry sunny weather, appear to present an almost impossible environment for the foliage of this plant.

Pear blight on the apple and pear and to some extent on the quince and related pomaceous fruits presents a striking example of the vicious attacks of a native parasite on cultivated Old World fruits. Our pears were first of European origin, and most of the high-quality varieties acceptable to the American taste are either European varieties imported as such, like the Bartlett, Anjou, Bosc, etc., or American seedlings grown in this country from the same species, such as the Seckel, Clapp Favorite, and others. Later in the history of American pear culture the oriental pear was introduced from China and Japan. These were, as a rule, extremely vigorous and productive but bore fruits of low quality which were not acceptable to the American taste and were used to a limited extent only for cooking. Hybridized with the high-quality European pear, however, the resulting forms retained and even increased the vegetative vigor and productiveness of the oriental parent with considerable improvement in the dessert quality of the fruit as in the case of the Le Conte and the Kieffer. Thousands of acres of these hybrid orientals have been planted and grown, especially in the South, but so far the fruit is of such low dessert quality even with its improvement over the oriental pears that it is not very generally acceptable and, therefore, not very profitable to the grower. These orientals and their hybrids are, as a general rule, more resistant to the blight than the pure European pear. The Kieffer especially is of this type. With a reasonable amount of

care in cutting out the blight and practicing moderation in cultural methods, pruning, cultivation, fertilization, etc., they can be grown commercially on a large scale. The Le Conte pear industry which became very extensive in the Gulf Coast States was practically wiped out before satisfactory methods of control were developed. In general, pear blight has exerted a profound influence on pear culture in the eastern United States and has been scarcely less serious in its attacks on the orchards of Colorado, Utah, and the Rocky Mountain region generally, as well as in California, Oregon, and Washington. Its attacks are more serious in the South, but they are greatly reduced in a cooler and more northern region. During certain outbreaks it has been scarcely less serious on certain varieties of apples like the Yellow Transparent and some of the other Russian sorts in both the Eastern States and in California; also with such fine varieties as Esopus Spitzenburg, Jonathan, Maiden Blush, and others.

The worst peach disease from the standpoint of its destructiveness in the orchards of the eastern United States has been the well-known peach yellows. (See fig. 202.) No parasite has ever been discovered, but this disease is of a contagious nature and has a definite geographical range which has extended to the southward and enlarged in a rather definite, known manner. It acts like a parasitic disease. In some cases it behaves like a contagious virus disease, yet in others the inability to transfer it by injection of juices or by any other method except actual budding tends to keep it out of this group. Since it is not transferred in nature by budding but by some other method, this is an argument for classing it with the virus diseases. It has wiped out commercial peach culture successively in the Delaware-Chesapeake region, the eastern Appalachian Mountains, especially the Blue Ridge section of Virginia, Maryland, and southern Pennsylvania, and the mountains of Pennsylvania, West Virginia, and Virginia, whole districts of the Michigan peach belt and peach sections of New York, and the Piedmont region of Maryland and Virginia before its inroads were stopped by the destruction of the orchards. In the first few years of this century, it apparently wiped out almost completely the seedling orchards of the southern Appalachian Mountains of North Carolina, southwest Virginia and eastern Tennessee so that the supply of peach seed for stocks from that region was almost obliterated. This disease is now known to be controllable by thorough eradication; that is, by pulling out the diseased trees promptly, before they have opportunity to spread the infection. Orchards are now being developed in old districts where they have been destroyed not once, but perhaps a second or a third time. Peach yellows appears to be of native origin, as it is unknown elsewhere in the world and unknown in America outside of its definite range. The native wild host plants of this disease, however, are still unknown. It attacks the Japanese plum, the apricot, and perhaps some other closely related peachlike stone fruits. But it is not known to attack the domestic or European plum, or several species of native American plums and other native American stone fruits which might be suspected of being its host.

Old World Diseases on Old World Fruits

Citrus scab and citrus canker are comparatively newly introduced. The one, introduced probably in the early eighties, and the other, citrus canker, rather definitely introduced about 15 years ago, are both native in the Orient. Although they may have come to us from Japan they probably were introduced into Japan from the mainland of southeast Asia. It is a rather interesting thing to note that these diseases are, as a rule, not very serious in their country of native origin. Like many other pests, or even like many other crop plants, they thrive in the new environment more vigorously than where native. In their native home the parasites are adjusted to their host plants so that they get along fairly well together. But in the new environment, especially under new climatic conditions—in this case humid conditions—with extensive planting over large areas which supply continuity of host plant, the opportunity for the diseases to spread is provided. Their development has gone on until they are of great economic importance. Apple scab, apple bitter-rot, in fact most of the fungous diseases of the apple, pear, and peach appear to be natives of the Old World brought over with these plants.

Introduced Old World Diseases on Native American Fruits

There is apparently no more dangerous type of disease than that imported from foreign countries which finds a related host plant native to America even more conducive to its development and spread than its original host. The original hosts naturally are adjusted to their parasites. In their native home this adjustment may be assumed to be fairly complete, but under new conditions new possibilities arise. Under certain new conditions they may not attack at all; this is one of the great factors of fruit culture in our arid and semiarid districts. The dry soils and dry air are not conducive to the spread of most bacterial and fungous parasites. On the other hand, it is not safe to trust these parasites because they may, like pear blight, or like peach leaf curl or the gumming fungous, both European pests, thrive in the rainy winter of the Pacific coast. The chestnut-bark disease, which is, of course, more of a forest than a cultivated-nut disease on account of the fact that most of the trees exist in a wild state, forms one of the most striking examples of the possibility of destruction to American fruits and nuts by an introduced foreign parasite. This disease, which came from the interior of north temperate China and there attacks a medium-sized native chestnut species in a rather mild manner, has now all but destroyed the American sweet chestnut both in the forests and when grown as a cultivated nut. It has also destroyed our cultivated European chestnuts, leaving only a few Japanese varieties and possibly other hybrids severely attacked but able to stand up to some extent against its vicious parasitism. It should be noted that this same principle applies to other parts of the world just as definitely as to America. The American pear blight in some unknown way has been introduced in recent years into New Zealand and has begun its destructive attacks on the pear and apple in that far-off country. The black-rot and mildew of the grape, native American diseases imported into France, are there destructive to the European vine.

Successful Methods for Disease Control

Scientific research is now a great factor in helping the fruit grower solve his problems of the cause and control of fruit diseases. One of the most striking features in the development of American agriculture as a whole has been the application of the sciences in meeting the problems of increased or more efficient production, of modifying or refining and improving old methods, and of introducing entirely new ones. The early printed reports of meetings of fruit growers in this country often contain rather frantic appeals for help in the control of disastrous or injurious diseases. Naturally, before the introduction of the science of plant pathology these diseases formed serious puzzles to the growers. In the absence of exact knowledge or of definite scientific experimental methods all sorts of theories and conjectures were made as to the cause of disease, and all sorts of empirical methods for their control were tried or advocated. Some of these useless or quack methods of control continue to come up in various parts of the country, but at present they are well in the background. On the other hand, many exact observations and even some perfectly correct methods of disease control, at least as far as they went, were developed empirically before the application of science. For example, the selection of resistant varieties of pears and the partial control of pear blight by reducing the vigor of the trees through withholding manures, cultivation, etc., are still just as sound to-day as when advocated 60 or 100 years ago. Selection of resistant varieties of strawberries for leaf-spot diseases, the selection of apples resistant to scab, and of stone fruits resistant to brown rot are still perfectly good methods. A more striking example is the control of peach yellows by completely eradicating the diseased trees, which was advocated by a group of Michigan peach growers at South Haven. This method to-day is the standard and the only method of controlling this disease. It is true that these early empirical methods had to be subjected to modern experimental tests and had to be confirmed by scientific research and experimentation before their full value was accurately determined and before they could be put into the modern practice of disease control. These older empirical methods have been greatly developed and perfected by the application of research based on scientific botanical knowledge. On the other hand the greatest triumphs in the control of plant diseases so far have developed along the lines of dusting and spraying with fungicides, disinfection with germicides and fungicides, and other similar methods based on scientific research and on the modern knowledge of the nature and behavior of bacteria and fungi.

The successful control of diseases as now practiced comprise many different methods. Some diseases are controlled by a single method but usually a combination of two or more of these is available to the orchardist in fighting his pests. These methods are as follows:

- (1) Spraying or dusting with fungicides.
- (2) Disinfection by means of germicides and fungicides.
- (3) Eradication.
- (4) Quarantine.
- (5) Breeding and selecting resistant or immune varieties.
- (6) Cultural handling and storage.

All of the above are used by the American fruit industry in combating and controlling fruit diseases, sometimes singly and sometimes with two or more methods of attack combined. Other special control measures such as inoculation or injection, medication, etc., have been tried and have so uniformly yielded negative results that they are at present in bad repute among plant pathologists. The use of ultra-violet rays and electrical control, though somewhat promising, may be regarded as in the early experimental stages.

A few striking examples of disease control by the various means may be cited: Spraying with fungicides is undoubtedly the most widely used and most successful method of preventing and controlling the fungous diseases of plants. It is almost a failure with the bacterial diseases. Peach leaf curl, the California gumming fungus of the peach and other stone fruits, and certain apple cankers are controlled by dormant spraying. With these and a few other minor exceptions the greater part of spraying with a fungicide is done when the tree is in active growth. Most of the ordinary leaf and fruit spots of cultivated fruits in America (see figs. 204 to 210) have been brought under control by spraying. Bordeaux mixture was the first great successful fungicide, although lime-sulphur solution and other sulphur compounds are in many cases more suitable and now more generally used on fruit. In the course of extensive experimentation, rather definite spray schedules and strengths of material have been worked out for the different diseases or combination of diseases on the different fruit crops and for different sections of the country. The black rot, downy mildew, and other fungous diseases of the grape are successfully controlled by Bordeaux mixture spraying. Bitter-rot and blotch of the apple are controlled with this material properly applied. Apple and pear scab, pear-leaf blight, and most of the fruit spots and rots of the fruit and foliage of the apple are controlled by spraying with dilute lime-sulphur solution for the early sprays and Bordeaux mixture for the later ones. Peach brown rot and peach scab are controlled by spraying with the self-boiled lime-sulphur mixture or various substitutes for the same; and dusting with finely powdered lime and sulphur mixtures gives excellent control of the peach-scab fungus and is fairly satisfactory against brown rot. Arsenate of lead and other arsenicals are usually combined with the fungicides in the standard spray treatments. Control of most fruit diseases requires a combined schedule directed against a group of fungous diseases and insect pests attacking the crop in that locality.

Disinfection with germicides and fungicides, though a prominent method in the control of the grain smuts, potato scab, and other potato diseases, is only occasionally used in fruit diseases. These disinfectants are applied both in dilute liquid form and by fumigation with gases. Although not a dominant method of disease control with fruits, disinfection methods are used in several different ways. In the eradication of pear blight and of apple cankers a 1-to-1,000 solution of corrosive sublimate is used to disinfect the tools and as a surface disinfectant of the wounds. This disinfectant is also used in citrus-canker work to sterilize the implements, shoes, clothing, and hands of the inspectors. The mixture of one-fourth to one-third creosote oil with two-thirds to three-fourths ordinary coal tar is used

for painting the wound after pear blight eradication. The same wound paint is extensively used in painting pruning wounds and in various types of tree surgery on fruit trees.

Formaldehyde solution, 1 pint to 30 gallons of water, has been used in the control of crown gall (fig. 216), as a surface disinfectant for apple seedling stocks, scions, and the tools and benches used in grafting. A new method of using an organic mercury compound has just been developed for treating the seedling roots, scions, and bench grafts, which is much more effective against this disease. In the introduction of new plants dipping for a few minutes in the above-mentioned formaldehyde solution is frequently practiced with more or less certainty of success. In propagating plants the soil is sometimes saturated with this and other disinfectant solutions, heat and hot water being also used for soil sterilization in special cases of propagating fruit nursery stock.

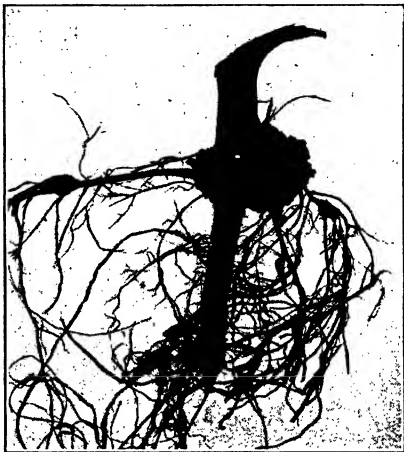


FIG. 216.—Crown gall on root of an apple tree

Disinfectants are also used in the washing water for citrus fruits in the packing houses; and fruit-storage houses also utilize this method of sterilization as a protection against fungous rots.

Eradication Methods

Eradication plays a prominent part in the control of many fruit diseases, especially certain diseases not readily controllable by spraying or other similar methods. As a rule American fruit growers do not take so readily to this procedure as to the use of the spray pump or some of the other methods given below; but in certain cases where it is effective it is by far the most economical way of controlling diseases. It may not appeal to the fruit grower as a satisfactory way of controlling peach yellows to have to cut down a number of fine trees, and yet peach yellows is much cheaper to control by eradication when properly carried out than is the peach brown rot by spraying, even counting in the loss of the trees.

There are three distinct types of eradication: (1) That in which it is necessary to root out and destroy the entire tree, no matter how slightly affected, as in the case of peach yellows, little peach, and crown gall in nursery stock; (2) that in which the diseased

part only need be removed, usually not involving the loss of the tree; for example, pear blight in pears and apples, apple and pear canker, black knot of the plum and cherry, and fungous wood rots; and (3) eradication of the alternate host, the best example of which is the destroying of the red cedars for the control of the cedar rust or orange rust of the apple.

Eradication when carried to the extreme limit results in the extermination of the fungous or bacterial parasite. This is of great importance in regard to newly introduced organisms to any district or country. It has been successfully carried out locally in a few cases, but as yet in no instance has a bacterial or fungous parasite been completely exterminated in any large territory or country as has been done with certain human and animal diseases. The remarkable extent to which the extermination of the citrus-canker bacteria which produces the citrus canker disease in our Southern States is being carried on is therefore a matter of extreme interest. This germ, rather recently introduced from the Orient, is being controlled by eradication, and a vigorous attempt is being made, especially in Florida, to completely exterminate this pest. Success in this specific case will be historic and will greatly stimulate further action along this line.

Quarantines

For years this country allowed various pests from all parts of the world to be introduced on the nursery stock, cuttings, scions, etc., imported from various countries. The result is that we have imported along with our fruit introductions a large number of disease-producing organisms from various parts of the world and have transplanted them with the fruits on which they grow. Some of them find our native fruits and nuts and our local conditions even more congenial for their spread than those supplied in their native environment. In a similar way some of our parasites, like the vine disease-producing fungi, have been sent to the Old World. A serious disaster to the chestnut of the eastern United States, both cultivated and wild, resulted from the introduction of the chestnut-bark disease from China. The introduction of the citrus-canker germ into Florida and other Gulf Coast States from the same source, the introduction of the white-pine blister rust from Europe, and also a number of serious insect pests brought forward emphatically the necessity for a quarantine. It goes without saying that it is vastly better when possible or practicable to exclude these foreign pests rather than to wage war against them after they are introduced into the American orchards. The enactment of the Federal quarantine act of 1912 put this method of fighting orchard diseases and other pests into active operation. Previous to that time this method was only used locally in a few States, notably California.

Notwithstanding the difficulties, both theoretical and practical, of carrying out this process of excluding diseases, this is the most promising method which man has yet devised of protecting himself from the introduction of new pests. The rapid increase of communications and the commercial movement of materials between all countries of the world make this method of more and more importance to crop production and food supply, not only in this country but throughout the entire world.

Breeding and Selection

This is one of the oldest methods of controlling plant diseases, including those of fruit. It is much older than scientific plant pathology, which may be said to date back only about 40 years. Since this process takes place in nature in the natural struggle for existence resulting in the survival of the fittest, it may not be incorrect to suggest that this method probably began with the very beginning of the efforts to cultivate fruits as well as other crop plants. In our own country for over 100 years there have been efforts to produce blight-resistant pears. Strawberry growers and breeders have persistently sought varieties resistant to the common leaf blight, and in general horticulturists have sought freedom of susceptibility to disease in the various varieties of fruit long before the exact nature of these diseases was definitely known. Even at the present time, with other methods highly developed, this method still stands as one of the very best ways wherever possible to use it in reducing the attacks of fruit diseases. Spraying and eradication and disinfectant methods must be looked upon as comparatively crude and expensive means of fighting fruit diseases in comparison with the selection and propagation of varieties which themselves resist the disease or which require the minimum amount of effort on the part of the grower. The breeding and growing of resistant or immune varieties, therefore, may be considered as one of the highest types of disease-control methods. Horticulturists and plant propagators are not alone, therefore, in recognizing this as one of the most promising lines of research, since plant pathologists are now taking up this line of investigation as one of the best methods of attack. Pears and apples are being bred for special resistance to pear blight. The problem includes the use of resistant stocks and bodies. In the case of the Grimes Golden apple in the eastern United States, the collar blight which has made such serious inroads on this variety is overcome by topworking the Grimes Golden on the Paragon or other resistant roots and thus growing the trunk and collar of the tree so that it will not take this disease. The peach and other stone fruits are being selected for their resistance to brown rot; grapes and small fruits for their resistance to various diseases.

Although fighting outbreaks of plant diseases by spraying and eradication methods may win the battle temporarily and may be regarded as very proper expedients, these methods must be likened to putting out fires after they have started instead of building fireproof or fire-resistant structures. Research work on this line, however, encounters the same kinds of difficulties as the building of expensive fireproof structures. There is little support for this slow and laborious method of preventing disease losses, while on the other hand emergencies existing in epidemics of plant diseases have resulted in prompt action.

Cultural, Marketing, and Storage Methods

Under this somewhat miscellaneous heading may be placed all those ways of modifying or changing usual horticultural methods of growing, harvesting, transporting, and storing fruits

so as to meet the special conditions brought about by disease. This represents many different processes, including even the selection of proper soils and climatic conditions; for example, the Bilyeu peach in the eastern United States was so severely attacked by the peach-scab fungus that it was only grown in the Appalachian fruit belt at elevations above 1,200 feet. Later, however, spraying came to the rescue and controlled the disease at lower altitudes. Modifications of drainage and irrigation methods, in the application of fertilizers, particularly nitrogenous fertilizers, and in some cases the actual withholding of cultivation and fertilization which would otherwise be desirable, are all brought to bear in disease control. The peach is so susceptible to brown rot in the humid eastern United States that stable manure and nitrogenous fertilizers which greatly favor it have to be used with caution, even though they may be desirable from the fruit-production standpoint. Here, again, spraying with the self-boiled lime-sulphur partly frees the grower of this restriction.

Another example is pear blight. This disease attacks the tree directly in relation to its vigor and growth, other factors being equal. The result is that it is unwise at times when growing susceptible varieties of pears in the eastern United States to cultivate them so as to produce the maximum growth. It is even necessary in pear-blight outbreaks to partially or wholly withhold cultivation and to use nitrogenous manures and fertilizers with great moderation; and even pruning, which stimulates vigorous growth, should be partially withheld.

Many of the refinements of handling, transporting, and storing fruits are aimed at disease control. Ordinary fruits remain alive when picked from the tree, and when the fruit or any part of it dies that part becomes brown and decayed or rotten either from the death of the tissues or attacks of weakly parasitic fungi. It is necessary, therefore, to handle fruits so as not to bruise or injure them or break the skin, and it is necessary to maintain temperatures which will insure their longest possible life and the slowest growth of decay organisms.

From this standpoint refrigeration, both in cars and in storage, may be considered as one of the methods of controlling fruit diseases. The transportation and storage diseases of fruits are now being studied and scientific investigation brought to bear on the methods in use. Remarkable progress has recently been made in protecting apples from apple scald by the use of oiled wrappers. In boxed fruit which is commonly wrapped, the only change from the old practice found necessary was to add a suitable mineral oil to a proper paper wrap, the oil absorbing the poisonous emanations of the apple itself, which produce this disease. Another method of accomplishing the same purpose has been worked out in experiments which consist of removing the gases by ventilation, but it has not proven capable as yet of practical application.

Insects in Their Relation to Fruit Culture

It would seem that the multiplying hordes of insect pests would render it impossible longer to produce sound fruit. Yet our ability to deal with these enemies is such that we are growing increasing quan-

ties of perfect fruit with each succeeding year. Our annual average of fruit shipments from 1918 to 1922 included 93,308 cars of apples, 28,778 cars of peaches, 13,686 cars of pears, and 78,717 cars of citrus fruits. A considerable part of this fruit was prepared for market under rigid inspection against insect injury. Much of it was shipped through cooperative organizations whose standards preclude the marketing of wormy, scaly, and otherwise insect-disfigured products.

Knowledge of insect habits and discoveries and inventions of control measures have kept pace with the insect increase. On all up-to-date fruit plantations insecticides and the machinery for applying them are a part of the regular equipment. By the constant use of these provisions our markets and homes are annually supplied with sound and beautiful fruit. Fruit growers have always been alert to protect their crops against insect depredations. The pioneer fruit growers were among the first persons to record the presence of insect pests in America. They observed what to them were unfamiliar insects attacking both the native fruits and those they had brought from the Old World to test here in a new land. The records they left are now of interest and value in tracing the development of insect enemies in this country.

In the first comprehensive publication on injurious insects entitled "Insects Injurious to Vegetation," by Thaddeus W. Harris, and published by the State of Massachusetts in 1841, there are described about 50 species which injure fruits. Since that work appeared fruit-insect pests have gradually increased in numbers. A manual of insects injurious to deciduous fruits, published within the last 10 years, describes 209 species that are considered to be of special importance, of which 85 attack the apple tree and its fruit. This manual makes no attempt to discuss the multitude of less important insects that injure deciduous fruits, nor the great number of species attacking citrus fruits. A paper recently published lists 30 insects that are known to feed in or disfigure the fruit of the apple tree.

There are fruit-insect pests which occur generally over relatively large portions of the country, such as the codling moth, plum curculio, and San José scale. There are other species destructive to fruit which are confined to small areas and about which people in general know but little. As an example, a recent Government bulletin describes eight important insect pests of the mango in this country, and a similar bulletin treats of nine destructive insects of our avocado plantations. Figs, papayas, and many other fruits grown only in restricted areas all have their destructive insect enemies.

Insect Conditions During the Early Days of Fruit Culture in America

Attention to fruit culture in this country began almost as soon as settlements of the white race were established. Accustomed to fruit in their former European homes, the settlers craved it here and early began to plant orchards and fruit gardens. As already referred to, a portion of such plantings were derived from seeds, cuttings, and plants brought from the old country. Also, they began to cultivate some of the wild fruits which they found growing in

forest and glade around the settlements. At first there were apparently no serious insect pests in evidence, for trees and plants upon which care was bestowed seem, in most cases, to have borne satisfactory crops of sound fruit.

In time, however, native insects that had hitherto fed and bred upon the wild fruits began to injure the cultivated crops. Records were left which show that several species of caterpillars, tree borers, and curculios, which previously subsisted upon the native plants, turned their attention to orchards, and in some cases did great injury. Thus early in the development of fruit culture in this country there began the increase in insect numbers and depredations which has continued to the present time.

Conditions Favoring Increase in Losses from Insects

It is common knowledge that fruit insects are much more abundant than formerly. Each succeeding generation is reminded of the good

old days when this or that pest of the orchard or fruit garden was not known. This increase has come about in many ways, most of them incidental to an expanding fruit industry. Enlarged plantings, the introduction and cultivation of fruits in new regions of the country, and the commerce in fruit and fruit plants with other countries of the world are causes which have contributed to the increasing multitudes of fruit-insect pests and the losses which they inflict.

Increase in acreage of fruits.—Deciduous-fruit culture in this country began in the seventeenth century with the planting by colonists of small orchards and vineyards, and increased, or mass planting of orchards has established and maintained conditions under which insects breed and multiply.



FIG. 217.—Service tree, a native host plant of the roundheaded apple-tree borer

They have been furnished with an abundance of food and with conditions favorable for their young, and are relieved of the hazard of searching abroad for the necessities of life and propagation. Quite obviously, a greater number of tent caterpillars or aphids may develop and produce offspring upon an acre set to apple trees than

upon a similar area having upon it only one or two such trees. An orchard, vineyard, or citrus grove is a potential nursery for insect propagation, and the larger the planting the greater may be the insect increase.

Planting in new regions.—From the place of its origin in the East, deciduous-fruit culture followed the course of settlement and spread westward. As civilization advanced, orchards were planted on every frontier and fruit culture was constantly being introduced into new regions. Cultivated fruits were thus brought within the ranges of insects which had previously subsisted on related wild fruits (fig. 217). In time, practically every native species of insect that had habitually fed upon wild fruits was furnished an opportunity to sample some cultivated variety that resembled its accus-

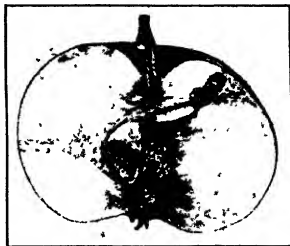


FIG. 218.—A wormy apple, the work of the codling moth larva

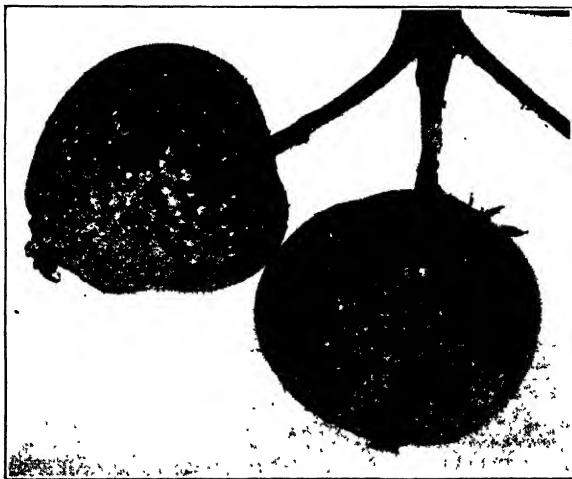


FIG. 219.—San Jose scale on apple

tomed food. It often happened that the insect preferred the cultivated to the wild crop and turned its attention largely to the more acceptable food which man had provided. In this way fruit-insect

problems, both local and general, came into existence almost throughout the country.

Increasing Commerce With Foreign Countries and Insect Introduction

Through commerce with other countries many species of foreign insects have accidentally been brought to our shores on incoming products. These insects repeatedly have escaped and established themselves in our territory, becoming pests of great economic importance. Among these are numerous species which injure fruits. The introduction of foreign fruit-insect pests began in Colonial days, and with the extension of transportation facilities there has been an increasing arrival of such insects from almost every country of the globe.



Fig. 220.—Cottony cushion scale, a destructive enemy of citrus

The codling moth (*Carpocapsa pomonella*), an insect which has done inestimable damage to the apple industry of this country, found its way here, probably from Europe, about 1750 (fig. 218). Both the pear slug (*Eriocampoides limacina* Ratz.) and the bud moth (*Spilonota ocellana*) were introduced from Europe during the early days of fruit culture in America. Following these came the pear psylla (*Psylla pyricola*) and the antique tussock moth (*Notolophus antiqua* Linn.), both orchard pests of destructive habits. Between 1850 and 1900 there were fruit insect pest introductions of the gravest importance, among them being the San José scale (*Aspidiotus perniciosus* Comst.), (fig. 219); the fruit-tree bark beetle (*Scolytus rugulosus* Ratz.), rosy apple aphid (*Anuraphis roseus* Baker), gipsy moth (*Porthetria dispar* Linn.), brown-tail moth (*Euproctis chrysorrhæa* Linn.), and the peach-twig borer (*Anarsia lineatella* Zell). Numerous scale insects, mealybugs, white flies (figs. 220 to 224), and other forms of foreign origin found their way into the citrus groves of the country. The

more recent introduction and spread of the oriental fruit moth (*Laspeyresia molesta*) (page 509), Japanese beetle (*Popillia japonica*) (page 509), and camphor scale (*Pseudaulonidia duplex*) (page 510), together with the fact that dangerous foreign species are almost daily being intercepted by quarantine officers at our ports of entry, emphasize the present and future danger from this source.

Early Methods of Insect Control

Insect injury to cultivated fruit had continued in this country for many years before a systematic study was made of any one of the

offending species. Lacking knowledge of the natures and life histories of the pests, the control measures which the early fruit growers used were often ineffective, and in the light of our present knowledge of the subject sometimes ludicrous. It would hardly be proposed in these days, as it once was in this country, that a 9-foot fence be built around plum trees to shut out the plum curculio, or that dead mice be hung among the branches of the trees in order that the curculio beetles might deposit their eggs in the putrid flesh instead of in the fruit.

The resourcefulness of the early growers in devising methods for saving their fruit from insects, however, showed their great interest in the matter and their alertness to take advantage of any possible



FIG. 221.—A mealybug on citrus

means of relief. Among the popular treatments of early days, which have since been discarded, were the attempts to drive insects from orchards with odors made by burning brimstone, tobacco, leather, and woolen rags under the trees, or by hanging tansy, or rags saturated with turpentine or carbolic acid among the branches. A frequent practice was to bore holes in the trunks of trees, and fill them with sulphur, salt, calomel, or asafetida with the idea of tainting the sap so that insects would not relish the leaves and fruit. Some meritorious measures came into use, however, which have since been developed and are now practiced on a large scale. Syringing trees as a means of killing insects was early considered. We find that in the year 1746 Peter Collinson, a noted botanist of England, wrote to his fellow botanist, John Bartram, living in the vicinity of Philadelphia, regarding means for saving nectarines from attacks of the

plum curculio. After suggesting the smoking of infested trees with burning straw, he continues:

If the trees were to be squirted on with a hand engine with the water in which tobacco leaves were soaked; either of these two methods, I should think, if they did not totally prevent, yet at least would secure as much of these fine fruits as would be worth the labor of people of circumstances who are curious to taste these delicious fruits in perfection.

It is interesting to note that the practices of spraying with poisons and contact insecticides, dusting, fumigating, flooding, baiting with poisons, jarring, trap-cropping, hand collecting, and biological control were all advocated in the early days of warfare against fruit-insect pests. These methods, although first used in very small and

imperfect ways, are the practices which, greatly improved, are chiefly depended upon in our modern insect pest-control work.

Probably the first systematic treatise on a fruit-insect pest in this country was published in 1795. Stimulated by an offer of \$50 made by the Massachusetts Society for Promoting Agriculture "to the person who shall, on or before the first day of July, 1795, give a satisfactory natural history of the canker worm," William D. Peck made a study of the insect, chiefly of the species we now know as the spring canker worm (*Palea-*

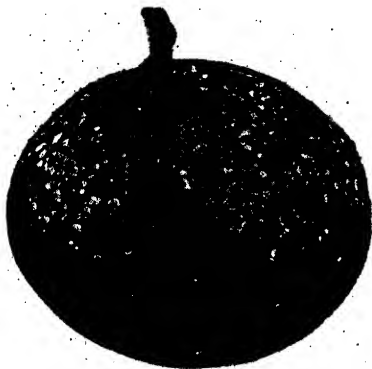


FIG. 222.—Camphor scale on Satsuma orange

crita vernata Peck), and for his studies and the account of the insect which he published in the Massachusetts Magazine for September and October, 1795, was awarded the prize. Nine years later, in 1804, James Tilton, of Wilmington, Del., published a rather full account of the life history and habits of the plum curculio. The information obtained in these studies formed a basis for dealing more intelligently with these species.

In 1841, as previously mentioned, the first general work on injurious insects was published in this country by Thaddeus W. Harris. This book of about 500 pages, issued as a report of the Commissioners on Zoological and Botanical Survey of Massachusetts, described in detail numerous insects injurious to fruits, gave practical suggestions for combating them, and was invaluable as a practical guide to insect habits and control measures. The historical matter which it contains makes it to-day a standard work of reference for entomological students.

In providing financially for the investigations of Doctor Harris, Massachusetts was the first commonwealth to extend State aid to the cause of economic entomology. Following the example set by Massachusetts, the States of New York, Missouri, and Illinois soon furnished means for the study of injurious insects within their borders. As a result, classical contributions to the science of economic entomology by Asa Fitch, of New York, Benjamin D. Walsh, of Illinois, and C. V. Riley, of Missouri, appeared in annual series prior to 1877, which dealt with numerous insect pests of cultivated fruits and formed a foundation for many of the modern usages against such insects.



FIG. 223.—One of the soft scales which are serious enemies of greenhouse and subtropical plants



FIG. 224.—Adults of the citrus white fly

Modern Methods of Insect Control

Although many of the principles involved in modern insect warfare were set forth many years ago, there has been great development and many changes in machinery, insecticides, and, especially in organization, and scope of operations. Perhaps the most intensive and spectacular work is being done in the several relatively small areas of the country where foreign insects have become established locally and are threatening to overrun larger areas. In such places large forces of men are employed under the direction of experts to

proceed against the insects along the lines of preventing to the utmost the enlargement of the infested territory and stamping out the pest if possible. Specialists investigate every phase of the insect's development and habits; its life history, food plants, means of spread, susceptibility to insecticides, natural enemies, and all its relationships to various forms of plant and animal life. Federal and State quarantines are established to prevent the insect from being accidentally carried to outside points. Such spraying and dusting machinery, poisons, fumigants, and other materials and apparatus as combative measures call for are provided and used, often in large quantities. The original home of the insect is determined and specialists are sent to make a study of the species in its native surroundings, especially with a view of finding natural enemies, and, when expedient, sending them in large numbers to this country to assist in the warfare. In these regional operations against introduced insects it is usual for the State and Federal Governments to cooperate in the conduct of the campaigns, and often municipal governments and private individuals assist financially in the undertaking.

One of the important modern methods of insect control is that of safeguarding against the transportation of pests into new territory. The various States have regulations under which nursery products are inspected before being marketed, and the Federal Government maintains a system of rigid inspection at all our land and maritime points of entry. When infested material is found entering this country from abroad it is either destroyed or held in quarantine until proven to be safe for delivery to the consignee.

In the more important fruit-growing centers of the country where operations on a large scale are carried on against insects, materials are usually purchased or prepared cooperatively and machinery for applying large quantities of insecticides effectively and with dispatch is made the more easily available. Work to protect fruit from insect pests is well organized in practically all the State agricultural experiment stations, and the Federal Bureau of Entomology has an important division devoted to fruit-insect investigations. The various officials of experiment stations and the Government are constantly in the field testing and supervising combative measures, and numerous bulletins are issued which keep the fruit growers in touch with the progress of research and discovery along insect-control lines. Through the extension forces of the various States a definite means is provided for promptly carrying to the fruit growers the latest discoveries in entomology and demonstrating their value, also for furnishing timely schedules for the application of control measures.

Outstanding Insecticide Discoveries and Influence in Control Practice

Principal insecticide developments have had to do with stomach poisons, suffocating gases, and materials that kill insects by contact with their bodies. Along these lines there have been frequent discoveries of new and better materials and methods. The composition of insecticides and the manner of using them have shown constant progress. This advance or evolution is well illustrated in the development of arsenical poisons, chiefly employed for the destruction of chewing or biting insects. Fruit culture had been an important industry in this country for more than a century before a satis-

factory stomach poison was known; thus up to 1873 the recommendations for the control of the codling moth, as stated by LeBaron, were as follows:

- (1) Destroying the insects in their winter quarters.
- (2) Picking wormy apples from the trees.
- (2) Gathering wormy apples from the ground and letting swine and sheep run through the orchards.
- (4) Entrapping the worms in bands and other contrivances.

About 1878 LeBaron recommended the use of the pigment Paris green, then a common poison employed to destroy the Colorado potato beetle and for the control of canker worms on apple trees. The following year (1879), J. S. Woodward, a New York orchardist, reported that the poison applied to apple trees for the control of canker worms also controlled the codling moth, while an identical discovery was made by an Iowa orchardist at about the same time. This accidental discovery of the value of Paris green for the control of the codling moth has proved thus far to be the outstanding landmark in the remedial field for this pest. Experimentation with Paris green, white arsenic, and London purple (arsenate of lime), a by-product of analine dye manufacture, imported from Europe, was at once begun by A. J. Cook, in Michigan; S. A. Forbes, in Illinois, and E. S. Goff, at Geneva, N. Y., noted entomologists of that time. London purple was tried against the plum curculio on plum trees in Illinois in 1885 and against the same insect attacking cherries in Ohio during the season of 1887. The adoption of these arsenicals for the control of certain orchard pests, while gradually increasing, was nevertheless rather slow owing to the frequent injurious effect of the poisons on the plants treated and some doubt as to the safety of spraying with arsenicals fruits intended for human consumption.

A great advance in arsenical insecticides was made in 1892 when the value of lead arsenate was ascertained by Mr. Fred C. Moulton, of the gipsy moth commission of Massachusetts. This poison, by reason of the safety with which it could be used on plants, its effectiveness, adhesiveness, etc., proved greatly superior to Paris green or London purple and its use in orchards was rapidly extended, especially from the impetus given by recommendations of the entomologists of the recently established agricultural experiment stations. Lead arsenate was first put on the market as an insecticide in paste form, and a few years later a powdered form was developed, containing about twice the quantity of arsenic per pound. The powdered form rather quickly supplanted the paste through its possessing certain advantages, as reducing freight costs, the elimination of water and obviating the danger of the poison drying out or of freezing. The powdered form of lead arsenate could also be employed for dusting, either pure or diluted. Thus the investigation of chemists and entomologists working on the control of another insect pest, namely, the gipsy moth, resulted in the discovery of an insecticide which has proved to be the most suitable of the arsenicals thus far developed for general orchard use.

Discoveries in the field of contact insecticides for the destruction of soft-bodied insects and other species that can not be reached

by stomach poisons have progressed in a similar manner. For many years preparations of caustic soda, soapy liquids, tobacco washes, etc., were the main reliance. About 1880 a method of emulsifying kerosene so that the oil could be dependably mixed with water was discovered, principally by W. S. Barnard, thus furnishing for the first time an effective and cheap contact spray. This kerosene emulsion has proved to be a great boon for the destruction of soft-bodied insects, and while not now employed to the extent that it formerly was, it is still an important contact insecticide not only in the United States but throughout the world by reason of the general availability of kerosene, and the ease with which the emulsion is made.



FIG. 225.—Fumigating citrus trees with liquid hydrocyanic-acid gas to kill scale insects

The accidental discovery in California about 1886 that the limesulphur salt wash, then in use as a sheep dip, was an efficient treatment for the San Jose scale on deciduous-fruit trees, has had a very far-reaching effect on American horticulture, and undoubtedly resulted in the preservation of many large orchard enterprises. The original limesulphur salt wash has been gradually improved until the essential ingredients of the wash may now be purchased in highly concentrated form.

Another landmark in our earlier insecticide history was the development by Coquille of the use of hydrocyanic-acid gas for scale insects in California, which at once put in the hands of citrus growers a means of control of various scale pests then threatening the industry. As in the case of other insecticides, hydrocyanic-acid gas has been gradually improved in character and in the methods of its use. The original experiment with potassium cyanide in time gave way to sodium cyanide, as containing a higher per-

centage of cyanogen. Another decided improvement was made when by means of special apparatus the gas was generated in a machine outside of the tent under which it was delivered to the trees in accurately measured dosage instead of being generated in a vessel under the tent. The present practice represents a still greater improvement in which the gas is made in the factory, liquefied, and carried to the field in drums and discharged in accurate doses under the tent in a fine spray which quickly volatilizes (fig. 225).



FIG. 226.—Peach-tree borer and its work on young peach tree



FIG. 227.—Control of peach-tree borer by paradichlorobenzene, the crystals shown in proper position

More recent insecticide discoveries include the utilization of paradichlorobenzene for the control of the peach-tree borer (figs. 226, 227, and 228). The volatile crystals of this material are placed on the ground around the infested trees, covered with earth, and, as they volatilize, the heavy gas therefrom penetrates the soil and kills the insects. So popular has this remedy become that it is now being widely used. Peach growers of the Georgia peach belt use about 500,000 pounds of the material annually.

Despite the great value of lime-sulphur wash for the control of the San Jose scale, it was the subject of much complaint by orchardists on account of its disagreeable qualities in handling and its failure to control the insect under some conditions. The Bureau of Ento-

mology has recently adopted the lubricating-oil emulsion in use in Florida for the destruction of scale insects and white flies on citrus trees, and for dormant spraying of deciduous orchards for the destruction of the San Jose scale. This emulsion, consisting of fish-oil soap and lubricating oil, when used at a strength of 2 per cent of oil in the spray, has proved very effective in the destruction of the San Jose scale and without tree injury thus far. This spray has already come into extensive use and is rapidly growing in popularity by reason of its effectiveness, cheapness, and ease in handling as compared with lime-sulphur wash. Machinery for applying insecticides has been constantly improved and much of the success attending the use of insecticides generally must be credited to the ingenuity of the manufacturers of such apparatus.

Distribution and Means of Spread

The ways in which insects spread from one host plant to another, and from one locality to another are numerous and varied, the most



FIG. 228.—Earth mounded over the paradichlorobenzene around the base of peach tree

important means of sudden and wide distribution being commerce and trade in plants and plant products between different places and countries. Plants, seeds, and fruits in transit may at any time carry insects and insect eggs to new places where they may establish themselves. Many of the most destructive fruit insects in this country were brought from abroad in this way.

Most insects are capable of flight and they frequently spread to considerable distances by flying. Certain flies have been known to wing their way from 10 to 15 miles, frail-winged moths have been seen at sea a distance of 400 miles from land, and the Rocky Mountain locust has flown 1,000 miles from its breeding ground. Winged insects are sometimes carried far by wind, and even wingless forms are wind-blown to surprising distances. Wind

has been known to carry the young of the black scale (*Saissetia oleae*), a pest of citrus trees, a distance of 450 feet, and the clover mite (*Bryobia pratensis*), a distance of 650 feet. The young caterpillars of the gipsy moth (*Porthetria dispar*), by means of their long hairs have floated like a thistle seed a distance of 30 miles. In moving from plant to plant large insects and birds are known to transport scale insects, which cling to them in their crawling stage, just after hatching or birth.

Some very destructive fruit insects are distributed among fruit trees and plants by ants; for example, several species of aphids are carried in this way. In the southwestern part of this country the Argentine ant, itself a direct fruit pest of importance, performs a secondary injury in carrying mealybugs and scale insects from tree to tree in citrus orchards, establishing new colonies of these pests wherever sound wood can be found. Not only does the ant distribute these insects but it guards them against attack by such enemies as ladybird beetles, lacewing flies, and parasites, even going to the extent of building shelters composed of grains of earth and leaf mold over their protégés to ward off danger. In some places the work of this ant furnishes one of the most serious problems in keeping citrus trees free from the scale insects and mealybugs.

In regions infested by some of the newly introduced foreign fruit pests constant watch is kept at certain seasons to prevent passing automobiles and other vehicles from carrying the insects into new localities. Japanese beetles and gipsy moth caterpillars are especially inclined to crawl upon or hide themselves within such protection as automobiles afford and having found lodgment they are likely to be carried to distant points with a possibility of starting new colonies.

Source and Present Status of Fruit Insects

Fruit growers of this country are now concerned with more species of insects, and not infrequently, with more individuals of each species, than at any time in the past. Likewise, their knowledge of these insects and their ability to deal effectively with them are greater than ever before. Among the vast number of fruit insects there are certain species, which, so far as known, have always existed in this country. Others have gained entrance from almost every other part of the globe. Representatives of these native and foreign species are well distributed and found intermingling in most orchards and fruit plantations.

Native insects.—Among the outstanding insects native to this country with which our fruit growers are all too well acquainted, may be mentioned the scurfy scale, grape phylloxera, canker worms, apple-tree tent caterpillar (fig. 229), peach-tree borers, cherry fruit flies, apple maggot, rose chafer, grape root-worm, roundheaded apple-tree borer (fig. 230), flatheaded apple-tree borer, pecan nut-case bearer (fig. 231), and plum curculio (fig. 232). Over 160 native species have been recorded as attacking our wild thorn apples, any one of which is a possible enemy of several cultivated fruits which are nearly related to the thorn apples. In addition to those mentioned, there are hundreds of species which originally fed on the wild fruits of America, but which now attack the cultivated fruits with varying severity.

Introduced insects.—The list of introduced fruit insect pests is a long one. It includes numerous species of aphids, pear psylla, citrus white fly, spider mites, scale insects, including the San Jose scale and many scale insect pests of citrus trees, the codling moth, oriental fruit moth, gipsy moth, brown-tail moth, fruit-tree bark beetle, Japanese beetle, and numerous others, all of which were formerly unknown in this country.

Many small but very dangerous species adhere to trees and plants and are easily overlooked even in the most careful inspection. Something of the task of our quarantine inspectors may be understood by examining the records of interceptions made at our ports of entry. For example, in 1920 over 11,000,000 foreign plants were inspected at the ports, and, in addition to the great number of other insects found upon them, there were 80 distinct species of scale



FIG. 229.—The tent caterpillar, *Malacosoma americana*, and its nest in crotch of cherry tree

insects, many of which undoubtedly are of destructive habits. In 1921, the number of plants arriving from foreign countries was 27,507,929, and insects were found upon these plants coming from 78 countries of the world. In 1922, insects were intercepted on plants coming from 84 countries, and in 1923 they were found entering our ports from 93 countries, these insects including 91 different scale insects which were identified as to species and many others that were known only as to their genera. A recent shipment of 12 mango plants into this country from Brazil was found by inspectors to be infested with white flies, aphids, ants, and 11 different species of scale insects.

With such vast numbers of insects arriving on plants from abroad

it is easy to understand that in spite of the greatest vigilance there is constant danger of new pests finding their way into our plantations. The economic significance of such danger to the fruit industries of the United States is only understood and appreciated when it is realized that the commercial fruit production of the Nation has an annual value of approximately \$700,000,000. The investment in orchards and equipment for their maintenance and operation amounts to several times the value of the annual harvest.

Scientific Knowledge of Insects as a Basis for Control

Effective warfare against insects must be based upon an intelligent understanding of the life history and habits of the species to be dealt with. The complex life cycles of insects, their varying habits, interrelations with one another and with other animals and plants, and their frequent departures from expected courses of behavior, all combine in making it a matter of importance that control efforts be conducted in the light of thorough investigations and well-defined conclusions. The whole history of man's relation with insects, the part he has played in unwittingly encouraging their increase, and the efforts made to suppress them, are marked by mistakes due to lack of understanding of the species involved. Past experiences show that we should be in possession of all possible facts when we go forth to engage in a warfare against an insect. Scientific investigations, and patient and painstaking study of an obnoxious species, have often brought to light a d v a n t a g e o u s points of attack in the most unexpected places. The success of our future strenuous struggle with insect pests depends upon the knowledge we have concerning them.



FIG. 230.—Larvæ or grubs of the roundheaded apple-tree borer exposed by removal of bark

Biological Control of Fruit Insects

By biological control of insects is meant their suppression through the use or encouragement of their natural enemies, such as fungous and bacterial diseases, parasitic and predacious insects, birds, and other organisms. Probably the increase of all fruit insects is checked, at least periodically, by these natural agencies. There are undoubtedly many species of insects which have never attracted special attention but which would become excessively destructive were these natural checks to their increase removed.

In certain cases we can assist biological control through artificial means. The presence of insect-destroying birds may be encouraged in the orchard by providing nesting places and water in summer and food in winter, and by protecting them at all times against such enemies as hawks and cats. Birds destroy immense numbers of aphids, moths, and woodborers. In the United States 36 kinds of

birds are known to feed on the codling moth, with the result that frequently from 60 to 90 per cent of the overwintering larvæ are devoured.

In some cases entomogenous fungi (fungi that attack or destroy insects) have been used artificially to produce contagious diseases

among insects. The fungus (*Entomophthora au-licæ*) has been distributed among the caterpillars of the brown-tail moth in New England, and under some conditions has spread and killed from 63 to 100 per cent of them over areas of considerable extent. In a similar way the so-called red fungus (*Aschersonia* sp.) has been used to infect and control the white fly of citrus orchards in Florida, and the fungus



FIG. 231.—The pecan nut-case bearer

Sphaerostilbe coccophila has become an important check on several destructive scale insects, especially in the Gulf States.

The most extensive and effective work in biological control, however, has been in combating injurious insects by encouraging other insects to prey upon them. This method of dealing with orchard insect pests began with the historic introduction in the winter of 1888-9

of a ladybird beetle (*Vedalia cardinalis*) from Australia into the citrus orchards of California for the purpose of checking the ravages of the cottony cushion scale (*Icerya purchasi*) (fig. 220). This scale insect, accidentally introduced from Australia about the year 1868, attacked the citrus tree, and within 20 years the whole citrus business of that region seemed doomed. The United States Department of Agriculture obtained 127 specimens of the ladybird beetle, which had been discovered feeding upon the scale insect in its native home. These beetles



FIG. 232.—Injury to apples by the plum curculio

were released in the infested orchards in California, and within 18 months they had practically cleaned out the pest. Quite naturally, the success of this attempt led to much visionary speculation regarding the possibility of artificially setting one portion of the insect population to the task of ridding the earth of the more objectionable kinds. Although the idea has been carried to extremes, it is sound within certain limits, and this method

of insect warfare is receiving considerable attention in this country at the present time.

At the close of 1923 about 75,000,000 predatory and parasitic insects, representing 45 species, had been brought from Europe and released in the Northeastern States to prey upon the gipsy moth. At least 15 of the species have become established and are attacking the insect. From 1920 to 1922 agents of the Bureau of Entomology found in Japan 11 species of parasites attacking the Japanese beetle. Of these parasites 326,000 were secured and brought to America and released in the region near Philadelphia, where the Japanese beetle has become established. A great many species of introduced parasites and predacious insects are assisting materially in holding scale insects, aphids, and mealybugs in check within the citrus orchards of Florida and California. In California these beneficial species are reared in laboratories in enormous numbers and liberated among the insects which they are expected to destroy. Perhaps no other method of holding fruit insects in control has greater promise than this practice of using the natural enemies to destroy the harmful species.

Present Losses and Costs of Fruit-Insect Control

The total tax imposed by insects upon the fruit industry of this country is difficult to compute. Many statistics have been compiled which are based upon our best sources of information and are considered conservative. These statistics are arrived at with great difficulty, for in addition to the visible and direct attacks there must be charged against insects the general weakening of trees and plants upon which they feed, secondary troubles which follow attacks, the enormous costs of investigations, inspections, and control measures and the execution of the numerous laws relating to injurious species, to say nothing of the annual tax levied upon every fruit grower in the cost of sprays, dusts, fumigants, and other means of control and the cost of applying them, all of which must be taken into consideration in determining the cost of producing the product.

In 1907, Quaintance⁷ estimated the annual shrinkage of the apple crop in this country due to the codling moth at \$12,000,000, the added expense of control bringing the total to \$15,000,000 or \$16,000,000. He placed the annual loss from all fruit insects at \$66,000,000. Herrick⁸ gives the annual cost of spraying for the codling moth as \$4,000,000, and for the San Jose scale \$10,000,000. The total cost of combating the gipsy moth in this country since its introduction has now exceeded an expenditure of \$20,000,000, and we are continuing to spend \$1,000,000 annually for its suppression. Other expert estimates place the annual loss from the codling moth in Illinois at \$2,375,000 and New York at \$2,500,000. Quaintance has estimated the yearly loss from the plum curculio at \$8,500,000. Snapp⁹ states that the outbreak of the plum curculio in the peach belt of Georgia in 1920 cost the peach growers \$2,000,000. In 1923 Felt¹⁰ found that the annual cost of enforcing plant quarantines in the various States was \$1,500,000. Large as these estimates seem, they are well considered and are probably below the actual cost levied by these pests.

⁷ Report National Conservation Commission, 1909, p. 1065.

⁸ HERRICK. INSECTS OF ECONOMIC IMPORTANCE, pp. 2-3.

⁹ Circular 216, U. S. Dept. of Agr., 1922.

¹⁰ Journal Economic Entomology, vol. 16, No. 1, February, 1923, p. 39.

Present-Day Efficiency in Fruit-Insect Control

With highly organized efforts along many lines of fruit-insect suppression, efficiency in control is gaining steadily. Our foreign and domestic quarantines are preventing to a large degree the introduction and spread of dangerous fruit pests. Prompt measures have resulted in the stamping out of local infestations of foreign species, and in other cases are retarding the spread and increase in areas of infestation. Biological control, especially of introduced fruit insects, is advancing rapidly. Through the good work of introduced natural enemies the gipsy and brown-tail moths have recently reached their lowest stage in destructiveness for many years. Scale insects, aphids, and many species which are susceptible to arsenical sprays, with modern machinery and improved insecticides are being controlled more effectively than in the past. After years of unsuccessful attempts in the Eastern States and on the Pacific coast to control the peach-tree borer with insecticides this result is now being accomplished with paradichlorobenzene (figs. 227 and 228).

Among the factors that are producing greater efficiency in fruit-insect control, there should be mentioned certain practices in spraying that make especially for its effectiveness and economy in use.

Spray schedules.—Schedules for spraying orchards, vineyards, etc., have been worked out for most sections of the country, whereby the time of treatment is coordinated with certain periods of susceptibility on the part of the insects being dealt with. These schedules vary to suit the locality and the habits of the particular insects, and provide safe rules whereby treatments may be given with the greatest possible economy and effectiveness.

Combination treatments.—For years growers have sought to apply treatments at such times and in such a manner as to destroy, if possible, more than one kind of enemy. With this end in view, a great many combination sprays have been evolved with the result that at present large spraying operations are seldom carried on which are directed at a single insect. The great proportion of liquid sprays and dusts now used in orchard work contain both insecticidal and fungicidal properties. Such are the lime-sulphur preparations, which have been used for spraying so extensively and which destroy or prevent both insects and diseases. By the addition of nicotine sulphate to arsenical sprays and dusts the mixtures are made effective against both chewing and sucking insects. As an illustration, sprays intended primarily for destroying the codling moth, may be so prepared and timed as to kill a dozen other pests in the one application. The margin of profit resulting from spraying and dusting is greatly increased by the ability of the fruit grower to effect widespread destruction of his insect and fungus enemies at one and the same time.

Spray rings.—It is often possible for a group or community of small fruit growers to cooperate in spraying operations with great saving to its members. By combining forces they may economize in labor and in the expense of purchasing and operating their outfits. Several growers may unite in buying and operating a spraying machine of high power and sufficient capacity for their combined orchards at less cost to each and with better results in destroying pests than if they were to act independently and expend a like

amount of time and money on less expensive outfits (fig. 233). By cooperative purchase of materials and their application spraying is usually done in less time and at less cost than could be accomplished otherwise.

Needs and the Future Outlook

There is no prospect of any cessation in the need of continued strenuous warfare against fruit insects. Doubtless, in the future as in the past, some species will decrease while others increase, and there will be fluctuations from season to season, but profitable crops of sound fruit will be obtained only by protecting them from insects. It is reasonable to suppose, however, that the trouble and cost of protection will not greatly increase, in fact, future discoveries and inventions, and better understanding of the natural laws governing



FIG. 233.—A comparatively simple and inexpensive power sprayer such as is frequently used in spray-rug work

insects, may simplify the many problems that confront us. For example, more definite standards in the chemical compositions of insecticides which fruit growers are using so extensively will enable them to kill the insects without the present danger of injuring trees and plants.

We have need of better methods for killing boring insects which penetrate the wood of orchard trees; for less expensive and more effective methods of killing insects in the ground. We need better international arrangements whereby plants and fruits intended for this country from abroad would be insured freedom from dangerous insects before shipment. There is need of increased facilities and funds for more thoroughly safeguarding the country at ports of entry, against the introduction of additional dangerous insects. These and many other problems are receiving attention at the hands of Federal and State entomologists.

Certain recently established pests are at present in a problematical position as to their future effect on the fruit-growing industry, and may well be specifically considered, in this connection.

Japanese beetle.—In August, 1916, about a dozen specimens of a hitherto unknown beetle were found by nursery inspectors in the vicinity of Riverton, N. J. The beetles which were near the size of the common potato beetle, and brilliantly colored in green and bronzed, were distributed over an area of not more than half a square mile. It was subsequently learned that the beetle is a native of Japan, where it is known to feed upon the foliage of beans, rose, apple, and various other plants, but in that country has never attracted a great deal of attention. It is supposed to have reached

this country as a grub in soil about the roots of imported perennial plants.

From the time of its discovery the beetle has multiplied and spread with surprising rapidity. In 1917 the area where it was found increased from about half a square mile to nearly 3 square miles. In 1918 the infested area increased to nearly 9 square miles; in 1919 it grew to 48 square miles; in 1920 to 103 square miles; in 1921 to 270 square miles; in 1922 to 770 square miles; in 1923 it covered a territory of 2,500 square miles; and in 1924 the infestation had spread to 5,200 square miles.

Not only has the beetle rapidly extended its area of infestation, but it has

increased in population within this area. The larvæ, which live in the ground, are found in increasing numbers at the center of the infestation. Thus, in 1921 the largest number found in a square yard of soil was 311. In 1922 as many as 1,031 were found in a square yard of soil, and in 1923 the greatest number found in that area of soil was 1,531.

The beetles feed ravenously on the foliage of many kinds of plants. They cluster over and devour ripening apples and peaches, as well as injuring the foliage of the trees. (Fig. 234.) Their food plants include beans, roasting ears, such flowers as althea and roses; they devour the leaves of grape, blackberry, alfalfa, clover, corn, and such trees as birch, oak, elm, linden, and many others, besides many kinds of garden and roadside weeds. At least 212 species of plants are attacked. On account of its habit of injuring fruits it is regarded as a serious pest by orchard owners, as well as by growers of small fruits.



FIG. 234.—The Japanese beetle clustered on ripening peach

A vigorous campaign is being waged against it, in which every device that is known for suppressing such insects is brought into use. To prevent the insect from being carried outside the present infested territory strict Federal and State quarantines are being enforced. A spray has been devised by which excellent protection has been obtained for such fruits as apple, cherry, and grape, and for the foliage of shade trees and ornamental shrubs. Successful methods are also in use for killing the grubs in the ground and in soil about the roots of living plants.

The introduction of natural enemies, as insect parasites, is being prosecuted on a large scale, and with encouraging results. Thousands of parasites belonging to species which have held the beetle in check in its native home are being collected and reared for release in the infested region of this country.

Oriental fruit moth.—

In November, 1916, Quaintance and Wood, of the Bureau of Entomology, called attention to the discovery in the District of Columbia and environs of a small moth attacking peaches which was believed to be new to the United States and apparently not hitherto known to science. The injury caused by the insect was described as resulting from the boring of twigs and fruits of the peach and the twigs of plum and cherry by the larvæ (fig. 235).

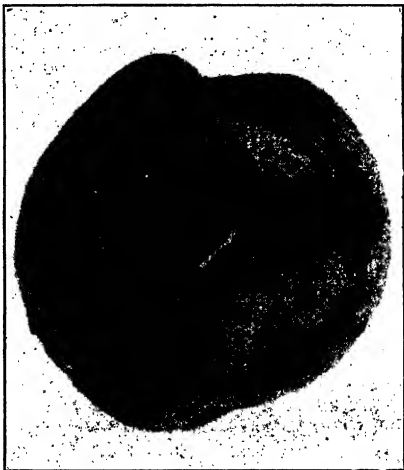


FIG. 235.—Larva of the oriental fruit moth in green peach

Fear was expressed that another formidable insect enemy of deciduous fruits had become established in America. Subsequent development has shown that this fear was well founded. The year following the discovery of the insect thorough scouting of various parts of the United States was undertaken to ascertain its distribution. This survey revealed that the insect was abundant in New Jersey, occurred in southern Connecticut and Long Island, and further that there was a strip of infested territory on each side of the railroad lines between Washington and New York. Although it can not be positively stated, it is probable that the insect was independently introduced in several localities, especially in New Jersey and Long Island. No other indication of the insect in the United States was discovered. During the next two or three years the insect spread rapidly from the infested territory into southern Pennsyl-

vania, parts of Maryland, and extended its range materially in New Jersey. It also demonstrated its capabilities for serious damage, especially to late varieties of peaches.

During the summer and fall of 1924 the Bureau of Entomology, in cooperation with the Federal Horticultural Board and various State officials, undertook as complete a survey as possible to determine the distribution of the insect east of the Mississippi River, the results of which show that the insect is now present in Georgia, Florida, Alabama, Mississippi, Arkansas, Tennessee, North Carolina, and Indiana, in addition to the States already mentioned.

In the meantime the insect has maintained its injuriousness, and there can be no doubt that the peach growers are confronted with a first-class pest in the so-called oriental fruit moth, *Laspeyresia molesta* Busck.

Experimental work in orchards for its control has not yet pointed out any very satisfactory means of reducing its injuries. The New Jersey State Agricultural Experiment Station is devoting considerable attention to this insect, and it is stated that by following several procedures, the insect can be materially reduced. Fortunately the oriental fruit moth is much subject to attack by native parasites, and from the eggs, larvæ and pupæ of the pest there have been reared 11 different parasitic species. During 1917, in Maryland, about 80 per cent of the eggs were parasitized, and in 1918, four-fifths of the insects are reported to have been killed in this way.

Camphor scale.—In 1896 there was described from California a new species of scale insect which had been brought into a nursery in San Francisco from Japan. The insect attracted no attention thereafter for about 20 years, when it was rediscovered on camphor trees in New Orleans. An examination of the premises around the infested camphor trees disclosed the fact that the scale was attacking many other species of plants in the vicinity. During the following year the insect spread rapidly and subsequently was found on 172 kinds of plants, including camphor, fig, rose, hickory, oak, elm, citrus trees (fig. 222 on page 494) and many other trees and plants. On many of the plants attacked the insect had a toxic effect, the presence of only a few individuals being sufficient to cause the leaves of a twig to drop. Occasionally death resulted to infested trees within six months after the first attack.

This scale insect is very prolific, a female producing from 200 to 250 eggs. The young on hatching are small, mitelike creatures which move about over the bark in search of places to settle and draw nourishment from the plant. Curiously enough, in this young stage the males gather on the leaves and the females on the twigs.

Fruit flies.—There is a large group of two-winged fruit flies inhabiting many parts of the world which already are fruit pests of great importance and which threaten to become even more destructive in the future. The various species of these flies differ in size, but average perhaps somewhat smaller than the common house fly. Their general colors tend toward light shades of yellow and brown with darker spots and stripes on the wings, many of them being rather prettily marked. The flies insert their eggs beneath the

skin of fruits, thus providing the numerous maggots which mine through the flesh and ruin it for use. There are several native species of flies in the United States which attack our deciduous fruits, and also numerous foreign species which are in danger of introduction into our southern fruit regions. At least one foreign species, the papaya fruit fly (*Toxotrypana curvicauda*), has become established in Florida, where it is attacking and greatly injuring the wild and cultivated papayas.

The Mediterranean fruit fly (*Ceratitis capitata*), the most destructive species of the entire group, has spread to all continents except that of North America. Though originally confined in all probability to western Asia, it has now spread to Tunis, Algeria, Egypt, South Africa, Asia Minor, Spain, Italy, Sicily, Greece, Australia, Argentina, Brazil, the Azores, New Zealand, Tasmania, and Bermuda. It found its way into our island possessions of Hawaii about the year 1910, and within two years had spread to every important island of the group where it is now known to destructively attack 72 kinds of fruit, including oranges, lemons, grapefruit, bananas, avocados, pears, plums, grapes, and even eggplants and tomatoes (fig. 236).

In 1921 the quarantine inspectors of the Federal Horticultural Board intercepted the Mediterranean fruit fly on five occasions in coffee berries arriving from Hawaii, and it has been found many times recently arriving in grapes from Almeria, Spain. It has also been found in apples from France and in peppers, avocados, and rose apples from Hawaii.

Another dangerous member of the group is the Mexican fruit fly (*Anastrepha ludens* Loew), which attacks oranges, grapefruit, limes, plums, peaches, and other fruits in Mexico, and is a constant menace to our citrus groves in California, Louisiana, and Florida. The West India fruit fly (*Anastrepha fraterculus* Wied.), occurs in the West India Islands, South America, Central America, and Mexico, and is a destructive insect of many tropical fruits. In 1923 quarantine inspectors found maggots of this fly on 10 different occasions entering the port of New York in mangos from Jamaica. It has also been found entering our ports on sapodillas and guavas from the same island.

In addition to the species previously mentioned there are the olive fruit fly (*Dacus oleae* Rossi), of Africa and western Asia, the melon fruit fly (*Bactrocera cucubita* Coq.) of oriental countries, the papaya fruit fly, already established in Florida, the banana fruit fly (*Bracto-*



FIG. 236.—Maggots of the Mediterranean fruit fly in mango

cera curvipennis Frogg.), of the Cook and Tonga Islands, the Queensland fruit fly (*Bractocera tryoni* Frogg.), of Australia and other countries, and the Natal fruit fly (*Ceratitidis rubivora* Coq.), of South Africa. The grave danger from the introduction of these flies into our fruit regions adds emphasis to the need of a continuation and enlargement of our foreign-quarantine service. There are at least 20 foreign species of fruit flies that are in danger of introduction into this country. Every year the inspectors at our ports of entry find representatives of the group, usually in the maggot stage, in shipments coming from various countries, and it is undoubtedly owing to the vigilance of these inspectors that many of the species are not already established here.

Among the fruit flies which are native to this country, the apple maggot, or railroad worm (*Rhagoletis pomonella*) is the best known. The maggots of this fly often riddle the flesh of apples in the north-eastern sections of the United States. There are two native cherry fruit flies, and two that attack currants and gooseberries. There are also two nearly related native species which attack immature walnuts.

Diseases in Their Relation to Vegetable Culture

The economic relation of diseases to the production of vegetables is of greater importance to the grower of these crops than is generally realized. Some hold that reductions in yield due to diseases do not materially affect the total money returns from a crop because of the resulting increased price received for the remainder, but careful analysis of this point of view shows it to be erroneous. The growing of vegetables without adequate attention to disease control adds to the uncertainties of production, and leads to waste of land, labor, and all expenses incident to growing, harvesting, and marketing the crop, as well as poorer quality, greater losses in transit and storage, and last, but not least, dissatisfied customers. On the other hand, the successful control of crop diseases results in larger yields from a smaller acreage, which requires less fertilizer and lowered production costs. Produce so grown requires less sorting to fit it for market, is not as liable to decay in transit or storage, is of better quality, and therefore brings better prices and gives greater satisfaction to the consumer. The successful application of disease-control measures in crop production results in economy of land and effort and in the greatest certainty of production. A reduction in yield due to the ravages of disease produces quite a different economic result from that obtained by a carefully planned decrease in production from planting a smaller acreage with maximum yields of sound vegetables resulting from effective fertilizing, tillage, and disease control.¹¹

Disease Losses

Losses from truck crop diseases naturally are divided into two general classes, direct and indirect. Direct losses from diseases are

¹¹ It is the purpose of this section to point out the different types of disease losses, to discuss briefly the more important methods and the more recent developments in vegetable disease control, and to indicate their application in a few representative cases. The details of known specific information regarding the symptoms, life history, and spread of the many individual diseases, together with directions for their control, are now available in the form of station bulletins and Farmers' Bulletins, which may be obtained free from the various State experiment stations or from the United States Department of Agriculture.

those which immediately affect the growers' returns from his crop. Indirect losses from diseases manifest their effects through weakening the plant, rendering the land unfit for production, and through the breaking down or decaying of the product after it leaves the grower.

Direct losses, on which estimates are usually based, may include the following: (1) The killing of the plants before they have reached maturity, as often occurs in onion smut (fig. 237), cabbage yellows (fig. 238), and pea root rot; (2) stunting or injury to the plants and consequent reduction in yield and quality of the crop, as in the case of late blight and virus diseases of the potato; (3) the decay or serious disfigurement of the product making it unmarketable, as in cabbage black rot and cucumber mosaic (fig. 239); and (4) injury

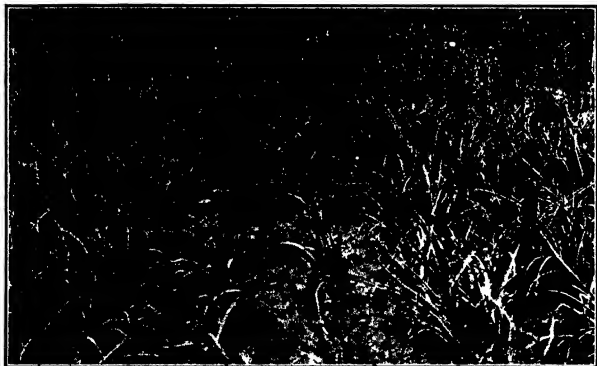


FIG. 237.—Field of onions on smut-infested soil where formaldehyde was applied. The disease has killed a large percentage of the plants in the two untreated rows in the center, while the remainder of the field has practically a full stand. From Massachusetts Agricultural Experiment Station Bulletin

by diseases which reduces the grade of and thereby the returns from the marketable product, as in the case of potato scab and bean anthracnose. Although no estimates covering such direct disease losses to all vegetable crops are available, the best obtainable figures for two of the more important truck crops give an indication of the general disease situation and may be considered as fairly representative of the entire field. These estimates have been made by the Plant Disease Survey of the United States Department of Agriculture from data gathered by the plant pathologists in the various State experiment stations and are believed to be conservative.

With an actual production of over 450,000,000 bushels of potatoes in the United States in 1922, the estimated reduction in yield due to all diseases, as computed by this authority, was over 120,000,000 bushels, or more than 21 per cent. The sweet potato crop for the same year from 12 important producing States was slightly over 72,000,000 bushels, and the estimated yield reduction caused by all sweet-potato diseases in these same States was over 20,000,000 bushels

or more than 20 per cent. In other words, figured at the average yield per acre for 1922 (105 bushels for potatoes and 98 bushels for sweet potatoes) the total estimated loss from all diseases of the

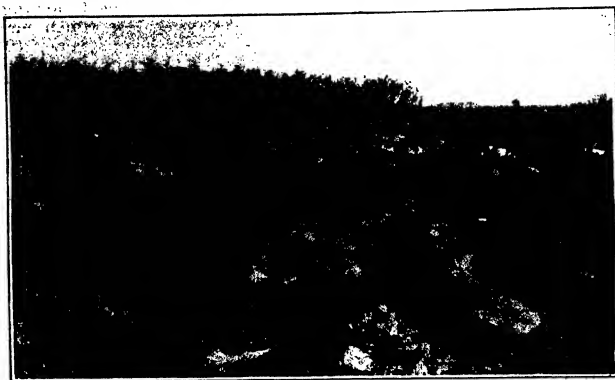


FIG. 238.—A field with "cabbage-sick" soil, most of the plants having been killed by the yellows. A few plants have withstood the disease, and if such are selected for seed and the process repeated for several years a resistant strain may be obtained.

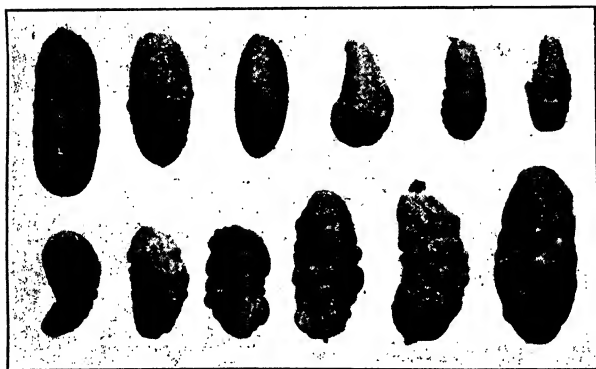


FIG. 239.—Small cucumbers of pickling size from mosaic vines showing irregular, warty growth, off-shape, and yellowed or rusty color, with dark-green warts, making them unmarketable.

crops mentioned represents the entire average crop on 1,142,857 acres of potatoes and on 205,816 acres of sweet potatoes. When we add to this the similar disease losses on other vegetable crops, the

result is a direct annual loss so great that it becomes a matter of national importance.

The indirect losses due to disease occurrence, in addition to those on which loss estimates are generally based, include the following: (1) Soil infestation with disease-producing organisms which may cause further and more serious losses in subsequent years; (2) reduced land values due to the inability to grow the most profitable crops for which it is specially adapted; (3) the necessity of growing less profitable rotation crops on the land to reduce disease infestation; and (4) the expense of applying disease-control measures to prevent or reduce losses. These types of losses are illustrated by cabbage yellows, potato scab, sweet-potato stem rot, and in the aggregate amount to large sums each season.

Further indirect losses result from field infection with disease-producing or secondary organisms which may later cause decay of the produce in transit, market, or storage, as illustrated by watermelon anthracnose and stem-end rot (fig 240), the late blight of potatoes (fig. 241), celery watery soft rot, and numerous other troubles. In the single item of watermelon shipments from four Southern States in 1918, a minimum loss of \$1,250,000 was estimated from an analysis of market inspection records. This was due very largely to the attacks of anthracnose and stem-end rot. In a single week 2,500 hampers of Louisiana head lettuce had been rejected as a total loss on the track in Chicago, due to disease developing during transit. In 1922 over 11,000,000 bushels of sweet potatoes rotted in storage as a result of the attacks of various diseases. Information regarding the extent and causes of the heavy losses which were being sustained by the shippers and the railroads in the handling of perishable products was not available until after the inauguration of the market inspection service and related pathological research by the United States Department of Agriculture. In 1923 over \$10,000,000 was paid by the American railways on claims for losses of fruits and vegetables in transit, which were doubtless largely due to plant diseases.

In some instances the damage to crops is so severe as to cause the abandonment of established industries, while in others it constitutes a more or less serious annual tax on the producer, the severity of the attacks varying from season to season depending on environmental factors. The presence of cucumber scab and mosaic disease have been responsible for the discontinuance of many salting stations of the cucumber-pickling industry in Wisconsin, Michigan, and Indiana during the last two decades. Prior to the development of resistant varieties the yellows disease of cabbage had, in numerous instances, notably in Wisconsin and Ohio, caused the virtual discontinuance or serious curtailment of the crop. The fusarium wilt of the tomato is widespread, especially in the Middle Atlantic, Central, and Southern States, and has annually rendered culture of tomatoes unprofitable on many thousands of acres of otherwise productive land. Likewise watermelon wilt is very prevalent and serious on many of the sandy soils in the Southern States, which were formerly planted to watermelons.

Even though losses from other diseases have not occurred with sufficient regularity to cause the abandonment of established indus-

tries they are, nevertheless, important either because of more or less regular annual losses or of occasional severe damage under weather conditions favorable to epidemic occurrence of a disease. Examples of the former are found in the virus diseases of the potato, such as mosaic and leaf roll, and of the latter in the late blight of potatoes or the downy mildew of vine crops.

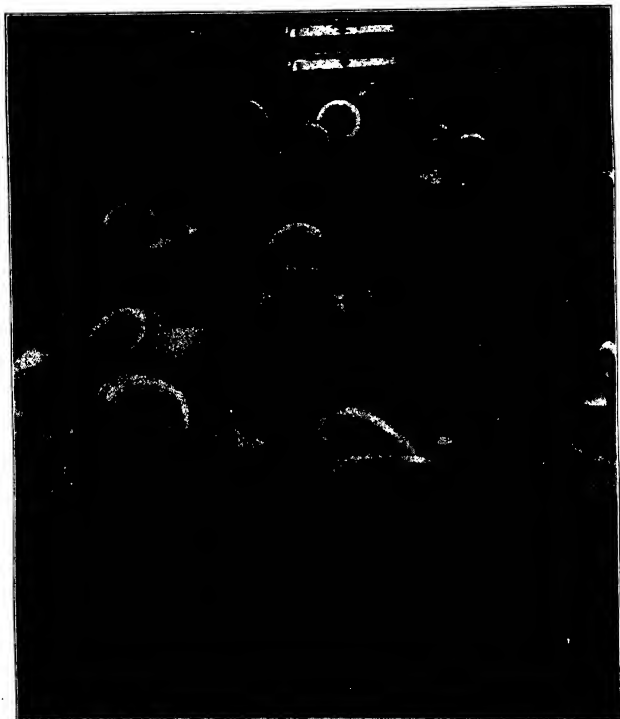


FIG. 240.—Transit loss in a car of watermelons due to anthracnose and stem-end rot

Concentration of production, together with the tendency to plant the land in the same crops during successive years, creates conditions favorable to the rapid spread of plant diseases and the consequent severe losses from them. Until effective and practicable methods of controlling each disease is worked out and made a part of agricultural practice, heavy losses will frequently occur.

These facts serve to illustrate the general nature and the seriousness of disease losses to truck crops and to emphasize the significance of disease control in their successful production. It is therefore essential that growers of such crops should have as complete and accurate information as possible regarding the diseases which are liable to reduce their crop yields, in order that they may be able to recognize the first symptoms and apply the appropriate remedies at the proper time. It is of even greater importance that growers know the best methods of avoiding or controlling these diseases, and by the application of this information, combined with the use of the best horticultural practices, be enabled to produce large yields of healthy crops for which they can obtain the best prices.

With the development of vegetable pathology in this country, which has come largely during the last 25 years, there has been a progressive advancement in the knowledge of the causes of vegetable diseases and a corresponding improvement in the methods of control. Many problems in plant diseases remain unsolved, new problems

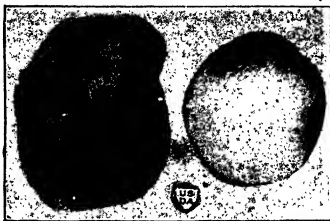


Fig. 241.—Potato tubers affected with late-blight rot

will undoubtedly continue to present themselves, and existing methods of control will be improved upon. Nevertheless there is now available a very large amount of accurate information on plant-disease control which is resulting in the reduction of losses to growers as rapidly as the facts are put into their hands and introduced by them into farm practice.

Disease-Control Methods

Crop rotation.—One of the most fundamental and generally applicable methods of vegetable disease control, though far from universally effective, is that of crop rotation. In horticulture the term rotation is generally used to refer to the rather common practice of changing crops for the purpose of maintaining soil fertility. In plant-disease control crop rotation has also the important function of starving out disease-producing organisms by avoiding the planting of the crops on which these occur. Such a use of crop rotation to be effective must be based on certain fundamental information regarding the disease organisms. Among the facts required to formulate an effective rotation is whether the disease organism actually lives over winter under the prevailing conditions either in the soil or on refuse from the diseased crop left on the surface of the soil or plowed under. If able to live under these conditions, the length of time it can thus survive will influence the character of the rotation necessary to eliminate the disease organism. It must also be known what crops are susceptible to the disease, since only those not attacked by it should be included in the rotation.

It has recently been shown by careful research that some disease organisms apparently do not live over winter, either in the soil or

on diseased plant remains, under any known conditions. This is the case with the bacterial wilt of cucumbers and related vine crops and the angular leaf spot of cucumbers. For the control of these particular diseases rotation would, therefore, be of no value, and control must be effected through other means. However, in the case of tomato leaf spot, due to the fungus *Septoria lycopersici*, recent results indicate that while the fungus will live over winter in the latitude of Washington on diseased leaves and stems of tomatoes and certain weed host plants when these are left on the surface of the soil it will not survive if the diseased parts are carefully and thoroughly plowed under in the fall; hence a large degree of control is obtained by this simple method.¹² On the other hand the causal organisms of bean and cucumber anthracnose, onion smut, potato scab, and numerous other diseases are able to survive in the soil for one or more years; hence it is not safe to follow onions with onions or potatoes with potatoes if any of these diseases is an important factor in crop production, but a rotation interval longer than the period the organisms are known to remain in the soil is required. In the case of cabbage wilt, tomato wilt, and other similar diseases it is known that the causal fungi can live in the soil for long periods, so that little or no benefit results from crop rotation.

In order that crop rotation, where applicable, may be effective in disease control, care must also be exercised to prevent reinfection of the fields either through the planting of diseased seed or from the use of disease-infested manure, or by placing the remains of diseased plants, such as pea vines from the cannery or cabbage leaves from the sauerkraut factory, on land to be used for the production of that crop next year. Furthermore, drainage water from higher-lying infested fields should not be allowed to flow or spread over uninfested fields.

The most effective use of crop rotation as a means of disease control consists in planting the affected land to crops known to be immune to the disease in question for a period sufficiently long to insure starving out the causal organism and to guard against reinfection in every possible way.

Soil treatment.—Soil treatments for the control of truck-crop disease organisms which live in the soil, such as root knot, damping-off, and "drop," naturally fall into two classes: (1) Treatment of small quantities or areas of soil, as greenhouse flats or beds, cold-frames or seed-beds; and (2) field treatments. Certain methods which are practical, effective, and well-nigh indispensable in greenhouse culture or in the handling of seed or plant beds are too expensive and impractical for field use. Nevertheless, there are well-worked-out and effective methods for disease control by means of soil treatment on a large scale which are extensively used on certain crops and are considered indispensable to their profitable culture.

Soil treatment in greenhouses and plant beds.—Conditions obtaining in greenhouses used for growing such vegetables as tomatoes, lettuce, and cucumbers are often very favorable for the development of certain soil-borne diseases, such as damping-off of seedlings,

¹² PRITCHARD, FRED J., and W. S. PORTE. THE CONTROL OF TOMATO LEAF-SPOT. U. S. Dept. Agr. Bull. 1288, 18 pp., illus., 1924.

root knot, and lettuce drop. The method for reducing losses from these diseases prior to the introduction of soil treatment consisted in frequent changing of the soil. Though fairly effective in some cases where the less serious diseases were concerned, this method involved a very large amount of labor in handling the soil and had to be repeated practically every year, owing to the rapid reinfestation of the soil from disease organisms remaining in the subsoil, on the sides of the beds, or on the tools used, and furthermore, was frequently ineffective owing to the uncertainty of procuring disease-free soil for replacement.

There are two kinds of soil treatment, the first involving the application of heat and the second the use of chemicals for killing the disease-producing organism. The method best adapted to the control of the specific diseases and to local conditions should be selected.

Hot water and steam treatments.—Soil sterilization by means of live steam or hot water are effective to a degree. In addition to the control of plant diseases, these methods kill insects and weed seeds in the soil, thus reducing the labor of weeding the crop, often a very important consideration. The mechanical condition of certain heavy, silty soils, however, have been so altered by steaming that their water-holding capacity was seriously injured and extreme care was required to bring them back into a friable and normal condition. Although such cases are rare, before undertaking on a large scale the treatment of greenhouse soils of a silty nature with steam or hot water, it is wise as a precaution to try a small plot to determine if any unfavorable results may follow.

Hot water at or near the boiling point applied directly to the soil from a hose, has been used with slight success in greenhouses in the Boston districts, but this method is not as widely used as are the various steam-sterilization methods.

The hot-water method is useful for the treatment of soil in pots, flats, or shallow benches to control diseases (fig. 242), especially in situations where steam is not available. Pots of the smaller sizes, filled with the soil to be used, may be immersed for five minutes in boiling water, then allowed to drain and dry out until in proper condition to plant. Flats or shallow benches may in like manner be treated by drenching with boiling water at the rate of 9 quarts per square foot of soil 4 inches deep.¹³

The type of soil treatment by steam which was first used involved the removal of the soil from the beds or benches to a wagon box or similar container in the bottom of which was placed a series of 1½-inch steam pipes perforated on the under side at 6-inch intervals with ⅛-inch holes to allow the steam to escape into the soil, and connected with a boiler which furnished the steam. The soil was covered with a tarpaulin or similar material to confine the steam and the steaming continued for an hour or until a potato placed in the upper few inches of soil was thoroughly cooked.

A modification of this method which is especially useful for treatment of small quantities of soil for use in flats, pots, small propagating benches, and seed beds, and which ensures a more thorough heating of the soil, involves the use of a steam-tight chamber built

¹³ BYARS, L. P., and W. W. GILBERT. SOIL DISINFECTION WITH HOT WATER TO CONTROL THE ROOT-KNOT NEMATODE AND PARASITIC SOIL FUNGI. U. S. Dept. Agr. Bul. 818, 14 pp., illus., 1920.

of matched lumber, in which the soil can be exposed to a steam bath for any desired length of time.

A further improvement on this is the use of a steam chamber built of reinforced concrete, or the utilization of one of the large processing kettles, 6 feet deep and 40 inches in diameter, commonly employed in canneries for sterilizing canned goods (fig. 243). In these it is possible to maintain a steam pressure of 10 to 15 pounds and thus obtain increased temperature and thorough sterilization of the soil in a much shorter time than with live steam not under pressure. There are several methods of treating the soil of commercial greenhouses with steam without moving it from the beds or benches which are more practical and less expensive. A method



FIG. 242.—Tomato and lettuce plants showing results of hot-water treatment of soil infested with nematodes and soil fungi. Right, untreated, plants badly stunted and roots severely attacked by soil organisms; left, same soil treated with 3.6 gallons of boiling water per cubic foot. Plants and roots healthy.

which has been used in many large greenhouses, and by some is considered the best, consists in laying permanent lines of 3 to 4-inch unglazed drain tile lengthwise of the ground beds at intervals of 18 to 24 inches and 1 foot to 18 inches deep, through which steam may be discharged for the desired length of time from the steam heating plant. The same tile may be used for subirrigation during the cropping season (fig. 244).

One and one-half-inch iron pipes, with $\frac{1}{8}$ -inch holes drilled at 6-inch intervals on the under side, may be used for the same purpose, but such pipes rust readily and hence are not as desirable for permanent installation as the tile. Although the initial cost of installation of such equipment is very high, it will be available for a number of years and the labor of moving the soil each time it is sterilized is obviated.

The inverted-pan method by which a sheet-iron or wooden pan about 6 by 10 feet and 6 inches deep is inverted over the soil to be

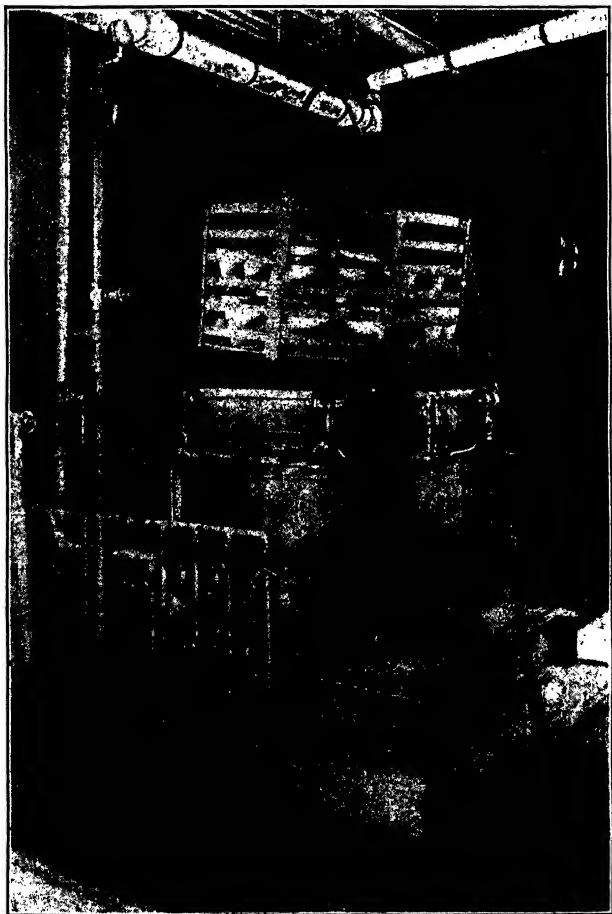


FIG. 243.—Canners' processing kettle (6 feet by 40 inches), used for soil sterilization. Soil in bags, pots, or flats can be treated one to five hours with steam at a pressure of 15 pounds

treated and steam discharged into it for one-half to one hour is in quite common use because of its simplicity and small cost (fig. 245).



FIG. 244.—Greenhouse with tile installed in ground beds for steaming and showing connection with steam system

In all these methods it is assumed that steam can be supplied from the greenhouse-heating plant or from a portable boiler, and at a pressure and in such volume as to render the work practical and effective. The soil should be thoroughly spaded up and all manure added prior to treatment to avoid danger of reinfestation.

These same methods or adaptations of them to meet local conditions can also be used to treat the soil of out-of-door seed beds employed for growing tomato, cabbage, and other plants, steam being supplied by a tractor or other portable boiler. In the case of sweet-potato beds, new clean sand direct from a sand bank is generally used in preference to any method of treating old sand.



FIG. 245.—Steam sterilizing the soil in a cabbage seed bed in Ohio by means of an inverted pan, the steam being supplied from the boiler of a traction engine

Chemical treatments.—In some instances it is not feasible to get steam for soil treatment. Under such circumstances certain soil

diseases, particularly damping-off and rhizoctonia root rot, can be controlled by drenching the soil with formaldehyde, using 2 to 3 quarts of a 1 to 200 solution to a square foot of bed and having the soil well spaded and in good tilth when treated. This method has given excellent results but is open to the objections that the addition of such a large quantity of water to the soil requires a long time for it to get into condition for planting, especially when used on seed beds in the spring. Furthermore, the fumes of formaldehyde left in the soil sometimes have a tendency to retard the germination of some seed, and, in addition, weed seeds and nematodes are not killed.

In some cases damping-off, rhizoctonia, and other fungi may be checked after seedlings are up by watering the flats or seed beds with weak solutions of mercuric chloride, Cheshunt compound, or



FIG. 246.—Six-row onion seeder equipped with formaldehyde drip attachment for smut control

with one of several commercial organic mercury compounds, though the toxicity of these solutions to different plants has not as yet been thoroughly worked out. This is a relatively new field of experimentation and promising results are expected in the not distant future.

Soil treatment in the field.—In the realm of chemical soil treatments for disease control on a field basis, the formaldehyde drip treatment for the control of onion smut¹⁴ has proved so effective that it is rapidly becoming a part of accepted agricultural practice wherever introduced (fig. 246). By thus surrounding the seed when planted with this fungicide, applied by a drip attachment to the seed drill, infection by the smut fungus is prevented until the seedling has passed the susceptible age.

Lime at the rate of 80 bushels per acre is broadcasted to reduce the losses from clubroot of cabbage and other crucifers. This treat-

¹⁴ WALKER, J. C. ONION DISEASES AND THEIR CONTROL. U. S. Dept. Agr. Farmers' Bul. 1080, 20 pp., illus., 1919, revised 1925.

ment is based on the fact that the growth of the clubroot organism is reduced in an alkaline soil.

Applications of sulphur at planting time at the rate of 300 to 600 pounds per acre, by making the soil reaction more acid, have in some instances, given marked results in the control of potato scab, owing to the fact that the causal fungus is favored by an alkaline soil and checked when it becomes acid. It does not, however, follow that the same treatment will be equally effective in all cases, as unfavorable results have been obtained in some trials. Furthermore, the residual effects on other subsequent crops of such heavy applications of sulphur are in some cases unfavorable and the use of sulphur should, therefore, be taken up only after preliminary trials on a small scale have indicated favorable results. It is hoped that experimental work under way in New Jersey and other States will soon furnish

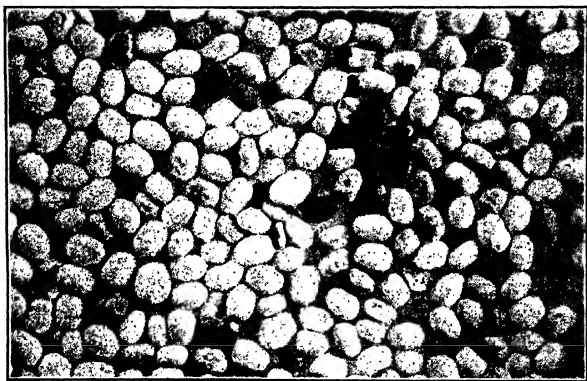


FIG. 247.—Unsorted white navy beans, showing many badly affected with anthracnose. Even though the visibly diseased beans are sorted out, unseen spots on some and fungus spores sticking to others will usually carry the disease to the new crop if such beans are planted. Use only disease-free beans for seed.

new data on these matters and indicate the limits of the profitable use of sulphur.

Disease-free seeds and plants.—To prevent the original infestation of soils with disease organisms, as well as for the purpose of guarding against the reinfestation of soils from which diseases have been largely or completely eradicated by crop rotation or soil treatment, it is essential that the seed used be obtained from healthy crops or that they be freed from disease by treatment before planting, wherever fungi or bacteria are known to be carried in this way. The use of disease-free seed is important not only in cases where the disease lives over both in the soil and in the seed, as is the case with the bean anthracnose (fig. 247), but also in instances where the disease is not known to survive in the soil but is carried only in the seed as is the case with potato virus diseases.

The production of disease-free seed or that having the smallest possible amount of infection, while important with all truck crops, has been made essential in many cases either because the diseases concerned are internal and can not be controlled by known methods of seed treatment, or because seed treatment, for other reasons, has not been found practicable. Outstanding examples are seed potatoes, in which the virus diseases are carried, and beans affected with mosaic, anthracnose, or bacterial blight. In the case of both crops no seed treatment has been found which will kill the disease agent without injury to the seed, and with the bean there is the added drawback that any method of soaking the seed will cause the breaking of many of the seed coats and interfere with planting and normal germination.

Procuring disease-free beans is based either on growing the seed in regions where weather conditions are unfavorable for disease development, or on careful hand selection of disease-free pods, the seed from which are planted in a seed plot away from other fields and every precaution taken to avoid the introduction of disease and in addition to rogue out any plants on which disease may appear.

During the past few years careful scientific research by plant pathologists in the United States Department of Agriculture and certain State experiment stations has definitely proved, that most, if not all of the so-called "running out" of potato varieties, formerly attributed to lack of vigor due to long propagation by vegetative methods, is caused instead by several so-called degeneration or "virus" diseases known under the names of leaf roll, mosaic, streak, spindle tuber, and others. Although no method of seed treatment is known which will rid seed stock of these diseases careful research has shown that by starting with strains of potatoes discovered in localities where little or no disease was present, it is possible to grow these under careful supervision in isolated fields and thereby procure superior seed. By controlling insects which spread the diseases and by practicing a careful system of field and bin inspection and roguing, seed can be produced which is not only true to variety and of high productive capacity, but which also carries a minimum of the virus and other diseases of the crop." Seed stock grown and inspected in this way by a State agency having charge of this work and certified by them to conform to established standards of varietal purity, vigor, and freedom from disease is known as "certified seed" (fig. 248). The production of such "certified seed" had its origin in work done by plant pathologists in the Department of Agriculture and was stimulated by the observation of the widespread and increasingly serious occurrence of these diseases not only in northern fields grown for table purposes, but as well in those grown for sale as seed stock to southern growers. Under the conditions obtaining in the South the disease thus carried in the seed resulted in even more serious losses and much dissatisfaction with the northern seed. Recognition of this urgent need for means of developing and certifying seed stock of high quality and as nearly as possible free

¹² SCHULTZ, E. S. WHY POTATOES RUN OUT. U. S. Dept. Agr. Farmers' Bul. 1436, 22 pp., illus., 1924.

from disease led to the beginning of potato seed-certification work in Wisconsin in 1913. As with most new movements, progress was at first slow, for methods of doing the work had to be devised, agencies for carrying it on created, the value of the resulting product demonstrated and a market for it developed.

Following Wisconsin, other important northern potato seed-producing States have established potato seed-certification work under the supervision of the experiment stations, State departments of agriculture, or specially organized potato growers' associations. In 1919, there were 475,308 bushels of certified seed grown in the United States. In 1924 the demand for this seed had become so great that



FIG. 248.—Tour of Michigan potato-seed inspectors through seed-growing territory receiving final field practice in inspection for certification under direction of State plant pathologist

over 7,500,000 bushels were produced in 20 States. Not only has this great increase in production of certified seed come about in a relatively short period, but there has also been a considerable decrease in the amount of disease carried in certified seed. This has been a direct result of the increased information on the methods of eliminating diseases supplied by scientific research and put into practice by seed growers and a raising of the standards of certification.

Certification agencies in the various seed potato-producing States are constantly improving the quality of certified-seed stock, and the seed now available is far superior to commercial uncertified stock. The increase in yield due to the use of certified seed, combined with seed treatment and other disease-control measures is well illustrated by the results obtained in Missouri during the season of 1925. In

this particular State 108 carloads, or 66,190 bushels of certified seed, were planted on 4,500 acres. There were 3,627 farms in 35 counties using certified seed and the increase in yield resulting in the use of certified seed was 46 bushels per acre, or a total of 207,000 bushels increase. Numerous other illustrations might be cited to illustrate the value of potato seed-certification methods.

During the past decade there has grown up a very considerable trade in plants of tomatoes, cabbage, sweet potatoes, and other crops, between certain Southern States, where they can be grown in the open fields early in the season, and Northern States where the commercial crops are produced. Unless great care is exercised to see that only healthy plants are shipped, there is grave danger that diseases new to the northern fields may be introduced. Instances of this sort have already come to the attention of the department. Among the diseases liable to be thus carried are nematodes or eelworms, which cause root knot, a common trouble of numerous truck crops grown in sandy soils; the wilt diseases of cabbage, tomatoes, and sweet potatoes; black leg and black rot of cabbage, and black rot of sweet potatoes (fig. 249).

Growers buying seedling plants should, therefore, be very careful to procure only healthy plants and thus avoid the introduction of diseases which not only would reduce the yield of the initial crop grown, but would remain in the soil as a future source of crop losses. To meet this situation some States have inaugurated a system of inspection of seed beds and certification of plants as to freedom from diseases which operates to markedly reduce the shipment of diseased plants and thus protect the purchaser.



FIG. 249.—Sweet-potato plant infested with black rot. All such plants should be rejected and only plants with healthy roots set out

SEED TREATMENT

Treatment of seed for the purpose of killing the disease organisms within the seed or clinging to the outside is important when disease-free seed can not be obtained. The increasing recognition of the importance of seed transmission of disease, as shown by recent scientific research with numerous vegetable diseases, makes obvious the necessity for treatment of seed where possible. In some instances seed treatment alone constitutes an effective control, and in others it must be combined with other methods, such as crop rotation, soil treatment, or spraying. Several methods of seed treatment designed to kill disease organisms in or on the seed are available, including the use of hot water and of various chemicals, such as formaldehyde, mercuric chloride, and various organic mercury compounds.

The disease organism causing the angular leaf spot of the cucumber is carried on the outside of the seed. A 5-minute treatment in a 1 to 1,000 solution of mercuric chloride followed by thorough washing in water is a very effective method of control and much less trouble than spraying the crop with Bordeaux mixture, though the disease can also be controlled by this method. This disease is not known to live over winter except on the seed, hence seed treatment should eliminate the trouble,¹⁶ only as it may be introduced into a field by insects or other agents from some near-by field where the disease occurs. In a similar manner cabbage, cauliflower, and other vegetable seeds, as well as potatoes and sweet potatoes are treated in a 1 to 1,000 mercuric chloride solution for the control of diseases the causal organisms of which are borne on the outside of the seed. Formaldehyde is also used, especially for potato-seed treatment, in some States, but is not recommended for cucumber seed or for sweet potatoes because of the danger of reduced germination or root injury. The more recent developments include the shortening of the time required for treating potatoes by heating the mercuric chloride or formaldehyde solutions. In Iowa and Missouri a 2½-minute treatment in a solution of 1 pint of formaldehyde to 15 gallons of water, kept at a temperature of 122° F., has been very generally adopted for the control of scab and scurf. In certain other States the hot formaldehyde method has not given as good results when tested alongside the standard 2-hour treatment in a cold solution. In New York a similar treatment for two minutes in a 1 to 1,000 solution of mercuric chloride at a temperature of 122° F. has been found effective in the control of scab and is gaining in popularity. To further expedite the work and reduce the cost of treating large quantities of seed, special equipment for heating the solutions has been devised and machines for carrying the potatoes through the solution have been adapted.

Several organic mercury compounds under various trade names have recently come upon the market as competitors of the older materials used for seed treatment and give promise of great usefulness when their characteristics are more thoroughly understood. Their principal advantages are greater penetration and less likelihood of injury, combined in some instances at least with apparent stimulation of growth.

As a means of placing seed treatment on the most practical basis, in order that more farmers may be led to adopt it, numerous extension pathologists and county agents have centralized the work by establishing community treating plants under the supervision of competent men, thus reducing the cost and insuring the best results through proper preparation of the solutions and accurate timing of the treatment.

A further development along this line has been the adoption by certain seed companies of the practice of treating certain seeds for disease before they enter the channels of trade. The indications are that this practice will increase in the future when its value becomes more appreciated.

Treatment of some seeds by the hot-water method has been found effective in the control of certain diseases which are borne inside

¹⁶ For further details, see U. S. Dept. Agr. Cir. 234, entitled "Bacterial Spot of Cucumbers."

the seeds and therefore not subject to control by chemical treatments. Cabbage black leg and root knot of dasheens are among the diseases which may be controlled in this way.¹⁷

Another method which as yet has limited application is the aging of seed. By careful experimentation it has been shown that in the case of some seeds which remain viable for several years, the disease organism in or on the seeds will die in one or two years, in which case the planting of old seed will give freedom from seed-borne disease. In the case of celery seed infected with late blight, the disease has been found to die out in two to three years; hence the use of old seed of good germinating power is advised.

Breeding and Selection for Disease Resistance

If varieties of vegetables resistant to all diseases and at the same time suited to the various market demands could be developed, the necessity for the discovery and use of other more cumbersome and less effective methods of controlling plant diseases would be obviated. The nearest possible approach to this ideal method of plant-disease control should be the goal of every plant-disease worker, since the use of disease-resistant varieties when available and suitable is the most economical and practical means of avoiding the losses occasioned by disease. However, there are numerous reasons why this goal may not be reached promptly, if at all. In most cases, varieties bred for resistance to one disease are not necessarily nor commonly resistant to another. Resistance to disease is often difficult to combine with some market requirement and years may be necessary to develop it. In the case of many diseases, varieties showing resistance of practical value have not been found.

Notwithstanding these facts, great advances have been made in recent years in the development of resistant varieties of many truck crops and this is coming to be an increasingly important line of work. A few outstanding examples will be mentioned as indicative of what has already been accomplished and what may be expected in future years.

About 1896 asparagus rust was introduced into the United States from Europe and spread in epidemic form entirely across the country within the next four or five years. The asparagus industry has been developed in this country in the absence of this disease and all varieties were susceptible and losses were heavy. As a result of breeding work inaugurated in 1906 by the Department of Agriculture in cooperation with the Massachusetts Agricultural Experiment Station and the Massachusetts Asparagus Growers' Association, strains of asparagus highly resistant to rust and of superior market qualities were developed at Concord, Mass. These have been increased and distributed throughout the country, so that now the various strains of Washington asparagus are obtainable from many seedsmen and growers.

Through the work of investigators at Cornell University and a New York grower, a variety of beans known as Wells' Red Kidney was bred, which is highly resistant to the anthracnose disease. In like manner the variety of navy bean known as Robust, which is

¹⁷ WALKER, J. C. CABBAGE-SEED TREATMENT. U. S. Dept. Agr. Cir. 311, 4 pp., illus., 1924.

resistant to anthracnose and mosaic disease was developed at the Michigan Agricultural Experiment Station.

Through tests of a large number of varieties of snap beans at the Virginia Agricultural Experiment Station at Blacksburg, several were found which were highly resistant to the rust disease, which causes severe losses in some sections.

Cabbage yellows (fig. 250), a widespread and destructive disease which has caused the discontinuance of the industry in some sections, has been made much less troublesome through the breeding of yellows-resistant varieties as a result of the cooperative work of the Department of Agriculture and the Wisconsin Agricultural Experiment Station.

Varieties of tomatoes highly resistant to the fusarium wilt disease, which is serious and fairly common in the Central and Southern



Fig. 250.—Cabbage yellows. Commercial Hollander, a nonresistant variety (on the left), showing only a few sickly plants still alive among the weeds; crop a total loss. Wisconsin Hollander, a yellows resistant variety (in the rest of the field), bred from a susceptible strain, giving practically a full stand, although the soil was uniformly "yellows sick."

States have been bred by the Department of Agriculture and certain State experiment stations. These varieties are doing much to reduce the losses from fusarium wilt, and at the same time are of superior commercial quality. (Fig. 251.)

The Department of Agriculture and the Virginia Truck Experiment Station, working cooperatively at Norfolk, have developed a variety of spinach which is resistant to the blight or mosaic, a common and serious trouble in some sections of the country.

During the last decade, since the discovery of the dread European wart disease of potatoes in certain restricted portions of Pennsylvania, Maryland, and West Virginia, numerous extensive tests of European and American varieties have revealed the important fact that many of our most widely grown commercial varieties are immune to the disease. (Fig. 252.) These varieties are now being grown exclusively and for local consumption only, in the infested



FIG. 251.—Tomato wilt. Row at left, wilt-susceptible Greater Baltimore on wilt-infested soil; row at right, wilt-resistant Arlington selected from the Greater Baltimore



FIG. 252.—Left, the Early Sunrise variety, showing wart disease of the potato which was introduced from Europe before the foreign quarantine law was enacted, and is known to occur in certain limited and closely quarantined areas in Pennsylvania, West Virginia, and Maryland. Right, Irish Cobbler variety found to be immune to wart disease

areas, and will be available for use in other sections, should the disease escape the strict quarantine in which it is now held.

In like manner, peas resistant to root rot, celery resistant to fusarium wilt, and many other disease-resistant or immune varieties of vegetables are being developed through the careful, painstaking researches of department and experiment station scientists, and we may look forward to increasing activities along these lines leading to important results in the future.

Spraying and Dusting

Spraying for the control of several foliage diseases of truck crops has been in use by many progressive farmers for upwards of a quarter of a century. By 1910 the Vermont Agricultural Experiment Station had completed a 20-year spraying test for the control of



FIG. 253.—Community spray ring. The State extension pathologist demonstrating to the operator and interested farmers effective methods of nozzle adjustment and spray application for control of the foliage diseases of potatoes in Pennsylvania.

the late-blight disease of potatoes, which showed an average annual increase of 105 bushels per acre or 64 per cent over the unsprayed as a result of regular and systematic spraying with Bordeaux mixture. Similarly, the New York Agricultural Experiment Station at Geneva carried on a 10-year potato-spraying test, which demonstrated the value of the practice by showing an average annual increase in production of 60 bushels per acre. In this connection, it should be noted that homemade Bordeaux mixture 5-5-50 still remains the most effective spray mixture for the control of potato foliage diseases.

The most important recent developments in spraying practice are the trend toward the simplified method of making Bordeaux, the greater recognition of the importance of the technique of spraying (fig. 253), and the increasing adoption of the spray ring as the most

economical and effective means of obtaining the best results under certain conditions.

With the simplified process of making Bordeaux no mixing platform is necessary. The spray tank is filled three-fourths full of water, the lime in stock solution or as hydrated lime is added and thoroughly mixed by means of the agitator. The copper sulphate stock solution is then added and the tank filled with water.

Careful attention is now being given to more thorough and timely application of the spray mixture, including the beginning of spraying earlier in the season before the first signs of disease are seen, the proper regulation of the intervals between spray applications in relation to weather conditions, the supplying of additional nozzles as the crops grow in order that all parts may be reached by the spray, and the use of machinery to furnish adequate pressure to obtain a fine mist and thus get the best spray distribution. The difference between success and failure in spraying is often traceable to neglect of some of these essential details (fig. 254).

In an effort to simplify the process and reduce the time necessary to do the work of spraying, considerable attention has been given by plant pathologists, chemists, and manufacturers during the last decade to the perfection of suitable fungicidal dusts and machinery for their application, and to the comparison of dusting versus spraying as a means of disease control.

The principal advantages of dusting over spraying are: (1) The greater rapidity with which the applications can be made; (2) the fact that no water is required, a factor of no small importance where fields are far distant from a water supply; and (3) the fact that dusts may be purchased ready to apply, thus doing away with the expense of spray-mixing platforms and containers, as well as the work of preparing and mixing the chemicals. There is also the fact that many insects can be most advantageously controlled by dusts and combination treatments are thus made possible.

The corresponding disadvantages of dusting are: (1) The greater cost of the dust applications per acre; (2) the fact that in many instances at least it does not give as good disease control as spraying; (3) the further fact that it is more easily and completely washed from the foliage by rain; (4) the limitation of the most effective dusting to periods of still weather; and (5) the necessity of purchasing new dusting machinery when serviceable spraying equipment is already on hand.

Some of the most recent results of comparative trials of dusting and spraying for the control of potato diseases, published by the New York Agricultural Experiment Station¹⁸ at Geneva, indicate that after four seasons of careful comparison not one of the three diseases concerned (early blight, late blight, and hopperburn) was as satisfactorily controlled by dusting as by spraying even when the dust was used twice as frequently as the spray. These results correspond in general with those obtained at several other State experiment stations, though a few experimenters have reported as good or better results with dusts than with sprays.

It should be borne in mind that dusting for the control of truck-crop diseases is still more or less in the experimental stage with pros-

¹⁸ Bulletin 518.

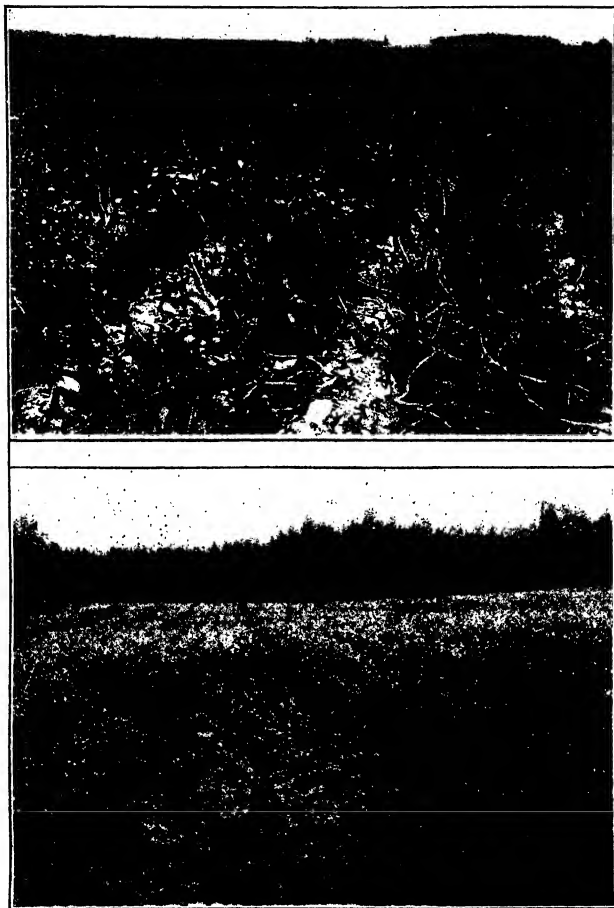


FIG. 254.—To be effective, spraying must be thorough. Upper picture shows failure to control potato late blight by spraying with average care in mid season only. Lower picture shows perfect control by thorough and frequent spraying throughout the season.

pect of its increasing use in the future as both the dust fungicides and methods of applying them are improved, together with a reduction in the cost of materials. Its principal use at the present time would seem to be for those instances where the extra cost of the dust and its lower efficiency in disease control are more than offset by the lessened costs of labor for application. This would be true in cases where water for spraying must be hauled long distances. For small areas also dusts are especially useful, since hand dusters are more effective and less expensive and get out of order less frequently than hand sprayers.

Wild Host Eradication

Recent scientific investigations have shown that certain wild plants or weeds which are attacked by the diseases of vegetable crops are the most important factors in the overwintering of the disease organisms which furnish the spring sources of infection. The eradication of these host plants is, therefore, a most important step in obtaining effective control.

In the case of cucumber mosaic, first, the wild cucumber, then the common milkweed, the pokeweed, and the perennial ground cherry were found to be overwintering hosts from which the disease was carried in the spring to near-by cucumber fields by striped beetles. Experiments extending over several years have shown that destroying all such weeds in and around the fields for a distance of 50 to 75 yards is the most effective control yet discovered for the prevention of cucumber mosaic and reduces losses to a minimum even in badly infested localities. This method also has the advantage that its effects are cumulative from season to season.

It is significant that the cucumber mosaic virus lives over winter in the seed of the wild cucumber to a considerable extent, though not in the seed of the cultivated cucumber in sufficient amount to be of great importance. In the case of the other wild hosts mentioned, however, the disease lives in the underground roots and stems.

The same method of wild host eradication has been found very effective in Indiana in the control of a similar mosaic disease of tomatoes. Here it is also very important to eradicate all tomato mosaic host plants from the vicinity of the seed beds or greenhouses where the young plants are grown, in order that infection may not take place at this early stage in their growth, since the results are always more severe as a result of early infestation.

Studies by Pritchard and Porte¹⁹ have similarly shown that the *Septoria* leaf-spot disease of tomatoes also attacks certain related weeds, particularly horse nettle and Jimson weed, which occur abundantly in the tomato fields in many sections. The careful plowing under of these weeds in the fall, together with measures for their eradication, will materially assist in the control of leaf spot by removing its principal means of living over winter.

Importance of Insect Control

Many recent investigations have emphasized the importance of insects in the overwintering and spread of plant diseases and thereby

¹⁹ See footnote 12.

made more necessary their control as part of a complete disease-control program. These facts have been especially worked out in connection with studies of the numerous mosaic diseases of truck crops.

There are two principal ways in which insects are concerned in the overwintering and spread of plant diseases; in the one they act merely as physical agents which carry the disease organisms, spores, or virus from plant to plant on their feet or mouth parts; in the other case the insects themselves act as reservoirs of infection, often carrying the disease agents in their bodies for a considerable length of time, in some instances over winter, and then transmitting them to cultivated plants again in the spring.

The discovery that the striped cucumber beetle and the common plant louse or aphid are important agents in the transmission of mosaic from its wild hosts to the cucumbers and in its spread from plant to plant in the field, combined with the additional fact that the beetle has also been proved to be the only known overwintering place of the cucumber wilt organism, as well as its most effective agent of dissemination, has brought the entomologists to the assistance of the pathologists in renewed efforts to discover improved means of controlling these doubly important enemies of the cucumber grower.

In like manner aphids have been convicted as spreaders of the mosaic and other virus diseases of potatoes and next to the procuring of seed free from virus diseases, the suppression of attacks of these insects constitutes the most important means of reducing the spread of these troubles from adjacent diseased fields to disease-free fields and their dissemination within the fields. The additional discovery that what under ordinary circumstances would be considered good insect control is not sufficient to prevent disease transmission which may be accomplished by a very small number of insects, has emphasized the importance of the greater perfection of insect-control measures and materials. It has also furnished even more conclusive evidence of the necessity for the entomologist and the plant pathologist to cooperate more fully and effectively in the effort to protect the Nation's food supply from the depredations of insect and disease enemies.

Plant Inspection and Quarantine

Plant inspection and quarantine measures, discussed elsewhere in this article, are proving a valuable addition to the methods of controlling vegetable diseases not only in preventing the spread of the diseases already established and limiting their distribution but also in the exclusion of vegetable diseases of foreign origin not yet introduced into this country. Under the Federal and State quarantine laws numerous diseases of great potential danger to our vegetable industry are being either isolated or kept out of the country by this quarantine service. Under the operation of these laws the additional introduction and distribution of the European potato wart disease was apparently prevented, as no new discoveries of its occurrence have been made outside of limited areas in Pennsylvania, West Virginia, and Maryland, where it had become established prior to the passage of the quarantine law. State laws requiring the inspection and certification of tomato, sweet potato, and other plants

for freedom from disease as a prerequisite to shipment are of increasing importance in the protection of purchasers and in the prevention of disease distribution.

Organization for Disease Control

Although most, if not all, of the disease-control methods here discussed can be put into practice by vegetable growers on their own initiative, yet some of them have not been tested in many places, or have failed of general adoption for many reasons.

In numerous instances it has been found possible and profitable to introduce certain measures as a regular practice into communities where they were not in general use, through organized cooperation among farmers. As an example may be cited the intro-

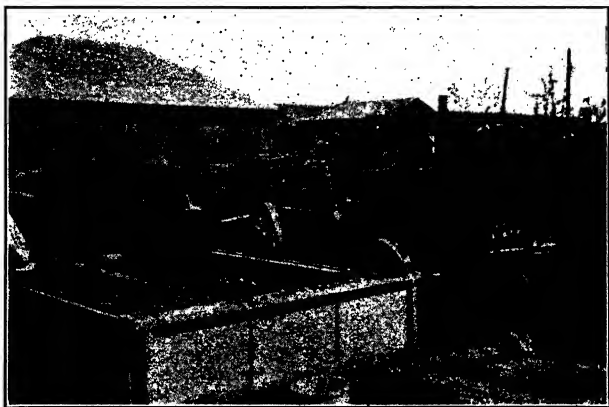


FIG. 255.—Community seed treatment of potatoes in Wisconsin for controlling scab, *Rhizoctonia*, and other diseases

duction of potato-seed treatment to kill seed-borne disease organisms through the establishment of central seed-treatment plants to treat all the seed of a community (fig. 255). Not only can the work be done more economically in this fashion but it can be more closely supervised, thus insuring the correct preparation of the solutions and the most accurate timing of the treatment. In this way maximum disease control with minimum seed injury is obtained at minimum cost to the farmers in time, money, and materials.

The centralized community treatment of cabbage seed in mercuric chloride solution for the control of black leg and black rot has also been carried out in localities where this crop is grown on a commercial scale. In some instances commercial seed houses have advantageously applied this or the hot-water treatment prior to distribution of the seed through the usual trade channels.

The formation of spray rings, mentioned elsewhere, for the purchase of spray equipment and materials and the employment of an experienced operator to spray potatoes or other crops for the control of diseases is another instance where cooperation organized among several farmers through the effort of the county agent or extension pathologist has resulted in great increases in the use of an effective disease-control method. This applies especially to farmers with too small an acreage to make it economical for them to purchase the most effective types of sprayers.

Disease-Control Methods During Marketing

The determination of the causes of losses in the shipment, marketing, and storage of vegetables, and the development of special methods of controlling them and thus reducing damage, constitute a line of investigation very distinct from that of field damage from disease, though in some respects closely related to it. Prior to the inauguration of the pathological phases of the food products inspection service during the war period, relatively little systematic study had been given to this important subject. In the short time since these investigations were begun, much has been accomplished in the differentiation of the types of disease losses found and the determination of their causes, and in the increasing of our knowledge of the conditions under which these losses are most serious. Considerable progress has also been made in the reduction of these losses, through the readjustment of methods of growing, handling, shipping, and storing, and in the changing of marketing methods. However, this initial work has opened up a large field of research and focussed attention on many important and intricate problems which require solution before adequate control measures can in many instances be formulated and put into practice.

One of the fundamentally important results of the concentration of interest on the problems of transit and storage losses is the increasing realization that fruits and vegetables are parts of living plants and as such continue after harvest to carry on certain life processes and are markedly influenced in their keeping qualities by the conditions under which and the care with which they are grown, harvested, and shipped. Though much remains to be done before practical control measures for many transit troubles are worked out, some of the more important consist of field control measures, careful handling, proper grading, protective treatment, temperature control, and shortening the transit period.

Field disease-control measures.—All of the methods of disease control used in connection with the successful growing of vegetables are now recognized as fundamentally important in relation to the marketing problem, since the degree to which they are successful in controlling diseases determines the character, quality, and freedom from disease of the product, which in turn are primary considerations in successful marketing. Watermelons that are well matured on healthy vines in fields where anthracnose has been successfully controlled by thorough spraying with Bordeaux mixture, other factors being satisfactory, will arrive in market free from loss through this disease and of excellent quality. On the other hand, ~~shipments in which anthracnose occurs may suffer severe losses due~~

to decay from this trouble alone, or may be of inferior quality because the vines were killed by the disease before the melons matured.

Careful handling.—The importance of careful handling to avoid or prevent mechanical or other injuries to the produce during all stages of harvesting and shipment can not be too strongly emphasized since every break in or injury to the skin of a vegetable or fruit furnishes a possible point of entrance for decay-producing organisms which are ever present. Injury due to rough handling of potatoes, cuts, fork wounds, bruises, the breaking off of second-growth knobs, and splitting are responsible for a large amount of fusarium rotting of the crop in transit and storage, while stock allowed to scald in the hot sun after digging is frequently damaged by slimy soft rot in transit, often to the extent of total loss.

Proper grading.—Proper grading is essential to the best marketing practice, not only because it calls for discarding unmarketable produce and obtains greater uniformity of pack and quality, but also because diseased and bruised produce is eliminated in the process and in this way the centers of disease infection for the healthy portion are often largely removed, and the assurance of its reaching market in sound condition is thereby decidedly increased. Not only are potatoes moderately affected with late blight rot likely to decay in transit and storage, but bruised and cut tubers shipped with them are also more liable to become affected with this or other tuber decays than are uninjured ones.

Protective treatment.—Certain protective treatments have in some cases been found essential to insure the crops arriving in market in good condition or to prevent heavy losses in storage. In the case of watermelon stem-end rot the application of a fungicidal paste to the freshly-cut stem as the melons are packed in the cars, together with careful handling, is a most important means of preventing heavy losses from this trouble, and in certain sections of the country, particularly the Southeastern States, it should be regularly applied. Likewise, the curing of onions or onion sets prior to storing, either through stacking in shallow trays in the field or by exposure to artificial heat in a regular drying house, is an important procedure to reduce losses from neck rot and other decays.

Temperature control.—Fruits and vegetables can be kept in fresh marketable condition and the losses from decay in transit decidedly reduced by means of refrigeration. The same applies to the holding of these products in cold storage. By maintaining relatively low temperatures during the transit period not only is the life activity of most disease organisms retarded, but also the ripening of the products themselves. In the case of some of the fresh vegetables such as celery and lettuce shipped from warm climates, it has been found profitable to precool them prior to shipment under refrigeration, both for the purpose of improving their condition and to prevent losses due to decay in transit. Many factors having to do with the control of diseases in transit and in storage must be taken into consideration in the marketing of perishable vegetables. In the shipment of potatoes, for example, special care must be exercised to prevent the development of black heart, a nonparasitic trouble due to storage at too high a temperature and with too little ventilation.

High temperatures combined with high humidity in general promote the rapid maturity of the product and at the same time furnish the most favorable conditions for the development of many field-disease organisms which cause transit losses.

Shortening transit period.—Regardless of the care exercised in the growing, harvesting, and handling of perishable vegetables there is the continuous process of ripening and susceptibility to loss from disease to be reckoned with. It is readily evident, therefore, that any delay in transit or in the lengthening of the time required for the produce to reach the consumer increases the chances of losses, thus making prompt transportation and marketing one of the essential factors in the prevention of losses from diseases.

Insects in Their Relation to Vegetable Culture

Economic Importance

Insects are among the most serious and persistent enemies which must be faced by the vegetable grower. In one form or another insect pests attack his crops as soon as the seed is planted, continue their ravages during their growing period, and finally destroy some of the products after they are placed in storage. Estimates of the actual money damage caused by the insects affecting vegetable crops vary between \$120,000,000 and \$240,000,000 per annum. These figures are based on an estimated loss of between 10 and 20 per cent of the total crop value.

The economic importance of insect pests is steadily increasing along with the extension of the vegetable industry to new areas, and in addition the crops are exposed to attack by insects not previously recognized as vegetable pests. It is reassuring, however, to note that control measures, although not completely suppressing the insects, have made possible the production of satisfactory crops. While it is admitted that vegetable crops are particularly susceptible to insect injury, it is doubtful if it is correct to estimate that the damage by insects actually amounts to 20 per cent of the total value of vegetable crops, even when the admittedly high-priced control methods are included. In computing average insect damage to vegetables over a period of years, it is probable that a figure of \$175,000,000 loss each year furnishes a fair estimate.

Aside from such injury as may be stated in terms of money, there are other losses which, though difficult to estimate, are an added tax and worry to the consumer as well as the grower of vegetables. These include the limiting effect of insects on the growing of crops in areas adjacent to the most satisfactory markets. Continual insect injury leads the grower to cease the growing of crops which, from the market standpoint, should continue to be produced. This factor alone means that certain vegetable products are either not readily available in such markets or that they must be imported from greater distances, a necessity which adds to their price and may impair their quality, especially in the case of crops in which freshness is important. In addition to this, the attacks of some insects reduce the quality of the crops without materially affecting their appearance. The work of the pea aphid on cannery peas in reducing the sugar content is a fair example of injury caused by moderate infestation by

an insect which only a few years ago was rated as having little effect on the crop.

Another source of loss from insect attack is secondary and caused by the easy entrance of disease spores into vegetable products which show only slight insect injury. In this way products which are readily marketable may decay much earlier than they would in the absence of insect injury. Insects attacking vegetables, therefore, not only cause a heavy direct loss, but in addition are an ever-present annoyance and tend to influence the quantity and quality of production, regardless of market needs.

The Vegetable-Insect Problem

The constantly varying nature of vegetable production makes it almost impossible to foretell insect abundance and this factor adds greatly to the difficulty of controlling insect pests. The grower of orchard fruits or other perennial plants knows that the insects which may trouble his plantings belong to definite groups appearing at more or less regular periods, and he is thus prepared for the application of remedies. In the case of vegetable crops not only is there great variation in the character of plantings, but the date of planting is often changed to take advantage of favorable market conditions. These factors expose vegetables to attack from a wide variety of insects over practically all of the growing period and thus greatly increase the insect hazard. Not only is the forecasting of insect abundance one of extreme difficulty, but many vegetable growers, especially home gardeners, do not possess an adequate supply of insecticides and machinery for their application to control insect pests in an efficient manner. Moreover, a large part of the home-vegetable gardening is done by people who are busy with other duties and have not the time for regular inspections of the garden or to apply such remedies as are available at the time insect injury begins. The commercial truck grower generally has access to insecticides and information on their proper application. It must be borne in mind that, according to estimates, the value of farm and home gardens is between \$300,000,000 and \$400,000,000 a year, and that these gardens present an important factor in the spread and lack of control of insects.

Nature of Injury

Insect injury is of two general types: (1) Chewing insects, which consume parts of the plants, and (2) sucking insects, which feed only upon the juices of the plants. In both cases severe injury results in the death of the plant, while moderate injury influences the size and quality of the crop. The first type of injury is conspicuous, while the second type may only become apparent when the plant is almost dead. The first seasonal insect injury on annual plants is to the seed or seedling plants. The pests chiefly responsible for this work are known as general feeders in that they are not limited to a few crops for their food supply. Such insects are usually present in the soil, and the crop which suffers from damage is the one which happens to be growing at a time when the insects are most active. The majority of these belong to the group of chewing insects, and

include such well-known pests as wireworms, cutworms (fig. 256), white grubs, and springtails. Under conditions of severe attack the seedling plants are destroyed and if replanting is not practiced the remaining stand is generally poor and the crop reduced.

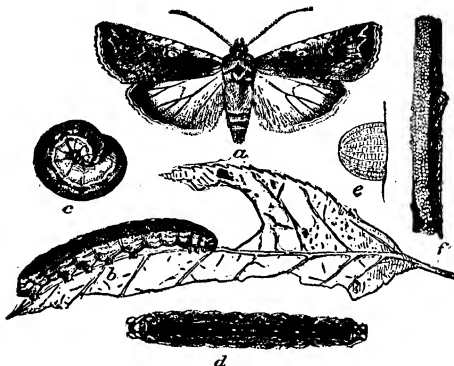


FIG. 256.—Variegated cutworm (*Peridroma margaritosa*): a, Moth; b, normal form of caterpillar, side view; c, same in curved position; d, dark form, view of back; e, greatly enlarged egg, seen from side; f, egg mass on twig. (Howard)

As the plants develop, they are exposed to a still larger group of enemies, some of which are more specific in their feeding habits in that they attack only plants belonging to certain botanical groups. These insects may kill the plant if they are present in great numbers.

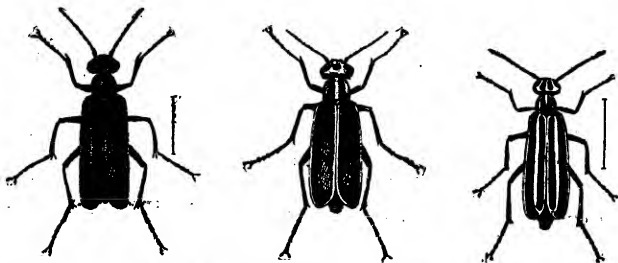


FIG. 257.—Adult blister beetles, enlarged: Left, black blister beetle; middle, margined blister beetle; right, striped blister beetle. (After Chittenden)

Moderate infestation may deform and weaken the plants and reduce their yield and quality. There are also such general feeders as army worms, grasshoppers, and blister beetles (fig. 257) present during the growing period. These omnivorous but more or less periodical

insects join with other pests to reduce or destroy the crop. As the fruiting period approaches, many species of insects are present, and some of the fruit or marketable portions of the plants are either destroyed or reduced in value through direct (fig. 258) or indirect attack.

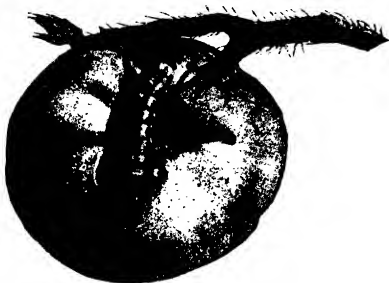


FIG. 258.—Characteristic work of the tomato fruitworm. (Quaintance and Brues)

The final group of insects to trouble the vegetable grower are those which attack the stored crop (figs. 259 and 260). Many of these are specific in their feeding habits and include such well-known pests as the bean and pea weevils, the potato-tuber moth, and the sweet-potato weevil.

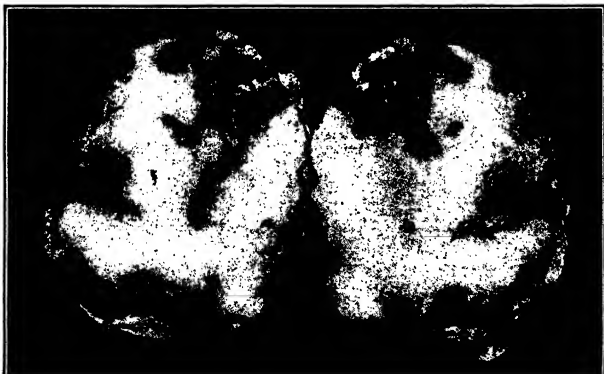


FIG. 259.—Injury to potato by the immature stages of the tuber moth

Aside from the direct injury caused by their feeding, insects are also the cause of severe indirect injury through the dissemination of plant diseases. Some diseases can only be transmitted by certain

insects, others may be carried from diseased to healthy plants by several different pests, and still others are actually carried over the winter within the insects themselves. The study of the transmission of plant diseases by insects is relatively new, and much remains to



FIG. 260.—Sweet potato weevil injury to stored sweet potatoes.

be learned. From our present knowledge, it appears that insects are responsible for the field dissemination of many serious diseases, and they are indirectly the cause of heavy crop losses in hastening the spread of diseases.

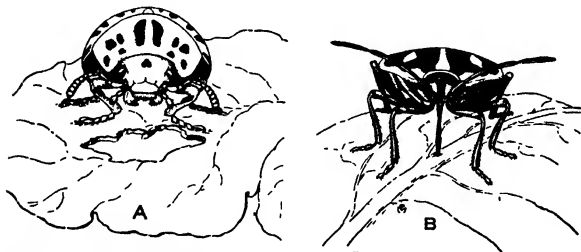


FIG. 261.—The two types of insect mouth parts: a, Chewing type of the Colorado potato beetle; b, sucking type of the Harlequin cabbage bug.

Insect Groups

Vegetable insects may be grouped as sucking or biting insects from their way of feeding (fig. 261), as imported or native pests

from a consideration of their original home, or as general or specific feeders if considered from the viewpoint of their food habits.

The chewing insects include the beetles, grasshoppers, crickets, caterpillars—which are the larvæ of butterflies and moths—and such rasping insects as maggots, which are the larvæ of flies. Beetles, which are most destructive to vegetables, include among others the cucumber beetles (fig. 262), the Colorado potato beetle (fig. 263), flea beetles (fig. 264), Mexican bean beetle (fig. 265), blister beetles, the sweet-potato weevil, the larvæ of click beetles (wireworms), and May or June beetles (white grubs). Grasshoppers and crickets are always present in small numbers, but may effect serious outbreaks when conditions favor their great increase. Caterpillars rank with beetles as the worst pests with which the vegetable grower must contend. The principal representatives of this group include the cutworms, cabbage worms (fig. 266), tomato worms (hornworms), (fig. 267), the corn earworm, army worms, webworms, leaf tyers

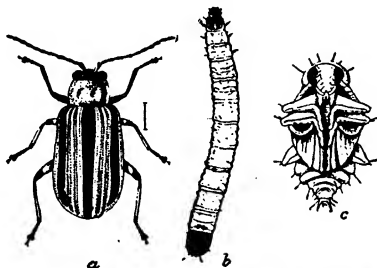


FIG. 262.—The striped cucumber beetle (*Diabrotica vittata*): a, Beetle; b, larva; c, pupa. Much enlarged. (Chittenden)

(fig. 268), and various other caterpillars. The most important maggot enemies of truck crops are the cabbage (fig. 269), onion and seed-corn maggots. All of the chewing insects consume parts of the plant either above or below the ground and their injury consists either in injuring the root system, consuming the foliage and stems, or destroying the fruit.

Sucking insects are those which obtain their food by sucking the plant juices. The insect's beak is inserted into the plant tissue and the only external mark which remains may be an inconspicuous spot not visible to the casual observer. The principal direct result of this feeding is a stunting or distortion of the plant with a yellowing or browning of the foliage. Insects belonging to this group are the aphids or plant lice (fig. 270), the minute, green, brown, or black individuals which are generally found in colonies on the stems or leaves, and the true bugs which include the squash bug, the harlequin cabbage bug (fig. 271), the tarnished plant bug, and others. Aphids occur in such an abundance of species that few vegetable crops are free from their attacks, many crops being subject to injury from several different kinds. Red spiders, although not true in-

sects, obtain their food by sucking plant juices and are considered with sucking insects. These troublesome pests attack a wide variety of plants, weakening and distorting the growing tip, and yellowing and destroying the leaves.

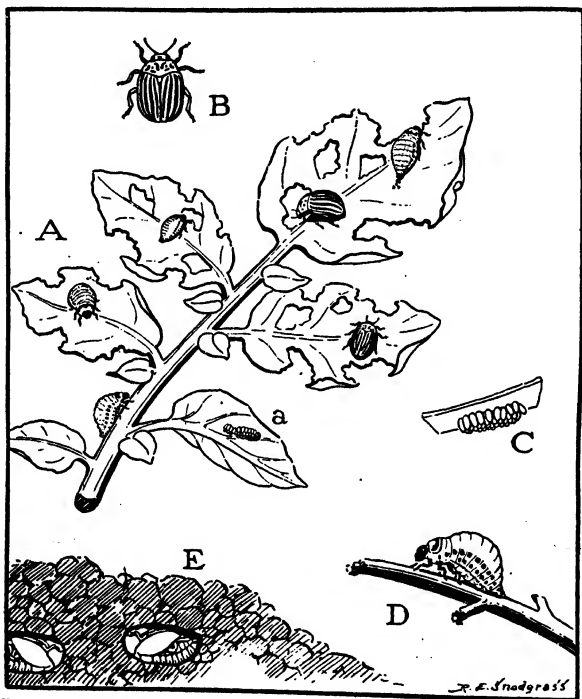


FIG. 263.—The Colorado potato beetle: A, Potato leaf showing feeding marks and eggs, larvae and adults; a, eggs on underside of potato leaf; B, adult; C, eggs, enlarged; D, larva or slug; E, pupa in soil in pupal case

Native and Imported Insects

With the importation of vegetable varieties incident to the development and expansion of the industry, many truck-crop pests found their way into this country in the same manner as did fruit insects. Few insect pests have been imported which attack such native plants as corn and potatoes, but imported crops, like cabbage and peas, are each subject to attack by several imported enemies.* Of the pests af-

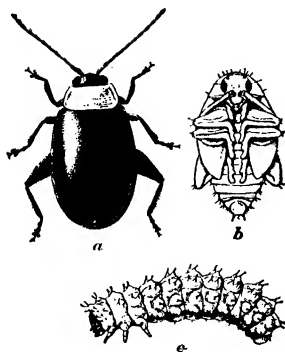


FIG. 264.—The beet, or spinach, flea beetle (*Dissonycha xanthomelana*): a, Beetle; b, pupa; c, full-grown larva. Five times natural size. (Chittenden)

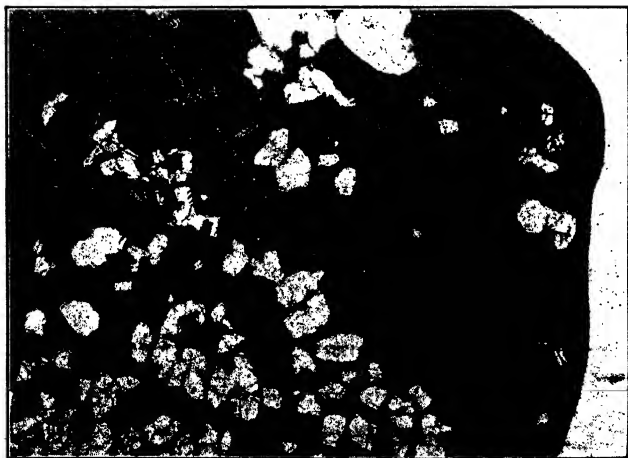


FIG. 265.—Adults and larvae of Mexican bean beetle on underside of bean leaf, showing areas eaten by adults. Slightly enlarged. (N. F. Howard)

fecting cabbage, 10 were imported, including the cabbage worm, web-worm, root maggot, diamond-back moth, aphids, flea beetles, curculio and stalk weevil. Other vegetable-feeding insects which have been introduced into the United States include such primary pests as the bean and pea weevil, broad-bean weevil, pea aphid, pea moth (fig. 272),

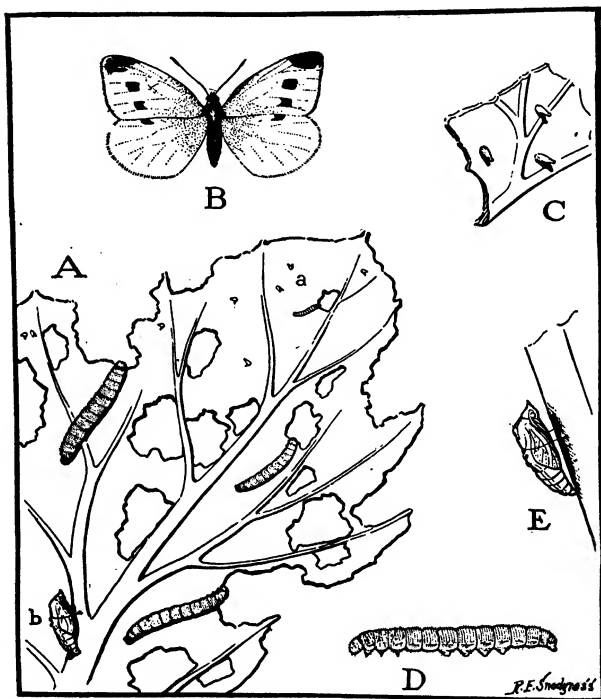


FIG. 266.—The cabbage worm: A, Cabbage leaf, showing injury by cabbage worm; a, eggs; b, chrysalis; B, butterfly; C, eggs, enlarged; D, worm or larva, enlarged; E, chrysalis.

onion maggot, seed-corn maggot, asparagus beetle, carrot rust fly, sweet-potato weevil (fig. 273), and sweet potato cutworm, in addition to several snails and slugs. The most outstanding native pests include general feeders, such as cutworms, blister beetles, cucumber beetles, May beetles, wireworms, and army worms, in addition to many more specific feeders. In reviewing the primary insect enemies

of vegetables, it is found that a high percentage of them are native to this country. In the case of the native species, however, parasites and other agencies of natural control are so active in their suppression that they are seldom present in seriously injurious numbers for any considerable number of years in succession. In the case of a large number of the imported insects, control by natural agencies is not so completely developed and the losses caused by these pests as a group, are more recurrent in nature and thus constitute a regular tax on the vegetable grower.

In addition to the two classes of insect pests listed above, there are several which are of North American origin but which have invaded the United States from adjoining countries. Examples of this group are the Colorado potato beetle, Mexican bean beetle, harlequin cabbage bug, pepper weevil, and others. The invasion of these insects has been a slow process of dissemination and was

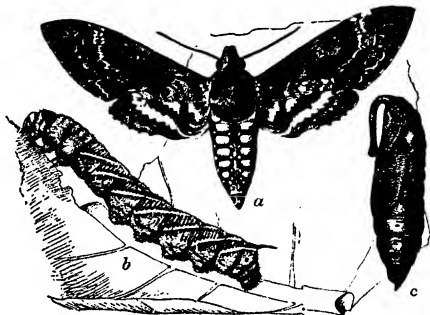


FIG. 267.—One of the tomato hornworms: a, moth; b, larva; c, pupa. (Chittenden)

made possible by the extension of the cultivated areas and the widespread planting of crops on which the insects could live. The Colorado potato beetle may be accepted as the best example of this group of invaders. This insect was undoubtedly of Mexican origin but at the time the western part of the Mississippi Valley was settled it was present at points along the eastern base of the Rocky Mountains. At this time it was known to feed on buffalo bur (*Solanum rostratum*) and was of no greater importance than any other insect which was associated with wild plants. The early settlers planted potatoes, and as these plants belong to the same botanical family as the buffalo bur and were more succulent and abundant, the insect readily transferred its attention to them. It spread eastward from field to field, finding congenial conditions and carefully cultivated food plants, and by 1865 had reached the Mississippi River. Its steady march continued and by 1874 it had reached the Atlantic seaboard. Its range of infestation now covers the entire eastern United States, with the exception of a part of Florida, and it has somewhat recently crossed the Rocky Mountains and invaded Wash-

ington, Oregon, and some neighboring States. This case plainly shows that the opening of new areas to cultivation may jeopardize crop groups by making it possible for localized pests of wild food plants to extend their range and adjust their food habits to closely related cultivated crops.



FIG. 268.—Injury caused by celery leaf tyer

Insect Groups as Related to Food Habits

Insects vary greatly in their choice of food. Some, as previously stated, feed on a wide variety of cultivated plants and herbs whereas others feed upon a limited number of closely related plants. The first group of insects may roughly be divided into two classes—those which are closely associated with the soil and are therefore fairly well fixed as regards location, and those which are capable in their injurious stage of moving freely from field to field. The

first class is composed largely of cutworms, wireworms, white grubs, and mole crickets, among true insects, and slugs (fig. 274) and snails from another group of animal life. Their presence or absence in a field is not largely dependent on the variety of the crop planted as they feed upon a wide variety of plants. These pests are generally in the injurious stage at the time the seed is planted or at the

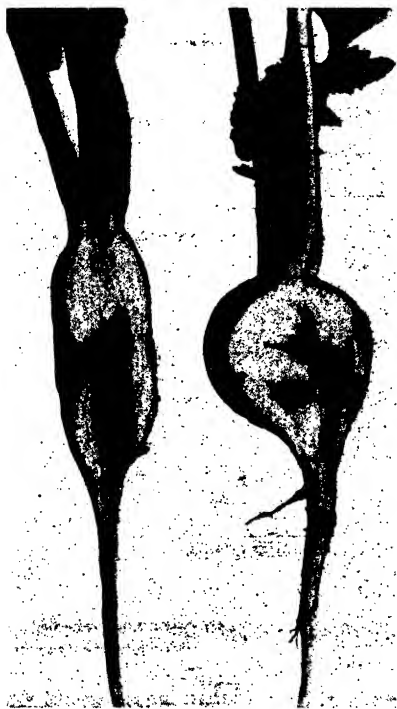


FIG. 269.—Radishes showing cabbage maggot injury

latest, by the time the seedling plant is beginning growth. Conditions are therefore encountered in which the insect is feeding heavily at the same time that its food plants are small, tender, and readily injured. Under these conditions there can be only one result—many plants are killed outright and if the crop is not replanted, the stand is thinned and the final yield is low. If injury appears at an

early period, it is possible that conditions may still be favorable for replanting, but this expedient will not suffice until after the pests have transformed into another stage in which they are not injurious.

General feeders belonging to the free moving class include such insects as blister beetles, flea beetles, grasshoppers, army worms, and corn earworm, and are capable of invading a field suddenly and causing heavy damage. Their coming can seldom be forecast in time to influence the date of planting or to permit the selection of



FIG. 270.—The pea aphids on peas

less susceptible crops. Many of these insects are attracted to the well-developed crop and are therefore seldom to be found when the plants are in the seedling stage. If large plants are attacked, the insects must necessarily be present in great numbers to cause injury so serious that the plants may not recover and produce a commercial yield. The fact that the injury often occurs over a considerable period of time generally permits the application of control measures, but where this is not done, the loss is relatively heavy, since a favorable time for replanting has usually passed and if the ground is not to remain vacant for the duration of the season, either a catch crop

must be planted which will yield only partial returns, or the original crop must be replanted with its short season and almost certain short crop.

It is a difficult matter to state exactly the specific food habits of insect classes, since these vary with the individual insects and may even be changed by different seasonal conditions or crop succession. Thus, the insect which is so injurious to the ears of corn and known as the corn earworm is the same insect which is destructive to tomatoes, and is then known as the tomato fruitworm. In this case a single insect is a primary pest of two vegetable crops which botanically are quite dissimilar. On the other hand, an insect may be a secondary or noneconomic enemy of one cultivated crop and later become a primary pest of another crop totally unrelated to



FIG. 271.—Harlequin cabbage bug

the first. Such a case is illustrated by the onion thrips, which may reproduce on cabbage but never attain injurious abundance; yet if onions are planted adjacent to cabbage fields, the insect may invade the planting and cause considerable damage.

Insects which are more specific in their food requirements generally limit their feeding activities to a few vegetable crops in the same botanical class or closely related thereto. It is found, for example, that most insect enemies of potatoes may also attack tomatoes, eggplant, and sometimes tobacco and many of the uncultivated nightshades, all of which belong to the same botanical family. In a similar way, many of the insects injurious to cabbage feed also on kale, cauliflower, collards, turnips, and radish. Cucumbers, melons, squash, and pumpkin form another plant group which is susceptible to attack by the same insects. Although insects may be

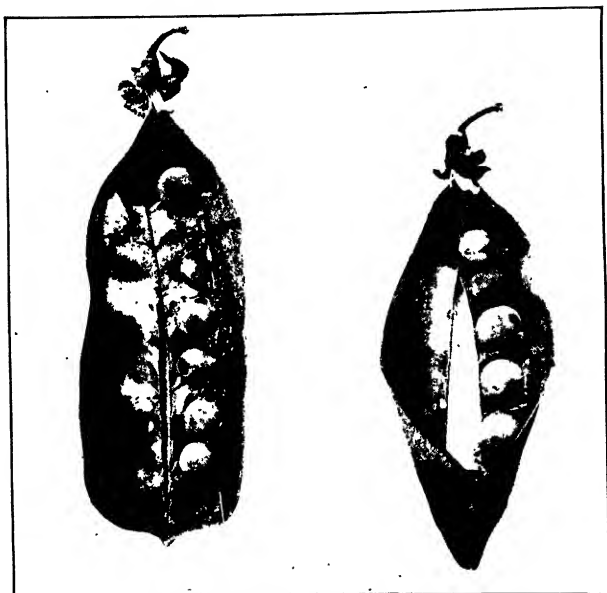
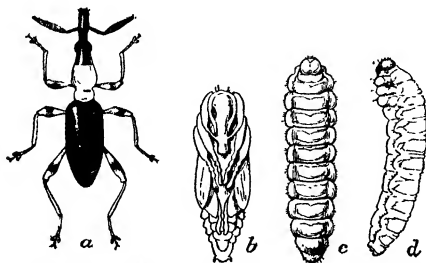


FIG. 272.—Pea moth injury

FIG. 273.—The sweet-potato weevil (*Cylas formicarius*):
a, Beetle; b, pupa; c, larva; d, side view. Much enlarged. (Chittenden)

pests of several related plants, there are generally only a relatively few crops on which the insect is of economic importance. The remaining crops are really secondary hosts on which the insects may reproduce but not by preference, and when restricted to them, seldom attain injurious abundance.



FIG. 274.—Slugs on lettuce

Local Spread of Insects

The dissemination or local spread of an insect is largely dependent upon its activity in one or more of its stages. In some cases the extension of the infested zone takes place at a regular rate, but with other individuals there may be a wide spread in one direction and practically none in another. Local conditions, including hibernating quarters, may have much weight in determining the distribution

of an insect. Such factors are especially noticeable in the case of the Mexican bean beetle, a pest in both the Eastern and Western States. The distribution of this insect is greatly influenced by the necessity for satisfactory hibernating quarters. Since wooded highlands are apparently necessary for its successful hibernation, it could be concluded that the bean beetle would be less restricted in the East with its many wooded hills than in the West where wooded hills are not general. Such is the case, for in 50 years under western conditions the bean beetle has extended its range only slightly, while 5 years under eastern conditions have enabled the insect to extend its range from Birmingham, Ala., to Lake Erie.

Climatic conditions may affect the direction and distance of spread. Most insects fly with gentle winds and therefore the direction of the prevailing winds during the time of flight is of great importance. Few insects are on the wing when the wind is strong, but sudden and violent storms may scatter them over several miles. Most of the vegetable pests which fly readily may spread from farm to farm and, for this reason the adoption of clean culture methods may be partially nullified by slipshod methods on adjoining farms or in cases when infested wild plants are near at hand. In order to understand the dissemination of insects and to be able to foretell possible invasions, a knowledge of the lifehabits of the species concerned and its reaction to its surroundings is necessary.

Aside from their own flight, insects are carried over long distances by outside agencies, such as floods and the common carriers of commerce. Those insects which are associated with the fruit of their host plants are often transported over long distances with shipments of fruit or seeds. Some insects, like the corn earworm, are carried in corn and tomatoes and leave the fruit to complete their development, but others, like the sweet-potato weevil, potato-tuber moth and some of the bean weevils, may breed through additional generations in the stored product. Development in this manner enables the insect to pass the winter safely, increase its numbers, and finally issue to attack the growing crop, often at some distance from its place of origin the preceding year. The general distribution of insects, which already occur widely over the country, probably has little effect on their abundance, but commercial intercourse often is the means of introducing new pests, and of assisting their rapid dissemination.

As already noted, many of the serious vegetable insect pests are of foreign origin and were presumably introduced with shipments of plants or were introduced with merchandise before the adoption of quarantine laws and port inspection. Aside from the mere introduction of foreign insects, the rapidly increasing rate of commerce and transportation has served to hasten the dissemination of those whose distribution had heretofore been restricted. Numerous examples of such widespread dissemination have occurred in the case of some important vegetable pests. Although the Mexican bean beetle undoubtedly invaded the southwestern United States from Mexico, its appearance in the Southeastern States was not the result of its own spread but rather of a so-called "commercial jump." In like manner the appearance of the potato-tuber moth on the Virginia coast probably resulted from the importation of the insect either

from the West or from some foreign country. The pepper weevil, originally introduced from Mexico, furnishes an additional example of the commercial spread of an insect in its jumps into New Mexico and quite recently into California.

Evidence indicates that a majority of these long-distance invasions have resulted from the carriage of the insect from one place to another in agricultural products, but these do not furnish the only means of insect transportation, for flying insects, particularly those which are active during the day, may find lodgment in moving vehicles, including cars and boats, and be carried some distance. The general use of automobiles and their utilization for long trips makes it not only possible but probable that insects are materially aided in their distribution in this manner.

Multiplication of Insects

Insects attain their tremendously destructive possibilities through their extreme rapidity of multiplication. Though many succumb each winter, their increase is so rapid that, given favorable climatic conditions and an abundance of food, many species are numerous enough to be of economic importance by spring or early summer. Insects affecting vegetables exhibit a wide range as regards rapidity of development and multiplication varying from some of the wireworms, which require three years to complete a life cycle, to some of the aphids, which may complete 12 to 16 life cycles in a single year. As a general rule, most of the insect enemies of vegetables pass through from one to four generations a year, depending principally upon the group to which they belong and to a lesser extent upon climatic conditions. The number of eggs produced by a single female varies from less than 100 to nearly 2,000, dependent upon the species of insect concerned. Aside from its effect on plant injury, the multiplication of any insect is intimately connected with its spread, since a species which multiplies rapidly and becomes crowded tends to extend its range more rapidly.

Food is a most important stimulus in the life of an insect and therefore plays a most important part in determining the numbers a pest may attain. Wild food plants are especially important in this regard, for they do not fluctuate in abundance as much as cultivated plants, which may vary either with crop rotation or market demands. In addition to their food value, uncultivated plants furnish a favorable winter shelter for many vegetable insects, and they are thus able safely to pass the winter near the source of their next season's food supply. An abundance of food is generally found in the larger trucking areas, but in the case of the home or city garden the more favorable conditions for insect breeding are seldom present throughout the season.

Development of Insects

A knowledge of the habits and development of different insects is necessary in order to insure their control in an economic and efficient manner. It is not sufficient merely to know that arsenicals are the usual remedies for most chewing insects or that nicotine and oil emulsions are good general remedies for most sucking insects. Before intelligent effort can be directed toward the control of an inju-

rious insect, there should be available knowledge regarding its identity and habits, the character of the injury and its relation to the development of the crop or crops attacked. Of these requirements, the most important is a knowledge of the identity of the insect and of its growth, reproduction, and manner of life. The more important steps in the development of insects include hibernation, reproduction, development of the injurious stage or stages, and factors affecting seasonal abundance.

In all parts of the United States, except the extreme southern portion, the insects remain inactive during the colder months of the year. This is probably the most severe test an insect must endure and many of them perish during each winter. Those which are most fragile or short lived in the adult stage, such as flies, moths, and butterflies, generally pass the winter in some immature stage or protected situation, while some of the more resistant forms may overwinter as adults. In most cases the insect seeks some shelter on the approach of winter or as soon as its host plants disappear or become unpalatable, and remains quiescent until warmer weather occurs. Some overwintering insects may become partially active during warm periods, but seldom does an insect leave its winter quarters until the weather becomes mild and food plants appear. Insects as a class may hibernate in any stage of development and under widely diverse conditions. Accordingly, a study of each species or group is necessary in order to determine the exact manner and period of hibernation. Such information is intimately connected with the prevention of infestation by many species and is therefore of great value in crop protection. Conditions which upset normal hibernation methods either by disturbing the hibernating form or exposing it to the weather or its natural enemies greatly increase winter mortality and result in reducing the number of individuals available for spring infestation of the cultivated fields.

The reproduction of insects is as varied as is their hibernation. Each species must be observed in the different regions which it inhabits if reliable information which may help to control it is obtained. As a general rule, insects pass through one or more generations during the active reproductive season. The hibernating stage develops and from this the subsequent stages are produced until winter puts an end to reproduction. Aside from the reproductive possibilities of any insect pest, the time of recurrence of its injurious stage in connection with crop development is an important index in determining the necessity for control measures and in dictating the method to be used, since not all stages of an insect are injurious. As some of the injurious stages are of only minor importance, it sometimes becomes possible to avoid the most injurious form at the time the plants are susceptible to insect damage. A knowledge of the insect's biology and information regarding the maturing of the crop may often suggest proper measures for avoiding losses. The development of cutworms may be taken as an example of this type. Where plants are large and vigorous, the feeding of these pests may only become threatening as the worms approach maturity. A proper knowledge of their growth sometimes shows that they will transform into the harmless pupal form before they have caused sufficient injury to require treatment,

and that the crop may mature before another generation of worms is produced.

Although the reproduction of insects is extremely rapid and may produce an enormous number of individuals, the number of survivors which are available for crop injury is often influenced by natural agencies, including climate, beneficial insects, and disease. The exact effect of such factors is often difficult to foretell but they may be of great importance in indicating the need or uselessness of artificial control measures. In the case of some aphids, notably the pea aphid, the natural control agencies are often the determining factor in successful crop production, for a sudden increase in beneficial insects, or the appearance of an insect disease epidemic, often so reduces the numbers of the pest that the crop may recover from injury and resume normal growth.

General Methods for the Control of Vegetable Insects

Diagnosis of insect injury.—The successful treatment of any disorder affecting plants is dependent on a correct diagnosis of the cause of the trouble. The determination of the exact cause of injury is not always easy. Plant damage may be caused by any one of the factors connected with the growth of the plant or a combination of several such factors. Where injury is of insect origin and affects the aerial portion of the plant, the determination may be readily made if the pests are still associated with it, but this condition does not always exist. Many insects are nocturnal in habit, feeding only at night and hiding in the daytime. Such forms are often difficult to detect and equally difficult to associate with plant injury. Cutworms are the most common example of insects of this type. These insects remain hidden on all but cloudy dark days and emerge to feed at night. They belong to the group of general feeders which attack a wide variety of crops, and since they generally appear at about the time the plants are in the seedling stage or soon thereafter, their injury consists of cutting off the plants at or slightly below the ground level. More plants are injured than are required for food, as one worm may in a single night destroy several plants. The only sign of injury apparent during the following day is a number of partially consumed, wilted, or dying plants, the worm having buried itself in the soil about an inch or more below the surface. The injured plants dry rapidly and an inexperienced observer may never learn the cause, or if the worms are found, they are not always associated with the injury.

Damage by chewing insects is generally conspicuous (fig. 275), and unless the plants are small and tender, some time is usually available for the application of control measures. Sucking insects, on the other hand, are more insidious in their attack, and once the plant shows stunting, yellowing, or wilting, the injury is already very pronounced (fig. 276) and often control measures are only partially effective, since the plant, even when freed of insects, may be unable entirely to recover and produce a full yield.

Injury by stem borers often may be detected by a stunting, deformation, or wilting of one part of the plant, while the remainder is developing normally. Pests affecting the roots may either stunt or

kill the plant. Unless the injury is severe and some of the injured plants are dug up for inspection, the damage by these insects may escape notice. White grubs and wireworms may kill plants by cutting the roots, and in the case of a heavy infestation of root aphids, the plant wilts during the high temperatures of midday. In the case of potatoes, injury by root feeders may not be discovered before harvest, and while damage to the tubers may destroy only a small part of their food value, the feeding marks of the insects are a great source of loss, since the potatoes bearing these marks are either rendered unmarketable or must be placed in a lower grade with a consequent reduction in price.

The correct diagnosis of insect injury to growing truck crops may often be difficult, but in order that control measures may be effective,

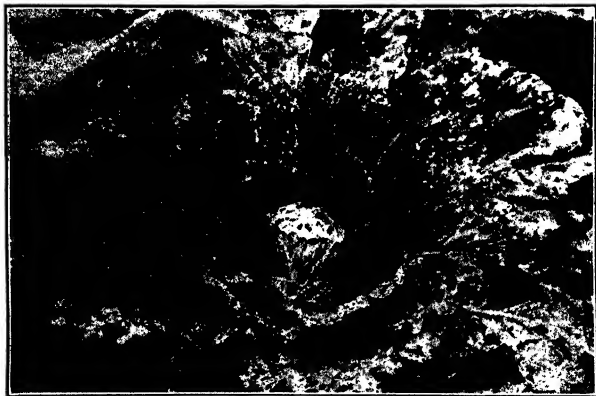


FIG. 275.—Injury to cabbage by the cabbage looper

the grower must have an accurate knowledge of the insect concerned, and such information must be available at a time which will permit the application of remedies before the crop is injured beyond recovery.

Natural control of insects.—In nature insects are exposed to many checks which tend to reduce their numbers. The principal factors which accomplish their destruction include adverse weather conditions, birds and other animals, parasitic and predacious insects, and disease, including fungi, bacteria, and the little understood filterable viruses. With such a widely scattered group of enemies, the insects must necessarily be constantly on the defensive and would become decimated were they not themselves capable of extremely rapid multiplication and fitted to live under a wide variety of conditions. In addition to this, in cultivating a variety of crops in wide areas man has tended to upset natural conditions, thus aiding the most

adaptable forms of animal life, the insects, many of which are his enemies.

Climate affects insects in two ways—it may either reduce their numbers or restrict their economic distribution. The climatic factors of temperature and humidity alone determine the distribution of several vegetable pests. Thus there are found insects, like some root maggots, which are pests only in northern localities where the temperature is not warm over a long period and minimum temperatures are relatively low. On the other hand, insects, like the harlequin cabbage bug and the southern green stink bug, are largely limited to the southern United States, and though individuals often may be found well to the north, they are seldom able to attain injurious abundance there. Humidity alone is an important factor in deter-

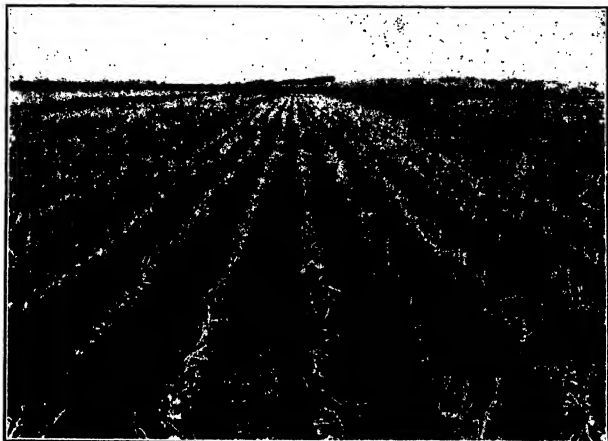


FIG. 276.—Onions killed by onion thrips showing whited appearance of plants from which the sap has been extracted

mining the distribution of insects such as the sugar-beet leaf hopper, stalk borers, and the melon and pickle worms, since some of these insects are pests only in the humid East, others in the arid West. Although some of the influence of climate on insects may be due to its effect on the food plants in supplying a suitable succession of favorable food plants, there is reason to believe that it also has a definite effect on the insects themselves.

Aside from the limiting effect of climate on insect distribution, adverse climatic conditions exert a great influence on the seasonal abundance of vegetable pests. All species of insects are greatly reduced during winter, even under relatively favorable hibernating conditions, and where the weather is adverse the degree of mortality is increased. Conditions which reduce hibernating insects

include rapid changes in temperature, humidity either above or below the optimum, low minimum temperatures, and storms. Any departure from the normal climate increases insect mortality, the degree of effectiveness being largely dependent on the amount of variation and the rapidity of the change.

After the insect emerges from hibernation the beginning and rate of reproduction are susceptible to the influences of temperature and humidity. In the first place such conditions may have a great influence on the presence or absence of acceptable food plants, and beyond this the weather conditions have an important influence on the rapidity of multiplication of the insect itself. Cool weather or unfavorable moisture conditions may greatly delay the emergence of the pest from hibernation, may retard growth, or delay the deposition of eggs. Moisture requirements for different insects vary greatly, but there is generally less difference as regards the temperatures necessary for insect development. Insects closely related may require very different climatic conditions for their greatest increase, as is shown by the melon aphid and pea aphid. Both insects are primary pests of their respective crops, the former attaining its maximum injurious abundance in the South whereas the latter occurs in destructive numbers in the northern half of the country. Hot, dry weather enables the melon aphid to multiply rapidly, and when such weather conditions occur for a period at a time when colonies of the pest are generally distributed, plant injury is sudden and sure. The pea aphid, on the other hand, prefers moist and slightly cool weather, and several weeks of such weather are usually the prelude to injury in the pea fields, provided, of course, the early infestation has been general.

The effect of weather on delaying or retarding insect multiplication may partially determine insect abundance, but in addition to this, it has a direct influence in killing the insects which may be present in the fields. Excessive summer temperatures may kill the eggs or young larvæ of some insects, and heavy precipitation is generally of great assistance, both in killing insects and in promoting plant growth, so the crop may recover from injury and resume growth. Heavy or regular rains are an important factor in the control of the onion thrips and most vegetable-feeding aphids, since many of these delicate insects, when washed from the plant and imbedded in sand or mud are unable to return to the plant.

Although the direct influence of climate on crop pests may be the determining factor in governing their possible injurious effects, these same weather conditions have an important secondary influence through their bearing on the abundance of parasitic and predacious insects and diseases which undoubtedly are among the most important factors in the suppression of vegetable insects.

In nature, where conditions are not upset by the cultivation of crops, an insect rarely gains ascendancy over its natural enemies, or when this does happen, it maintains its destructive abundance only for short periods. Yet even where cultivation has disturbed environmental conditions, the natural enemies of an insect are of primary importance. Parasitic and predacious insects are among the important natural checks to the multiplication of vegetable pests. The parasites include certain flies and many of the Hymenoptera,

a group to which the bees and wasps belong. The parasites deposit their eggs in or upon some stage of the injurious insect and the larval form of the parasite kills its host.

Predators of primary importance include representatives from several insect groups, as beetles (fig. 277), flies, and lacewings. It is often difficult to separate parasites and predators by a clear-cut line, since their activities may overlap. As a rule, however, the parasite in its development generally kills only a single host insect, whereas

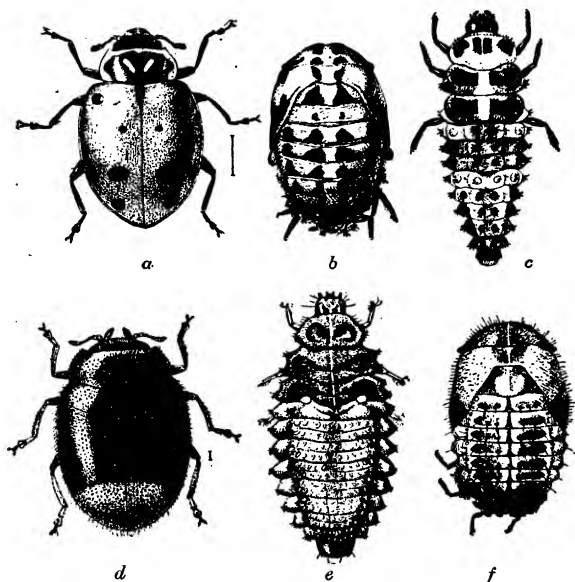


FIG. 277.—Useful ladybirds which prey upon the melon aphids and other plant-lice; a, Adult of convergent ladybird (*Hippodamia convergens*); b, pupa of same; c, larva of same; d, adult of *Scymnus terminatus*; e, larva of same; f, pupa of same. All greatly enlarged. Size indicated by hair lines at right of adults. (Chittenden)

the predator requires a large number, depending on the length of its growing period and the relative size of predator and host. The parasite also kills its host slowly, while the predator kills and devours its prey in a short period. These facts do not necessarily mean that parasites are less effective than predators, for these conditions may be greatly affected by the insects concerned. The benefit to be derived from both parasites and predators is dependent upon a number of conditions, which include, among others, the relation between the development of the beneficial insect and its host, and

rapidity of multiplication of the beneficial insect, together with the number of its insect hosts. It is desirable to have several beneficial insects preying on each crop pest, so that it is exposed to attack from a succession of these insects throughout the season. As referred to under fruit insects the control of injurious vegetable insects by other forms is seldom perfect, since there are times when conditions may destroy the beneficial species and permit the injurious form to increase greatly. In such years vegetable pests which normally do little harm may attain injurious abundance and cause extensive crop damage, but fortunately such conditions are only temporary and the beneficial forms, having sufficient food, soon effect their suppression. The cutworms furnish an example of this type of biological control. In average years cutworms are only sporadic or pests on a small scale, but on occasions may be the cause of heavy injury over wide areas throughout a season. The pest is attacked by a large series of parasites in the egg, larva, and pupa stages, and in addition is subject to diseases and to attacks by predacious insects and birds. With such an efficient succession of natural enemies, it is small wonder that the cutworm is held to relatively unimportant numbers during most years. Even under such efficient checks, however, the cutworms are able at intervals to attain general abundance and be the cause of heavy plant damage until their natural enemies regain control and again reduce their numbers below the point of serious injury. Crop pests which are held in control by natural means are generally injurious only at intervals and in more or less regular cycles.

Diseases of Insects as a Means of Control

Insects are subject to attack by a wide variety of diseases, including those of bacterial and fungous origin, in addition to some more obscure disorders which are not yet fully understood. Although the disease organisms are apparently widely distributed, it is only when conditions are favorable that the value of diseases in insect control becomes apparent. The two most essential conditions appear to be favorable weather and overcrowding of the insect host. The first condition permits the growth of the disease organism and the second facilitates its spread from one insect to another. Thus, heavy infestations of cutworms may be practically wiped out in a few days by a bacterial disease, and the pea aphid or potato aphid may be almost eradicated over large areas by the attack of a fungous disease. The reduction of insects by disease may be a useful method of crop protection, but unfortunately in vegetable growing it is impossible to foretell the effectiveness of a disease epidemic far enough in advance to depend on it for the control of the pest. It is thus quite possible that one grower will go to the expense of treating his field for the potato aphid and, owing to the intervention of the disease, not obtain better final control than the grower who preferred to delay treatment.

Cultural Control

With the possible exception of such crude and direct methods of vegetable-insect control as hand picking, the suppression of pests by cultural methods is probably man's most ancient method of solving

this problem. Viewed in its broadest sense, cultural control includes all measures connected with the selection, planting, culture, and harvesting of the crop. A considerable latitude for the practice of cultural control of insects is offered in the case of annual vegetable crops.

Soil management a means of insect control.—The breaking of the soil for planting and the proper preparation of the seed bed contribute greatly to insect suppression. The former often may be very efficient in reducing the numbers of certain insects by mechanical means, and the latter contributes to prompt germination and quick plant growth, which would result in early and successful fruiting. Insects partially controlled by seasonal plowing include cutworms, certain wireworms, white grubs, the strawberry root borer, and any others which are in the soil in the larval or pupal condition. Many not killed outright are by this process exposed to unfavorable weather or to attacks by birds and other enemies. Most vegetable plants pass through the period of greatest susceptibility to injury during the time between germination and the formation of the first true leaves. During this stage they are so tender that either direct or indirect injury may prove fatal. When this period of danger is shortened by the proper preparation of the seed bed, the possibility of insect injury is lessened in proportion. In this way, possibly heavy injury by root maggots, springtails, cucumber beetles, and other common pests of seedling plants often may be avoided. Insects, such as mole crickets, which injure plants indirectly by tunnelling through the soil, may become of minor importance when the seed bed is prepared to produce rapid growth. In the same way the early development of heavy roots will reduce injury by such insects as wireworms and cucumber beetle larvæ.

Modification of planting dates.—Other steps in the control of insects by cultural means include the variation in the planting time in such a way that the susceptible period in the plant's development does not occur at the time of the greatest seasonal abundance of the injurious insect. Early planting of sugar beets for the reduction of wireworm injury is based on the fact that wireworms can only kill beets by severing the slender taproot. When this part of the plant gets below the usual "working range" of the wireworm, the plant is safe. Early planting of sugar beets for "curly top" control is also practiced in some localities, since it has been found that if the plants are large at the time the leaf hopper invades the field and transmits the disease, a commercial crop may still be produced. In the case of sweet corn in certain sections in the East, it has been noted that the early and late corn are in silk at times when the corn earworm adults are present at peaks of generations and are therefore liable to be more heavily infested than midseason corn.

It must not be supposed that, as a rule, all crops planted early are less susceptible to insect attack. Although it is true that fewer insects are generally present in the early spring, the early-planted crops make a slower growth and are therefore generally susceptible to injury over a longer period of time. In considering this factor, it must be borne in mind that the grower must understand both the growth habits of the plant and the life history of the insect under consideration as influenced by seasonal fluctuations in temperature and humidity.

Cultivation, fertilizers, and irrigation factors in insect control.—Fertilization, cultivation, and irrigation of crops are of value in at least two different ways; in the first place, some direct insect control is exercised, and in the second place, these methods, intelligently used, stimulate growth of the crop to permit it to keep ahead of the insect, or if injured, to recover. Very often a treatment with a rapidly acting fertilizer will so stimulate the crop that an otherwise serious infestation will cause little or no damage.

Irrigation is generally accepted as a remedy for the beet root aphid, a heavy irrigation being given as soon as the earliest wilting becomes apparent. Proper harvesting and otherwise treating the crop immediately afterward is one of the critical steps in cultural control. Early harvesting and the protection of freshly harvested potatoes is of great use in holding the infestation of the potato-tuber moth at a minimum in the stored crop. Prompt removal of sweet potatoes to a safe distance from infested fields will greatly reduce the subsequent infestation by the sweet-potato weevil, both in the harvested potatoes and in the succeeding crop.

Crop rotation and insect control.—Crop rotation is of fundamental importance in the suppression of most soil-infesting forms and is of great value in controlling all insects which attack only a limited number of food plants. Since many of our general crop pests are somewhat restricted as regards food plants of major importance, it is readily seen that most of them would be affected to some extent by the application of such treatments. The greatest benefit will be derived where the insect is almost wholly dependent upon successive crops for its sustenance and is not carried on related crops or weeds. The onion thrips is an excellent example of this group, since the individuals which cause damage any one year are the descendants of those which were produced on the previous year's crop. Crop rotation would be an effective remedy for this insect, but, fortunately, clean culture alone is generally sufficient to largely prevent the insect from attaining injurious abundance. For the sweet-potato weevil, rotation is an excellent remedy, since the insects which might remain in the old field in left-over potatoes, stems, or volunteer plants do not migrate far to infest a new field. Although the mature insect has well-developed wings, it does not fly readily, and the selection of the new field, a quarter of a mile distant, will reduce infestation to a marked degree. In all rotations, plants of closely related botanical groups should be avoided, since the beneficial effects from rotation are attained by producing breaks in the food supply of the injurious insects.

Where insects have at least one generation a year, a rotation of alternating years is sufficient to show commercial control, but in the case of vegetable-feeding white grubs and wireworms with life cycles requiring two or three years, a more carefully planned rotation is necessary. Since some wireworms have a life cycle of three years and do most of their damage during their last larval season, a rotation of three years or less might result in only partial control. The wireworms belonging to the genera *Limonius* and *Pheletes*, which occur in the Pacific region and deposit eggs by preference in cultivated soil, come under this head.

Crop rotation is practiced primarily for the control of diseases and the preservation of soil fertility and, where practiced for

insect control, its final effectiveness will be dependent largely upon the size of the area involved and the rapidity of dissemination of the migratory form of the insect under consideration.

Cultural control is not only in line with good farming methods but does not require special and expensive apparatus and avoids such cash expenditures as the purchase of insecticides. The application of such control measures does not, therefore, add materially to the cost of producing the crop, a most important point in cases where the growers can bear only the expense of planting and growing the crops and have no funds for expensive protective measures. Cultural measures are of use also in the production of low acre-value crops which do not justify an additional outlay for the control of injurious insects. It must be remembered that cultural methods are mainly of use in avoiding insect damage rather than for protecting crops which are actually suffering from attack by pests in injurious numbers.

Plant Resistance to Insect Injury

Certain species or varieties of plants possess characteristics which enable them to show marked resistance to insect attack. These resistance qualities may be physical, chemical, or physiological, depending on whether the texture or nature of the plant makes it an unfavorable host, whether it contains chemical components which make it distasteful to the insect, or whether the character of its growth is such as to enable it to mature a crop under conditions of infestation which would be injurious to ordinary plants.

Physiological factors, such as vigor or character of growth, are useful in all plants, for these factors enable the crop to continue growth in the face of insect infestation and to recover readily from injury following suppression of the insect. The general value of this quality is intimately connected with good cultural practices, since the rapidity of plant growth is dependent upon both factors.

Other things being equal as regards edibility and market value, plants which are able to withstand unfavorable growing conditions are much to be preferred, since insect infestation may only be one of several of the contributing causes of crop failure. In this connection it has been shown that certain varieties of potatoes do not show the extreme type of injury from the potato leaf hopper, a quality which is supposed to be due to extremely vigorous growth. Experiments in the breeding of corn resistant to the corn earworm have indicated that varieties possessing greater length and thickness of the husk covering are freer from corn-earworm injury. Should further work bear out these indications, it should be possible to breed varieties of sweet corn which not only possess useful horticultural qualities but which would reduce injury from the corn earworm to a minimum.

The Control of Insects by Chemicals

In spite of the fact that insects are held in check by natural agencies and reduced by cultural means, it often becomes necessary to combat them with chemicals in the form of dusts, sprays, baits, or fumigants. Such methods, although expensive and not always satisfactory, are valuable in that they offer practically the only means of relief, once the crop or product becomes infested.

In undertaking the control of insects with insecticides, many factors must be considered. These include (1) the determination of the insect concerned; (2) selection of an effective insecticide; (3) satisfactory application; (4) total cost of control; and (5) probable return in added crop as the result of treatment. The first three factors are entomological, the last two economic. The first factors determine the possibility of controlling an insect, the last show if insect control will pay. Market conditions are of some weight in determining the possibility of obtaining dividends from insecticide application, but general crop values are of the greatest importance. Weather conditions and the stage of development of the crop must also be considered as carefully as the progress of the insect outbreak in the case of some pests. The application of insecticides may be impractical on some of the low-priced annual crops, while on others the insects if unchecked would not do sufficient damage to justify the necessary expenditures for their control. Finally, the general protective factor resulting from the treatment must be considered, for it is sometimes possible to protect crops over a much larger area than that actually treated.

In the case of stomach poisons the insect is killed by ingesting the poison with its food and such materials are effective only against insects which consume plants or plant products exposed to insecticide treatment. Contact poisons, which kill either through the trachea or by permeating the chitin (covering), with few exceptions are used for the control of sucking insects. Exceptions to these rules are found in the case of the striped cucumber beetles, some flea beetles, and leaf miners which yield in varying degrees to both contact and stomach poisons. Fumigants kill by entering the trachea in gaseous form and such materials are of most use in treating stored products in inclosed spaces and for the treatment of greenhouse insects.

The earliest insecticides usually consisted of sprays in which the toxic material was mixed with water and sometimes in combination with other materials which were added to augment the effectiveness of the treatment either by activating the toxic portion or by increasing its spreading and sticking qualities. Recent insecticide developments, however, have brought dusts into prominence, since these materials are more quickly and easily applied and the total cost of application is generally less than in the case of sprays and is gaining very rapidly in popularity and general use.

As a result of continued improvements the field of agricultural insecticides has been standardized until at present there is a fair choice of both contact and stomach poisons which are effective against a large proportion of insect pests and at the same time largely safe to use on foliage and in different situations and under varying conditions.

Stomach poisons.—Stomach poisons for vegetable insects include such materials as lead arsenate, calcium arsenate, Paris green, magnesium arsenate, zinc arsenate, derris, hellebore, white arsenic, sodium arsenite, sodium fluoride, and others. The last named has been used principally under western conditions as a poison in bait for cutworms and earwigs. White arsenic and sodium arsenite are more generally used in poison baits for grasshoppers and cutworms.

Hellebore and derris are not generally used. The remaining poisons consist of stable arsenicals which may be used in sprays and dusts and applied to growing crops. Lead arsenate practically has superseded Paris green and for many years has been the favorite arsenical for truck crops and fruits. Calcium arsenate is rapidly becoming popular for general use. Its chief advantages are low price, good stability, and satisfactory dusting qualities, but in addition to these it meets the other qualifications for a good stomach poison, which include (1) high insect toxicity; (2) favorable plant tolerance; (3) good spreading and sticking qualities, and (4) wide compatibility.

Although arsenicals are applied to kill insects, there are many groups which are repelled rather than killed. These groups include active insects, such as flea beetles, blister beetles, and others which can move readily from plant to plant. Foliage is susceptible to injury by some arsenicals, and plant tolerance to the spray must always be considered. This factor varies largely with the quantity of soluble or uncombined arsenic in the material, but undoubtedly there are other factors which have some influence on plant injury. The stage of growth of the plant, presence of new foliage, and other factors may be of importance in connection with spray injury and climatic conditions, including both humidity and temperature, also have a definite relation to foliage injury by sprays.

Contact poisons.—Among contact poisons are included nicotine, soaps, oil emulsions, sulphur preparations, pyrethrum, Bordeaux mixture, corrosive sublimate, derris, and a few others. Oil emulsions and soaps are used only in sprays, but the other materials may be employed either in the spray or dust form. Bordeaux mixture is useful as a control for the potato leaf hopper. Corrosive sublimate is valuable for the control of root maggots and as a repellent for ants. The sulphur preparations are utilized in mite control and sulphur dusting is a successful treatment for these pests where temperatures are high enough to release the sulphur fumes in toxic concentration.

Nicotine, soaps, and derris are used against soft-bodied sucking insects, such as aphids. Derris is an organic material and although efficient is not yet in general use. The contact insecticides in most general use include nicotine and soaps, in addition to the sulphur compounds. Soap may be used with the nicotine spray mixtures and undoubtedly adds to the toxicity, in addition to improving the spray from a mechanical standpoint. Soaps are of greatest use against the soft-bodied insects, like plant lice, but are used mainly in small-scale operations. Contact insecticides have been generally used in spray form but the recent development of nicotine dust has given great impetus to the use of dusts. Nicotine solutions in high concentrations (40 per cent) added to some carrier, as hydrated lime, make a dust which has shown a high toxicity for many sucking insects, such as aphids and nymphs of the plant bugs. In addition to this, some chewing insects, such as flea beetles and the striped cucumber beetle, are readily controlled with such material. The dusts range in strength from 1 to 4 per cent of actual nicotine, but the $1\frac{1}{2}$ and 2 per cent dusts are favored for general use.

Sprays vs. dusts.—Although some of the recent improvements in the insecticide field have been due to the development of new com-

binations which either increase the toxic effect or lower the cost, the greatest development has undoubtedly been due to the wider utilization of insecticides in the form of dusts. This step has greatly popularized insecticide application and has led to the wider application of chemicals. This point is of paramount importance since the final value of an insecticide depends on its general use by the growers.

The popularity of dusts is based largely on the following points: (1) Rapidity of application; (2) water not necessary; (3) lighter weight of working equipment, and (4) no delay to fill tank and mix stock solutions. For a long time sprays maintained their popularity because of the belief that they assured better distribution of the poison material under all conditions. Although sprays may penetrate better than dusts in some instances, this factor is not alone responsible for insecticide distribution, and it has been found that electrically charged or finely divided dusts may reach to protected parts of the plant not covered by sprays.

Fumigants.—Fumigants are used principally to kill insects in inclosed spaces. The compounds generally used include the cyanides of sodium, potassium, and calcium, carbon disulphide, carbon tetrachloride and nicotine. Hydrocyanic-acid gas is used in killing insects in stored products and green houses. Hydrocyanic-acid gas is generated from sodium and potassium cyanides by means of dilute sulphuric acid. Calcium cyanide releases hydrocyanic-acid gas on exposure to moist air, no apparatus being required for its use. Although the latter material is a new development, it is being tested for many insects not inclosed, and under these conditions may be called an "open air" fumigant. Many satisfactory kills have been obtained in preliminary outdoor tests, but since it is extremely difficult to build up toxic concentrations of hydrocyanic-acid gas under these conditions and maintain them over a killing period, the use of calcium cyanide for the control of vegetable insects outdoors may be said to be still in the experimental stage. The high toxicity of this material to various plant bugs, which are highly resistant to most insecticides, indicates that it may find a field for usefulness in this direction. Calcium cyanide used as a soil fumigant has already proven its usefulness for the control of some of the soil-infesting insects under certain conditions.

Carbon disulphide is one of the oldest and best-known fumigants. Its action is slower than that of cyanides and it is impossible to build up a killing concentration at temperatures much below 65° F. With the exception of the fire hazard, it is not as dangerous to use as the cyanides and is still in great favor for the treatment of many stored products. The liquid volatilizes and the carbon-disulphide gas, being heavier than air, penetrates material readily. Exposures generally last from 12 to 48 hours, depending on the insect and the material to be fumigated. The principal objection to carbon disulphide is that the liquor is inflammable and the gas when mixed with air is explosive in the presence of fire. Carbon tetrachloride is of relatively low toxicity and is used as a fumigant to only a small extent but has the advantage of being nonexplosive.

Nicotine is still a popular fumigant for greenhouses in spite of the fact that dosages for sodium cyanide have all been worked out and that the latter is more effective in killing insects. Nicotine is favored

by some greenhouse men because of its safety, but recent tests with calcium cyanide have definitely demonstrated the usefulness of the material for greenhouse work. Nicotine is volatilized by heat, and exposures generally last about 12 hours.

New and Promising Insecticides

During the last few years the attention of entomologists and chemists has been directed toward the development of new insecticides and improved methods for the application of all insecticides. Some success has resulted and several promising compounds have been developed. Carbon-disulphide emulsion has given excellent control of soil-infesting forms, like May beetles and wireworms, but with present methods this treatment is only promising in cases where the returns from vegetable crops will permit a heavy expenditure for insect control. Recent experiments in search for cheaper contact insecticides have shown that certain of the fatty acids (capric, etc.) have a definite and rather high toxicity to some sucking insects. The acid is made up into a stock emulsion with soap, glue, and benzol gasoline. In preliminary tests sodium fluosilicate has shown promise in the control of a wide variety of vegetable insects. This material is effective as a stomach poison with the additional advantage of cheapness and low toxicity to higher forms of life.

Future Outlook for Vegetable Insect Control

With a greater concentration of the vegetable industry, under average conditions, such development would tend toward heavier insect losses. On the other hand, large-scale vegetable production permits of wider practice of cultural control and the consequent reduction of pests. Under such conditions, it is also possible to provide the necessary materials and equipment for prompt treatment of such insects as do appear. The trend of treatment of vegetable insects in the future therefore seems to be more in the nature of sound farm practice to prevent the appearance of insects and at the same time to insure the development of vigorous plants with resultant good crops. These methods can be made a part of crop production without material increase in cost and their value lies in the fact that the cheapest and most effective way of controlling vegetable insects is to avoid their presence.

Combination Disease and Insect-Control Measures

Frequent reference has been made in the foregoing pages to the close relationships existing not only between the life history and activities of the various diseases and insects of fruits and vegetables, but also as to their methods of control. Many horticultural crops are subject to disease and insect enemies that respond to the same control methods and materials. Certain chemicals used in the control of insects and diseases may be combined without changing them chemically, and thereby effect dual control resulting in a saving of time in making the application. There are, however, numerous chemical and physiological relationships and limitations that must be considered in connection with combination insect and disease-control measures. It is obviously desirable wherever practicable to combine

the materials used for two or more phases of control in order to reduce the expense and to obtain timely application of the necessary materials. This is especially important in view of the fact that the labor required in the application is frequently the largest item of expense. In cases where the disease and insect infestation do not occur simultaneously, dual application is impracticable. The chemical relationships of the materials employed, however, are of vital importance as combinations of certain chemicals in a single spray or dust may result in the production of compounds that are injurious to the plants or which may modify the effect of the individual ingredients. In order that the grower may not injure his crops or fail to obtain control, it is essential that he have accurate information as to the combinations that may be made safely and effectively.

Table 1 gives the more important insecticides and fungicides which are ordinarily combined, together with the limitations in their application.

TABLE 1.—*Spray and dust combinations*¹

FUNGICIDES

| Basic material | Contact sprays | Stomach poisons | Stickers, spreaders, or neutralizers | Remarks |
|---------------------------|-------------------|------------------|--------------------------------------|---|
| Bordeaux mixture. | Nicotine sulphate | | | Not on peach. |
| | do. | | Soap | Do. |
| | do. | Lead arsenate | | Do. |
| | do. | do. | Soap | Not on truck crops, except cabbage; not on peach. |
| | do. | Calcium arsenate | | Not on fruits, especially stone fruits. |
| | do. | Lead arsenate | | Not on peach. |
| Lime-sulphur concentrate. | do. | Calcium arsenate | | Not on fruits, especially stone fruits. |
| | do. | do. | Soap | Not safe on tender foliage. |
| | do. | do. | | Not on truck crops; not on peach. |
| Self-boiled lime-sulphur. | Nicotine sulphate | | | Do. |
| | do. | Lead arsenate | | Use on stone fruits, not on vegetables. |
| | do. | do. | | Do. |

CONTACT POISONS

| Basic material | Contact sprays or fungicides | Stomach poisons | Stickers, spreaders, neutralizers | Remarks |
|---------------------------|------------------------------|------------------|-----------------------------------|---|
| Lime-sulphur concentrate. | Nicotine sulphate | | | Not on truck crops; not on peach. |
| | do. | Lead arsenate | | Do. |
| | do. | do. | | Do. |
| | Lime-sulphur concentrate. | | | Do. |
| | do. | Lead arsenate | Casein | Do. |
| | do. | Calcium arsenate | | Do not use. |
| Nicotine sulphate. | Bordeaux mixture | | Casein | Not on peach. |
| | do. | Lead arsenate | | Do. |
| | do. | do. | | Do. |
| | do. | Calcium arsenate | | Not on fruits, especially stone fruits. |
| | do. | Lead arsenate | Milk of lime | |
| | do. | do. | Casein | |
| | do. | do. | Soap or casein | |
| | do. | Calcium arsenate | Milk of lime | Not on fruits, especially stone fruits. |

¹ Combinations containing soap and lime-sulphur, lead arsenate, Paris green, or calcium arsenate should be used with caution on tender foliage. The addition of casein does not alter any combination spray.

TABLE 1.—*Spray and dust combinations*—Continued
CONTACT POISONS—Continued

| Basic material | Contact sprays or fungicides | Stomach poisons | Stickers, spreaders, or neutralizers | Remarks |
|---------------------------|---|-----------------|--------------------------------------|---|
| Nicotine sulphate dust. | Sulphur..... | ----- | ----- | Contact insecticide and repellent. |
| Kerosene emulsion. | Bordeaux mixture..... | ----- | ----- | Not on truck crops; not on peach. |
| Lubricating oil emulsion. | do..... | ----- | ----- | Combined dormant scale treatment and fungicide. |
| Lubricating oil emulsion. | {Lime-sulphur.....} {Nicotine sulphate.} | ----- | Casein..... | {Dormant or delayed dormant treatment for scale, aphids, and fungi. |

STOMACH POISONS

| Basic material | Fungicides | Contact sprays | Stickers, spreaders, neutralizers | Remarks |
|-----------------------|-------------------------------------|------------------------|-----------------------------------|---|
| Lead arsenate..... | Bordeaux mixture..... | Nicotine sulphate..... | ----- | Not on peach. |
| | do..... | do..... | Soap..... | Not on tender vegetables. |
| | do..... | do..... | do..... | Do. |
| | Lime-sulphur concentrate..... | ----- | Milk of lime..... | Not on peach. |
| | do..... | Nicotine sulphate..... | do..... | Not on truck crops; not on peach. |
| Calcium arsenate..... | do..... | do..... | Soap..... | Do. |
| | do..... | do..... | do..... | Not on truck crops, except cabbages; not on peach. |
| | do..... | do..... | do..... | Use on cabbage; not on peach. |
| | do..... | Nicotine sulphate..... | Milk of lime..... | Do. |
| | Finely ground sulphur. ¹ | Nicotine sulphate..... | do..... | Used as dry dust. |
| Paris green..... | Lime-sulphur..... | do..... | Milk of lime..... | Not on fruits, especially stone fruits. |
| | Bordeaux mixture..... | do..... | ----- | Not on fruits, especially stone fruits; not on truck crops. |
| | do..... | do..... | Milk of lime..... | Not on fruits, especially stone fruits. |
| Paris green..... | Bordeaux mixture..... | do..... | ----- | Do. |
| | do..... | Nicotine sulphate..... | ----- | Not on fruits, especially stone fruits; not on tender vegetables. |
| | do..... | do..... | Milk of lime..... | Do. |
| Paris green..... | do..... | Nicotine sulphate..... | do..... | Do. |
| | do..... | Nicotine sulphate..... | do..... | Do not use. |

¹ Hydrated lime or gypsum are also used as diluents. They have no fungicidal value.

In the application of the table for determining safe combinations for spray treatment, it is first necessary to make a careful diagnosis of the separate troubles which must be treated. With this information the necessary chemicals for the treatment can be determined and the table shows whether or not these chemicals can be combined and put on at one application.

In most instances combinations of chemicals must be made to effectively control both insects and diseases or even different combinations of insects or diseases, but in a few instances it has been found possible to control both insects and diseases by the use of a single substance. In such instances a material primarily used as a fungicide has also insecticidal or deterrent properties which at the same time make it the best-known means of controlling certain insects. In such a category would come the use of Bordeaux mixture

for the control of potato leaf blights since it acts also as a deterrent to a flea beetle and is the best-known remedy for the potato leaf hopper, which is the cause of hopperburn.

Another example of the dual-purpose treatment is found in the case of lime-sulphur which acts both as a fungicide and a contact insecticide when applied during the winter to dormant trees for the control of San Jose and certain other scale insects, pear-leaf blister mite, peach-twigg borer and others, and at the same time destroys spores of various disease producing fungi. Lime-sulphur in a dilute form is used as a summer spray for the control of various leaf and fruit diseases. In the summer spray lead arsenate may be added to control the later broods of codling moth and other chewing insects.

In some cases the insects bear an essential relation to the disease in their being the most important, or often the sole agent of transmitting the disease organism or virus from plant to plant and from field to field, as is the case with cucumber wilt and the striped cucumber beetle, and potato virus diseases and the plant louse. In such cases the successful control of the insects furnishes at the same time a high degree of control of the disease as well, the value of this treatment depending upon the timeliness in controlling the insects, which are the contributing cause before the disease becomes a factor in crop production.

In most instances, however, insects and diseases occurring on a plant have no special known relation to each other, as, for example, in the case of the Colorado potato beetle, and the potato leaf blights, or the codling moth, and apple scab, bitter rot, and blotch.

Materials for Combination Treatments

Sprays.—Bordeaux mixture is the most widely used fungicidal spray for the control of leaf diseases of truck crops and of many fruits. When properly made with reliable chemicals and applied at the proper time with efficient spraying appliances which deliver fine sprays, many leaf diseases are effectively controlled and disease losses markedly reduced. Different strengths are used on various crops but the 5-5-50 formula (5 pounds bluestone and 5 pounds lime in 50 gallons of water) is commonly used for most truck crops including potatoes, tomatoes, and watermelons. A weaker solution, such as 4-4-50, is used by some on celery, or 2-4-50 for the earlier applications on crops like cucumbers and muskmelons which under certain conditions are sometimes injured by the stronger spray. As a rule the 4-4-50 or 3-3-50 strengths are used on fruits.

As shown in Table 1 Bordeaux mixture may be combined with many of the standard insecticides such as lead arsenate or calcium arsenate to act as a complete spray for leaf and fruit diseases, as well as for any chewing insects such as Colorado potato beetle or codling moth.

To be effective for sucking insects also, the addition of nicotine sulphate in some form is essential and may be included without injury to the crops or reduction of the efficiency of any ingredient.

Resin fish-oil soap may be added to any of these combinations if desired to increase the spreading and sticking of the spray, but the addition of soap to an arsenical should only be made where the

plant is hardy, for a combination of soap with an arsenical raises the soluble arsenic content of the spray mixture and makes it more injurious to foliage. The addition of soap is especially important in sprays for crops like onions and cabbage, and only slightly less so on the fruit of cranberries and grapes on which it is difficult to get the spray to stick.²⁰

Dusts.—As a result of renewed experiments with various dust fungicides and insecticides during the last few years, marked improvements in the materials available for use, and in the methods and equipment for applying them have been made. It is recognized that there are certain definite advantages in dusting over spraying which make it highly desirable that methods and materials be devised for overcoming the offsetting disadvantages and thereby making possible a larger substitution of dusting for spraying. The advantages are chiefly speed of application, lightness of equipment needed, and lower initial cost and operating expense. The offsetting disadvantages are lower efficiency of most fungicidal dust materials at present available and the considerably increased cost of these materials, which in many cases is not balanced by the greater speed of application. Dusts are, however, being used in some instances as supplementary to sprays and in others as substitutes for them, and it seems probable that their use will increase in the future in direct proportion as their efficiency is increased and their cost reduced. Where fungicidal dusts have proved effective for disease control it is frequently possible and highly desirable to combine with them the required insecticides.

Sulphur and copper-lime combinations are among the most important fungicidal dusts now available and where these give satisfactory disease control they can be combined with insecticides to furnish insect control at one operation.

Powdered arsenate of lead is the leading dust insecticide for chewing insects on tree and small fruits and on truck crops. Calcium arsenate where it can be used is cheaper and is as effective as lead arsenate, but can not be used with safety on most horticultural crops, especially the stone fruits. Insecticidal dusts are available for control of insects and are coming into more general use than fungicidal dusts. They can be combined where desirable.

Nemic or Nematode Pests of Fruits and Vegetables

Nemas or nematodes, often called eelworms or roundworms, owing to their abundance and wide distribution, bear an important economic relationship to practically all phases of fruit and vegetable production. There are many species and millions of individuals of plant-infesting nemas occurring in soils everywhere, many species living in plants, some being very injurious. Nemas are slender, round, and threadlike and often so small as to be invisible to the naked eye; if visible, they look like small, whitish threads, rarely more than one-sixteenth of an inch in length. Their bodies are usually transparent so that with the aid of a microscope their internal, as well as external structure can be seen. (fig. 278). Oc

²⁰ See Farmers' Bulletins 1060, 1081, and 1220.

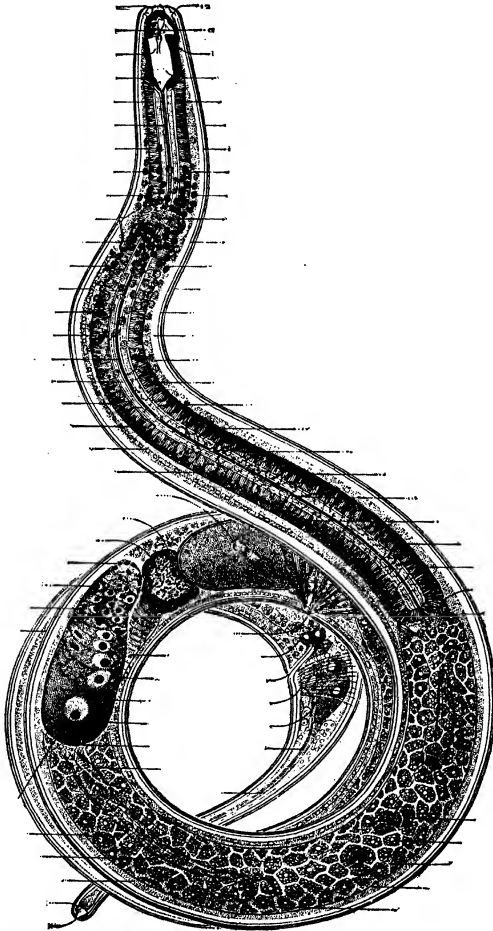


FIG. 278.—Female of a typical mononch, *Mononchus longicaudatus*, a syngonic form. This individual had been feasting on other nemas, the remains of which are shown inside the intestine. Only the anterior half of the sexual organs can be seen in the illustration; an entirely similar branch is hidden on account of the coiled attitude of the body.

casionally tiny earth worms (technically known as *Oligochaetes*) are mistaken for nemas, but are easily distinguished by their larger size. In addition, nemas practically never contract their bodies longitudinally as do all earth worms; also, nemas are not segmented and do not have movable locomotor bristles along the body.

The illustrations accompanying this article show the nemic life cycle, including adult nemas, the egg, and the larva. The egg (fig. 279) is minute, ovoid or spheric, and its shell is usually smooth; it is sometimes very resistant to dryness and cold. The egg is easily transported by water, wind, or animals, or attached to almost any moving thing to which it may adhere. The larval nema (fig. 280) has the general appearance of the adult but is without sexual or-

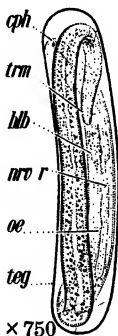


FIG. 279

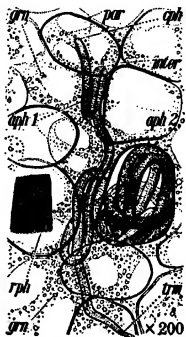


FIG. 280

FIG. 279.—Egg of *Aphelenchus cocophilus* as found in the tissues of the trunk of coconut palm. *cph*, head of embryo; *blb*, oesophageal bulb; *nrv r*, nerve ring; *oe*, oesophagus; *teg*, shell of the egg.

FIG. 280.—Manner in which *Aphelenchus cocophilus* occurs in the parenchymatous tissue of the trunk of the coco palm. *aph 1* and *2*, two individual nemas as fixed in formalin; *cph*, head of a nema lying in the intercellular space; *trm*, tail end of same; *par*, parenchymatous cell of palm; *rph*, rhaphides in another cell; *grn*, one of the granules in the more or less disintegrated contents of one of the cells. All the palm cells shown are dead. The material here shown could be contained in a particle of trash only one one-hundredth of 1 inch long.

gans; while growing it sheds its skin (cuticle), usually four times. The larvæ are sometimes very resistant to cold and drought. The sexual organs mature at the fourth moult or shedding of the skin, after which reproduction occurs.

The larvæ of some species of nemas have the faculty of forming cysts; that is, of transforming the skin or cuticle into a protective cover, and, if need be, remaining inside in a dormant condition, highly resistant to changes of temperature, dryness, etc. In this condition nemas may be easily transported. Some nemas encyst themselves attached to insects and are thus protected and transported. Their small size, their slender form and snakelike way of moving, combined with their ability to resist unfavorable conditions adapt nemas for life in the soil and for a parasitic life in plants and animals.

Nemas are one of the important factors in soil life, and influence soil changes in various ways. They live in wet and dry lands, in clayey as well as sandy soils, and thrive wherever plants grow or animals can live, from snow-covered mountains in the Arctic regions to the warmest parts of the Tropics. Nemas are numerous in the soil—the richer the plant life, the greater their number. This interrelationship between plants and nemas finds expression also in

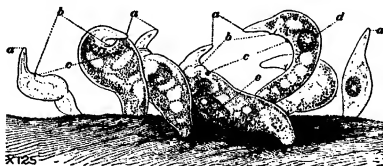


FIG. 281

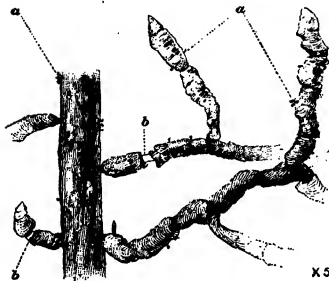


FIG. 282

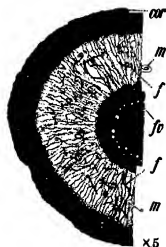


FIG. 283

FIG. 281.—*Tylenchulus semipenetrans*. Mature and half-grown females, with their head ends permanently embedded in the feeding root of a citrus tree. This is a plant parasite similar in many ways to the notorious gallworm *Uaconema radicola*. *a*, Tail end; *b*, vulva; *c*, excretory pore; *d, e*, egg in uterus

FIG. 282.—Citrus root attacked by the parasitic nematode *Tylenchulus semipenetrans*, magnified five diameters. The parasites are shown at *a*. They are shown black, but in reality are yellowish or brownish. Owing to the presence of the parasite the feeding roots may become somewhat enlarged and irregular and the outside portion of the root somewhat separated from the axial portion, as shown at *b*. When the roots are agitated in water the outside portion sometimes becomes loosened in segments which will slide on the axial portion.

FIG. 283.—Half of a cross section of a root of coco palm infested with the nema *Aphelenchus cocophylus*. *cor*, bark or cortex of root; *m* and *f*, male and female nemas infesting the root; *fv*, central fibro-vascular bundle of the root

a denser nema population in and about the roots of the plants. With increasing depth and decrease in the number of roots, fewer nemas occur, but following long roots nemas penetrate many feet into the soil, in fact as far as do the roots (figs. 281 to 283). The surface layer of the soil with its large quantity of dead and living organic material is especially rich in nema population. Estimates showed their minimum number in the top 6 inches of an acre of a Missouri corn field to be 648,000,000; of a Rhode Island field 610,000,000;

of a Minnesota field 121,000,000. The maximum numbers would, undoubtedly, be multiples of these figures. They live in and on plants throughout the year, their number being largest in the summer. Frozen as well as dry soil may contain them, and thawing or moisture will bring them back to active life.

Nemas play various rôles, some being factors in the change of organic matter to humus, thus influencing the life associations of the soil. Sprouting seeds often attract large numbers of nemas, but often resist their attack if none of the especially injurious forms are present. Kati Marcinowski counted on three apparently healthy sprouting wheat kernels the following: On No. 1, 15 nemas belonging to 8 different species; on No. 2, 31 nemas of 6 different species, and on No. 3, 75 nemas of 7 different species.

Certain of the nemas feed on only one or at most a small number of plant species; others feed on almost any plant, while still others feed on animal as well as plant food. Quite a number of nemas feed on other nemas, these being useful to man where they feed on injurious parasitic forms. (Fig. 278.) Soil fungi, soil algæ, and soil bacteria are the chosen food of other nemas. On the other hand, while nemas have their diseases fungoid, protozoic, and bacterial—certain of the nemas are carriers of soil microorganisms and in this way may spread diseases of plants and indirectly do much harm. They also do good by fostering the growth of the microorganisms connected with the formation of humus. Nemas not directly injurious may become indirectly so, because when feeding on plants they break the protective surface tissues and thereby create an entrance for diseases. The general effect of nemas on the soil, especially on its plant life, is manifold and of far greater economic importance than is commonly realized. Soil nemas spread by their own activities. These wanderings take place radially from the original center of infestation. For this reason field infestations, large or small, are, as a rule, more or less circular areas which increase year by year. The spread of nemas by means of carriers, however, is more important. Man is the most important carrier, spreading the nemas in the soil adhering to his footwear, tools and machinery, nursery plants, bulbs, seeds, packing materials, hay, manure, and, in fact, in almost any material that may be moved from one point to another on the farm. Animals and birds of many kinds, both domestic and wild, as well as insects, are carriers. Wind and water, especially irrigation water, are important distributors of nemas.

The heavy losses in the fruit and vegetable industry owing to the work of nemas are often attributed to other causes. Nemas work invisibly and it is difficult to estimate their annual damage which in the aggregate amounts to many millions of dollars, though absolute failure of crops because of nemic diseases is exceptional. Losses of 4 or 5 per cent are extremely common and very often are much higher. Poor stands, reduced harvest, and nonmarketable crops are caused by nemic pests. The effect of a nemic disease upon the crop varies from reduced vitality and lower resistance to other pests to complete loss. Young plants suffer more than do the older ones; nearly all parts of plants—roots, stem, foliage, flowers, and fruit—have their specific nemic diseases. Nemas occur in all parts of the

country, but flourish especially where the climate is mild. During recent years nemas have become very important greenhouse pests.

The presence of nemas may manifest itself in various ways, often in the form of swellings called galls (fig. 284) which may occur on the roots, stems, leaves, flowers, or even on the seeds. Owing to the fact that their parasitic organisms such as fungi and bacteria may induce plants to form galls, the presence of these latter are not a characteristic of nemic diseases only. In other cases nemas cause



FIG. 284.—Roots of tomato, showing enlargements caused by the gall nematode *Caconema radicum*. Tomatoes sometimes suffer severely from this disease. (After George F. Atkinson.)

an abnormal growth in plants, mainly distortions, dwarfings, and cauliflowerlike growths. Heavily infested roots sometimes form an abnormally large number of fine rootlets or become "bearded." Other nemas living in stems, leaves, or flowers may give rise to spots of yellow, brown, or red color. Seeds containing nemas are sometimes dwarfed, but often enlarged. Potatoes infested by nemas usually have a rough, warty, and somewhat discolored surface.

To determine the cause of any trouble of this character beyond a doubt, it is necessary

to determine the presence and species of the associated nematode by the aid of a microscope. Some plants are more or less immune to nematode attack, while some are to a certain degree protected against nematode attack by the toughness of their bark or, seems likely, by specific substances contained in their tissues. Such resistant varieties may often be used to advantage on soils that are heavily infested. It is interesting that the same crop may be effected by nematode pests in one locality but appear nonsusceptible in another locality. Nemas appear to have developed different tastes, the explanation of which seems to be as follows: Nemas have sense organs which enable them to locate the host plant they prefer, even at considerable distance. They move through the soil toward the preferred plant, seeming to neglect other possible host plants closer by. Although some injurious nemas attack a large number of different crops, any given nematode population may prefer a particular crop or a small group of crops. This preference seems to be acquired. Thus the nematode population may be said to specialize more and more on a particular species or variety of plant. If the latter is present, the nemas will promptly attack it in large numbers; but if absent they may hesitate, or, at least, not promptly take to

another host plant, even if right at hand. This explanation shows why nemie pests increase where the same crop is grown year after year—the nemas seem to adapt themselves to the particular crop, and for that reason their attacks become more and more deadly.

Although there is at present no possible way of determining accurately the economic loss to the fruit and vegetable industry owing to nemie infestations, these losses are so broadly distributed and affect so many different crops as to render this class of pests one of the most important with which the fruit and vegetable grower has to deal. Their spread has been rapid and it is only within recent years that any real knowledge has been gained relative to either their life history or control measures. At present the losses to nurserymen and plant growers from root knot (fig. 284) resulting from nemie attack are enormous. The vegetable grower, especially in the milder climates of the country, has in many cases, been compelled to abandon the growing of certain crops because of nemie infestation. The greenhouse-vegetable growers of the North have spent millions of dollars in steam and other forms of sterilization, and in the various methods that have been adopted for the control of nemie pests. With the establishment of the bulb-production industry in the United States there has arisen an important economic problem in the control of nemas (fig. 285). In fact the persistence in spread of nemie pests has already indicated certain geographic limitations in the development of the bulb industry.

Remedies

No thoroughly direct control for nemie diseases of plants has been found. The chief measures to be taken are of a preventive nature. Crop rotation is one of the most effective measures and is based on the behavior of the nemas in the selection of host plants, and on the fact that nemas in general do not at once readily adapt themselves to new and different hosts. In crop rotation special attention must be paid to weeds which, if not destroyed, frequently carry nemie pests over long rotation periods. In order to minimize a nemie pest through rotation, the causative nema must be determined and for this purpose it is desirable to have as much as possible of the previous crop history of the infested field. Nemie pests in greenhouses and nursery beds can often be controlled by sterilization by means of steam, hot water, or dry heat. Numerous chemicals have been tried from time to time, including calcium cyanamide, formaline, and carbon disulphide, which have received a limited amount of approval. The quantities of these chemicals, however, that are necessary in order to obtain satisfactory results make this method expensive, and thus far chemical treatment has not been extensively adopted. For certain plants which have dormant stages such as bulbs, seed dasheens, and others, a hot-water remedy has been found by which the bulbs are submerged for three to four hours in water which is kept at a constant temperature of 122° F. No nema, including the eggs and the larvæ has been known to survive a hot-water treatment of 130° F. for more than a few minutes, and a 3 to 4-hour treatment at 122° F. is generally considered effective. In certain cases, temperatures as low as 110° have been recommended as sufficient. Prevention in the nursery, greenhouse and propagating beds is best ob-

tained by using clean, uninfested soil, clean seed, clean nursery stock, and by avoiding contamination by the careless spreading of the nemas as previously referred to. Rotation of crops is, undoubtedly,

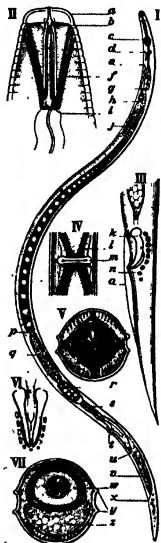


FIG. 285

FIG. 285.—The devastating nematode of the onion and other bulbous crops (*Tylenchus dipsaci*). This nematode has caused enormous damage in the Netherlands and other parts of Europe, where it attacks the onion, hyacinth, and numerous other plants. It has been known for a long time in Europe and Australia; no means have yet been devised by which it can be eradicated. Recently it has been found doing great damage to bulbs in the United States. It is one of the species which puncture the tissues of plants by means of a long, narrow, tubular sting, or spear, located in the mouth. I, a female; II, head of the same more highly magnified, the spear is most clearly shown; III, tail of a male; IV, vulva from below; V, cross section of the neck passing through the sucking bulb; VI, front view of the spicula and accessory parts; VII, cross section through the middle of a female, showing how the body cavity is filled completely by the ovary (w) and the intestine (z). a, lip region; b, tip of spear; c, medium sucking bulb; d, nerve ring; e, excretory pore; f, muscles for protruding the spear; g, posterior esophageal swelling; h, excretory gland; i, hind end of spear; j, loop in ovary; k, spiculum, or penis; l, muscles for opening the vulva; m, the vulva; n, glandular (?) bodies; o, bursa; p, blind end of ovary; q, uterus containing spermatozoa and a segmenting egg (at r); s, segmenting egg; t, vagina; u, the vulva or female sexual opening; v, blind end of posterior rudimentary ovary; w, intestine, showing its cellular structure; x, cross section of an egg; a, anus; y, wings of the cuticle; z, cross section of the intestine.

FIG. 286.—Roots of cucumber, showing enlargements caused by the gallworm. Nearly all other common garden plants are similarly attacked. There are many thousands of the worms in the nodules upon such a root system. (After Kati Marcinowski)

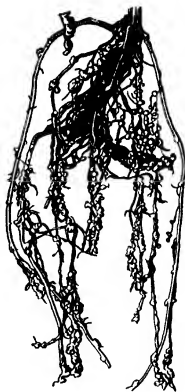


FIG. 286

the best known method of controlling nemas in the open ground. A golden rule as applied to nemas is to "always be suspicious of any swelling on the seed, plant, or cutting, or on the root, unless this

swelling is well known to be natural to the plant." This rule, if followed, would have doubtless saved agriculture in the past from enormous losses.

Over 500 different species of plants are already known to be attacked by the gall nema which is the worst nemie pest known (fig. 286), if not the worst pest known to agriculture. Many fruits and most vegetable crops are attacked by the gall nema (*Caconema radiculicola*) which produces galls, swellings, and deformations on roots and on tubers, where it is known as "big root" (fig. 284). The sugar beet nema (*Heterodera schachtii*) lives on a score of host plants, including beets, beans, peas, spinach, cabbage and its relatives, potatoes, corn, etc., in addition to the sugar beet (fig. 287). This pest



FIG. 287.—Sugar-beet field near Lewiston, Utah, containing a small area very severely infested with nematodes. Photographed by Gerald Thorne

is sometimes rather difficult to recognize. In extreme cases on beets the roots have a bearded appearance because of the large number of small rootlets formed.²¹ The stem nema (*Tylenchus dipsaci*) attacks numerous host plants, among which are alfalfa, clover, onions, potatoes, beans, peas, strawberries, and others. It produces decay in bulbs of hyacinth, narcissus, and onions, one effect being the occurrence of brown rings on a cross section through the bulbs; by warty, discolored surfaces on potatoes; and distortions and dwarfings on the stems, leaves, and flowers, and even on the seeds of various plants. The affected parts of the plants frequently, but not always, contain the nemas in large numbers.²² The citrus nema (*Tylenchulus semi-penetrans*) occurs on citrus trees (figs. 281 and 282), including the sour and sweet orange, the grapefruit, and the three-leaf citrus fruit

²¹ See Farmers' Bul. No. 1845 and Dept. Agr. Cir. No. 297.

²² See Farmers' Bul. No. 1248.

known as *Citrus trifoliata*. It attacks the rootlets, which become enlarged and irregular, the outside portion becoming easily loosened.²³ Strawberry bunch (*Aphelenchus fragariae*) occurs in the stems and leaves of strawberries. A plant that is heavily infested produces an abnormal growth; in the spring the leaves become deep red and there is also a reddening of the under sides of the unfolded young leaflets.

The above are but a few of the important nemie pests that have an important economic bearing upon the horticultural industries, but those enumerated will be sufficient to indicate the vast importance of this class of pests. The present state of our knowledge of nemas is such as to render it impossible to furnish all the information that would be necessary in order that the average grower could determine either the kind of nema present or the remedy, and wherever there is a doubt active measures should be taken or a specialist who has studied nemas consulted.

Birds, Mammals, and Other Animals in Relation to Fruit and Vegetable Production

Birds

The relation between bird life and the production of fruit and vegetable crops is a complex one. Birds of many species and in incredible numbers prey not only on insects that are a menace to horticultural industries, but themselves take toll at times from the farmers' crops. There are those that render conspicuous service at all times in the destruction of scale insects, tent caterpillars, cutworms, or leaf beetles. There are a few whose presence in the orchard during the fruiting season or in the garden earlier in the year is generally looked upon with suspicion. Others distinguish themselves as benefactors to the farmer at one season, while at another, either through a concentration of numbers because of failure of natural food supply, or simply through an acquired food preference, they become so destructive that measures for crop protection or even local reduction in numbers may be required.

An outstanding fact revealed by the study of the relation of birds to agriculture in this country has been the close association of instances of severe damage with the operations of the pioneer farmer, or the one situated in close proximity to conditions that may still be looked upon as primeval. The substitution of orchards, gardens, and fields of grain for areas that formerly afforded ample food in the shape of wild fruits and the seeds of weeds naturally invites damage by birds. The cultivated fruits and grains in some cases seem even more attractive than the original food supply, and certain birds not only thrive greatly but also tend to concentrate where the new and abundant food supply gives assurance of easy living.

As time went on and the agricultural development of the country progressed, small isolated holdings increased in number and in time joined with others to make great areas of improved farm land. By this process not only were the birds diminished in numbers through continued encroachment upon

²³ Jour. Agr. Res., vol. 2, No. 3, June 15, 1914.

their breeding grounds but the corresponding expansion of crop areas tended to spread the damage inflicted by the remainder over so wide an area that losses to individual farmers were materially lessened.

What took place on the Atlantic seaboard in early Colonial days is now being continued, under somewhat different environmental conditions, on farms in the foothills of Colorado and California, on plantations bordering the virgin marshes of the Gulf Coast, and at numberless points throughout the country where man upsets the long-established relations of things. He takes away that upon which bird life has fed from time immemorial and often sets forth in its place a veritable banquet table. The result is inevitable, and there are reasons to believe that on the narrow borderland of agricultural advancement the interests of certain birds and man will long conflict.

Occasionally factors other than those mentioned account for bird damage in orchard and garden. A sudden increase in numbers and a resultant concentration of bird population are conditions productive of trouble even though the species involved may as a whole be a most commendable one. Within recent years there has occurred a marked increase in the robin population, owing doubtless to the protection now afforded the species in the Southern States during the winter months. Where formerly the raids made on winter robin roosts of the South served as an effective check, absolute protection has resulted in a remarkable increase, with the result that the producers of cherries and other small fruits in some sections of our Northern States have suffered damage of increasing seriousness. The worth of the robin at other seasons of the year and in areas where it is normally abundant is universally recognized. When it concentrates in great numbers, however, during the ripening season small fruits may be seriously damaged.

Sudden failure of a natural food supply may also lead birds, ordinarily harmless to prey on cultivated crops. Apparently such a circumstance was the cause of the influx of robins into the olive orchards of California in the winter of 1900-1901 and it may also account for some of the erratic wanderings of the pinyon jay resulting in visits to cultivated areas where ordinarily few are seen. Drought also plays an important part in guiding the wanderings and food preferences of birds, especially the fruit eaters. There are indications that the occasional depredations of the Cape May warbler on grapes has as its stimulus a desire for water, and in the arid regions of the Southwest, such birds as thrashers, orioles, and verdins are at times driven to fruit eating by a scarcity of water. The Lewis woodpecker of Oregon and Washington has a liking for fruit, which is unduly emphasized on certain farms that happen to lie in the direct route of migration of these birds from their breeding home to their wintering range. Here the species may become a serious pest, whereas in other sections its presence may scarcely be noticed.

No species has shown itself to be so universally destructive that it must be combated at all times, and it is manifest that bird damage in the orchard or garden is a local problem. Peculiar environmental conditions may so emphasize some minor preference that even the

most commendable of birds may occasionally be an offender. However, the number of species that become objectionable with any degree of frequency is relatively small.

Crows have been the source of considerable trouble in cherry, apple, prune, and apricot orchards and in the almond groves of our far-western States. Persian (English) walnuts and pecans, as well as such garden crops as melons and sweet corn, are not immune to their attack. Several species of jays have shown similar proclivities, and grackles have made inroads on crops of Persian walnuts, green peas and sweet corn. The robin of the East is our outstanding cherry thief, and the introduced starling has shown proclivities of the same kind. Grapes and other small fruits are at times attacked by the same two birds. The Bullock oriole, the magpie, and the house finch may become troublesome in the irrigated sections of the West and Southwest, and also occasionally such birds as thrashers and verdins. Sapsuckers of three species have been known to damage fruit trees by their feeding operations on the bark and cambium layer of growing wood, and that crowlike member of the woodpecker family, the Lewis woodpecker, has revealed marked frugivorous habits during its post-breeding migration. The ubiquitous English sparrow frequently becomes a garden pest, especially early in spring, when the tender sprouts of truck crops are an attraction, and, in the irrigated West, such normally harmless species as lark buntings and horned larks may become similarly troublesome.

In spite of such incriminating evidence one must not lose sight of the fact that not only may the farmer successfully combat some of these attacks and thus materially lessen or even avoid losses, but that many of these same offending birds have redeeming qualities that may more than compensate for the damage inflicted. There is also that great host of other species that seldom or never inflict damage to the products of the orchard or garden, many of which are continuously at work holding in check insect pests that, if not checked by birds and other natural enemies, would literally destroy agriculture.

Of the defenders of orchards few birds excel the cuckoos in their useful services. These birds, primarily caterpillar feeders, are special enemies of such pests as the tent caterpillar and the fall webworm. Woodpeckers, of which there are 24 species in the United States, specialize on wood-boring larvæ and hibernating insects secreted beneath bark. Ants, generally looked upon as close allies of plant lice, are preyed upon by practically all the woodpeckers, and flickers have shown a marked preference for them. Flycatchers of many species are common residents of orchards—these with the swallows, make continuous warfare on all flying insects. Nuthatches, titmice, and chickadees search diligently over the bark and smaller limbs for scale insects and plant lice, and vireos and warblers form the outer guard in the tree tops where a variety of insect life falls as their prey.

As protectors of the garden we must look to our ground-feeding species. The starling, itself an offender at times in both orchard and garden, is conspicuous because of its unrelenting war on cutworms and grasshoppers. Even the crow is a notable enemy of the wire-

worm and white grub. Meadow larks, grackles, and the multitude of native sparrows are largely ground-feeders that come in contact with garden-insect pests during the breeding season and exert a powerful restraining influence.

Birds of prey through their persistent warfare on rodent pests must also be looked upon as protectors of both orchard and garden. The barn, long-eared, and barred owls, and the red-tailed, red-shouldered, and Swainson hawks are conspicuous enemies of meadow mice, rats, pocket gophers, and rabbits.

To obtain some idea of the general influence of bird life upon agriculture and horticulture, one need only recall the number of avian enemies of certain important insect pests of orchard and garden. No less than 36 species of birds are known to feed on the codling moth. Their combined work has resulted, in some localities, in the destruction of from 66 to 85 per cent of the hibernating larvæ, good work that has had a pronounced effect in curtailing the spring broods of this pest. In the Southeastern States alone, 128 birds are known to prey on wireworms, destructive enemies of a number of crops, especially corn. Fifty-seven feed on white grubs, known in their adult stage as May beetles. Cutworms have to contend with more than 75 bird enemies, and such notorious garden pests as the cucumber flea beetle, and related forms, the Colorado potato beetle, and plant lice of many kinds, all must contend with numbers of bird enemies that are quick to detect any unusual abundance in such food supplies.

The many cases on record of effective insect control by the concerted efforts of birds can not but convince the prudent farmer that it is to his interests to encourage the presence of useful birds. Shelter, nest boxes, a water supply, and protection from enemies cost little and may yield much. With such things in mind the orchard may be made an admirable bird sanctuary, and its products as well as those of the garden will be benefited.

Rodents

Both the friends and the enemies of the horticulturist are included in the general group of rodents. Practically every kind of fruit, nut, and vegetable grown by the horticulturist is subject to damage by one or more species. Injury done in orchards and vineyards is especially serious because of their value and the long-time investment and culture which they represent. For example, over 1,000 apple trees 18 years old were killed in a single orchard by pine mice. Generally damage done by rodents is more or less seasonal, being associated with a shortage of the usual food supply caused by snows, or periods of drought and, in some cases, with special attractiveness of cultivated products to rodents. The general distribution of species of rodents injurious to fruit trees, bushes, and vineyards, and to crops produced on truck farms and vegetable gardens, the character of the injury done, and the determination and application of practical means of prevention, have been the subject of study by the Bureau of Biological Survey from the earliest organization of this work.

The root systems of fruit-bearing plants and vegetables are attacked chiefly by pocket gophers and pine mice. In a Texas

nursery 90 per cent of the pecan seedlings were killed by pocket gophers.

The trunks or branches of trees and vines and the surface portions of vegetable crops are attacked by meadow mice, cotton rats, kangaroo rats, woodchucks, mountain beavers, porcupines, and the various species of rabbits, such as jack rabbits, snowshoe and cottontail rabbits, and the European hare. Fruits and nuts on the tree may be destroyed by tree squirrels, chipmunks, and various species of ground squirrels. House rats, while at times doing damage in the field to various fruit and vegetable products, are especially destructive to horticultural products stored in cellars, root houses, and warehouses, during shipment in freight and express cars, or when held in market places. Damage may be continued in the individual homes, even to cupboard and pantry shelves. Inspection to detect the presence of destructive rodents or to note the first signs of injury to the plants, and application of suitable control measures should be regular features each year of the care of orchards, vineyards, truck farms, and gardens.

Pocket gophers.—Pocket gophers dig their runways extensively under ground, throwing up mounds of dirt at intervals. These animals must be guarded against at all seasons as they are active throughout the year. They attack the roots of practically all fruit and nut trees and also vines. In California, one hundred 3-year-old apricot trees were thus killed in a 40-acre orchard. Damage to citrus, apple, and date trees has proved serious wherever these pests occur. In one county in California 25,000 orange stocks were required during one season to repair trees girdled by pocket gophers. They may cut off practically the entire root system before passing on to another plant. Sometimes only a portion of the roots will be cut off, which deprives the plant to this extent of its fruit-producing possibilities and opens wounds for the entrance of disease-producing organisms. Pocket gophers are also exceedingly fond of vegetables, such as sweet potatoes, carrots, and parsnips, and may destroy row after row of root and tuber products. The only hope of preventing losses from their subterranean attacks is by the use of traps or poisons to destroy all pocket gophers found at work in orchards, nurseries, vineyards, truck farms, or vegetable gardens and to see that none gain entrance from the outside. In irrigated areas, the burrows of pocket gophers cause breaks in canal banks and laterals. On an irrigated project in New Mexico, 95 per cent of the breaks in laterals were caused by pocket gophers. They also divert water during distribution so that some trees receive insufficient water and others are killed by an excess.

Control measures.—Pocket gophers are readily caught in special traps commonly found on the market, and a few of these set in the entrance of burrows serve to keep small areas free of the pests. For ridding large orchards, and long stretches of levees or irrigation ditch embankments of these pests, a more practical method is to poison them by use of baits of sweet potato, carrot, parsnip, clover, alfalfa, or oats placed in their underground runways. The vegetable baits should be cut in pieces about 1 inch long and one-half inch square. The poison preparation recommended consists of powdered strychnine alkaloid and an equal quantity of baking soda, the two

ingredients being thoroughly stirred to insure a uniform distribution of the poison. In using it, one-fourth ounce of the mixture is sufficient for treating 3 quarts of freshly cut bait. A pepper box can be employed in sifting the poison over the bait. Good results may often be obtained by using oats poisoned as for ground squirrels, a table-spoonful being placed in the pocket-gopher runway in the same manner as the vegetable baits. One ounce of powdered strychnine alkaloid dusted over 10 pounds of fresh green clover or alfalfa leaves is effective against some species, a quantity equal to 2 or 3 dozen leaves being used for each bait.

The runways, which are usually 4 to 8 inches beneath the surface, can be located by means of a probe made of a strong handle an inch in diameter and 30 inches long. One end should be bluntly pointed. Into the other should be fitted a piece of $\frac{1}{4}$ -inch iron rod, protruding about 15 inches, and bluntly pointed. A foot rest aids in probing in hard soils. By forcing down the iron rod near gopher workings or a foot or two back of fresh mounds, the open tunnel can be felt as the point breaks into it. The blunt end of the instrument is then used carefully to enlarge the hole so that the bait may be dropped into the main runway, not in the laterals, and the probe hole closed. A shovel or trowel may be used to open the runway, but care must be exercised not to disturb it unduly or cover up the bait when closing the hole.

One soon becomes expert in locating the runs and can treat 300 to 500 pocket-gopher workings in a day. Baits need be placed at only two points in each separate system of 10 to 30 mounds, which is usually the home of a single pocket gopher. Some trapping may be required to kill animals that refuse to eat the poison.

Pine mice.—Pine mice which are small, reddish colored, short-tailed, burrowing forms, gnaw the bark from the roots and cut off smaller rootlets, thus reducing the bearing capacity and killing great numbers of trees. They kill young trees in nurseries, but their attacks are not limited to these, as great numbers of trees in full bearing, even those 40 years old, are killed by the attacks of these animals. (Fig. 288.) They are also fond of practically all tuber and root crops, such as potatoes, sweet potatoes, beets, carrots, and turnips, while numerous bulbs are also destroyed by them. They usually start their attack upon tree roots early in the fall, but under somewhat unusual conditions may do this even during the summer. Usually, the principal damage occurs after inclement weather and snowfall when they find it more difficult to obtain their natural food of grass roots and the bulbs of various wild plants.

Control measures.—For these mice, mechanical protectors placed above ground are of no value, for only by destroying the mice can protection be obtained. Placing poisoned baits in orchards should be a regular part of their care, especially during times of drought and in the fall. Poisoned grain should be distributed in containers so constructed of wood, glass, tile, or metal as to protect the grain from storms and moisture, but permit mice to enter and feed readily. (Figs. 289 and 290.)

For this purpose mix together, dry, one-eighth ounce each of powdered strychnine alkaloid and baking soda. Sift the strychnine-soda mixture over 1 quart of rolled oats, stirring constantly to insure

even distribution of the poison through the grain. Thoroughly warm the poisoned rolled oats in an oven and sprinkle over them 6 tablespoonfuls of a mixture of 3 parts of melted beef fat and 1 part of melted paraffin, mixing until the oats are evenly coated. When the grain is cool it is ready for use.

For larger quantities use (in the proportion) 1 ounce of strychnine, 1 ounce of soda, 8 quarts of rolled oats, $1\frac{1}{4}$ pints of the beef-fat-paraffin mixture. Teaspoonful quantities of the poisoned rolled oats should be placed in the small containers or stations and distributed near the base of the trees to be protected or over the infested areas. Teaspoonful quantities may also be scattered along runways and within the entrance of the burrows. The starch-strychnine paste



FIG. 288.—Usual type of pine-mouse injury to large fruit trees. The soil has been removed before photographing in order to show the otherwise hidden injury by this mouse

described for ground squirrel control may also be used to advantage by applying this to 12 quarts of wheat or 20 quarts of whole oats or steamed crushed oats, mixing thoroughly, so that each kernel is coated.

An effective vegetable bait may be prepared by cutting sweet potatoes into $\frac{1}{2}$ -inch cubes and treating them with the same poison mixture and used at the same rate as described for the control of pocket gophers (p. 588). Use the bait while it is fresh by dropping one or two pieces into mouse tunnels through natural or artificial openings. It may also be scattered at the base of trees or in other places frequented by mice.

Meadow mice.—Meadow mice of several kinds occur. They are found usually in surface runways and nests. Mechanical devices made of fine-mesh wire netting, wooden veneer, and other wrap-

pings and washes are often employed with good effect to protect trees. Elimination of cultural practices favorable to the increase of mice by affording them food and shelter and the regular use of

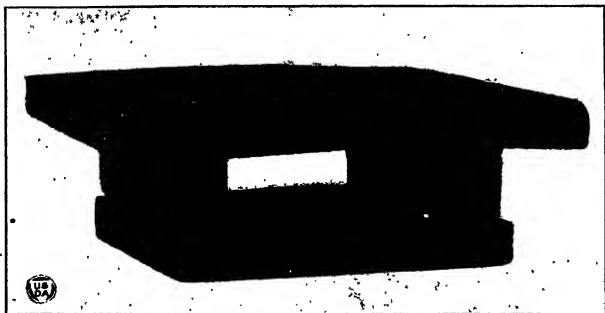


FIG. 289.—Simple wooden poison station for field mice, made of 1-inch material, the top 8 inches and the bottom 6 inches square, and the side strips $1\frac{1}{2}$ inches high. An important feature of this station is the one-half inch depression or groove to hold the poisoned bait, shown (darker) in the floor

poisoned baits as described for pine mice are the most satisfactory methods of preventing damage by these rodent pests.

Rabbits.—The various kinds of rabbits are usually controlled by shooting, trapping, poisoning, and drives. The traps mainly em-

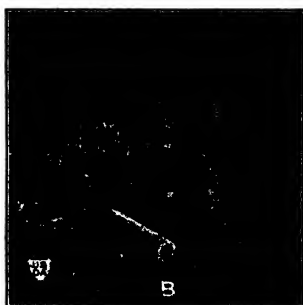
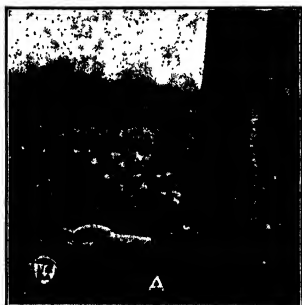


FIG. 290.—Poison stations made (A) of glass and (B) of tile. Others may be made by utilizing wide-mouthed glass bottles, glass jars, or tin cans, although wooden stations seem to be entered more freely

ployed for cottontails are the old-fashioned box traps, such as those set with a figure-4 trigger, with cord attached to hold up the box lid. A number of modifications of this trap have been made and a considerable number of other traps have been designed for this pur-

pose. Rabbit-proof fences made of a netting of galvanized wire of $1\frac{1}{2}$ -inch mesh and about 3 feet high are probably the most effective means of excluding these animals from nurseries, orchards, truck farms, and vegetable gardens.

Mechanical protectors placed about the trunks of the trees in orchards often afford a considerable measure of protection, but snows may cover these, permitting the rabbits to feed on the trunks and limbs above. For cottontails, poultry netting of 1-inch mesh and 18 inches wide is used. The wire is cut in about 1-foot lengths, rolled into cylindrical shape about the trunk of the tree and fastened by bending over projecting ends of the wire where they interlock. (Fig. 291.) Veneer and other wooden protectors are found useful, as well



FIG. 291.—Wire screen of $\frac{1}{4}$ -inch mesh for protection from mice and rabbits, showing also method of clearing shelter away from trees

as heavy building paper, gunny-sack, or other cloth wrappings used to make a sheath about the base of the tree of sufficient height to prevent rabbits from gnawing the bark. For jack rabbits and in regions of heavy snow fall, a height greater than 18 inches for the mechanical protector is required.

Protective washes are often dangerous to young trees and many of them are not sufficiently permanent to afford protection for an entire winter, thus necessitating further applications. One of the most satisfactory mixtures consists of 1 part of creosote oil to 2 or 3 parts of coal tar. This may be applied to the trunk of the tree by means of a brush. It is injurious to the soft bark of seedlings up to about 2 years of age and may also injure larger trees if allowed to extend below the ground surface. Undiluted lime-sulphur solu-

tion is useful, but it is effective only a short time and must be renewed several times during an average winter. Addition of a pound of glue to a gallon of the concentrated lime-sulphur adds somewhat to its durability.

Control measures.—The following poison preparations have proved effective in destroying rabbits:

Poisoned alfalfa leaves: Dissolve 1 ounce of strychnine sulphate in 2 gallons of hot water and sprinkle over 10 pounds of alfalfa hay leaves, mixing the leaves thoroughly until all moisture is absorbed. The poisoned leaves should be distributed in small handfuls in lines a few feet apart across portions of fields where observations made at night show the rabbits to be feeding. Poisoned alfalfa should be distributed only in places from which stock is excluded. Such places should be baited with a small quantity of clean alfalfa hay a few nights previous to poisoning in order to get the rabbits accustomed to feeding there. In localities where alfalfa is not raised, rye, wheat, barley, and emmer heads or sheaves of the grain may be substituted. (CAUTION.—Great care must be exercised in using these materials as they are likely to be eaten by livestock.)

Poisoned oats: Mix 1 tablespoonful of starch in one-half cupful of cold water and stir into 1 pint of boiling water to make a thin, clear paste. Mix 1 ounce of powdered strychnine with 1 ounce of powdered bicarbonate of soda (baking soda), and stir with the starch to a smooth, creamy mass. Stir in 1 teacupful of table salt. Apply to 12 quarts of good, clean oats and mix thoroughly to coat each kernel. Distribute as in directions for use of poisoned alfalfa leaves, using a large tablespoonful at each place. Each quart should make 25 to 30 doses. A clear, cold night, when snow is on the ground and the natural food supply of the rabbits is scarce, is the best time to expose this poison.

Poisoned salt: When rabbits are feeding chiefly on succulent green crops such as growing grain or alfalfa, there is considerable craving for salt and good results may be obtained by a mixture in proportion of 1 ounce of strychnine alkaloid to 16 ounces of fine salt. Teaspoonful baits may be placed on clean, hard surface, in jar lids spiked to the ground, or in pieces of 2 by 4 joist in which 1-inch auger holes have been bored for a short distance. Care should be exercised in the use of poisoned salt to prevent domestic animals from having access to it. Rabbits may also be poisoned by inserting crystals of strychnine in pieces of apple or melon rind and placing these baits at intervals along their runs or paths.

Where fruit trees have suffered root or trunk injury as by rabbits or pine mice, bridge grafting²⁴ or the use of nurse trees planted at the side of the injured tree and grafted into it by inarching above the injured area will usually enable the tree to recover (figs. 292 and 293.)

Ground squirrels.—The various species of ground squirrels may be most readily controlled by the use of poisons and fumigants. For poisoning, dissolve 1 heaping tablespoonful of dry gloss starch in a little cold water and add three-fourths of a pint of hot water; boil and stir constantly until a thin, clear paste is formed. Mix together 1 ounce each of powdered strychnine alkaloid and baking soda, sift

²⁴ Bridge grafting is fully described in *Farmers' Bulletin No. 1369*.

into the hot starch paste and stir constantly to a smooth, creamy consistency. Add one-fourth pint of corn sirup, 1 teaspoonful of glycerine and one-tenth ounce of saccharine, stirring thoroughly. Pour this mixture over 10 to 20 quarts of oats, barley, oatmeal, or steamed rolled oats, and mix until the poison is evenly distributed through the grain. Other grains may be used instead of those suggested, where available and the animals show a preference for them.



FIG. 292.—An apple tree two or three years after it was bridge grafted as a means of saving it following rabbit girdling

In poisoning Columbian ground squirrels and other species which hull the grain very skillfully in eating, 3 tablespoons of flour made into a creamy paste by adding a little cold water and stirring thoroughly may be used in place of the starch paste. About 1 teaspoonful of this preparation should be put in a place, either on hard ground near their burrows or along their runways. These poison preparations are also effective against cotton rats and kangaroo rats in the South.

Carbon disulphide may be used as a fumigant to destroy the animals in their burrows. About $1\frac{1}{2}$ tablespoonfuls of this ma-



FIG. 293.—A girdled apple tree with small seedling or nursery trees planted at its base, and the tops grafted by larching to the trunk of the tree above the girdled area. The view shows the grafting completed except applying wax thoroughly to all cut surfaces that are exposed to the air. The tops of the small trees above the points of contact with the trunk of the girdled tree are left until after the parts have grown together, when they are cut off close to and immediately above the union.

terial should be poured on a small piece of cotton waste, shoddy wool, or other cheap absorbent material and placed well down into the burrow. The mouth of the burrow should be immediately closed with a shovelful of earth or sod, thus asphyxiating the occupants of the burrow. Every burrow showing evidence of being used should be treated with an application. About 1 gallon will be required for 200 holes. Crude calcium cyanide, used in the form of dust or flakes, is effective in fumigating burrows of certain ground squirrels, such as the Columbian. An ounce of the dust may be blown into the burrow by the use of a portable blower. The same quantity of the flakes may be placed down in the mouth of the burrow by the use of a long handled spoon. With this method it is usually not necessary to close the holes.

Woodchucks or ground hogs.—Woodchucks, or ground hogs, may be destroyed most readily in the Eastern States by fumigating their burrows with carbon disulphide or crude calcium cyanide. About 1½ ounces (3 tablespoonfuls) of carbon disulphide should be poured on a piece of cotton or other absorbent material and placed as far down into the burrow as possible, after which the entrance should be tightly closed with sod or damp earth. In using calcium cyanide flakes, place 1 tablespoonful well down into the mouth of the burrow, after which it may be closed or left open. Either procedure is very effective, but an occasional animal may escape the first fumigation and, if the holes are closed when treated, those reopened will indicate the ones that should be retreated.

In many sections of the West fumigation is not practicable owing to the character of the places in which woodchucks live. Under these circumstances the animals may be controlled most readily by the use of poison prepared and distributed in the following ways:

Poisoned grain: Mix 1 tablespoonful of gloss starch in one-half teacupful of cold water and stir into one-half pint of boiling water to make a thin, clear paste. Mix together 1 ounce each of powdered strychnine alkaloid and baking soda and stir with the starch into a creamy mass, beating until the mixture is free of lumps. Add one-fourth pint of heavy corn sirup, 1 tablespoonful of glycerin, and 1 teaspoonful of saccharine dissolved in a little warm water. Beat the starch mass again and then pour it over 12 quarts of oats in a tub or tight box, mixing thoroughly or until there are no dry kernels. Four tablespoonfuls of salt added to the boiling water before making the starch will increase the effectiveness of the poison during the crop-growing season. Only good, heavy, re-cleaned oats should be used for this bait. In distributing the poisoned grain, place a handful in a place, on a clean, hard surface close to the den or burrow. These marmots pay no attention to scattered grain.

Poisoned green alfalfa: A very satisfactory bait can be made by the use of green alfalfa. Mix dry, 1 ounce powdered strychnine alkaloid with one-eighth ounce of powdered saccharine and place in a pepper box, properly labeled. Dust this mixture over about 20 pounds of freshly cut alfalfa tops which have first been moistened with a solution made of 2 parts corn sirup and 1 part water. Place the baits (a handful to a place) near burrows, trails, and lookout points.

Poisoned salt: Mix 1 ounce of strychnine alkaloid with 12 ounces of table salt. Place salt on clean, hard surfaces, a teaspoonful to a bait, or in jar lids spiked to the ground. The bait is best exposed in fields where ground hogs are feeding.

CAUTION: Care must be taken to place all of these baits out of the reach of livestock.

Porcupines.—Porcupines may be most readily controlled by shooting individual animals that are found doing damage. They may also be trapped readily by using steel traps baited with bits of meat, fruit, vegetables, or other material of which they are known to be fond.

Mountain beavers are also controlled readily by trapping and poisoning. No. 1 steel traps should be baited with apple and be set well down the hole or burrow. In poisoning, sliced apples or apple peelings dusted lightly with powdered strychnine alkaloid are placed at the entrance of holes or along runways.

House rats and mice.—Means for the control of house rats and mice consist of the use of traps, poisons, fumigants, deterrents, and rat-proof construction and repair of buildings so as to exclude them. Many effective traps are on the market, but those commonly known as "snap" or "guillotine" traps have proved most generally adapted for use against rats and mice. Traps should be baited with attractive food, such as bread, fried bacon, raw or cooked meats, fish, nut meats, cheese, apples, or carrots. Sprinkling rolled oats over and about the trap adds to its effectiveness. Traps should be set along runways and at points where the animals seek concealment and in such a way that they are likely to run over the trigger of the trap even when not attracted by the bait. Many artifices in concealing traps may be adopted, and intelligence and persistency are required to outwit these animals. Be sure to use sufficient traps.

Where it is practicable to employ poisons, the use of barium carbonate in the following way is recommended. Select a bait from each of the following three classes and mix powdered barium carbonate with it in the proportion of one part (by weight) of poison to four parts of bait (adding water when necessary to make baits moist): (1) Meat, such as hamburg steak, sausage, canned salmon, sardines, etc.; (2) fruits or vegetables, apple, tomato, melon, etc.; (3) cereals, bread, rolled oats, etc.

Wrap teaspoonful quantities of the three kinds of poisoned baits separately in small paper bags or in small squares of newspaper and put one of each kind in places where rats are apt to feed. Remove and destroy uneaten baits each morning and put out fresh ones in the evening. Continue this until all rats are gone. Other foods should be removed or made inaccessible to rats before poisoned baits are distributed.

Where rats occur in burrows, as around garbage dumps and similar places where fumigation is practicable, they may be destroyed in large numbers by the use of carbon disulphide or calcium cyanide applied as in the case of woodchuck burrows, or the calcium cyanide dust may be forced into their burrows by means of a dust blower.

A ready means of destroying rats in burrows is to direct the exhaust gas from an automobile or other gas engine into the burrows by means of a hose. The opening should be filled in around the hose

with moist earth and the engine operated at moderate speed for 10 minutes or more. In houses or other places where the odor will not prove objectionable the use of flake naphthalene scattered about liberally has a tendency to prevent infestation with rats and mice.

Among the most important measures in obtaining relief from these animals is the employment of means to exclude them from buildings and from food or other supplies likely to be damaged by them. Fine-meshed wire netting may often be employed to encase storage places. By means of tight-fitting doors and the use of cement, metal strips, and wire netting at points where these animals may gnaw through or otherwise gain access to a building, their entrance can be prevented at very moderate cost.²⁵

Predatory Animals

A certain amount of interest attaches to the various species of predatory animals in connection with fruit and vegetable production. Species such as coyotes and foxes frequently do excessive damage by feeding upon grapes, muskmelons, and other succulent products. Skunks, though usually beneficial, at times feed upon fruits, especially berries.

It has been very generally believed that considerable reliance could be placed upon predacious species such as coyotes and foxes to prevent damage by injurious rodents. It is well-known that they feed to a considerable extent upon mice, ground squirrels, and rabbits, thus exerting a repressive influence. It is a mistake, however, to place reliance upon these animals as a means of protection against rodents. If they are feeding chiefly upon rodents, this very fact implies the occurrence of rodents in dangerously destructive numbers, which makes it necessary to resort to positive measures such as the use of poisons or traps in order to prevent them from doing excessive damage while the predacious animals are feeding upon a relatively small proportion of those present.

Where predatory animals are found to be doing damage, they may be most readily disposed of by the use of traps and poison. Steel traps of suitable size and design are usually preferred. For small animals such as skunks, No. 1 or No. 2 traps are satisfactory, while No. 3 traps should be used for animals the size of the fox or coyote. Traps are usually fastened securely by a chain to a wooden or iron stake driven into the ground or the chain is equipped with drag hooks. They are usually set along trails, runways, or other places known to be frequented by the animals sought.

Traps should be concealed with a light coat of dirt, care being taken to cover and support the pan so that its action will not be interfered with and to see that there is nothing to prevent prompt action of the spring and jaws of the trap. After completing the set, the ground should be brushed very lightly so that the place will have a natural, undisturbed appearance. Care must be exercised not to leave anything about that will arouse the suspicion of the animals and cause them to avoid the place.

Baits consisting of small animals or other attractive foods are often employed, but scent baits are usually more effective. A scent

²⁵ See *Farmers' Bulletin No. 1302, "How to Get Rid of Rats."*

bait that is attractive to many animals is made of fish, the oily varieties such as sturgeon, eel, trout, sucker, and carp being preferred. The flesh should be ground in a sausage mill, placed in a strong tin or iron can, and left in a warm place to decompose thoroughly. The can must be provided with a small vent to allow escape of gas, otherwise there is danger of explosion. The vent must be screened with a fold of cloth to prevent flies from depositing eggs. This scent may be used within three days after being prepared, but is better after standing about 30 days. Addition of new material from time to time serves to improve the mixture.

For poisoning predatory animals, strychnine is generally preferred. It may be used in capsules, in the form of tablets, or in the granular or paste forms prepared by the Bureau of Biological Survey. About $1\frac{1}{2}$ grains of strychnine are used for animals the size of a coyote, the quantity being correspondingly smaller for smaller animals. Pork fat, beef suet, and fat from horses and sheep make attractive baits. Lean and dried meats may also be used. These may be ground and molded into pellets or cut into chunks small enough to be swallowed without chewing. The poison should be placed in the bait, either by making a pit in the side or by splitting open sandwich fashion. After putting the poison in place, the opening should be closed securely with scrapings of fat. The baits should be carefully distributed about "feeding stations," consisting of small carcasses or places known to be frequented by the animals sought. Special trails may be made by dragging a piece of carcass, fresh meat, or similar substance along the ground, the bait being dropped along the trail as made. Utmost care must be exercised in distributing these poisoned baits to avoid killing dogs or other domesticated animals or the unintentional destruction of valuable fur bearers. Baits not taken by the animals should be gathered up and destroyed.

Other Animals

Moles, which are small, soft-furred animals with long slender snout and front feet conspicuously flattened as digging tools, frequently invade gardens, truck farms, and lawns, doing extensive damage by lifting up the soil as they excavate their runways and burrow about in search of food. Their food consists principally of earthworms and insects but they may also eat softened and sprouting seeds, such as peas and corn. Gnawing vegetables, roots, and bulbs by mice or other rodents is often wrongly attributed to moles. Trapping moles with traps specially designed for this purpose is the most reliable way known to prevent damage by them.

Land crabs and crawfish do extensive damage by cutting off young plants, especially tomatoes. Fumigation of their burrows with carbon disulphide is the most practical way to destroy them. Ten drops of carbon disulphide should be placed well down the opening, which is then closed by a sharp pressure with the heel or use of a small piece of sod where the soil is hard. A small-mouthed can or bottle may be used to carry the liquid, which is applied with a medicine dropper, a glass syringe, or a long-nozzled oil can. Where the oil can is used the nozzle should be flattened so that the liquid will drop slowly. When carefully applied, a gallon of car-

bon disulphide will treat about 5,000 holes. As carbon disulphide is highly inflammable and explosive, due care should be exercised in using it to keep fire away.

The gopher turtle, Florida gopher, or salamander occurs over a wide range in the Southern States, but is most common on sandy ridges in central Florida, and often does considerable damage to crops such as beans, peanuts, and sweet potatoes. Pit traps have been employed in efforts to destroy them, but this method is slow and laborious. Recent investigations indicate that these animals also may be destroyed in their burrows by introducing from 2 to 3 ounces of carbon disulphide well down the burrow, which is then tightly plugged about 18 inches below the surface.

Certain reptiles and amphibians deserve notice as enemies of garden and fruit insects. These animals are not directly injurious to orchards and gardens, and in most cases all will be found to have a useful relation to the fruits and vegetables. Some of the snakes are the most relentless foes of those meadow and other mice which are serious enemies of trees. Other snakes, lizards, frogs, and toads include considerable proportions of insects in their diet and daily prove themselves friends of man. The common toad, especially, is a voracious feeder on garden insects, and has a splendid record against such pests as the potato beetle, cucumber beetle, flea beetle, squash bug, and others. Toads are so appreciated that they are sometimes introduced and confined in gardens to obtain the advantage of their destruction of insect pests.



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THE MANUFACTURE of horticultural food products in the United States has two fairly distinct phases: (1) As a basic industry occupying the entire time of those engaged in it and employing selected raw materials grown specifically for the purpose, and (2), as a secondary industry engaged in by growers and others, individually or in groups, as a means of conserving surplus products grown for the general market.

Canning and other phases of horticultural manufacture as a basic industry had its beginning during the early seventies, but its greatest growth has occurred during the last 20 years (fig. 294.) The manufacture of horticultural food products has become highly specialized and is located primarily in areas that are adapted to the production of the materials used in the various manufacturing processes. Horticultural manufactures as a basic industry has in a measure grown out of market production as it first utilized surplus products grown for the market, later developing into basic production primarily for manufacturing purposes. The development of horticultural manufacturing as a secondary industry has covered a larger area and may be found in any district in which fruits and vegetables are extensively grown, and it develops as soon as production has outgrown the absorbing capacity of the accessible markets. Increased attention to standards of appearance and quality of the raw product then begin to leave upon the hands of producers a portion of the crop which has undiminished food value but which does not meet market standards in size or appearance, together with varying quan-

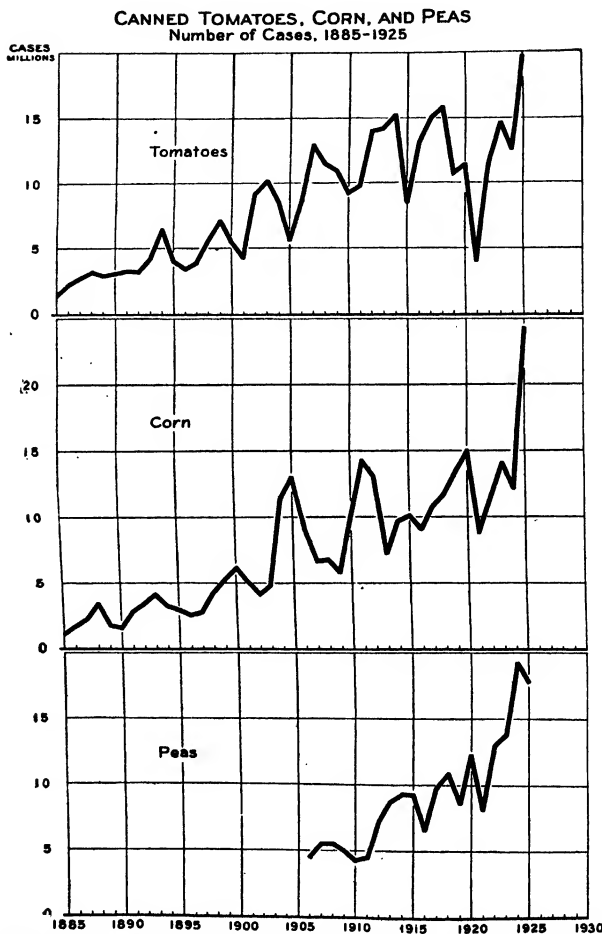


FIG. 294.—Increase in production in number of cases of tomatoes, corn, and peas during the period from 1885 to 1925, inclusive

tities of standard grades. The margin of profit realized from the marketable portion at the same time becomes narrower. In consequence, various means of obtaining some financial return from the unsalable portion of the crop begin to engage the attention of the growers. Small manufacturing establishments are built and operated by individuals or small groups of growers as an incidental part of their business, primarily to obtain a cash return from the unmarketable portion of their own crops. Much disappointment and financial loss usually attend the initial ventures of growers into this field, since the material available for use consists of a large number of varieties of widely varying character, so that the making of uniform, standardized products is an impossibility.

As experience accumulates the materials grown in the territory are subjected to a rigid selective process, and manufacturing effort is centralized upon such varieties as have been found especially adapted to the making of commercially acceptable products. These varieties may, and indeed generally do, differ markedly from those which are favorites with the public as fresh products. "Canning quality" or "drying quality" is a very different thing from table or dessert quality; the material must be one which will pass through the manufacturing processes with the retention of satisfactory physical appearance and flavor, and many of our choicest table and dessert varieties are unable to endure this test.

For this reason the development of the manufacture of fruit and vegetable products to a position of importance in any territory results in a sharp differentiation between the growing of materials for manufacturing purposes and the growing of fruits and vegetables for market. This is especially true for the canning industry, in which the selective process just mentioned has been longest in operation. From the multiplicity of varieties of a given fruit or vegetable grown in his district, the canner selects a small number, sometimes a single one, possessing the combination of characters which he regards as most desirable in the finished product, employing these selected varieties to the exclusion of others. In the case of vegetables, many canneries grow their stocks of seed from selected strains with as much care to prevent contamination as is exercised by the best seedsmen. These selected seeds are supplied under contract to growers who deliver the crop to the cannery.

In fruits an equally rigid selection of varieties is made, with the result that in a region in which canning becomes an important industry, the newer plantings of tree or bush fruits are made with reference to the requirements of the canners. As a consequence of the employment of selected varieties, the growing of crops for canning is so far divorced from the growing of fruits and vegetables for market that only in exceptional cases can the grower choose between placing his crop on the market for fresh products and delivering it to the cannery. For the same reason, the establishment of a cannery in a district can offer little immediate relief for the problem presented by a surplus of miscellaneous perishable crops. The cannery encounters very strong competition in a field in which standards of appearance and quality are constantly being elevated, and it would be business suicide to pack materials as they came to hand without reference to maintaining uniformity in the product.

Horticultural Manufactures as a Basic Industry

Horticultural manufactures as a basic industry includes drying, canning, preserving, pickling, the making of fruit juices, vinegar, and the manufacture of potato starch.

Drying as a basic industry has been most highly developed in California where the possibility for employing the sun's heat gives a unique advantage in developing this industry. With conditions permitting the profitable large-scale production of a wide variety of fruits, some of which are not grown elsewhere in the continental United States, the distance from great consuming centers has necessitated considerable specialization upon varieties suited to drying or other methods of preservation. California has a monopoly upon the production of raisins, dried apricots, peaches, and pears; it also furnishes much the larger portion of the dried prune crop, smaller quantities originating in Oregon, Washington, and Idaho. Table 1 shows the development of the dried fruit industry from 1899 to 1921. By reason of the simple and relatively inexpensive equipment required, sun-drying of these crops is practically wholly carried on by the growers. In the last three or four years heavy losses of raisins and prunes, owing to unfavorable weather during the drying season, have led to much interest in methods of dehydration by means of artificial heat and to a rather rapid increase in the number of dehydrating plants, but they are as yet mainly confined to the larger ranches and to commercial concerns which purchase fruit from growers or do custom drying at a fixed rate per ton.

TABLE 1.—*Distribution and extent of the drying industry by 10-year intervals, 1899-1919, with figures for 1921*

| | 1899 | 1909 | 1919 | 1921 |
|-----------------------|-------------------|--------------------|--------------------|--------------------|
| | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| Apples: | | | | |
| Arkansas..... | 1,402,000 | 1,571,945 | 6,730,070 | |
| California..... | 3,087,220 | 6,860,170 | 15,477,089 | 15,075,644 |
| Illinois..... | 1,424,149 | 201,200 | 274,364 | |
| Indiana..... | 101,000 | | | |
| Iowa..... | 28,100 | | | |
| Kentucky..... | 90,000 | | | |
| Michigan..... | 4,418,453 | 1,982,611 | | |
| Missouri..... | 118,900 | | | |
| Nebraska..... | 6,600 | | | |
| New Hampshire..... | 53,750 | | | |
| New York..... | 21,542,897 | 33,652,115 | 13,524,019 | 3,066,925 |
| Ohio..... | 269,500 | | | |
| Oregon..... | 37,250 | | 1,577,441 | 1,378,344 |
| Pennsylvania..... | 570,490 | 206,750 | | |
| Tennessee..... | 13,000 | | | |
| Virginia..... | 53,000 | | 1,274,125 | |
| Washington..... | | | 4,044,090 | 1,924,742 |
| West Virginia..... | | | 203,080 | |
| All other States..... | | 5,553 | 3,529,461 | |
| Total..... | 33,213,209 | 44,568,244 | 46,623,599 | 21,448,555 |
| Apricots: | | | | |
| California..... | 5,310,217 | 29,205,599 | 23,944,612 | 21,812,008 |
| Illinois..... | 155,000 | | | |
| All other States..... | | | 248,016 | |
| Total..... | 5,465,217 | 29,205,599 | 24,192,628 | 21,812,008 |
| Prunes: | | | | |
| California..... | 24,102,329 | 118,917,876 | 114,324,446 | 107,138,122 |
| Oregon..... | 350,100 | 14,006,597 | 19,980,985 | 14,080,179 |
| Washington..... | 286,000 | 5,445,017 | | |
| All other States..... | 665,334 | 126,000 | 2,121,685 | 3,264,375 |
| Total..... | 25,413,763 | 138,498,490 | 136,377,096 | 124,441,676 |

TABLE 1.—*Distribution and extent of the drying industry by 10-year intervals, 1899-1919, with figures for 1921—Continued*

| | 1899 | 1909 | 1919 | 1921 |
|--------------------------|---------------|---------------|---------------|---------------|
| Peaches: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| California..... | 5,502,390 | 46,827,391 | 73,268,010 | 35,406,706 |
| Illinois..... | 160,000 | | | |
| All other States..... | | 16,000 | 111,183 | |
| Total..... | 5,662,390 | 46,843,391 | 73,379,193 | 35,406,706 |
| Raisins: California..... | 10,734,221 | 111,774,767 | 293,300,581 | 275,282,354 |
| Dried vegetables..... | | | 10,345,821 | 3,766,240 |

Dried fruits.—Drying as a basic industry, in the sense that the material employed is grown specifically for the purpose, is practically confined to the five crops—apricots, raisins, prunes, peaches, and pears (figs. 295 and 296). The material employed in the manu-

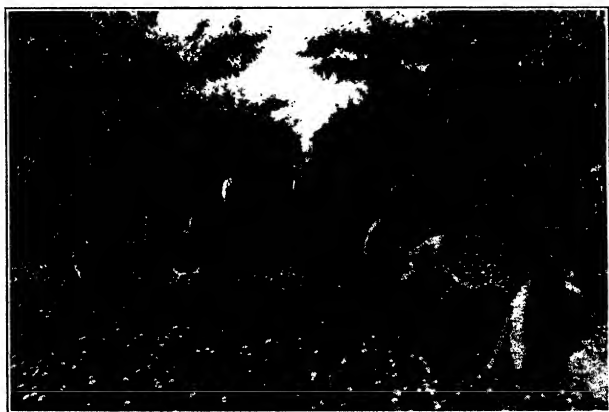


FIG. 295.—Gathering prunes for drying. The prunes are hauled and spread on trays to dry in the sun or are handled in an evaporator

facture of other dried or evaporated materials is for the most part composed of the lower grades, and the business is on a strictly by-product basis as the volume and the quality of the raw material employed varies from year to year with the size of the crop and the range of prices to be realized in the fresh-fruit market.

The statistics upon the production of evaporated apples show a general reduction or discontinuance of production in the Eastern and Southern States, with the exception of New York and Arkansas, and an accompanying increase in California and the Pacific Northwest. Lessened demands from foreign markets since 1919 have resulted in very considerable reduction of commercial production

of evaporated apples during the last five years in all the producing States. The same condition has operated to prevent increases or to bring about actual decreases in production of other dried fruits, with the single exception of raisins. The rapid increase in production and value of the raisin crop is noteworthy (Table 1 and 2); in 1919 the value of raisins alone considerably exceeded the total value of all dried fruits in 1914, and in 1919 it had a value of 66.8 per cent of the total.



FIG. 206.—Prune evaporator in which the fruit is dried by means of heated air

TABLE 2.—*Value of principal dried products by five-year intervals, 1899 to 1919, with figures for 1921*

| | 1899 | 1904 | 1909 | 1914 | 1919 | 1921 |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Apples..... | \$1,906,642 | \$1,758,610 | \$3,068,095 | \$2,889,406 | \$6,772,100 | \$2,799,891 |
| Apricots..... | 455,394 | 1,410,836 | 2,277,177 | 3,615,857 | 6,034,697 | 3,385,044 |
| Peaches..... | 312,495 | 1,702,205 | 2,423,063 | 2,915,595 | 12,109,624 | 4,165,932 |
| Prunes..... | 970,927 | 3,299,628 | 5,130,412 | 5,004,348 | 18,253,691 | 10,097,515 |
| Raisins..... | 1,062,268 | 6,349,381 | 6,912,533 | 13,938,645 | 35,544,262 | 47,561,535 |
| All other..... | 49,279 | 1,144,122 | 2,073,695 | 2,408,061 | 6,686,911 | 3,162,891 |

Dried vegetables.—The drying of vegetables had been carried on in a small way for many years, but figures upon production were not gathered by the Bureau of the Census until 1919. In that year 10,345,821 pounds of dried vegetables having a value of \$2,642,655 were reported. In 1921 the production was only 3,766,240 pounds, with a value of \$453,149. The drying of vegetables was promoted as a war measure but was largely discontinued following the year 1919.

Canning Fruits and Vegetables

The period 1899 to 1919 was one of rapid and uninterrupted growth in the canning industry, particularly the canning of fruits and vegetables as shown in table 3. Expansion went on very rapidly during

the World War, maximum production being attained in 1919, the year of the last decennial census. A period of industrial depression followed, its climax coinciding with the unfavorable crop conditions and partial failure of the fruit crop in 1921, in which year the last available census of manufactures was taken. Neither year is typical, one showing production considerably above, the other materially below the average. (Table 4.)

TABLE 3.—Value of principal canned products by five-year intervals, 1899 to 1919, with figures for 1921

| | 1899 | 1904 | 1909 | 1914 | 1919 | 1921 |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Asparagus..... | | | \$1, 075, 775 | \$2, 700, 817 | \$6, 571, 629 | \$5, 137, 372 |
| Beans..... | \$2, 025, 123 | \$4, 133, 810 | 7, 931, 737 | 10, 565, 021 | 39, 408, 603 | 30, 711, 958 |
| Corn..... | 8, 191, 383 | 15, 952, 386 | 10, 332, 136 | 13, 923, 057 | 35, 532, 007 | 19, 549, 766 |
| Peas..... | 4, 465, 673 | 7, 928, 791 | 10, 247, 363 | 15, 083, 047 | 25, 073, 220 | 22, 953, 181 |
| Sweet potatoes..... | 124, 245 | 284, 385 | 531, 651 | 736, 750 | 2, 477, 719 | 1, 807, 735 |
| Spinach..... | | | 294, 414 | 736, 686 | 2, 338, 497 | 2, 086, 839 |
| Tomatoes..... | 13, 666, 560 | 14, 020, 846 | 18, 747, 941 | 25, 532, 217 | 38, 067, 999 | 12, 508, 654 |
| Apples..... | 1, 125, 119 | 738, 013 | 1, 898, 720 | 2, 392, 280 | 9, 081, 598 | 7, 747, 923 |
| Apricots..... | 1, 583, 252 | 1, 641, 919 | 1, 825, 311 | 3, 060, 626 | 25, 167, 767 | 4, 314, 132 |
| Cherries..... | 307, 788 | 825, 522 | 1, 019, 013 | 1, 628, 975 | 8, 451, 029 | 4, 481, 083 |
| Peaches..... | 4, 283, 165 | 3, 902, 441 | 3, 753, 698 | 9, 585, 773 | 46, 516, 225 | 23, 865, 076 |
| Pears..... | 2, 188, 201 | 2, 192, 910 | 1, 833, 214 | 3, 853, 700 | 14, 202, 963 | 7, 538, 673 |
| Berries..... | 1, 092, 975 | 1, 068, 659 | 1, 754, 927 | 3, 102, 245 | 16, 449, 126 | 5, 783, 116 |

The development of the industry during the last quarter century has been accompanied by a great expansion in the number of products packed and by considerable shifting of the centers of greatest production. The rapid development of the fruit-growing districts of the Pacific coast has transferred the center of production of canned fruits from the Atlantic seaboard to that territory. At the same time considerable changes have occurred in the relative rank of the States producing the more important vegetable-canning crops. Tomatoes, corn, and peas have always been the most important of the canning vegetables, whereas peaches, apples, and pears have held first rank among fruits.

In 1899 the outstanding characteristics of the industry were the small size and wide distribution of the plants canning these staples. The census of that year reports production in pounds instead of cases. If only those States reporting at least 100,000 pounds of a given product are considered as commercial producers, 32 States were canning tomatoes, 21 corn, 18 peas, 18 beans, 13 pumpkin, 24 apples, 14 peaches, and 11 pears. In a word, most canning plants were small and were engaged in putting up small quantities of practically all materials produced in near-by territory. The differentiation of the production of varieties or strains specifically for canning purposes from general fruit and vegetable growing was under way, but there were few areas in which intensive production of canning crops had begun.

In 1899 Maryland led in the packing of tomatoes, beans, sweet potatoes, and berries; Illinois and Iowa led in the canning of sweet corn; New York in the canning of apples, and California in the packing of peaches and cherries. At this time bean packing was chiefly centered in Maryland and New York, with Illinois, Ohio, and Indiana the only other important bean-packing States. It will be clear from the foregoing that the canning industry at the beginning

of the present century was mainly located along the Atlantic seaboard with Maryland and New York the most important States and extending inland to include Michigan, Iowa, Indiana, Ohio, and Illinois as producing territory of secondary importance.

TABLE 4.—*Packs of the more important canned fruits and vegetables in 1909, 1919, and 1921*¹

ASPARAGUS

| State | 1909 | 1919 | 1921 | State | 1909 | 1919 | 1921 |
|-----------------|--------------|--------------|--------------|-----------------------|--------------|--------------|--------------|
| | <i>Cases</i> | <i>Cases</i> | <i>Cases</i> | | <i>Cases</i> | <i>Cases</i> | <i>Cases</i> |
| California..... | 197,592 | 994,669 | 733,428 | New York..... | 17,565 | 4,109 | ----- |
| Illinois..... | 1,630 | ----- | ----- | All other States..... | 4,876 | 7,826 | 6,425 |
| Maryland..... | 2,475 | ----- | ----- | Total..... | 228,559 | 1,006,604 | 739,853 |
| New Jersey..... | 4,421 | ----- | ----- | | | | |

STRING BEANS

| | | | | | | | |
|---------------------|---------|---------|-------|-----------------------|-----------|-----------|-------|
| California..... | 36,135 | 173,490 | ----- | Oregon..... | 12,383 | 27,902 | ----- |
| Colorado..... | 46,031 | 100,309 | ----- | Pennsylvania..... | 61,298 | 86,900 | ----- |
| Indiana..... | 31,948 | 11,088 | ----- | Tennessee..... | ----- | 17,079 | ----- |
| Louisiana..... | ----- | 10,821 | ----- | Utah..... | 10,500 | 51,028 | ----- |
| Maine..... | 18,812 | 89,241 | ----- | Virginia..... | 6,660 | 14,286 | ----- |
| Maryland..... | 142,877 | 395,649 | ----- | Washington..... | 5,204 | 25,976 | ----- |
| Michigan..... | 51,787 | 88,445 | ----- | Wisconsin..... | 54,576 | 306,142 | ----- |
| Minnesota..... | 58,700 | ----- | ----- | All other States..... | 43,271 | 54,991 | ----- |
| North Carolina..... | 9,567 | 4,630 | ----- | Total..... | 1,025,324 | 2,190,825 | ----- |
| New York..... | 452,634 | 722,535 | ----- | | | | |
| Ohio..... | 32,941 | 20,314 | ----- | | | | |

LIMA BEANS

| | | | | | | | |
|-----------------|---------|---------|-------|-----------------------|---------|---------|-------|
| Illinois..... | 8,032 | ----- | ----- | New York..... | 21,406 | 24,056 | ----- |
| Indiana..... | 19,795 | ----- | ----- | Ohio..... | 12,306 | 21,606 | ----- |
| Maine..... | 7,299 | 36,648 | ----- | Virginia..... | 7,696 | ----- | ----- |
| Maryland..... | 8,808 | 91,778 | ----- | All other States..... | 7,145 | 81,613 | ----- |
| Michigan..... | 20,980 | 43,690 | ----- | Total..... | 249,533 | 468,569 | ----- |
| New Jersey..... | 136,064 | 169,168 | ----- | | | | |

CORN

| | | | | | | | |
|--------------------|-----------|-----------|-----------|-----------------------|-----------|------------|-----------|
| Delaware..... | 94,697 | 198,728 | ----- | New York..... | 771,475 | 901,368 | 530,507 |
| Illinois..... | 1,619,897 | 2,291,948 | 1,767,617 | Ohio..... | 893,054 | 1,400,793 | 954,270 |
| Indiana..... | 520,401 | 608,515 | 698,043 | Pennsylvania..... | 44,722 | 387,604 | 232,201 |
| Iowa..... | 2,888,708 | 1,106,963 | 1,106,963 | Vermont..... | 163,446 | 146,372 | 163,300 |
| Maine..... | 792,185 | 1,548,120 | 1,745,559 | Virginia..... | 5,204 | 970 | ----- |
| Maryland..... | 772,828 | 2,342,359 | 1,145,620 | Washington..... | ----- | 1,779 | ----- |
| Michigan..... | 47,680 | 139,620 | 125,435 | Wisconsin..... | 306,999 | 745,296 | 662,530 |
| Minnesota..... | 193,807 | 516,347 | 622,778 | All other States..... | 49,811 | 63,654 | 130,267 |
| Missouri..... | 18,111 | ----- | ----- | Total..... | 7,451,285 | 14,402,725 | 9,010,660 |
| Nebraska..... | 169,910 | 177,915 | 139,454 | | | | |
| New Hampshire..... | ----- | 42,671 | 46,226 | | | | |

PEAS

| | | | | | | | |
|-----------------|---------|---------|---------|-----------------------|-----------|-----------|-----------|
| California..... | 123,349 | 213,857 | 95,789 | New York..... | 1,438,059 | 919,612 | 1,178,117 |
| Colorado..... | 150,506 | 85,714 | 176,848 | Ohio..... | 205,089 | 337,887 | 238,561 |
| Delaware..... | 190,261 | 222,832 | 373,229 | Pennsylvania..... | 48,202 | 71,161 | 67,696 |
| Illinois..... | 171,212 | 446,908 | 341,876 | Utah..... | 61,156 | 409,834 | 392,312 |
| Indiana..... | 521,764 | 387,387 | 153,844 | Virginia..... | 15,466 | ----- | ----- |
| Iowa..... | 15,879 | ----- | ----- | Wisconsin..... | 1,990,558 | 5,022,630 | 4,092,529 |
| Maryland..... | 381,804 | 623,627 | 661,109 | All other States..... | 30,259 | 50,925 | 83,713 |
| Michigan..... | 412,734 | 406,980 | 282,619 | Total..... | 5,901,703 | 9,325,727 | 8,222,181 |
| Minnesota..... | 25,867 | 68,513 | 61,609 | | | | |
| New Jersey..... | 119,949 | 57,960 | 17,631 | | | | |

¹ All figures are given in standard cases.

TABLE 4.—Packs of the more important canned fruits and vegetables in 1909, 1919, and 1921—Continued

PUMPKIN

| State | 1909 | 1919 | 1921 | State | 1909 | 1919 | 1921 |
|-----------------|--------------|--------------|--------------|-----------------------|--------------|--------------|--------------|
| | <i>Cases</i> | <i>Cases</i> | <i>Cases</i> | | <i>Cases</i> | <i>Cases</i> | <i>Cases</i> |
| California..... | 10,941 | 38,493 | ----- | Missouri..... | 5,044 | ----- | ----- |
| Colorado..... | 8,814 | ----- | ----- | New Jersey..... | 12,835 | ----- | ----- |
| Delaware..... | 3,247 | ----- | ----- | New York..... | 108,127 | 30,412 | ----- |
| Illinois..... | 73,773 | 42,093 | ----- | Ohio..... | 40,624 | 49,547 | ----- |
| Indiana..... | 119,865 | 116,310 | ----- | Pennsylvania..... | 5,075 | ----- | ----- |
| Iowa..... | 7,067 | 64,501 | ----- | All other States..... | 24,027 | 36,573 | ----- |
| Kentucky..... | 9,950 | ----- | ----- | Total..... | 440,303 | 383,211 | ----- |
| Michigan..... | 10,151 | 6,282 | ----- | | | | |
| Minnesota..... | 6,043 | ----- | ----- | | | | |

SWEET POTATOES

| | | | | | | | |
|------------------|---------|---------|---------|-----------------------|---------|---------|---------|
| Alabama..... | 5,702 | ----- | ----- | New Jersey..... | 22,833 | 6,115 | ----- |
| Arkansas..... | ----- | 15,649 | ----- | Texas..... | ----- | 14,371 | 16,942 |
| California..... | ----- | 52,077 | 94,957 | Tennessee..... | 8,147 | 14,487 | 9,504 |
| Delaware..... | 20,633 | 74,954 | 24,014 | Virginia..... | 96,067 | 155,038 | 180,732 |
| Georgia..... | 21,167 | 25,503 | 48,948 | All other States..... | 25,302 | 34,836 | 86,735 |
| Louisiana..... | 11,667 | 26,915 | ----- | Total..... | 347,286 | 745,861 | 622,827 |
| Maryland..... | 136,768 | 167,274 | 106,648 | | | | |
| Mississippi..... | 158,642 | 45,747 | ----- | | | | |

SPINACH

| | | | | | | | |
|-----------------|---------|---------|---------|-----------------------|---------|---------|---------|
| California..... | ----- | 370,075 | 372,951 | Ohio..... | 4,504 | 13,010 | 7,289 |
| Maryland..... | 110,882 | 256,627 | 152,399 | All other States..... | 13,767 | 15,715 | 19,521 |
| New Jersey..... | 6,488 | ----- | ----- | Total..... | 149,255 | 676,383 | 581,090 |
| New York..... | 13,614 | 20,961 | 28,870 | | | | |

TOMATOES

| | | | | | | | |
|---------------------|-----------|-----------|-----------|-----------------------|------------|------------|-----------|
| Arkansas..... | 27,980 | 140,054 | 50,533 | New Mexico..... | ----- | 13,289 | ----- |
| California..... | 536,837 | 3,627,473 | 508,204 | New York..... | 347,714 | 437,341 | 209,156 |
| Colorado..... | 142,008 | 292,140 | 59,757 | Ohio..... | 444,034 | 189,403 | 73,635 |
| Connecticut..... | 24,700 | 20,066 | 11,564 | Oregon..... | ----- | 10,736 | ----- |
| Delaware..... | 1,282,635 | 285,127 | 155,275 | Pennsylvania..... | 120,919 | 170,492 | 159,879 |
| Illinois..... | 100,491 | 67,008 | 23,029 | Texas..... | 9,645 | ----- | ----- |
| Indiana..... | 916,755 | 917,235 | 490,754 | Tennessee..... | 92,173 | 239,005 | 46,122 |
| Iowa..... | 111,692 | 83,434 | 61,140 | Utah..... | 332,372 | 578,323 | 127,009 |
| Kentucky..... | 139,678 | 31,623 | 31,525 | Virginia..... | 998,354 | 800,900 | 126,260 |
| Maryland..... | 5,757,811 | 3,055,516 | 1,631,303 | West Virginia..... | 148,319 | 82,821 | 36,752 |
| Michigan..... | 990,075 | 120,781 | 34,445 | Wisconsin..... | 9,761 | 23,063 | ----- |
| Missouri..... | 200,246 | 459,520 | 124,182 | All other States..... | 42,203 | 43,060 | 56,435 |
| North Carolina..... | 7,574 | 8,083 | ----- | Total..... | 12,909,986 | 11,836,476 | 4,133,654 |
| New Jersey..... | 977,010 | 79,413 | 124,705 | | | | |

APPLES

| | | | | | | | |
|---------------------|---------|---------|---------|-----------------------|-----------|-----------|-----------|
| Arkansas..... | 48,062 | 213,230 | ----- | New Jersey..... | ----- | 5,384 | ----- |
| California..... | 67,710 | 146,458 | 68,092 | New York..... | 429,180 | 482,140 | 601,237 |
| Colorado..... | 3,992 | 38,377 | 50,987 | Ohio..... | 8,674 | ----- | ----- |
| Connecticut..... | ----- | 2,676 | ----- | Oregon..... | 8,557 | 230,555 | 279,761 |
| Delaware..... | ----- | 52,263 | ----- | Pennsylvania..... | 149,398 | 183,827 | 100,426 |
| Idaho..... | ----- | ----- | 38,078 | Utah..... | ----- | 43,252 | 27,383 |
| Maine..... | 78,540 | 253,993 | 301,835 | Virginia..... | 11,870 | 94,075 | 18,600 |
| Maryland..... | 111,847 | 106,504 | 96,969 | Washington..... | 22,553 | 313,084 | 430,969 |
| Michigan..... | 163,079 | 191,755 | 141,705 | All other States..... | 83,331 | 76,704 | 77,336 |
| Missouri..... | 28,224 | 4,054 | ----- | Total..... | 1,206,742 | 2,447,927 | 2,239,428 |
| North Carolina..... | 5,609 | 5,943 | ----- | | | | |
| Nebraska..... | 6,636 | ----- | ----- | | | | |

APRICOTS

| | | | | | | | |
|-----------------|---------|-----------|-----------|-----------------------|---------|-----------|-----------|
| California..... | 637,701 | 3,912,404 | 1,056,857 | All other States..... | 2,484 | 4,044 | ----- |
| Utah..... | ----- | 26,330 | ----- | Total..... | 639,185 | 3,926,768 | 1,066,867 |

TABLE 4.—Packs of the more important canned fruits and vegetables in 1909, 1919, and 1921—Continued**BLACKBERRIES**

| State | 1909 | 1919 | 1921 | State | 1909 | 1919 | 1921 |
|---------------------|--------------|--------------|--------------|-----------------------|--------------|--------------|--------------|
| | <i>Cases</i> | <i>Cases</i> | <i>Cases</i> | | <i>Cases</i> | <i>Cases</i> | <i>Cases</i> |
| California..... | 78,024 | 118,832 | ----- | Oregon..... | ----- | 230,206 | ----- |
| Idaho..... | 16,687 | ----- | ----- | Texas..... | ----- | 52,490 | ----- |
| Maryland..... | 29,883 | 48,589 | ----- | Tennessee..... | ----- | 26,449 | ----- |
| Michigan..... | 6,312 | 81,022 | ----- | Virginia..... | 6,524 | 2,961 | ----- |
| North Carolina..... | 14,464 | 32,645 | ----- | Washington..... | 24,052 | 252,620 | ----- |
| New Jersey..... | 18,629 | 15,063 | ----- | All other States..... | 24,226 | 11,927 | ----- |
| New York..... | 8,424 | 9,309 | ----- | Total..... | 210,538 | 910,657 | ----- |
| Ohio..... | ----- | 7,958 | ----- | | | | |

CHERRIES

| | | | | | | | |
|-----------------|---------|---------|---------|-----------------------|---------|-----------|---------|
| California..... | 224,084 | 618,210 | 226,190 | Utah..... | ----- | 33,079 | 7,699 |
| Colorado..... | 8,470 | 51,929 | 36,859 | Virginia..... | ----- | 1,812 | ----- |
| Maryland..... | 10,092 | 6,757 | ----- | Washington..... | ----- | 146,782 | 50,945 |
| Michigan..... | 20,572 | 184,472 | 81,693 | All other States..... | 13,918 | 129,276 | 156,997 |
| New York..... | 90,445 | 30,636 | 20,301 | Total..... | 390,351 | 1,362,832 | 779,602 |
| Ohio..... | ----- | 10,676 | ----- | | | | |
| Oregon..... | 22,770 | 149,203 | 198,918 | | | | |

PEACHES

| | | | | | | | |
|---------------------|-----------|-----------|-----------|-----------------------|-----------|-----------|-----------|
| Arkansas..... | 7,980 | 46,402 | ----- | Ohio..... | 5,199 | ----- | ----- |
| California..... | 1,149,590 | 6,869,152 | 5,332,153 | Oregon..... | ----- | 22,303 | ----- |
| Delaware..... | ----- | 68,411 | ----- | Tennessee..... | 7,235 | ----- | ----- |
| Georgia..... | 71,931 | 144,609 | ----- | Utah..... | ----- | 16,633 | 7,630 |
| Maryland..... | 80,489 | 239,790 | ----- | Virginia..... | ----- | 12,121 | ----- |
| Michigan..... | 74,595 | 170,758 | 24,218 | Washington..... | ----- | 26,352 | ----- |
| North Carolina..... | 7,370 | ----- | ----- | All other States..... | 21,097 | 21,571 | 41,259 |
| New Jersey..... | ----- | 20,700 | ----- | Total..... | 1,467,213 | 7,706,855 | 5,417,213 |
| New York..... | 41,727 | 48,053 | 11,953 | | | | |

PEARS

| | | | | | | | |
|-----------------|---------|-----------|---------|-----------------------|---------|-----------|-----------|
| California..... | 433,796 | 1,049,922 | 780,791 | Oregon..... | 14,598 | 164,733 | 145,245 |
| Delaware..... | ----- | 95,275 | ----- | Virginia..... | ----- | 12,077 | ----- |
| Maryland..... | 67,427 | 185,010 | 6,766 | Washington..... | 11,549 | 179,878 | 159,412 |
| Michigan..... | 8,066 | 39,774 | 15,805 | All other States..... | 6,910 | 18,064 | 4,017 |
| New Jersey..... | 43,750 | 105,090 | ----- | Total..... | 637,782 | 2,021,610 | 1,165,204 |
| New York..... | 51,686 | 171,187 | 53,168 | | | | |

PLUMS

| | | | | | | | |
|-----------------|---------|---------|-------|-----------------------|---------|---------|-------|
| California..... | 138,996 | 363,024 | ----- | Washington..... | 4,100 | 10,830 | ----- |
| Michigan..... | 14,420 | 75,980 | ----- | All other States..... | 2,847 | 16,701 | ----- |
| New York..... | 52,853 | 88,320 | ----- | Total..... | 220,057 | 571,521 | ----- |
| Oregon..... | 9,841 | 16,666 | ----- | | | | |

PRUNES

| | | | | | | | |
|-----------------|-------|---------|-------|-----------------------|-------|---------|-------|
| California..... | ----- | 87,653 | ----- | All other States..... | ----- | 16,797 | ----- |
| New York..... | ----- | 1,954 | ----- | Total..... | ----- | 273,710 | ----- |
| Oregon..... | ----- | 114,683 | ----- | | | | |
| Washington..... | ----- | 52,623 | ----- | | | | |

RASPBERRIES

| | | | | | | | |
|-----------------|---------|---------|-------|-----------------------|---------|---------|-------|
| California..... | 3,891 | ----- | ----- | Ohio..... | 3,924 | ----- | ----- |
| Illinois..... | 2,555 | ----- | ----- | Oregon..... | 9,658 | 37,416 | ----- |
| Maryland..... | 14,092 | 27,885 | ----- | Washington..... | 10,109 | 103,996 | ----- |
| Michigan..... | 27,384 | 131,223 | ----- | All other States..... | 6,005 | 18,835 | ----- |
| New Jersey..... | ----- | 19,478 | ----- | Total..... | 247,064 | 551,419 | ----- |
| New York..... | 169,486 | 213,096 | ----- | | | | |

TABLE 4.—Packs of the more important canned fruits and vegetables in 1909, 1919, and 1921—Continued

STRAWBERRIES

| State | 1909 | 1919 | 1921 | State | 1909 | 1919 | 1921 |
|-----------------|--------------|--------------|--------------|-----------------------|--------------|--------------|--------------|
| | <i>Cases</i> | <i>Cases</i> | <i>Cases</i> | | <i>Cases</i> | <i>Cases</i> | <i>Cases</i> |
| California..... | 13, 137 | 21, 414 | ----- | Oregon..... | 3, 490 | 21, 107 | ----- |
| Louisiana..... | ----- | 43, 063 | ----- | Pennsylvania..... | 4, 983 | ----- | ----- |
| Maryland..... | 106, 724 | 75, 215 | ----- | Washington..... | ----- | 25, 426 | ----- |
| Michigan..... | 9, 764 | 87, 892 | ----- | All other States..... | 7, 681 | 48, 174 | ----- |
| New Jersey..... | 30, 768 | 19, 717 | ----- | | | | |
| New York..... | 32, 169 | 32, 089 | ----- | Total..... | 208, 406 | 374, 097 | ----- |

The passage of 25 years has produced extensive changes in the relationships of the States not only as a whole but also with reference to individual crops. Illinois and Iowa have for years contested for leadership in the packing of corn, Iowa having led five years, during the period 1916 to 1925, Illinois three years, with Maryland in third place. During this period, Ohio held fourth place of importance, with Maine and Indiana about equal in production. Wisconsin has taken first place in the canning of peas, packing substantially half of the total output, New York and Maryland having dropped to second and third places respectively.

Tomato packing in the various States is subject to such wide fluctuations that assignment of States to definite rank is difficult, even when average production for a term of years is considered. Maryland is still in first place; with California second, while Delaware and Indiana have alternated in third place for some years, but the annual production of Indiana has considerably exceeded that of Delaware since 1918. Missouri, Utah, Virginia, Tennessee, and New Jersey follow in the order named. The packing of tomatoes increased fairly steadily to a total of 15,220,000 cases in 1914, but exceeded this figure during the war year of 1918 and again during the season of 1925.

Asparagus, spinach, sweet potatoes, and beets have been packed in increasing quantities during recent years. The canning of asparagus is practically confined to California, with a few hundred acres grown for canning in New York and one or two other States. California and Maryland packed most of the spinach with small quantities in New York, New Jersey, and Ohio. The canning of sweet potatoes has reached the largest proportions in Virginia, Maryland, and California, with Georgia, Mississippi, Delaware, Texas, and Tennessee packing considerable quantities. The packing of beets has become important only in Wisconsin and New York.

In the canning of fruits, also, a marked shifting of centers of production has occurred. Apples were canned in 1899 in considerable quantities in 24 States. Half of these no longer produce commercial quantities. New York still leads in quantity canned, but is followed in order by Washington, Maine, Oregon, and Michigan. Production has remained stationary in Pennsylvania, has been greatly decreased in Maryland, and has almost or quite ceased in Indiana, Illinois, Missouri, New Jersey, Ohio, and West Virginia.

California is now far in the lead in the canning of peaches and pears. At present there are small packs of peaches in Michigan, New York, Utah, and Delaware. Washington and Oregon have be-

come large producers of canning pears, greatly surpassing New York, while Michigan alone of the Eastern States has a small increased production. California and Oregon have also become the most important States in the packing of cherries, with Michigan, Washington, New York, and Maryland in the order named as the other producing States.

Prior to the census of 1909, all berries canned were reported collectively, and the quantities of the separate items blackberries, raspberries, dewberries, and strawberries canned can not be ascertained for 1899. At that time Maryland produced 11,205,000 pounds of canned berries; New York, 7,457,000; California, 4,201,000; Michigan, 1,600,000; Oregon, 714,000; and Pennsylvania, 258,000 pounds. At the present time Oregon is the largest producer of canned berries, with Washington second. Maryland, Michigan, and California produce approximately equal quantities. New York has fallen considerably below the States last named, and Pennsylvania no longer produces commercial quantities. With respect to individual fruits, Washington leads in the production of blackberries, followed rather closely by Oregon. California stands third, Michigan fourth, Texas fifth, and Maryland sixth. Considerable quantities of blackberries are also being produced in Tennessee, New Jersey, Ohio, and Virginia. In the production of raspberries for canning New York is far in the lead, followed by Michigan and Washington. Oregon, Maryland, and New Jersey are less important producers. Strawberry canning is the most developed in Michigan and Maryland. Louisiana has recently come to rank third, followed in order by New York, Washington, Oregon, and New Jersey.

From the foregoing outline it will be apparent that the rapid increase in volume of the products of the canning industry in the last quarter century has been due in part to increases in production of corn, tomatoes, peas, beans, peaches, apples, and pears, which have been staples since the establishment of the industry, and in considerable part to the large present-day production of canned products which were unimportant or unknown 25 years ago. Asparagus, spinach, sweet potatoes, apricots, prunes and plums and berries are examples of such products. The fact that some of the fruits just named are produced almost entirely upon the Pacific coast and in Idaho has made that territory predominant in the production of canned fruits, while the existence of large areas especially adapted to the production of vegetables has made California a prominent factor in vegetable canning.

The industry has as a whole grown most rapidly in those States in which there has been largest growth in agricultural population through the bringing into cultivation of new land. The absence of new land to be brought into cultivation, together with the greater absorbing capacity of the fresh-fruit and vegetable markets of the near-by centers of population, has prevented growth of the industry at a comparable rate in the Atlantic Seaboard States, has led to a decline in production in some of them, and has restricted the output of others to certain special crops. The industry as a whole has therefore become decentralized. General canning, in the sense of employment of any and all materials which could be grown in near-by territory, has markedly decreased. More intense competi-

tion has necessarily restricted canning in any particular district to those products which can be produced at minimum cost or which have such outstanding quality as to find purchasers despite additional cost. Cost and quality are both involved in determining whether a given product can be produced in a certain canning area, sometimes one, sometimes the other, being the predominant factor. Large-scale production permits reduction of costs, so that the tendency toward regional specialization has operated to increase the size of the individual plant and to eliminate the small plant. Thus increasing stress of competition in the industry tends to operate in the same manner upon production of raw materials and upon their manufacture, eliminating producing districts in which low yields or other factors result in high costs of raw material, at the same time that small plants with their high manufacturing costs are forced to suspend operations even when located in districts having high yields. While a large number of factors have been operating to produce the changes apparent in the industry in the last 25 years, the factor playing the dominant rôle is the fundamental economic factor of production cost.

The packing of baked beans has increased so rapidly in recent years, reaching a total of 11,142,331 cases in 1919, that it is worthy of mention. It stands apart from the canning of other products in two respects by reason of its employment of mature dry material. It is not a seasonal occupation nor it is necessarily confined to the immediate territory in which its raw material is grown. The employment of equipment which is of a special type further differentiates the work from that of general canning. In consequence, while the packing of baked beans is to some extent engaged in as a slack-season occupation by plants engaged in general canning, there are an increasing number of plants making it their sole or principal business. The location of plants of this character is determined by other factors than nearness to bean-producing districts, and the present tendency is toward the differentiation of baked-bean packing into an occupation distinctly apart from general canning. The small white pea bean, or "navy" bean, used for the purpose is grown mainly in Michigan, Wisconsin, New York, and California, while Indiana, Michigan, California, Illinois, New York, and Iowa, in the order named, are producers of the finished product.

The aggregate total value of various manufactured fruit and vegetable food products is reported collectively by the census as pickles, preserves, jellies, sauces, and kindred products, the quantities and value of each item not being separately stated. In 1899, these products had an aggregate value of \$35,725,257, in 1909 of \$45,105,129, and in 1919 of \$145,784,530, of which \$65,122,667 is preserves, \$80,661,863 being made up of pickles and sauces. The value of raw materials employed was \$91,851,287. Detailed data as to the distribution of manufacture in the various States are not available prior to the Fourteenth Census. In 1919 Pennsylvania led with a total value of \$26,189,134, followed in order by New York, \$25,096,637; Illinois, \$19,046,228; California, \$11,840,150; Ohio, \$10,451,455; Indiana, \$8,924,581; Kentucky, \$8,223,431; and Massachusetts, \$6,253,818.

Vinegar and Fruit Juices

The manufacture of cider and vinegar as a farm method of utilization of fruits shows a progressive decrease since 1899. In that year the census reported farm manufactures of vinegar to a total of 12,363,656 gallons and of cider of 55,280,199 gallons. In 1909 the quantities were 7,242,632 gallons and 32,583,998 gallons respectively. In 1919 a further decline in production to 6,470,060 gallons of vinegar and 13,365,805 of cider had occurred. Wine and grape juice were combined and reported as a whole by the census of 1909 and earlier years, so that comparative figures upon grape-juice production can not be given; the farm production in 1919 was 2,202,848 gallons.

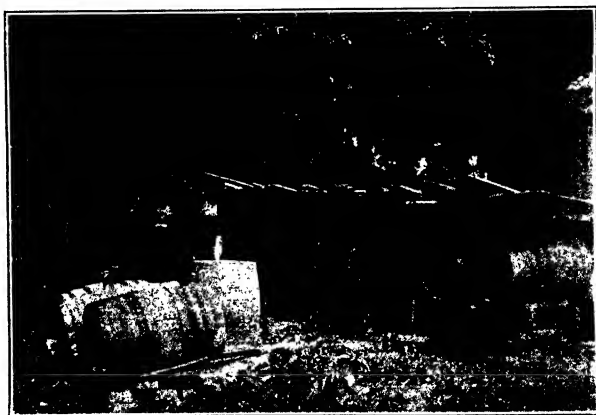


FIG. 297.—Barrels of vinegar in the process of fermentation on a farm

The decline in the farm manufacture of cider has been most pronounced in the Middle Atlantic and East North Central States, but occurs in varying degree in all geographic divisions except the Mountain and Pacific States, which show increases, although their total production is only 4.1 per cent of that of the country as a whole. The divisions just named, with the addition of the New England States, are the only areas in which farm production of vinegar increased between 1889 and 1919; in all other divisions there was a decrease which was most pronounced in the East North Central and Middle Atlantic States. The decrease in these areas is concurrent with a decrease in the number of trees in home orchards in this territory, but it seems probable that the decline in total farm production of cider and vinegar (fig. 297) is to be largely accounted for by the development of the commercial vinegar industry, by increasing production of malt and spirit vinegar, and in

the case of unfermented fruit juices, by the multiplication in volume and variety of synthetic beverages.

The commercial production of vinegar and cider is reported as having a total value of \$5,932,000 in 1899 and \$8,448,000 in 1909. In 1919, the value of vinegar was reported as \$17,480,319, that of cider as \$7,242,291. New York was the leading State, reporting products valued at \$7,227,741, followed by Illinois with \$2,445,197, Pennsylvania \$1,806,432, Massachusetts \$1,263,902, Michigan \$1,238,732, Virginia \$1,226,840, and Missouri \$1,022,673. Washington, Texas, Kentucky, California, New Jersey, Oregon, and Connecticut were the only other States producing important quantities of these commodities.

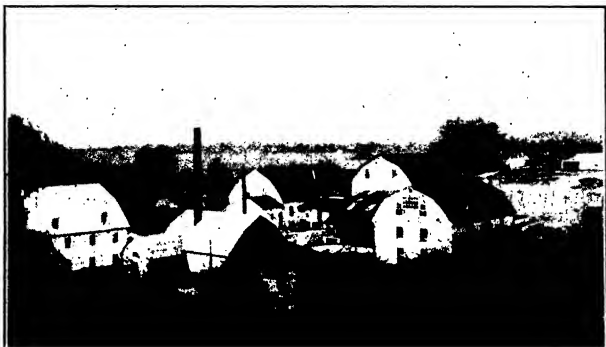


FIG. 298.—A large commercial cider vinegar factory in West Virginia

Canning of fruits and vegetables, and the making of jams, jellies, marmalades, preserves, and pickles in the home, either for use by the immediate family or for local sale, are old and well-established household arts which were well understood and diligently practiced by the housewives of past generations. With the development of commercial canning and the transfer of an increasing percentage of our population from the open country to villages and cities, the preparation of supplies of foodstuffs for the winter came to play a less important rôle in the activities of the housewife.

In the entire absence of statistical data obtained from individual housewives, general statements based upon what is known as to the increase in sales of containers and equipment used in home canning and preserving are all that can be made. Definite statements are impossible for the reason that the facts collected by the census do not include data as to the quantities of foods preserved in the home and for home use, but it is probable that the quantities of material so preserved reached a minimum about the beginning of the present century. With the establishment of home-canning clubs by Federal and State agencies the quantities of food preserved in various ways

in the home began to increase, attaining a maximum during the intensive efforts for food conservation attending the World War.

Consideration of the various phases of horticultural manufactures would be incomplete without reference to a number of specialized industries that have grown up during recent years, many of which have centered around some particular individual who has had a vision, born of necessity, out of which there has developed an industry that has become of nationwide importance. One of the most outstanding industries of this character is that of the manufacture of Tabasco sauce, which is made from a special pepper grown largely in southern Louisiana. This industry, which started on a small scale at New Iberia, La., has increased greatly, and the Tabasco sauce now sold on our markets is largely manufactured at New Iberia.

The manufacture of candied figs, although largely a product of the home evaporator, has become quite an industry in sections where figs may be grown readily and is being engaged in mainly by women as a means of earning spending money. This work was started under the direction of the extension service and has grown into a secondary industry of considerable importance. One of the most important of the lines of horticultural manufacture is that of fig drying in California. The total production of dried figs in that State is estimated at from 9,000 to 10,000 tons, about two-thirds of which are of the Adriatic type. Although the latter fig is inferior to the Smyrna type as a dried product, the Adriatic varieties were introduced before the Smyrna and were extensively planted, especially as border trees along the vineyards. The Adriatic is still produced in larger quantities than the Smyrna, notwithstanding the fact that it is far inferior, the skin being tougher and the color defective and requiring to be bleached, which results in giving the dried figs an acid taste, which is undesirable. One thing that has handicapped the dried-fig industry of California is the labor costs, as the figs dried in this country have to compete with those produced with the cheap labor of Asia Minor. The canning of figs has become very important in this country for the reason that canned figs do not have to compete with the cheap Asiatic labor. For this purpose the Smyrna and Dottato (*Kadota*) varieties, being superior in flavor, are largely used.

The manufacture of Muscadine grape jelly and grape paste, an industry which has been developed in the Carolinas and elsewhere in the south Atlantic seaboard where the Scuppernong and Thomas varieties thrive, has become of considerable importance during the last seven or eight years. This, however, would be considered one of the minor horticultural manufacturing industries, but one which offers greater possibilities for expansion and development. The increasing demand for preserves and manufactured products, especially those of a candied or confection nature, has created an opportunity for the development of a large number of minor or secondary manufacturing industries. Some of these have developed into what might be termed basic manufacturing industries.

The growth of horticultural manufactures, including drying, preserving, pickling, and other phases, has practically kept pace with the increased population and market requirements. In some lines in certain years it has exceeded the demand with the result that low prices have prevailed for a time, requiring readjustments

of the industry. The adoption of standards, and the adherence to more definite rules of sanitation and quality in the pack of manufactured goods, together with judicious advertising, has to a considerable degree increased the demand for the product of horticultural manufacturers. The placing upon the market of simple and inexpensive equipment for canning in tin, including the use of the full opening or sanitary cans, has made possible canning on a small scale on farms and in consumers' households, thus popularizing the use of canned goods. The teachings of the home demonstration agents and nutrition specialists have brought to the attention of housewives the many ways of utilizing surplus fruits and vegetables on farms and of turning these into attractive and wholesome products which increased the variety of the diet for the family. The manufacture of horticultural products on a large scale, however, has become more and more specialized and has developed primarily as a basic industry.

Potato Utilization

The manufacture of potato starch and potato flour are important factors in the utilization of surplus potatoes in certain of the European countries, but of comparatively minor importance in this country. The stability of any industry is dependent upon the variety of uses which may be made of its products and by-products, and its range of economical distribution. In the case of the potato its bulk and relatively low value per pound, except in short-crop years, ordinarily confines its distribution to a radius of approximately 500 miles. Exceptions to this general statement must, of course, be made in the case of high-quality, hand-selected stock from the West. For example, it is not at all uncommon to find Idaho or western Colorado baked potatoes served in high-class New York City hotels and restaurants, and quite the common thing to find well-graded sacked Idaho potatoes offered for sale by commission firms in Chicago and elsewhere. Seed potatoes also have a wider distribution than common table stock. At the present time the utilization of the potato crop of this country for other than table purposes is almost negligible, as aside from that portion of the crop which is required for seed purposes and that which is unfit for table purposes, either as a result of decay, undersize, or other defects only about 1 per cent of the crop is used in the manufacture of potato starch and potato flour. In fact, in ordinary years this 1 per cent consumption is largely, if not wholly, of unsalable stock. In Germany it is estimated that about 10 per cent of the crop is used for industrial purposes such as the manufacture of alcohol, starch, flour, dextrin, and dehydrated products. This is well illustrated in the following figures taken from Skinner's report¹ in which he states that 2,500,000 tons of potatoes are used in the manufacture of spirits; 1,400,000 tons for starch; 400,000 tons for dried potatoes; 18,000,000 tons for human consumption; 6,000,000 tons for seed purposes; and the balance of about 4,000,000 tons is credited to loss from decay and other causes.

¹ SKINNER, E. P. UTILIZATION OF POTATOES IN EUROPE. Dept. Com. Consular Rept. No. 64; p. 9, 1914.

Potato Starch Manufacture

Although the manufacture of potato starch is of relatively slight importance from the potato crop standpoint it does represent in certain sections, particularly in Aroostook County, Me., a rather important adjunct to the potato industry, as it affords a convenient outlet for the disposition of cull and surplus stock, which in the usual absence of livestock in that section would otherwise have no value to the grower except for their plant food content when applied to the soil.

Early history of the potato-starch industry in the United States.—The earliest reference to the manufacture of potato starch in this country that has been noted is that of a brief article in a farm journal,² in 1831, in which an account is given of the utilization, in a small New Hampshire town, of 45,000 bushels of potatoes for starch purposes. In volume 14, page 405, 1836, of the same journal reference is made to an article published in the Troy (N. Y.) Whig, relative to the manufacture of potato starch in Vermont. In 1842³ a small starch factory was erected in the town of Columbia, N. H., where starch was manufactured for two or three years. A second factory was erected in Colebrook, N. H., in 1846. At that time potato production in this section was limited to the home consumption of the town. The purchase of potatoes by the starch-factory operator at from 10 to 15 cents per bushel was sufficient to induce farmers to devote a larger acreage to the production of potatoes. The profitable operation of the starch factory led also to the erection of others. In 1869, according to the Coos County historian, competition among potato-starch manufacturers became general and many new factories were erected. At the same time the price of potatoes had advanced from time to time until some years the growers received as high as 50 cents a bushel for their crop. At the same time starch sold as high as \$180 a ton, or more than twice its present average price. Colebrook was then one of the great potato-starch centers, as one-twentieth of all the starch produced in the United States was made in that community. The farmers soon learned, however, that the continuous cropping of their land with potatoes was causing a rapid depletion of their soil and they very materially decreased their acreage, with the result that instead of an annual output of 1,500 tons of starch it was reduced to 500 tons.

According to Hall⁴ the first potato-starch factory in Aroostook County, Me., was erected at Caribou in 1871. This was followed in 1874 by another at Presque Isle. By 1899, T. H. Phair of Presque Isle had acquired the title of "starch king" of Aroostook County. At the height of the starch business there were 40 factories in operation in the county. The prevailing price received by the growers for their potatoes was 25 cents per bushel. About 20 years after potato growing for starch purposes had become a staple industry, the quality of the Aroostook potato for table purposes began to be recognized, with the result that their production for starch purposes rapidly dwindled to an almost negligible quantity until at the present time they are grown exclusively for table and seed purposes. The

² N. E. Farmer and Hort. Jour. 10: 141, 1831.

³ Merrill's History of Coos County, N. H., 1888, pp. 733-734.

⁴ Hall, J. E. Letter under date of Feb. 16, 1926.

starch-factory supply is now confined to cull potatoes and in over-production years to the surplus stock plus the culls.

The 1860 and 1870 census reports give some interesting data relatively to the potato-starch factories in operation in the then leading potato States. The following data from the United States census reports indicate the rise and fall of the potato-starch industry in this country and afford an interesting example of the effect of changing economic conditions brought about as a result of cheaper sources of starch, of which cornstarch serves as a good illustration.

The 1860 census report shows that Maine had 8 starch factories, 2 of which were located in Franklin County, and 3 each in Oxford and Somerset Counties. Massachusetts was credited with 3 factories in Norfolk County, but it is not very clear whether they were potato or corn-starch factories. New Hampshire had 32 factories, New York 61, and Vermont 48. Illinois had 2 factories, one each in La Salle and Peoria Counties, and Indiana was listed as having 3, 1 in Wayne and 2 in Jefferson Counties. There is every reason to believe, however, that the Illinois and Indiana factories were not potato-starch factories. Ten years later, or in the 1870 census report, Maine had 10, New Hampshire 66, New York 72, Vermont 37, and Wisconsin 1. In the 1880 report Maine had 19, New Hampshire 17, New York 58, and Vermont 8. In 1890, Maine had 18, Minnesota 6, and New York 16. New Hampshire and Vermont are not credited with any factories. The 1900 census report lists Maine as having 45 factories, Minnesota 8, Wisconsin 6, and New Hampshire 4. In the 1910 census report the data presented is for glucose and starch production, and in the 1920 census report data is given relative to the pounds of raw potatoes used in the manufacture of potato starch, and their cost for the years 1909, 1914, and 1919. These data, as will be noted, indicate quite a fluctuation in quantity and price.

Raw potatoes used in 1909: 210,608,127 pounds, or 3,510,135 bushels.

Raw potatoes used in 1914: 169,878,784 pounds, or 2,831,313 bushels.

Raw potatoes used in 1919: 129,505,745 pounds, or 2,158,429 bushels.

The average cost per bushel of these potatoes in the three years mentioned was 15.4, 17.6, and 35.4 cents, respectively. An interesting feature of these data is the curtailed production of starch in 1919, and the greatly increased cost per bushel during that season as compared with 1909 and 1914. The reason, of course, is obvious—war prices still prevailed in 1919 and practically nothing but the unsalable stock could be used for starch. The crop being below the average as well as of normal requirements the high price of starch made it possible to pay more for the raw product. Ordinarily the prevailing price paid for starch potatoes in Maine is from 35 to 50 cents per barrel of 165 pounds or from 12.7 to 18.2 cents per bushel. Usually 25 cents per bushel is regarded as the outside figure that can be paid for potatoes intended for starch manufacture. According to data published by Sanders and Stevens⁵ the average quantity of potatoes used for starch manufacture in Aroostook County, Me., for the years 1905 to 1924 inclusive, was 1,868,641 bushels. The

⁵ SANDERS, V. A., and STEVENS, C. D. NEW ENGLAND CROP REPORTING SERVICE. July 22, 1925.

yearly consumption during this 20-year period varied from 100,000 bushels during 1919, a year of short production and high prices, to 5,500,000 bushels in 1914, a year of heavy production and low prices. The bulk of the potatoes used for starch were unsalable and, therefore, had little, if any, value to the grower, other than for conversion into starch.

In a report prepared in 1912 by a committee of men interested in the potato-starch industry of this country the following statement is made:

The industry is confined to 70 potato-starch factories in the county of Aroostook, Me., and 17 in the two States of Wisconsin and Minnesota, having an approximate value of \$10,000 each or a total investment of \$870,000.

During the years 1902 to 1911 inclusive it was estimated that the total of starch produced amounted to 200,000,000 pounds or an average annual output of 20,000,000 pounds, valued at 3.8 cents per pound. The total consumption of potatoes for the 10-year period was 10,000,000 barrels, having an average value per barrel of 45 cents. The manufacturing costs per ton of starch was itemized as follows:

| | |
|--|-----------------|
| 100 barrels potatoes at 45 cents per barrel..... | \$45. 00 |
| Overhead charges..... | 15. 20 |
| Operating expenses | 10. 00 |
| Total | \$70. 20 |
| Per pound of starch..... | 3. 51 |

The average profit for the 10-year period based on a selling price of 3.8 cents, and a manufacturing cost of 3.51 cents, left a profit to the producer of 0.29 cent per pound or 29 cents per 100 pounds. The average price of foreign potato starch during the same period was 2.4 cents per pound plus duty of 1.5 cents or a total of 3.9 cents as compared with 3.8 cents the average price of domestic starch, leaving a margin of 10 cents per 100 pounds in favor of the home product. Recent figures obtained from one of the largest starch dealers in the United States indicates a heavy consumption of the 1924 potato crop for starch purposes as compared with the three preceding years. The 1921 starch production is estimated at 20,000,000 pounds. The 1922 starch production is estimated at 18,000,000 pounds. The 1923 starch production is estimated at 13,400,000 pounds. The 1924 starch production is estimated at 33,000,000 pounds. Of the last mentioned figure Maine is credited with having produced 30,000,000 pounds, and Minnesota and Wisconsin the remaining 3,000,000 pounds. The large starch production in 1924 is, of course, the direct result of an overproduction of potatoes and a very low market price for table stock. The same firm states that there are no starch factories now in operation in New Hampshire, Vermont, or New York and that in the West there are not over five or six factories which operate only when conditions are favorable.

The factors which operate against a more extensive development of the potato starch industry in this country are (1) an undependable supply of cheap potatoes, (2) the narrow margin of profit between domestic and foreign-made starch, and (3) the tying up of capital in an investment which can function profitably only when the price of table stock is relatively low, and which under the most

favorable conditions can operate only throughout a limited portion of the year. The persistence of the potato-starch industry in Aroostook County, Me., is largely, if not wholly, due to the extent of the crop produced which in any season provides a goodly supply of cull potatoes for the starch factories. Even under these conditions many starch factories do not open their doors in seasons when the price of table stock is high and the percentage of culls is relatively small. The tendency to-day seems to be to concentrate the industry in a fewer number of factories in order to reduce operating costs.

Equipment.—The equipment necessary to the manufacture of potato starch is relatively inexpensive. The first requirement is that the structure must have ample floor space and an abundant supply of pure water. Usually the starch factory is located on the bank of a stream of water, which in addition to insuring the necessary water supply enables the owner to take advantage of the sloping character of the site in order to provide different floor levels. By having the storage bins on the upper level of the structure the potatoes may be moved by gravity to the washing tank with little or no hand labor. The equipment proper consists of a washer for the removal of dirt and the trapping of small stones and other refuse, a grater or grinder for the pulping of the tubers, sieves for removing the refuse or pulp from the starch, large settling tanks for the washing and purification of the starch, and a drier for drying the starch. Although none of the equipment mentioned is relatively expensive the yearly deterioration is an appreciable one, thus adding materially to the overhead costs, especially if the period of operation is a short one.

Starch uses.—The commercial demands for starch from any source may be roughly divided into three classes: (1) For edible or culinary purposes; (2) for laundry purposes; (3) for manufacturing purposes. The chief use of potato starch in class 1 is as a filler or stiffener in sausage and blood-pudding making, for which it is preferred to other starches on account of its greater "swell" or expansive power. Potato starch is seldom used for laundry purposes. In the manufacture of fabrics, especially of high-grade fabrics, the higher viscosity of potato starch makes its use for sizing purposes preferable to cornstarch. It is also preferred in the manufacture of high-grade dextrine. In point of value potato dextrine commands the highest price and corn dextrine the lowest. The consumption of potato starch in the manufacture of dextrine is relatively slight as compared with its use in the sizing of high-grade fabrics.

Potato flour.—During the years 1918 to 1920 considerable attention was given to the possibility of supplying the home demand for potato flour which had been previously taken care of by imports from European sources, chiefly Germany and Holland. Prior to the World War potato flour was laid down at our ports at from 3 to 4 cents per pound. These importations were made to satisfy a rather limited demand from German bakers in the Middle West who used small percentages of it in the manufacture of wheat breads. As a result of the urgent plea of the United States Food Administration to conserve wheat flours a determined effort was made to induce the American housewife to add from 5 to 10 pounds of potato flour to each barrel of wheat flour. This served to stimulate an interest in the possibility of developing a stable potato-flour industry.

Potato flour may be described as a cooked desiccated, and finely pulverized substance from which the outer skin of the potato has been removed. It differs from potato starch in that it is a cooked product containing all the mineral elements of the raw potato as well as its starch and cellular matter—in other words, the whole potato minus the skin and a large percentage of its moisture. Approximately 5 pounds of potatoes are required to produce 1 pound of potato flour and 2 pounds of potato flour contains a little more nourishment than two 1-pound loaves of wheat-flour bread.

As a result of the United States Food Administration's appeal in 1918 several potato-flour factories were established. One of the most active agencies to engage in potato-flour production was that of a firm located at Pittsburgh, Pa. This firm established factories in Michigan, Wisconsin, Minnesota, Colorado, and Idaho. The five factories were claimed to have capacities of from 40,000 to 125,000 pounds of raw potatoes daily. These factories, if operated to full capacity for a period of seven months, would produce approximately 15,000,000 pounds of potato flour. With the termination of the war and the subsequent resumption of normal conditions, the competition from foreign imports and a plentiful supply of wheat flour, very materially lessened the demand for potato flour. At the present time, so far as known, only one potato-flour factory is in operation and the industry is in anything but a flourishing condition.

MARKETING FRUITS AND VEGETABLES



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THE DEVELOPMENT of the fruit and vegetable industry in the United States has been characterized during the present century by large increases in production. Consequently, there has been severe competition in marketing. This has been expressed in a constant effort to expand the market territory for fruits and vegetables of all kinds. It has appeared also in organized and unorganized efforts to stimulate consumption, in the development of by-product manufacture, in spasmodic efforts to develop foreign markets, and, finally, in the efforts of growers and shippers to keep marketing and transportation costs at a minimum. From 1920 to 1924, according to the records of the Bureau of Agricultural Economics¹, United States Department of Agriculture, car-lot shipments of all fruits increased over 30 per cent (fig. 299) and car-lot shipments of vegetables approximately 33 per cent (fig. 300.)

The growth of specialized producing areas has been the second outstanding development in the fruit and vegetable industry. Apples, for example, were formerly produced in small farm orchards. In 1889, only one county in the United States produced as much as a million bushels. By 1899, production had become somewhat more specialized in western New York, and by the end of the next decade the large areas in Washington and Oregon (fig. 301) had come into prominence. The 1919 census figures show that over 6,000,000 bushels of apples were produced that year in both Yakima and Chelan Counties, Wash. Approximately, 2,400,000 bushels were

¹ Statistical Bulletin 8, "Carload Shipments of Fruits and Melons from Stations in the United States," 1920-1923; and Statistical Bulletin 9, "Carload Shipments of Vegetables from Stations in the United States," 1920-1923."

produced in the Hood River Valley, Oreg. Orleans, Niagara and Wayne Counties, N. Y., each had a production exceeding 1,500,000 bushels, and Frederick County, Va., produced over 1,000,000 bushels.

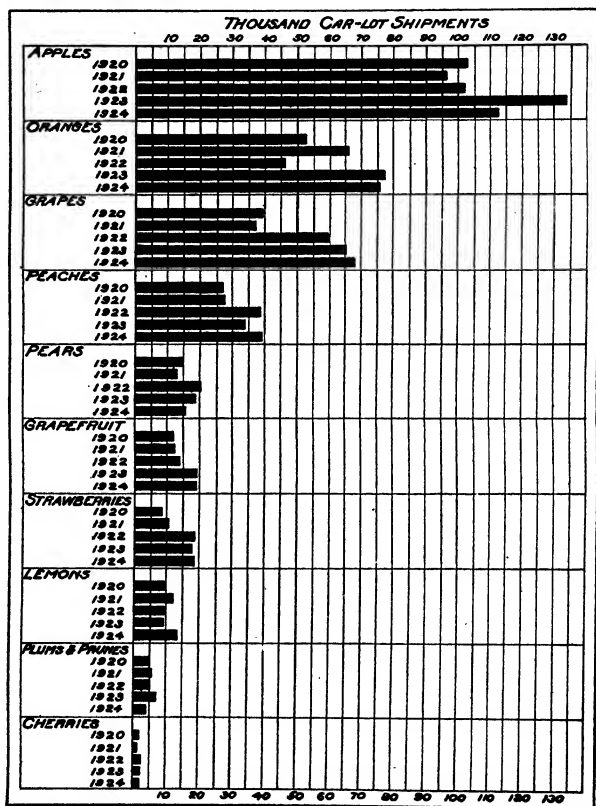


FIG. 299.—Car-lot shipments of fruits, expressed in thousands of cars, for the years 1920 to 1924, inclusive

This by no means exhausts the list of million-bushel counties, but it is sufficient to indicate the centralization which has taken place.

What is true of apples is true to a greater or less degree of other commodities. Early potatoes are produced in definite areas, Hast-

ings, Fla., Charleston, S. C., and Norfolk, Va., are well known early-potato sections on the Atlantic coast. Main-crop potatoes are grown more generally, yet the principal commercial areas are well defined.

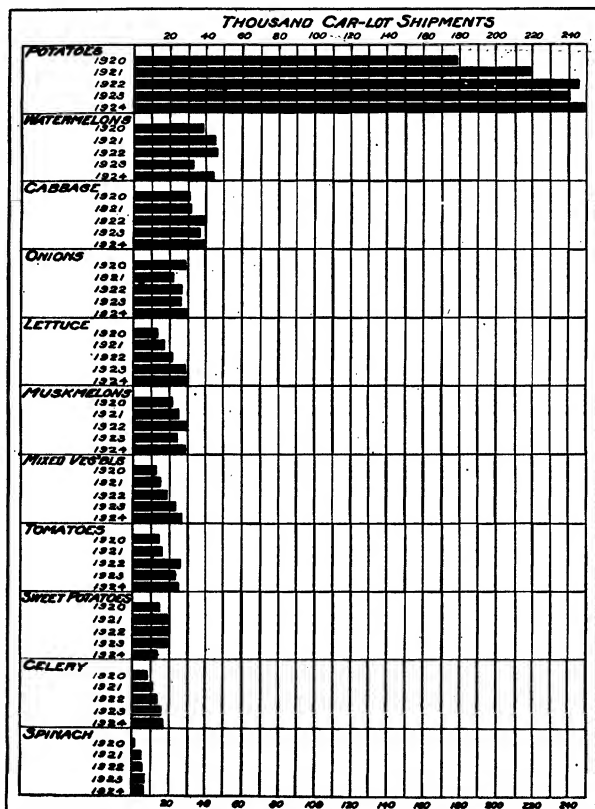


FIG. 300.—Car-lot shipments of vegetables, expressed in thousands of cars, for the years 1920 to 1924, inclusive

Aroostook County, Me., shipped 40,603 cars in 1925; Weld County, Colo., 3,485 cars; Bingham County, Idaho, 3,772 cars; Clay County, Minn., 4,599 cars; Suffolk County, N. Y., 6,507 cars. (Fig. 302.) Peaches, pears, raisins, strawberries, cabbage, lettuce, celery, and

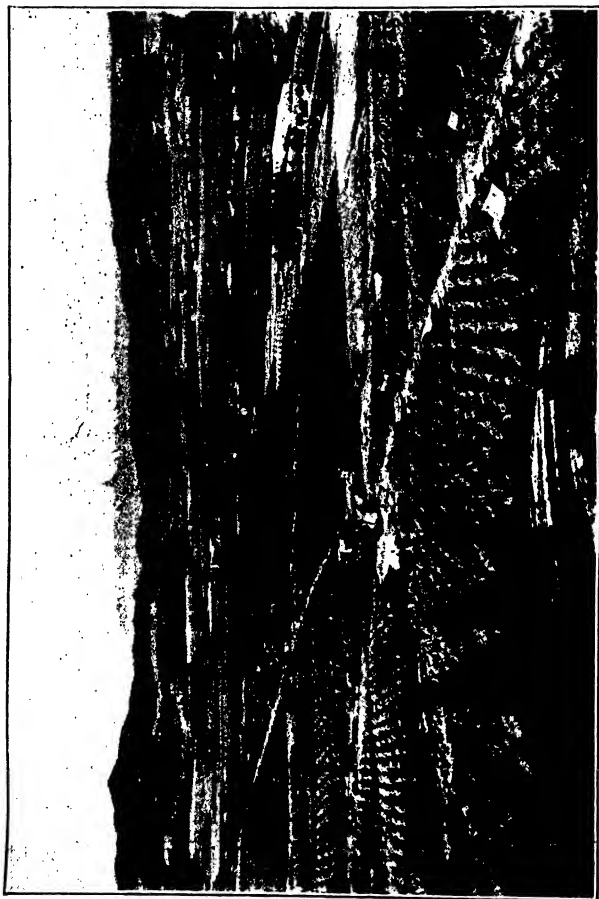


FIG. 301.—View in Hood River Valley, Oreg., showing specialized production of fruits, especially apples and pears

other fruits and vegetables are also produced commercially in definite specialized areas which are familiar to everyone engaged in the marketing of these products.

Increases in the production of fruits and vegetables, and other attendant marketing difficulties have been all the more acute because of specialization in production. The general farmer who grows fruits or vegetables primarily for home use, offering only a small surplus for sale, can easily curtail production. The specialized farmer can not so easily make changes in his production. The agriculture of Seminole County, Fla., for example, depends largely upon the production of lettuce, celery, peppers, and other vegetable crops. If market conditions are unfavorable, these growers must keep on in their own line, because they can not engage successfully in any other

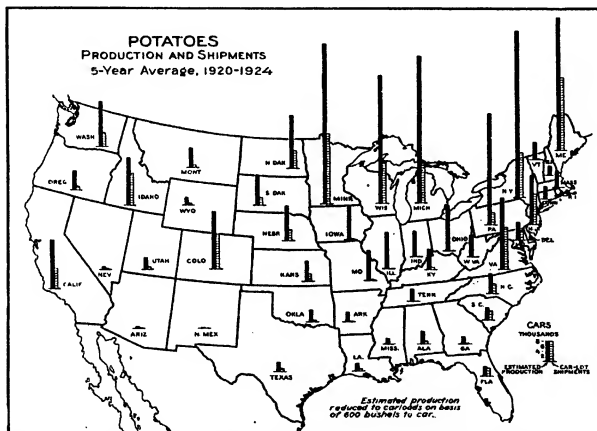


FIG. 302.—Average annual production and carlot shipments of potatoes for the five-year period 1920 to 1924

type of farming. Similarly, the large fruit areas around Wenatchee and Yakima, Wash., are dependent primarily upon the apple industry. If the market for apples is good, the growers make money; if it is poor, they lose. But none of these specialized areas can abandon the production of fruits or vegetables without great losses.

Consequently, fruit and vegetable growers are interested in producing economically and in developing economical and efficient methods of marketing. Improvements in handling, storage, grading, transportation, and methods of distribution have come from the demands of the growers for better service, and in many instances have been accelerated by the organization of cooperative associations of growers for the purpose of performing services which the growers considered too costly when undertaken individually or which they were not receiving from existing agencies.

Standardization of Varieties

One of the first lessons the fruit and vegetable growers have learned is that not all varieties can be marketed successfully. A certain strawberry, for example, may possess excellent eating quality, but may deteriorate so rapidly in transit that it can not be marketed to advantage. A variety may be poor in quality or appearance, or it may too large or too small or otherwise undesirable. Furthermore, a variety may be undesirable because it is not known to the trade and consumers.

Added to these considerations is the fact that practical marketing demands a reasonably large volume of shipments uniform as to variety and grade. Mixed lots when made up of a number of varieties, a number of grades or both, are difficult to sell for the simple reason that any prospective customer is likely to object to one or more of the lots offered.

Necessarily there has been a decided tendency towards standardization of varieties. In the early-cabbage sections, for example, one variety, the Early Wakefield, makes up a large part of the commercial shipments. Two varieties of oranges grown in California comprise more than 90 per cent of the shipments. On the other hand, over 100 varieties of apples are shipped from western New York, although the number of importance commercially does not exceed 10. Formerly the producer set out a miscellaneous planting in order to offer his customers a number of varieties and to extend his marketing over the longest possible season. Through standardization many unsuitable varieties have been eliminated, yet most commercial orchards to-day contain a succession of varieties. For example, a grower of peaches in the Middle Atlantic States has been accustomed to plant a succession of varieties such as Uneeda, Carman, Hiley, Belle, Elberta, and Salwey. This practice has many advantages and some disadvantages. It assures a continuous supply for the market and also enables the grower to handle the crop with fewer temporary laborers and with the minimum investment in his packing house and equipment, but the development of the peach industry in the Southern States has resulted in bringing some of the more desirable late varieties in direct competition with the early maturing varieties of the more northerly districts, with the result that the early crop in the later sections is less profitable than it was formerly.

The commercial grower to-day looks to a large territory for a market and in laying out a planting gives careful consideration not only to the local conditions but to competition, actual and potential, from other parts of the country.

Harvesting

Specialized production and large-scale operations have created harvesting problems and have resulted in the widespread adoption of new methods. Outside labor must be employed, and securing and supervising this labor is often difficult. Hired help will not exercise the same care in handling the product as will the owner, and with the increase of distances from market the necessity for care has become greater. One of the services local cooperative associations

can do for their members is to take over the work of harvesting. Labor can be assembled more easily and can be more efficiently trained and supervised in this way.

The question of careful handling in harvesting is very important when fruits and vegetables are shipped for long distances or stored for longer or shorter periods. The care that must be exercised varies, of course, with the perishability of the product. Cabbage and potatoes are less subject to deterioration owing to handling injuries than are strawberries or tomatoes. There is no fruit or vegetable product, however, the keeping quality of which is not injured by cuts or bruises. Such injuries permit the entrance of fungi which cause decay, and many of these fungi can not develop if the product is sound and its skin unbroken.

Among such organized groups as the California citrus growers, harvesting of the fruit is performed by crews employed by the local associations. The pickers are obliged to handle the fruit carefully; it is severed from the tree by special clippers so the fruit will not be injured in the operation, and the foreman of the crew inspects the work of each man several times during the day to make sure that he is not injuring the fruit unnecessarily.

In order that the output of the crews may not be unduly reduced by this insistence on care, the men are paid on a "quality-quantity basis"; that is, their wage depends on the quantity of fruit they pick and also on its freedom from harvesting injuries.

Another important factor to be considered in harvesting is the maturity of the product. The grower near his market can allow his apples or peaches to ripen on the tree because they can be delivered to the consumer before the ripening process has advanced to the point of deterioration. Products for long shipment or storage, however, must be picked before they are fully ripe. At just what maturity they should be harvested requires careful judgment not only on the part of the grower or crew foreman, but also on the part of the laborers employed. Apples should not be picked too green. If picked too ripe, deterioration in storage or in transit will develop sooner than would otherwise be the case.

Pears, peaches, muskmelons, and tomatoes are other products in which the maturity at time of harvesting has an important bearing on condition in the market. It is relatively difficult to determine by an external examination when these products have arrived at a proper degree of maturity.

A pressure tester has recently been developed for measuring the maturity of certain fruits. This device is based on the principle that as fruits ripen they become softer and yield more readily to pressure. The tester consists chiefly of a plunger and spring and an indicator which shows the pressure that must be exerted to force the plunger a given distance into the fruit. Typical specimens may be tested with the instrument, and it can thus be determined if they have reached the proper stage of maturity.

Methods for ascertaining the maturity of grapes have also been developed. The juice from selected specimens is tested with a hydrometer or sacchrometer—an instrument for determining the percentage of soluble solids in the juice. As the fruit ripens the sugar content of the juice increases, and, within certain limits the

reading of the sacchrometer may be taken as an indication of maturity. As the juice contains other substances beside sugar, the correct percentage of sugar in the juice will be from 0.5 to 2.5 less than the indicated "Balling" per cent or degree. A similar test is employed to determine the maturity of muskmelons.

Standards of maturity have been incorporated in the laws of several States, and in these States it is now illegal to ship or attempt to market fruit which does not meet the maturity requirements. Standards of maturity for citrus fruits have been observed for a number of years. The tests for maturity involve the determination of soluble solids and acid in the juice of oranges or grapefruit, and the maturity requirements are expressed as the ratio of solids to acid.

Usually, it is necessary to provide special equipment for harvesting fruits and vegetables. This may be homemade and extremely simple, or somewhat elaborate. Harvesting of deciduous fruit requires special ladders, picking sacks, or baskets and crates, or field boxes in which the product may be transported to the packing house. Citrus-fruit pickers must be supplied with clippers. All this equipment must be substantial, adapted to the purpose for which it is used, and of such a nature that it will not injure the fruit. For example, picking sacks, or baskets, are made with an opening at the bottom so that the fruit may be lowered carefully into the field crates instead of being poured out of the top.

The harvesting of vegetables also requires a certain amount of special equipment, and the costs and efficiency of the harvesting operations depend in part on the suitability of this equipment.

The grading and packing of fruits and vegetables are of utmost importance in marketing these products. There are, of course, wide variations in the practices employed in different parts of the country but in general during the last 10 years there has been marked improvement in methods in all lines. The difficulty of finding an outlet for the rapidly expanding production has centered attention on marketing efficiency, and the advantages of standardized and dependable commodities have been urged by extension and distribution agencies throughout the country. The requirements of the particular commodity, the distance from the market, the season of the year, the character and availability of labor, and the demands of the consuming public are all factors which exert an influence on the type of container and the methods of preparing the crops for shipment. It would be impossible within the limits of this discussion to describe in detail the operations involved in handling the various products. Grading and packing are carried on under a wide variety of conditions both in the field and in packing houses.

Grading in the Field

With the exception of sorting at storage warehouses, the grading of potatoes is done almost entirely in the field. In the Southern States considerable of the digging is done with forks and plows. Some growers use digging machines. (See fig. 133, page 359.) If the potatoes are sorted in the field the common method is to separate them into two or possibly three classes, the principal difference being the variation in size. More recently, however, since the mechanical

sizing machine has come into use, the potatoes are hauled to the machine in slatted crates. They are then emptied upon the sizing screen where sorters remove badly cut, scabby, grub-eaten or otherwise defective specimens. The best growers and shippers are now using a machine that is provided with a sorting table immediately ahead of the sizing screen, where culls and off-grade stock are removed. Machines are usually equipped with three sizing screens that separate the potatoes into sizes based on the requirements of the United States grades.—U. S. No. 1, $1\frac{7}{8}$ inches and larger; U. S. No. 1, small, $1\frac{1}{2}$ to $1\frac{7}{8}$ inches; and No. 3, smaller than $1\frac{1}{2}$ inches. The last size is shipped only under the most favorable market conditions. If the sizing machine is not equipped with a sorting table, the man who fills the sack, barrel, or other shipping container is



FIG. 303.—Method of grading and packing early potatoes in barrels in the Hastings, Fla., section

also required to remove the culls overlooked by the sorters stationed at the screen.

Among the packages in general use are the double-headed barrel used almost exclusively in the Hastings, Fla., section, (fig. 303) and the cloth-topped barrel in general use in the coast sections north of the Carolinas. The top of cloth or bagging is fastened by driving down over it the top hoop of the barrel and nailing through the hoop and cover. The veneer-slat barrel, a less substantial type, is also employed. Sacks are still used in the South Central States and more or less in other early sections. Hampers are often used for very early shipments from Florida and Texas.

Although the plow and fork are used to some extent in northern potato districts most of the work is done by mechanical diggers. There are several types of elevator diggers used on large areas. Some of the larger machines are drawn by tractors or by 2, 4, or 6 horses, depending upon the condition of the soil. These diggers are

very often equipped with small gasoline engines that operate the elevator, thereby ordinarily necessitating the use of only 2 horses. An elevator digger will turn out from three to five or more acres a day. Picking is done almost exclusively by hand. An average of five persons is required to pick up after one digging machine. A large amount of the grading is still done in the field and the pickers must therefore be thoroughly instructed in the requirements of the grades. Better growers in the South supervise the digging and picking operations very closely and have found that this attention to the harvesting has minimized injuries. Crates, baskets, and boxes are used for picking. The potatoes are then emptied from these containers into sacks or barrels for hauling to the warehouse or car or are hauled in

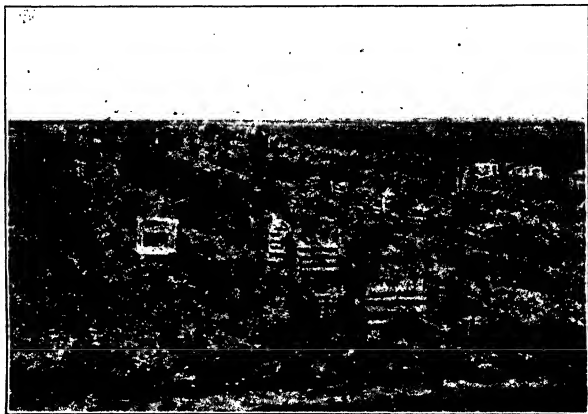


FIG. 304:—Grading and packing celery in the field

the picking containers. Some hauling is done loose in the wagon, but this method requires too much handling with a shovel or scoop.

Sizing machines have come into more and more general use in northern potato districts. As in other parts of the country the sizes are based on the requirements of United States grades. Stock smaller than permitted in U. S. No. 1 is seldom shipped. Unless these sizing machines are equipped with sorting tables an excessive percentage of culls are bound to be shipped. The belief of growers and shippers that running the potatoes over such a machine was all that was necessary to meet the grading requirements has accounted for a large part of the rejected shipments in the receiving markets.

The standardization of potato grades is a recent development. The investigations of the United States Department of Agriculture led to the recommendation of Federal grades in 1917. These grades were promulgated jointly with the United States Food Administration and all licensees of the latter were required to use them until

December, 1918. By that time they were fairly demonstrated and without Federal legislation of any kind they have continued in general use since that time. Many of the States have officially adopted the United States grades for potatoes. They are now the



FIG. 305.—Type of open shed used for the grading and packing of muskmelons in California and Colorado

State standard in 20 States and in addition are used as the basis for the official inspection services of 13 others.

The grading of other crops such as cabbage, celery, onions, and sweet potatoes is also done to a considerable extent in the field. (Fig. 304.)

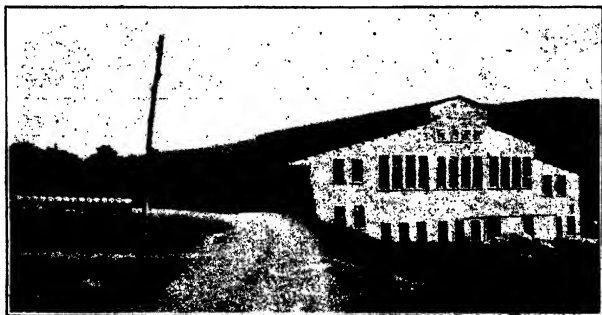


FIG. 306—A well-designed apple packing house located near Hancock, Md.

Packing Houses

Where crops require careful and uniform grading and packing the work is usually done in packing houses. These structures range in type from the roughest sort of shelters such as are used in the muskmelon districts (fig. 305), to the large structures of brick, concrete, tile, or wood commonly found in fruit-producing sections

(figs. 306, 307, and 308). Packing houses are a more recent development in vegetable districts but are gaining in favor in sections specializing in tomatoes, lettuce, and cucumbers. Such establishments now handle a large part of the early-tomato crop of Florida, Tennessee, and California, and are in general use in the lettuce districts of Colorado and California.

Such houses have a number of advantages.

1. The centralization of the work permits the most efficient organization of labor avoiding the confusion and loss of time caused by moving the crew frequently.

2. They encourage the use of sizing machines and other labor saving devices which can not be used to advantage in the open.

3. They afford protection from the weather for the equipment, packages, and fruit.

4. They provide shelter for the packers and permit an accumulation of unpacked fruit so that the work may proceed without interruption in spite of unfavorable weather.

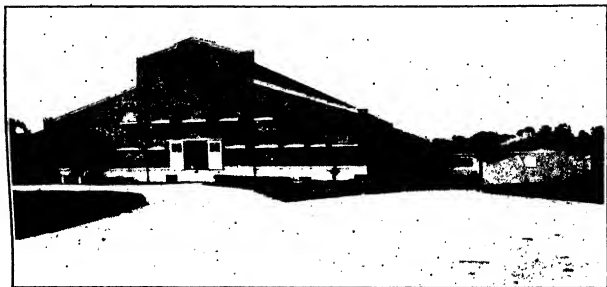


FIG. 307.—A very complete citrus packing house of permanent construction owned by one of the Florida citrus growers' associations

5. Community houses are regarded as essential in bringing about a satisfactory degree of uniformity between the packs of various growers. They are less common in the East, but growers in these regions have been experimenting for the last several years with the result that there has been a fairly rapid increase in the number of such establishments. Central packing houses are especially desirable in such districts as the Pacific Northwest, California, and Florida where the acreage is usually concentrated and where individual holdings with few exceptions are small—5 to 15 acres. A group of growers by joining forces may easily finance the erection of a modern establishment. In a community house it is possible to perfect an organization of trained men to bring their packing and grading operations to a uniformly high standard. The operations are generally on a large enough scale to warrant the employment of competent men to supervise the operations. The cost of inspection is also greatly reduced by having the work done at a central point.

Another important factor in favor of central houses, especially in northern districts, is better conditions for the employment of labor. Very few small orchardists have adequate houses and subsistence facilities for the care of temporary help during the packing season. In community houses it is also easy to provide for the comfort of employees in the packing room, an important consideration in retaining competent labor.

Community houses wherever possible are located on the railroad to eliminate the expense and possibility of damage in hauling packed fruit to the car, and to permit loading when weather conditions are unfavorable for hauling.

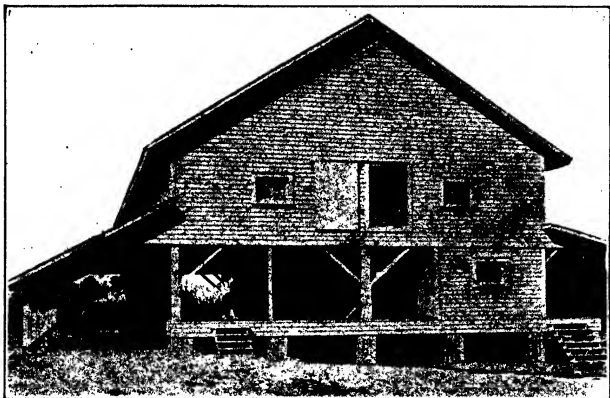


FIG. 808.—A peach-packing house of the type usually employed by the peach growers of Georgia and other Southern States. As the peaches are hauled from the orchard they are delivered under the shed, and after being graded and packed are loaded into the cars on the opposite side of the packing house. The large space above is for the storage of crates and packing materials.

The equipment of citrus packing houses is probably the most elaborate and expensive. Machinery is provided for washing, removing frozen specimens, drying, sorting, and sizing the fruit. In addition, to this machinery there is special equipment for trucking, conveying, dumping, box making, pasting labels, and branding the individual fruit for advertising purposes.

The large well-equipped packing houses to be found in citrus sections (fig. 309) and the more highly specialized fruit regions are not characteristic of the vegetable-producing districts, or the older fruit districts. For some crops packing houses and storage warehouses are combined. This is true of potatoes, for example, which require only a limited amount of equipment for the grading and packing processes.

Packing houses may be owned by local dealers or by wholesale receivers located in city markets. Most frequently, however, they

are financed by local capital and in perhaps the majority of cases are owned and operated by local cooperative associations.

Certain factors are of prime importance in the design of packing houses for fruits and vegetables. Ample room for temporary storage of the product and for the storage of package material should be provided. The arrangement of the equipment should be carefully planned so that the product will move as nearly as possible in a direct line from the receiving platform to the car. Ample light should be provided. Skylights over the packing benches and grading belts are usually desirable. The location of the building is also an important feature.



FIG. 309.—Interior of a well-equipped packing house designed primarily for packing oranges

A detailed discussion of packing houses, and the factors affecting their successful operation will be found in several bulletins issued by the United States Department of Agriculture.

Packing Processes

The processes involved in preparing fruits and vegetables for shipment vary, of course, with the nature of the product. In general they are (1) cleaning, (2) grading, (3) sizing, (4) packaging, (5) car loading.

Cleaning or washing of fruits is confined mainly to citrus fruit. (Fig. 310.) The fruit is delivered to a large tank filled with water, to which a cleaning or sterilizing solution is often added, and is carried by belts or roller conveyor under brushes which remove dust or other foreign substances adhering to the fruit. From the washing machine the fruit is carried by conveyors to an inclosed mechan-

ical dryer. Here it passes on slowly moving belts through a current of warm air circulated by large fans. The fruit, leaving the wide, slow-moving dryer conveyor, is carried by a narrow belt moving at a higher rate of speed to the grading belt.

Contrasted with this rather elaborate process lettuce or cabbage is merely trimmed in the field to remove unsightly or diseased leaves. Celery is washed before reaching the consumer, but this process usually occurs at the terminal market. Root vegetables may receive a small amount of trimming or cleaning before they are packed, bunch grapes are conditioned by removing decayed or injured berries, and apples and pears are sometimes wiped mainly to remove excessive dust or spray material.

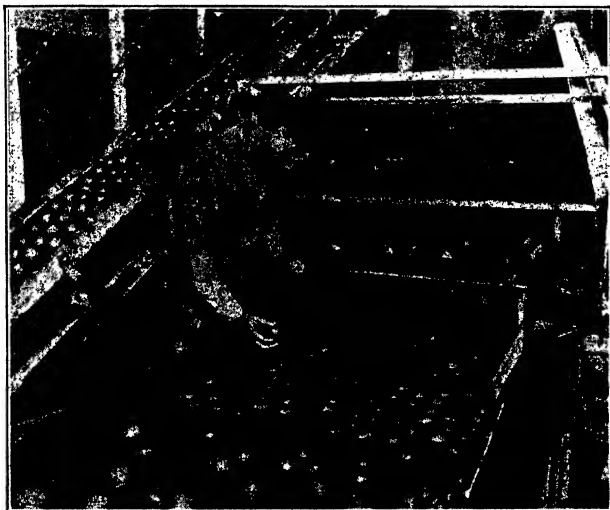


FIG. 310.—Machine used for washing oranges and other citrus fruits

Grading includes the removal of unsalable specimens (fig. 311) and the separation of the remainder into various classes based upon color, shape, texture, freedom from disease or injury, and other similar factors. For certain vegetables but one commercial grade is needed for the greater part of the merchantable product. Lots not conforming to this grade are usually shipped as field-run or ungraded. In some cases this grade provides a minimum size, but in others the grade and size are dealt with separately. As a matter of fact in more recent years since the development of national grades there has been a definite attempt to separate the consideration of size from other factors influencing market quality. This policy

was found necessary in order to recognize the different requirements of various varieties and of different regions of production. For example, it is in line with good commercial practice to grade a smooth tomato of proper maturity as U. S. No. 1, but it is impracticable to require the same minimum size for the Livingston Globe, a relatively small variety popular in Florida, as for the Stone grown in northern districts. Fruits are usually graded into three or four commercial classes. Various size groups are provided for each grade.

In a citrus-packing house the fruit which has passed through the drier proceeds on a moving belt in front of the graders, who remove the culls and place the various grades of merchantable fruit on belts which carry each grade to the proper sizing machine. Much

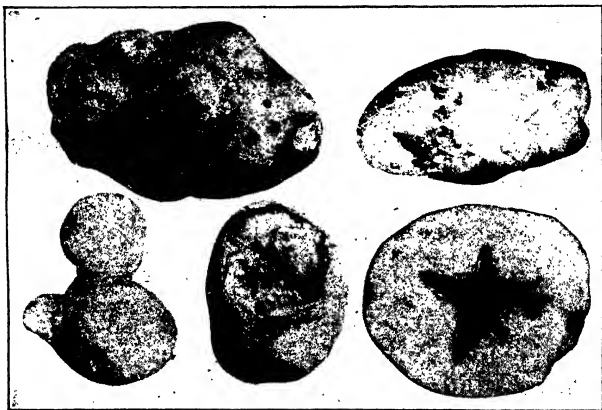


FIG. 311.—Common defects of potatoes which are considered sufficiently serious to bar them from U. S. No. 1 grade. Upper row, left to right, wire worm and scab injury; lower row, left to right, irregular second growth, late blight and tuber rot, and hollow heart

the same procedure is followed in northwestern apple-packing houses, except that the apples are transferred directly from the boxes in which they have been hauled from the orchard to the belt or conveyor that carries the fruit to the graders.

The importance of separating the fruits and vegetables into definite grades in conformity with market demands is now generally acknowledged. It is further realized that such grade must be standardized so that No. 1 apples, for example, from a certain section, will be consistently similar to other shipments of the same grade. The general subject of standardization is discussed in the following section.

Sizing, as a process preliminary to packing, takes place only in some of the more specialized fruits and vegetables, such as apples, peaches, citrus fruits, and tomatoes. Apples and citrus fruit, with

the exception of lemons, are sized by machinery. Oranges, for example, after being separated into the various grades, are carried directly to a machine which automatically separates the fruit into the recognized commercial sizes. Each size is delivered to a canvassed bin from which it is packed for shipment. Sizing machines are generally employed in the northwestern apple sections and are coming into use in the specialized producing sections of the East.

Packing of the fruit includes wrapping (for such products as are wrapped) packing, nailing the lid on the package, and strapping, or otherwise securing it to withstand handling in transit. Citrus fruit is wrapped and packed in boxes of a standard size according to a definite plan which varies for each size. Northwestern apples, pears, peaches, mangoes, avocados, figs, and the more perishable fruits are also wrapped except possibly the smaller sizes or poorer grades. Most other fruit and vegetable products are shipped without wrapping.

The important features of an attractive pack of fruits or vegetables are the neatness and firmness of the pack. It is usually necessary to pack the product with a decided bulge. The cover is nailed down tightly over this bulge and in this way a slack, unsightly pack at destination is avoided. The market value of attractive packs is well recognized by experienced growers.

The package unit is, as a rule, the size which is most acceptable to the wholesale trade. Attempts have been made, from time to time, to introduce so-called "consumer packages" of fruits and some vegetables. Such attempts have generally failed because it is impossible to guarantee the keeping quality of a perishable product. A consumer, from long experience realizes this fact and, consequently, will not readily purchase fruits or vegetables without seeing them. Unavoidable deterioration which is accepted by the trade as part of the risks of the business becomes a very troublesome question when the consumer is involved.

Bulk shipment is a general practice for certain vegetables. Watermelons are practically always shipped in this manner, as is most northern cabbage (fig. 312), and a considerable portion of the potato crop. Low-grade apples and citrus fruit are frequently shipped in bulk during periods of low prices. However, by far the greater portion of the fruit and vegetable shipments are transported in packages.

A shipping container for fruits and vegetables should combine strength with lightness, it should be attractive, and it should provide adequate ventilation for the commodity shipped. It should be light, because no one wishes to pay more freight charges than necessary. It should be attractive, because a large part of the buying public forms its judgments through its eyes and the favorable impression created by an attractive package is worth considering. To insure safe arrival at market, strength, adequate ventilation, and proper stowage in the car are necessary. If arrival in good condition is overlooked, the weeks or months of work and care which have gone into the growing of the crop may amount to nothing.

The public carriers of the United States say that in the handling of perishables the losses in one year amounted to \$10,000,000. Among the many causes of these losses are rough handling, failure

to stow shipments properly in cars, delay in transit, lack of proper refrigeration, and frail containers. Such a tax on the fruit and vegetable business of the country calls for cooperation on the part of growers, shippers, container manufacturers, and carriers, in an effort to reduce the damage to the lowest possible point. (Fig. 313.)

As one step in this direction and as a protection to himself and his shipments, the intending buyer of baskets should require that the manufacturer furnish a definite statement of the specifications on which the baskets are made. Manufacturers should be glad to supply such information and undoubtedly will do so if they are

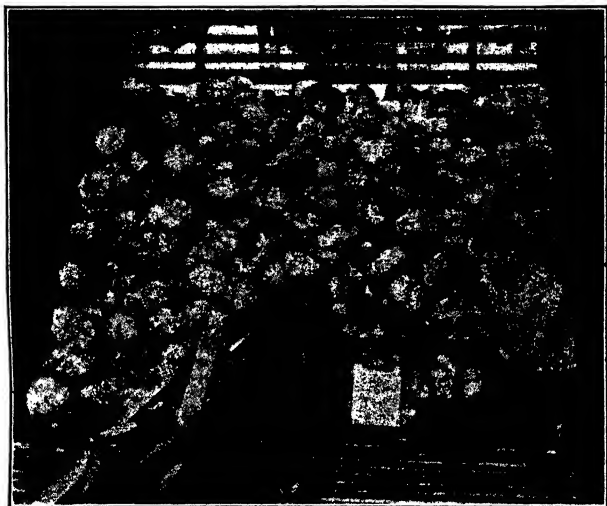


FIG. 312.—Carload of bulk cabbage, showing wooden ventilator through the center of the car

turning out a product of high quality. Many basket manufacturers are striving to put out an article which will stand up under heavy use, but there are also many baskets on the market of such poor quality that they should never be used in the shipping of fruits and vegetables.

Specifications insisted upon by the buyer should touch at least three points—capacity, material, and workmanship. In capacity, the container should be required to hold a designated number of United States standard dry quarts, struck measure. (Fig. 314.) This will insure compliance with the standard container act and will guarantee fairness to all.

A container for the shipment of fruits or vegetables, properly loaded and under normal traffic conditions, should be strong enough to carry the commodity intact from the grower to the wholesale

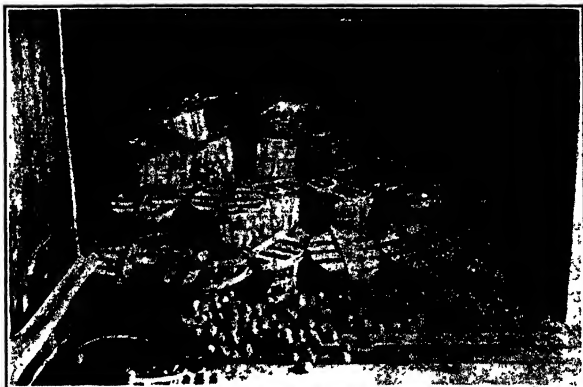


FIG. 313.—Damage to shipment resulting from the use of poor packages and of improper loading

market and thence to the retailer. Greater strength than this is unnecessary, but too much stress can not be laid on the importance of buyers insisting that their baskets be equal to the task imposed

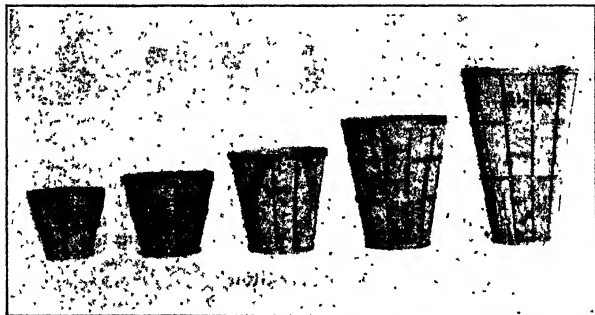


FIG. 314.—Typical containers holding a designated number of standard dry quarts, struck measure

upon them. Although such a container will be more expensive than a lighter one, it is better to pay more than to pay less and take the risk of broken packages and lost produce.

Strength specifications apply principally to the larger baskets which are not inclosed in crates for shipment. Strength is not so important a consideration in berry boxes and till baskets, which are placed in crates or boxes for shipment, but it is important that these small baskets should be of standard capacity.

Car loading is a particularly important consideration in the successful shipment of perishables. The packages must be loaded in the car in such a way that they will not shift while en route to market. Large losses from breakage, owing to improper loading and improper packages, occur every year. Crates and boxes can be loaded fairly easily, but various types of hampers and baskets make it more difficult to load a shipment in such a way that the packages will not shift in transit. However, there are methods of loading these packages which prove to be reasonably satisfactory.



FIG. 315.—A car of grapes packed in kegs, showing proper method of loading to insure circulation of air between the packages

Shipments moving under refrigeration must also be loaded in such a way that the circulation of cold air from the ice bunkers is not retarded. The load must provide for definite air passages between each row of packages. (Fig. 315.) Provisions for air circulation must also be made when a shipment is to be heated while en route.

Standardization

Standard grades constitute a common language between buyers and sellers. They facilitate grading, serving as a basis for (1) future contracts; (2) sales f. o. b. shipping points in transit and in other circumstances where the buyer can not exercise the privilege of inspection; (3) Government inspection, adjustments, and claims; and (4) the intelligent comparison of market prices.

In addition to these benefits which obtain by reason of a complete understanding between buyers and sellers as to the precise character of the product, there are other advantages which result from the actual sorting of the commodity, in so far as this is practicable, into classes which meet the particular requirements of the trade. Grading permits wider distribution because: (1) The more perishable lots may be sold without waste in near-by markets or utilized for by-product purposes, leaving the remainder for shipment to more remote points; (2) when properly graded some products may be held safely in storage, thus extending the marketing season; (3) certain classes of buyers are attracted who do not handle products of indeterminate quality, and (4) any sound advertising program must be based on uniform, dependable products.

An important benefit of standardization is the good will which it creates. Confidence in the products of a cooperative organization, and in its general business methods makes financing easier, increases demand for the organization's products, and reduces the margins of middlemen. Furthermore, the enforcement of standard grades at the point of production not only directs the attention of the grower to his mistakes in production and harvesting, thus stimulating him to correct them, but also insures him proper remuneration for more careful and effective methods. The necessity for standards in the marketing of agricultural products can no longer be regarded as a debatable point. For the present the great problems relate to their effective application. Cooperative associations have in the past been foremost in realizing the need of better grading and standardizing of farm products. Groups of growers working for their mutual benefit have often maintained voluntarily standards which would have been entirely impracticable had the trade attempted their imposition. However, the large number of commodities involved, the development of many systems of grading and packing, and the great variety of packages used in various parts of the country, have tended to increase the problems of standardization.

The United States Department of Agriculture is engaged in preparing grade standards for farm products. At present such grades have been formulated for the following fruits and vegetables: Barreled apples, asparagus, cabbage, cauliflower, cucumbers, celery, Florida citrus fruits, lettuce, northern-grown onions, Bermuda onions, peaches, pears, prunes, sweet peppers, potatoes, sweet potatoes, strawberries, cannery tomatoes, fresh tomatoes, watermelons, shelled Spanish peanuts, shelled Runner peanuts, farmers' stock Spanish peanuts, muskmelons, bunched beets, bunched carrots, bunched turnips, string beans (wax or green), spinach, pineapples, eggplant, juice grapes, table grapes, American bunch grapes and sawdust pack grapes, radishes, and globe artichokes.

Many of these grades, for example the United States grades for potatoes, are established throughout the country. Grades for other products are rapidly being adopted. The adoption and use of Federal grades are a requisite of the Federal shipping-point inspection service. It is a common observation that where no grade standards are recognized buyers are inclined to pay a flat price based on the average value, or something less than the average value. Conversely, trading on a quality basis is the greatest stimulus to

better methods of production, and definite, uniform grades are the means to that end. (Fig. 316.)

Shippers frequently complain of unjustifiable rejection of shipments on account of a declining market, or other causes. Buyers claim that they are often forced to accept poorly graded products. (Fig. 317.) The answer to the whole problem is definite, practical grades.

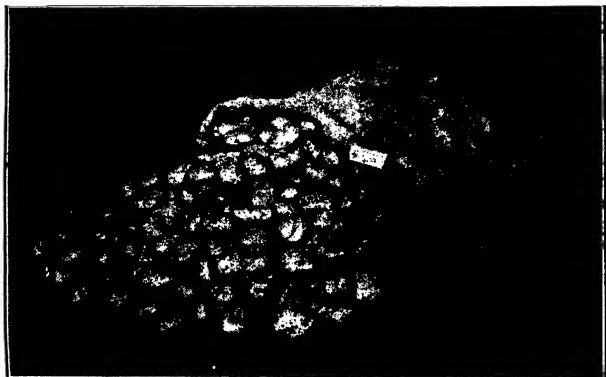


FIG. 316.—U. S. No. 1 grade potatoes. When trading is done on the basis of grade there can be no question as to the market quality of the stock.

Transportation in Relation to Marketing

The transportation of fruits and vegetables is treated in detail in a succeeding section. Special phases of the transportation problem, however, have an intimate relation to the distribution of fruit shipments.

The problem of obtaining an adequate supply of suitable cars for moving large seasonable crops has always been a troublesome one. Over 15,000 cars of muskmelons were shipped from California in 1923, practically all within two months. During approximately the same period Georgia was shipping over 8,000 cars of peaches. The California citrus industry demands 200 to 400 cars a day during the winter season.

The industry has passed through acute emergencies when the actual shortage or improper distribution of cars have occasioned heavy losses both to the carriers and the shippers. In order to prevent a recurrence of such condition the Bureau of Service was organized in the Interstate Commerce Commission to keep in close touch with operating and transportation conditions through the country. Special attention is given by this agency to such problems as the need for increased car mileage, for heavier car loading, and for a decreased percentage of bad-order cars, as well as to the general promotion of operating efficiency.

The Bureau of Service keeps in close contact with the car service division of the American Railway Association. Conferences are held with shippers and carriers to correct erroneous practices and effect a better understanding between the carriers in relation to the public.

With a view to enlisting further the cooperation of the shippers the car-service division of the American Railway Association has organized a number of regional advisory boards. The expressed objects are:

(1) To form a common meeting ground between shippers, local railroads, and the carriers as a whole, as represented by the car-service division, for the better mutual understanding of local and general transportation requirements, and to analyze transportation needs in each territory and to assist in anticipating car requirements.

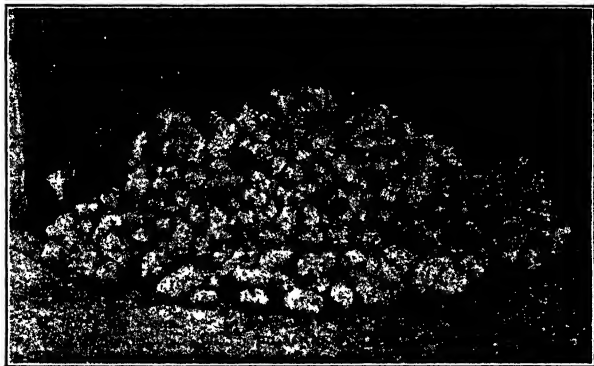


FIG. 317.—Trading on a "field-run" basis frequently results in the shipment of inferior potatoes and rejections upon their arrival at the market

(2) To study production, markets, distribution, and trade channels of the commodities local to each district with a view to effecting improvements in trade practices when related to transportation, and promoting a more even distribution of commodities where practicable.

(3) To promote car and operating efficiency in connection with maximum loading and in the proper handling of cars by shippers and railroads.

(4) To obtain a proper understanding by the railroads of the transportation needs of shippers, that their regulations may fit shippers' requirements, and to obtain understanding by the shippers and their cooperation in carrying out necessary rules governing car handling and car distribution.

These agencies of the Government and of the railroads have accomplished much in the way of better transportation service by furnishing an adequate car supply and procuring the prompt movement of both loaded and empty cars and the cooperation of the trade in unloading and releasing them promptly.

Efficient distribution requires fast freight service for perishable shipments. Some of the more perishable fruits, such as strawberries and Logan blackberries, are handled oftentimes in refrigerated express cars, and maintain a schedule equal to that of fast passenger trains. Express shipments of strawberries leaving Hammond, La., Monday evening, arrive in Chicago for Wednesday's market.

Most shipments of fruits and vegetables from specialized regions, however, are forwarded by fast through freights. Train loads of northwestern fruit leave the western shipping points daily during the season. These are consolidated at convenient points into through fruit trains to Minneapolis, Omaha, and Chicago. At the same time the railroad lines to the south are moving solid train loads of products from California. The schedule time for grapes from connecting points in California to Chicago is six days. Apples from Washington and Oregon are scheduled to reach Chicago in eight days. Shipments for New York and other eastern markets are consolidated at Chicago, and reach the Atlantic seaboard approximately 48 hours later.

The transportation services offered the producers in specialized areas have developed because of their demands for more rapid movement of their shipments to market. It has served, in addition, to reduce the risk of loss from deterioration in transit, and has measurably extended the market territory of more perishable products. This service is made possible by the large volume of shipments from producing sections which has resulted from concentrated, specialized production.

Diversion and reconsignment privileges now offered fruit and vegetable shippers aid in the distribution of the crop. A car of Florida vegetables may be billed to Potomac Yards, Va., for example. Previous to the arrival of the car at this point, the shipper may order it diverted to Pittsburgh, Buffalo, New York, or any one of the markets north of Washington, or east of Buffalo and Pittsburgh. The freight rate applied will be the through rate from the shipping point to the final destination. Or a car of California oranges may be billed to Kansas City, diverted to Chicago, if the Kansas City market is unsatisfactory, from Chicago to Pittsburgh, and from Pittsburgh to any one of a number of eastern markets.

The refrigeration of perishable shipments in transit has also been of great importance in extending the market area and reducing losses from deterioration. In some sections, cold-storage plants have been erected in which fruit and vegetable shipments are precooled—that is, the temperature of the shipment is reduced to a safe minimum before the packages are loaded in the car. Many of these plants are owned by growers' organizations.

The majority of refrigerated shipments, however, move under "full refrigeration." The ice bunkers of the car are filled with ice before the car is loaded and the supply is replenished, whenever necessary, at "reicing stations" en route. Other forms of refrigeration service are offered shippers. During fairly cool weather, for example, shipments may move to destination with only the initial icing.

The protection of shipments from frost damage in transit is not so well developed as is the refrigeration service of the carriers.

However, a "heater service," which is more or less effective, is offered shippers of northwestern apples, and a similar service is available for shipments, particularly shipments of potatoes from Maine, Michigan, Minnesota, and other Northern States.

The marketing of fruits and vegetables, therefore, is directly dependent upon efficient transportation. Furthermore, the cost of transportation is an important factor in determining the growers' net returns. Increases in freight rates have made profitable marketing more difficult in remote producing areas, and have made it all the more necessary to adopt efficient methods of handling and distributing the crop.

Terminal Facilities

The rapid growth of urban population, together with the increased per capita consumption of fresh fruits and vegetables, has taxed to the limit the railroad terminal facilities in the larger distributing centers. During recent years several important construction programs have been carried out with a view to relieving this congestion.

The modern wholesale terminal market in Los Angeles was opened in 1918. It covers 925,000 square feet of ground, the buildings have a floor space of nearly 2,000,000 square feet, and with space in the paved courtyard for 510 trucks. The buildings on the east side of the market have trackage for 50 cars.

At about the same time the wholesale terminal was built the city market, commonly called the Ninth Street market, was opened. The Ninth Street market is approximately two-thirds of the size of the wholesale terminal and is built on much the same plan, with the exception that no trackage is available. The Ninth Street market receives a large percentage of the home-grown fruits and vegetables, and the buildings are occupied mostly by jobbers. The wholesale terminal market is occupied by 200 tenants, of whom probably 75 are car-lot receivers and the remainder jobbers. A considerable volume of home-grown products is sold through the paved court and, in addition, small jobbers selling seasonal commodities such as watermelons, oranges, pumpkins, squashes, and grapes, are located in the open courtyard. (Fig. 318.)

The population of the city of Los Angeles has increased from 102,000 in 1900 to an estimated population of 1,000,000 in 1925. That the market demands of the city have outgrown present facilities is evidenced by the building at both markets of additional stores outside of the market proper.

Furthermore, there has recently been constructed in Long Beach a smaller market occupying about one city block which has eight jobbing houses and space in a paved courtyard for about 100 trucks. This territory formerly drew supplies from Los Angeles.

The largest market in the country has just been completed in Chicago, the dealers taking possession August 29, 1925. This project was originally given consideration in 1914 but was abandoned owing to the difficulty in agreeing upon a new location. It was not until January, 1925, however, that the purchase of the new site was concluded and arrangements made for the construction of the buildings.

The present location is within a few hundred feet of the center of population of Chicago. It is accessible to freight stations and railroad yards as well as to the retail trade of the city.

The buildings are of concrete, each unit having three stories and a basement. (Fig. 319.) The dimensions are 80 feet deep, and 20 feet wide with a 15 foot sidewalk. The sidewalk is 30 inches above the street level which facilitates the loading and unloading of trucks. The street in one section is 90 feet between curbs and in the other 66 feet. Permanent canopies are erected both in the front and in the rear.

A large cold-storage plant is located at one end of the market from which brine is piped to the individual cooling rooms throughout the market. A 10-story office building is now under construction at one corner of the market and another 5-story office building is also under way. Negotiations are about completed for new terminal fa-



FIG. 318.—Los Angeles terminal market

cilities, and although this is a separate project, it is in effect a part of the development for the new market.

With reduced hauls, freedom from congestion, and comparatively lower rentals, it is estimated that the new Chicago terminal market will effect a saving of approximately \$3,500,000 a year to the industry as a whole. This estimate does not take into consideration such items as waste of foodstuffs owing to delays and accidents or other savings in time.

Two lines of terminal development are being followed in the New York area, one aiming at unified and modernized primary receiving facilities on Manhattan Island, the other stressing new stations in the remaining boroughs of the city and the suburban sections of New Jersey. The first reflects the effort to relieve the congestion caused by a rapidly growing traffic flooding over obsolete pier stations, and the second expresses the popular agitation for decentral-

ized primary markets to which cars may be routed directly without passing through the Manhattan market. The present central produce market is located on the lower west side of Manhattan between Vesey and Franklin Streets. The railroads furnish transportation service by car float to water-front pier stations in the vicinity. These piers were not planned for the receipt and distribution of produce and to-day are the scene of congestion, delay, and high handling costs.

The traffic, particularly that portion made up of the western deciduous fruits, has increased very rapidly during the last two decades. Total car lots now being handled over all the produce pier stations amount to about 90,000 cars a year while seasonal peaks reach over 550 cars a day. Because of the extreme seasonal variation in shipments from the areas served by each carrier, the piers are subjected to alternating periods of idleness and extreme congestion.

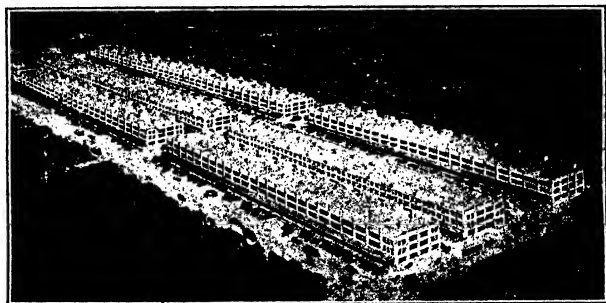


FIG. 319.—New Chicago produce market completed in August, 1925

During the last five years the situation has been acute and temporary relief has been obtained only by resorting to such expedients as embargoes, use of the street in front of the piers, and removal of selected commodities to New Jersey yards. The resulting disturbance of traffic, division of the market, and increased trucking costs have satisfied neither shippers nor receivers.

For some years plans have been maturing for a unified car-float terminal to which all of the carriers might have access and at which deliveries might be concentrated for easy inspection and trading. In December, 1923, the commissioner of docks of the city of New York made public a plan for such a water-front terminal which had been worked out in conference with the trade. This plan provided for a covered platform 450 feet wide, built upon piles offshore from the bulkhead and extending along the water front a distance of 1,000 feet, in place of the present piers. A maximum of 810 carloads can be handled through this station, ample provision being made for display and trading space within the structure. In a recent report of the Port of New York authority, the bi-State body created to administer port development in New York harbor, this plan has been indorsed with certain recommended changes in

interior design which will allow platform consolidation of job lots for removal by truck. It is estimated that the consolidation by modern equipment within the terminal will reduce annual cartage and handling costs by about \$500,000.

While these plans for a unification of facilities on Manhattan Island are advancing, steps are being taken to develop market terminals in other sections of New York City and adjacent cities in northern New Jersey. The New York City Board of Estimate and Apportionment has approved a \$22,500,000 program for the erection of markets in three boroughs of the city. A six-story market building for receipt and storage of produce has been erected adjacent to the Harlem River at One hundred and fifty-first Street in the Bronx at a cost of \$7,500,000. The present Wallabout jobbing district in Brooklyn has been chosen as the best water-front site for a primary market in that borough. Some difficulty has been met in obtaining float-bridge access to serve this market but the latest plan, announced in June, 1925, provides for a location adjacent to the Wallabout Canal upon which a \$500,000 plant is to be erected. The principal features are a five-story market and cold-storage building and four produce platforms with track connections located near by. Detailed plans for an additional \$10,000,000 terminal in the Fourteenth Street district of Manhattan have not as yet been announced.

On the other side of the Hudson River the development of team-track yards has advanced considerably in the last year. In order to take care of the heavy juice-grape tonnage, the Erie Railroad has constructed at Monmouth Street in Jersey City, adjacent to their present Pavonia Avenue station, a new yard of nine tracks and three display platforms to hold approximately 170 cars. In Newark, N. J., where over 10,000 cars of fruits and vegetables are unloaded annually in addition to those trucked from New York City, the Pennsylvania Railroad has a \$100,000 improvement at the Hunter Avenue yard, near the new wholesale produce section in the southern end of the city. It is expected that this center will grow to an important market for northern New Jersey.

Market Outlets

While radical changes have been made in methods of harvesting, grading and packing fruits and vegetables, methods of distributing and selling the crop have also undergone a change. The most evident has been the appearance of large distributing firms and cooperative sales agencies. There has been an increase in the number of distributors who are represented by their own employees in the larger markets. There has been a decided tendency also toward the sale of fruits and vegetables, f. o. b. shipping point, with the buyer reserving the right to inspect the shipment at destination. Produce brokers, commission merchants and fruit auctions are all employed by shippers to sell their products to the wholesale and retail trade.

The net result of these changes is that the number of car-lot markets for fruits and vegetables has been greatly increased. Towns and cities that formerly received their supplies in less than car lots from the terminal markets now receive the more important fruits and vegetables in car lots direct from the point of production.

With the development of better packing and handling methods it has been possible to extend the territory over which shipments are distributed. Better grading has made it possible to sell under recognized brands and to advertise certain products to the consumers.

Competitive conditions in the production and marketing of fruits and vegetables have fostered the extension of markets as well as the improvement of grading and handling practices and the elimination of wastes in marketing. The grower in a specialized producing dis-

ORANGES

MONTHLY CAR-LOT MOVEMENT FROM CALIFORNIA AND FLORIDA 5-YEAR AVERAGE - 1920-1924

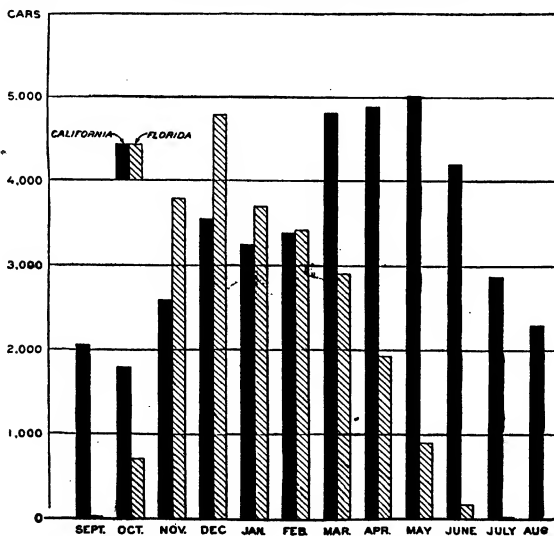


FIG. 320.—Average monthly car-lot movement of oranges from California and Florida covering the five-year period 1920-1924

trict may sell his products in any one of hundreds of markets, while the grower in a nonspecialized area may be confined to one, or at most to a few markets.

The 1924 peach-shipping season illustrates the problem of distributing a short-season crop from a region of concentrated production. Within a period of 10 weeks 13,500 cars were shipped from Georgia into markets east of the Mississippi. Over 75 per cent of these shipments were made in July, the movement for the month reaching a total of nearly 10,500 cars. During the same period over

15,000 cars of muskmelons were shipped from the Imperial Valley of California and nearly 23,000 cars of watermelons from Florida and Georgia. In order to avoid in so far as possible an oversupply in the large markets the distributors made maximum use of smaller markets. Nearly 80 cities received 5 cars or less, and 30 more took 5 to 10 cars. However, the bulk of the crop was sold in the large centers of population. Of the total shipments, 13,500 cars, from Georgia, 9,800 were unloaded in 25 principal markets and well over one-third of this number went to New York City alone.

An interesting study in competition is seen in the distribution of oranges from California and Florida. California shipments extend over the entire year, whereas those from Florida are marketed from September to June. Figure 320 shows the average monthly move-

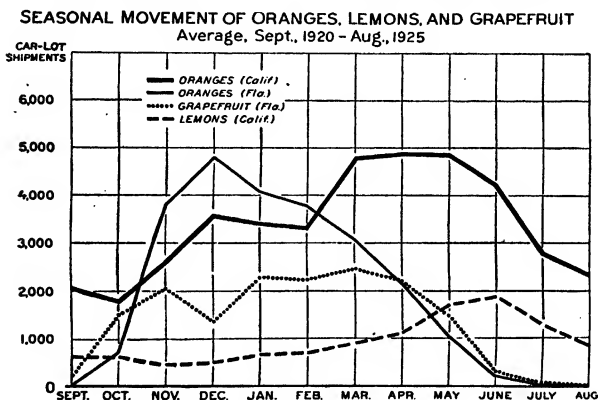


FIG. 321.—The seasonal average movement of oranges, lemons, and grapefruit from Florida and California for the period 1920 to August 1925

ment for the years 1920-1924 inclusive. Figure 321 shows the seasonal movement of oranges, lemons, and grapefruit from Florida and California. Owing to advantages in transportation rates certain markets are supplied almost exclusively by either California or Florida, but in the northeast quarter of the United States competition is extremely keen.

Commercial potato production is widely scattered throughout the country. There is a continuous overlapping of shipments from the various districts during the season. The new crop from the South also competes with northern shipments out of storage. The regions of production and shipping season is shown in Figure 322.

The sources of city supplies vary from season to season depending upon crop conditions. Marketing agencies and services and the methods of sale offered the grower have increased. These agencies and selling methods are discussed in the following sections.

Market News

Efficient marketing of fruits and vegetables must be based on a knowledge of supply and market demand. Two types of information are necessary.

(1) A knowledge of seasonal conditions. This includes information regarding crop conditions in competing areas, and the supplies of competing crops. For example, strawberries and muskmelons compete directly as a breakfast fruit, and the strawberry shippers are interested in the quantity and quality of muskmelons offered for sale. In addition to crop conditions, from which an estimate of the probable supplies can be made, it is necessary to know the time at which shipments will move, the storage stocks that may come into competition with the new crop, and the general quality of the crop.

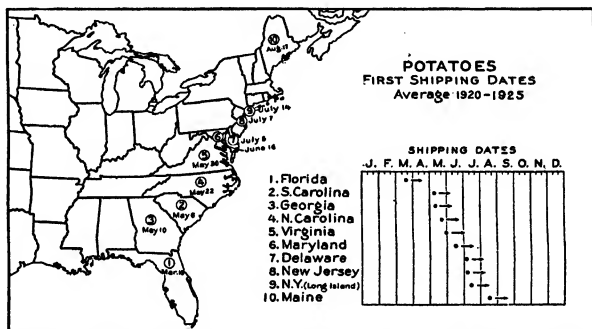


FIG. 322.—Seasonal distribution of potato shipments from points along the Atlantic coast

On the demand side, it is important to have information regarding industrial conditions in the markets where the crop is sold, and the probable purchasing power of the consumers. The relation of these factors to the prospective supply will indicate the price level at which the crop will move.

(2) After movement of the crop has begun, it is essential to have current information regarding prices and supplies. It is on the basis of such information that the up-to-date sales manager distributes the shipments that he controls. Essential information, in addition to prices are the daily car-lot shipments, the number of cars passing certain gateway points daily, daily receipts at the important markets, and the number of cars unsold on track at the close of each day's business.

Fruit and vegetable shippers depend, to a large extent, for price information on daily quotations by telegraph from their agents and brokers. There has been, however, a large demand for market news collected by an unbiased agency, according to uniform methods and

disseminated widely. In addition, dealers are unable to collect accurately such information as daily shipments and receipts.

In response to this demand, a number of private price-reporting agencies have issued daily bulletins from various markets giving arrivals and prices of fruits and vegetables. At the present time, however, the growers, shippers, and handlers of fruits and vegetables depend on the nationwide market news service of the United States Department of Agriculture.

Through its market news service the Department of Agriculture renders direct assistance to growers, shippers, and handlers of fruits and vegetables. Daily mimeographed market reports are issued from 18 of the largest receiving and consuming markets to mailing lists totaling approximately 50,000 names, while similar market reports are distributed from temporary offices located in important-producing areas during the heavy shipping seasons to a total mailing list of approximately 35,000.

These market reports which show the daily car-lot movement to market, the market conditions, and prices in the most important producing areas and the receipts, market conditions, and prices at the larger terminal and consuming markets enable shippers to market their produce more intelligently. They show the best markets to which to ship, both as to price and present and probable supplies on the markets. If the supplies on a particular market, for example, are heavier than it can consume within a reasonable length of time and the daily receipts increasing, it is apparent to a shipper who studies market conditions that to continue shipping to that market under those conditions will inevitably result in unsatisfactory financial returns. If a market is too heavily oversupplied a glut will ensue with disastrous results to the shippers, since in many cases where it is impossible to divert cars to other markets carloads may be sold at forced sale to satisfy freight charges. When such action is necessary it is seldom that more than freight charges are realized, which, of course, means that the shipment is a total loss in so far as the original shipper is concerned. If a depressed market appears inevitable or a glut probable the shipper, by keeping posted on market conditions as given in these market reports, is in a position to avoid loss by shipping to another market or, if he has a car already moving to an oversupplied market, diverting the car en route, thus aiding in furnishing a steady, even supply to the consuming public at a reasonable price to the purchaser and a consistent return to himself. The market reports also keep shippers informed as to prevailing prices in the terminal markets so that no one need be misled by unscrupulous buyers or dealers.

To the handler of fruits and vegetables in the city markets, the market reports are of inestimable value. They not only show the prices in competing markets, but also give the volume of car-lot movements for the previous day, as well as the prevailing prices in the principal producing areas which are the main sources of supply. Market reports on peanuts and honey, which are issued weekly and semimonthly respectively, are of the same value to the peanut and honey trade as fruit and vegetable reports are to the fruit and vegetable trade.

Monthly records of the car-lot unloads of the principal fruits and vegetables are obtained covering 34 of the largest markets in the

country. This information is particularly valuable to anyone making a scientific study of marketing. The unloads show the flow of supplies to market and the consuming capacity at the prices prevailing at the time. A study of the unloads and prices will enable one to judge fairly accurately what the market will be under given conditions, a possibility that is being realized by a larger number of handlers of fruits and vegetables each year, as is evidenced by the increased yearly demand for information of a statistical or research nature, especially for practical purposes.

Distributing Agencies

The distributing agencies are the connecting links between the producers and the consumers. (Fig. 323.) The growers produce fruits and vegetables in bulk, in a variety of grades and sizes, and at certain seasons of the year. The consumer demands a small quantity, he usually wants a certain size or grade, and wants to be supplied more or less continuously throughout the year. The distributing agencies perform the services that are necessary to deliver the product to the consumers at the time, the place, and in the form necessary to satisfy their demands.

There are several distinct types of distributing agencies furnishing some part of the services necessary to market fruits and vegetables. Their location, the services rendered, and the basis on which a charge is fixed for these services are shown in Table 1.

TABLE 1.—*Types of fruit and vegetable distributing agencies*

| Type of agency | Location | Service performed | Remuneration |
|------------------------------|----------------------------|---------------------|-------------------|
| Cooperative sales agency. | Shipping point..... | Selling agents..... | Cost of service. |
| Noncooperative sales agency. | do..... | do..... | Fixed brokerage. |
| Cash buyers..... | do..... | Buy for resale..... | Market spread. |
| Buying brokers..... | do..... | Buying agents..... | Fixed brokerage. |
| Selling brokers..... | All carlot markets..... | Selling agents..... | do. |
| Commission merchants..... | All wholesale markets..... | do..... | Fixed percentage. |
| Fruit and produce auctions. | Large markets..... | do..... | do. |
| F. o. b. auctions..... | do..... | do..... | do. |
| Receivers and jobbers..... | All wholesale markets..... | Buy for resale..... | Market spread. |
| Retailers..... | All retail markets..... | do..... | do. |

Cooperative sales agencies may be local, regional, or national from the standpoint of either the producing area or the consuming area served. In addition, they may be operated by and for one particular section and commodity, or may serve many organizations, many consuming centers, and handle many kinds of products. For example, the production area served and the products handled by the sales department of the California Fruit Growers Exchange are limited, but the consuming area served is international. Another example is the Federated Fruit and Vegetable Growers, Inc., an organization that serves many producing areas, handles many kinds of products, and maintains market agents in many consuming centers.

Cooperative sales agencies selling fruits and vegetables for cooperative associations generally maintain offices at some central point in the markets, or sell through brokers or other types of agencies.

AGENCIES AND CHANNELS OF DISTRIBUTION FOR FRUITS AND VEGETABLES

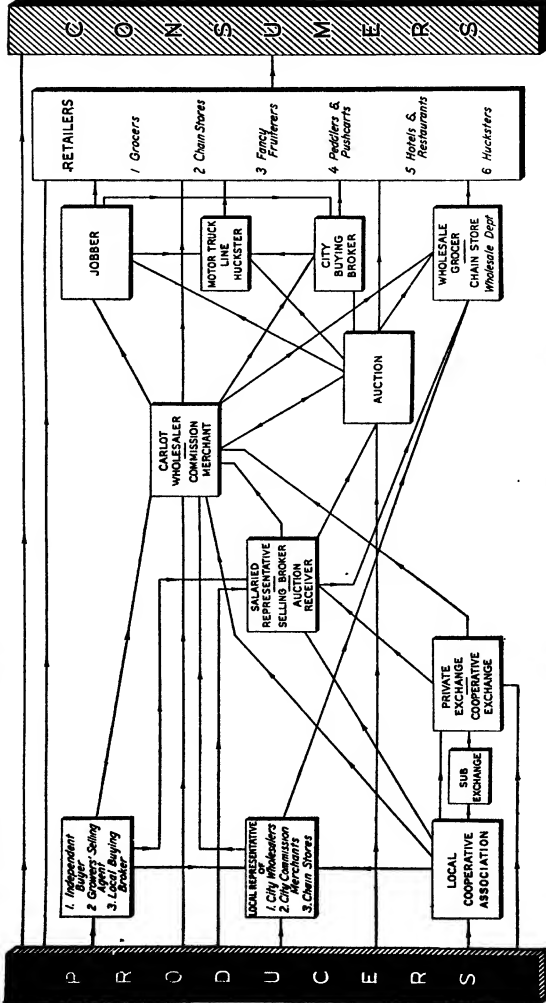


Fig. 323.—Agencies and channels of distribution of fruits and vegetables

Their charges are based on the cost of operation, but are collected generally as a fixed charge per package or per car and any excess refunded later. Noncooperative sales agencies are private sales organizations operating on a per package or per car charge stipulated in a contract with the organization served. In operation, they differ little from cooperative sales agencies.

Both noncooperative and cooperative sales agencies sell either through their own agents, or brokers, usually in carload lots, to wholesale receivers and large jobbers. They may also sell to large retailers, such as the chain-store systems. Their sales, as a rule, are made on wire quotations from the shipping point, and either as f. o. b. or delivered sales. A portion of their supplies may be sold through the terminal fruit and produce auctions in the markets in which these auctions are located.

The cash buyer purchases products prior to shipment and often harvests, assembles, grades, and packs the products and supervises the loading. He may operate for his own account or on a joint account agreement with a large distributing firm, or a receiver in the market, or he may be the salaried representative of such firms or receivers. Though cash buyers are to be found at most shipping points, the producing and consuming areas served by each are rather limited—very often a cash buyer handles but one product and uses a limited number of markets.

The buying broker operates much like the cash buyer, except that he does not buy for his own account but acts as the agent of the purchaser. Generally the buying broker handles only car-lot quantities which he inspects, purchases, and ships in accordance with his principal's instructions. His compensation is an agreed brokerage charge.

Brokers located in the terminal car-lot markets are the agents of the sellers. A broker receives quotations, presents the seller's offerings and terms to the buyers, and reports the buyers' acceptance, or their counter offers to the shipper for confirmation or rejection. If the sale is confirmed, the broker's responsibility is at an end when he reports the shipper's confirmation to the buyer. The shipper assumes the financial risk and the task of collecting the proceeds of the sale from the buyer. The broker's compensation is generally a stated charge per car which varies somewhat for different commodities.

Another agency of distribution is the fruit and produce auction. One or more auctions are located at present in Baltimore, Boston, Chicago, Cincinnati, Cleveland, Detroit, Minneapolis, Newark, New Orleans, New York, Philadelphia, Pittsburgh, St. Louis, and St. Paul. They receive shipments on consignment and place samples of such shipments on display in the warehouses. Shipments are listed and described as to quantities, grades, condition, variety, and other factors necessary to establishing value, in catalogues circulated prior to the sale. At the call the lots of fruit and produce are sold to the highest bidder. (Fig. 324.) A fixed percentage charge, plus the freight is deducted and the balance is remitted to the shipper or his agent. Jobbers, retailers, hucksters, hotel supply agencies, and other less-than-car-lot buyers purchasing fairly large quantities, patronize the auctions. Sales to out-of-town buyers are limited.

The f. o. b. auction is national in character, maintaining a central office with branches or salesrooms in several of the larger cities. Shipments at shipping points, or en route, that have been inspected at point of origin by Federal or other agents are listed for sale. Such listings are made by telegraph to each auction salesroom. At call the buyers assemble at each of the auction rooms and make bids on the lots in which they are interested. These bids are transmitted by telegraph to the central auction office, and also to all other auction rooms, so that bidders may know what other bids have been made. The auctioneer who conducts the sale is located in the central office. He sells the shipment to the highest bidder in any market, at a certain price f. o. b. shipping point. The purchaser pays the branch house of the auction located in his market, and the money is remitted through the central office to the shipper.

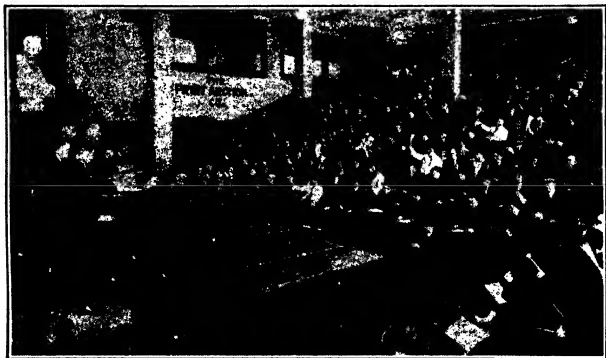


FIG. 324.—Fruit auction in New York City, where thousands of carloads of fruits and vegetables are sold

Commission merchants are to be found in nearly all wholesale markets. They are receivers of car-lot, or often less than car-lot shipments consigned to them by growers, growers' associations, or other shippers. They dispose of these shipments in comparatively small lots to jobbers, retailers, and other buyers. Their sales are usually made from their stores in the wholesale produce district, but may be made directly from the cars in the railroad yards.

Commission merchants, as a rule, handle a wide variety of fruit and vegetable products. Many commission merchants also operate at times or continually, as jobbers or receivers, buying shipments for resale. In fact, there is no sharp division of functions between the various distributing agencies. The concerns generally described as "receivers" or "car-lot wholesalers" perform practically the same functions as the group generally described as "jobbers." Receivers, however, usually buy carload lots, while jobbers may not. Receivers may resell in carload lots, while jobbers sell relatively small lots. The chief distinction is the volume of business handled.

The consuming territory which they serve may be one city, or a part of a city, or may extend over a territory including several cities or towns. Receivers and jobbers differ from commission merchants in that they buy products for resale. From the point of view of distribution, these functions are much the same as those of the commission merchants.

Retailers include chain stores, local unit grocery stores, markets, fruit stores, hucksters, push-cart venders, and to some extent, department stores, and 5 and 10 cent stores. They buy occasionally in car lots, but usually in less than car lots, and resell in quantities purchased by the average family. The cost of retailing fruits and vegetables exceeds the total of all other marketing agencies and operations. Studies of the retail margins for oranges sold through the California Fruit Growers Exchange in a number of markets for the years 1917-1921, show that the retailer received as an average \$1.88 for each box of oranges which he handled, compared with \$1.25 for all other packing and marketing services, \$1.22 for transportation and \$2.78 received by the producer.

A large part of the retail margin retained for fruits and vegetables is due to the high cost of selling and delivering small quantities to a large number of customers; a part is due to the perishability of the product. This can be overcome to some extent by the adoption of standard grades and more careful packing and handling methods by the growers and their associations. Some large organizations are actively engaged in campaigns to demonstrate to the retailer that it is relatively more profitable for him to handle a larger volume at a smaller margin. It is probably true that the consumption of fruits and vegetables may be further stimulated in this way.

Methods of Sale

Fruit and vegetable organizations may make "track sales," "f. o. b. sales," "delivered sales," or "consignment sales." Some confusion and misunderstanding exists among shippers and buyers as to the meaning and conditions of each of these methods.

Track sales are sales wherein the terms and conditions of the sale are completed after an inspection of the shipment by the buyer. Such sales, therefore, may be made at either the shipping point or the destination. The buyer pays the seller or his agent directly.

Rules governing destination track sales, agreed to by a number of organizations representing shippers and the wholesale trade, read in part as follows:¹

When a commodity is sold on track after arrival at destination, the buyer shall be considered to have waived any right to reject the commodity so purchased upon receipt by him or his duly authorized representative, from the seller or his duly authorized representative, of the bill of lading, delivery order, or other document enabling him to get the goods from the carrier.

The foregoing shall not be construed as depriving the buyer of a right to reparation when the unloading of the car shall demonstrate that a part of the lading which was not accessible to inspection was of a quality or condition much inferior to that portion which was accessible to inspection; but any such claim for reparation must be made within 24 hours after receipt of delivery order or bill of lading.

¹ Standard Rules and Definitions of Trade Terms (1924).

A f. o. b. sale may be made of carloads of fruits or vegetables ready for shipment at the seller's station, of products to be loaded at a specified future date, or of cars which are already en route to market. The f. o. b. method of sale is defined as follows:

F. o. b. sales, or quotations, means that the commodity quoted or sold is to be placed free on board the car, or at ship side at shipping point, in suitable shipping condition, and that the buyer assumes all risks of damage in transit not caused by the shipper, whether there is a bill of lading to the order of shipper or not.

A draft, usually payable on the arrival of the shipment, is drawn by the seller upon the buyer, and is sent, together with the bill of lading, or a car-delivery order, to the buyer's bank. Upon payment of the draft the bill of lading or car-delivery order, are turned over to the buyer. If the sale is made "f. o. b. usual terms," inspection by the buyer is permitted prior to payment of the draft, but the privilege of inspection does not influence the stated terms or conditions of the sale. However, if the terms and conditions of the sale have not been complied with by the shipper, or if the product is not of the grade or quality ordered, the buyer may refuse to accept the shipment or may ask for an allowance consistent with the difference between the value of the product ordered by him and that he has actually received.

Sales of fruits and vegetables by the f. o. b. methods have increased during recent years. At the present time, a large portion, for example, more than 75 per cent of northwestern boxed apples are sold in this way. However, the system is as yet not thoroughly understood and misunderstandings often arise. Rejections of shipments sold f. o. b. have greatly increased in the last two seasons.

The third method of sale is the "delivered sale." The following definition of a delivered sale has been accepted by trade organizations:

Delivered sales or quotations mean that the commodity quoted or sold is to be delivered by the seller on board the car, or on dock if delivered by boat, free of any and all charges for transportation or protective services, at the market in which the buyer is located, or at such other market as agreed upon, the seller assuming all risks of damage in transit not caused by the buyer.

This method of sale has been in use for some time. A considerable portion of the California citrus and deciduous-fruit shipments is sold on a delivered basis.

When a car is sold delivered, a draft, covering the price agreed upon, usually accompanies the bill of lading, or payment is made to the shipper's agent. Inspection is allowed, as in the case of f. o. b. sales. If the shipper fails to comply with the terms of the sale, the buyer may reject the shipment.

Many shippers consistently offer a portion of their best products for sale through the auctions in the belief that the publicity attending this method of sale creates a favorable impression among the trade toward a shipper who offers high-grade products that sell near the top of the market. Auction prices in measure set the price for similar commodities sold at private sale in the same market, and, to a less degree, in other markets. On the other hand, many shipments that show decay and deterioration are sold at auction because they can be most quickly disposed of by this method.

The consignment of shipments to commission merchants was formerly one of the most common methods of marketing fruits and vegetables. At the present time, also, some growers, cash buyers, or small cooperative organizations find it a satisfactory method of disposing of the shipments. Returns are made to the shipper when the shipment is sold. The commission merchant, however, frequently agrees to accept the shipper's draft for a part of the estimated value of the shipment.

With the development of cooperative sales agencies, and other large distributing firms, the consignment of fruit and vegetable shipments has declined. The direct sale of shipments, either the f. o. b. or delivered, is the standard method of marketing fruits and vegetables at the present time. The advantages of this method are that it permits the organization to influence the distribution of the shipments and the price at which they sell.

Adjustments and Rejections

Reports indicate that the number of rejections and claims from buyers for allowances are increasing. This condition can be attributed, in part, to the fact that buyers and shippers do not fully understand the conditions of the methods of sale used, too lax methods of grading and inspection, to the tendency of some buyers to attempt to find something wrong with shipments when the market is declining, and perhaps also to the fact that many sellers do not hold buyers strictly to the terms of the sales contract, because of the fear of losing their further trade.

There is, of course, no specific remedy for the situation, but there are steps that can be taken to reduce rejections to a minimum. Buyers and sellers should understand clearly their rights and obligations under each method of sale. The following rules regarding rejections have been accepted generally by organizations of produce dealers:

The buyer shall not unjustifiably reject fresh fruits or vegetables. Delay in transit shall not of itself justify rejection unless a specific delivery date has been contracted for.

The buyer shall notify the seller by wire where possible, or notify the sellers' local representative, within 24 hours after shipment has been placed where inspection is practicable, of refusal to accept a shipment or intent to file claim and give reasons therefor (other than claim against the transportation company). Failure of such notice shall constitute acceptance; except that it shall be proper to determine (as may be customary) shortage, waste, etc., of particular commodities subsequent to unloading and failure to notify the seller or his representative, shall, not in such circumstances serve as a waiver of the buyer's right to file such proper claim. The buyer shall, however, be required to immediately notify the seller or the seller's representative of any condition which may cause unusual or excessive waste or shrinkage, and shall unload the goods promptly in order to minimize such waste or shrinkage. In the case of claims against shippers for failure to comply with the terms of contract of sale as to grade, pack or condition, or involving excessive shrinkage and waste, the buyer shall provide the seller with such records and competent testimony as will serve to substantiate his claim. If the seller does not allow the claim he shall promptly notify the buyer, stating his reasons for disallowing the claim.

Except as may be required for the proper inspection of the lading at the car, the removal of the goods from the car by the consignee shall constitute acceptance. In event that false or fraudulent loading or packing shall develop during the process of unloading, the buyer shall immediately so notify (by

wire if possible) the seller or his agent. Acceptance of goods under such conditions shall not serve as a bar to recovery under breach of contract.

The shipment of products of uniform grade and quality is the most important step a shipper can take to prevent rejections. Under these conditions, the shipper is able to take a firm stand in the event a shipment is rejected unjustifiably. An organization whose shipments are uniformly satisfactory attracts the attention of the best class of buyers, and is generally in a position to refuse to deal with buyers who fail to meet their obligations.

In handling adjustments and rejections, it is desirable to have a report on the condition of the shipment made by a disinterested agency. For many years, such a service has been offered in the larger markets by private agencies. During recent years, however, cooperative associations and other shippers have depended largely on the inspection service furnished by the United States Department of Agriculture.

Inspection of Fruits and Vegetables

Present-day methods of sale have brought about conditions where it is often essential that a shipper have an unbiased report regarding the quality and condition of a shipment. Rejections of shipments sold f. o. b. have given rise to this condition. In this situation, the shipper, unless represented by a reliable agent, is at a disadvantage in dealing with the buyer. The shipment under dispute may be in a market 2,000 miles distant from the shipping point. Although the buyer may satisfy himself by inspection as to the condition of the shipment, the shipper can not do this. He can not know whether the rejection of the shipment is justifiable, or whether the allowance the buyer claims is fair. In cases of dispute the logical step is to have an appraisal of the shipment made by a disinterested party. This service has been rendered for many years by private inspection agencies in the large markets.

Several objections have been named to these agencies from the shippers' point of view: (1) The markets they covered were limited; (2) there was no uniformity of inspection methods between different agencies and different markets; and (3) these private agencies being located in the markets and in daily contact with the buyers do not have the full confidence of the shippers. Because of these conditions, an inspection service for fruits and vegetables was established in 1917 by the United States Department of Agriculture.

The inspection service of the Department of Agriculture provides for certification of market quality and condition of fruits and vegetables upon the request of any financially interested party. This service was established in November, 1917, as a war-emergency service with a threefold purpose—(1) to protect the producer against unfair rejections by receivers; (2) to obtain the quick adjustment of differences between shippers and receivers and so hasten the unloading of cars which were needed for continuous duty during the war emergency and (3) to prevent the waste of food which is incident to delays in handling resulting from differences between shippers and receivers. This service was successful in accomplishing the purposes for which it was established and aided the Food Administration by furnishing the information necessary to adjust the

many differences between shippers and receivers which were handled by that organization.

The service demonstrated its usefulness as an aid in marketing fruits and vegetables during the first year of its existence and provisions were made for its continuance by an item in the regular agricultural appropriation bill for the fiscal year of 1919. This appropriation has been renewed from year to year with such changes in authority and amount of appropriation as the needs of the service seemed to warrant.

At first the service was restricted to the inspection of fruits and vegetables in receiving markets. It was felt, however, by many shippers that the service would be more valuable if the certification of market quality and condition was also available at shipping point so that the shipper might be in position to correct improper grading practices while the product was still in his possession rather than make adjustments after it had arrived in the receiving market. Authority to extend the work to shipping points as requested was granted for the year beginning July 1, 1922, and since that time this branch of the service has rapidly expanded until during the fiscal year ending June 30, 1925, 131,087 cars were inspected. This shipping point work has largely been done in cooperation with the various States under agreements which provide for the Federal licensing and supervision of State employees who are engaged in standardization and inspection work.

This inspection service as a whole has improved marketing conditions by preventing unfair practices and obtaining better understandings between shippers and receivers, and has become an effective agency for the promotion of better grading and packing practices. The desire on the part of shippers to obtain an official statement of compliance on their part with contract terms, and an increasing appreciation on the part of the receivers of the advantages in handling only standardized products, have resulted in the more consistent application of old established grades and in the more rapid adoption of newly recommended Federal grades for many products.

The inspection service has not only promoted grading and standardization of fruits and vegetables in the different States but has obtained a uniform application of established standards in different sections of the country which are shipping to the same markets. This has prevented many of the misunderstandings which formerly were the causes of charges of unfairness on the part of both shippers and receivers.

Shipping-point and receiving-point inspections on the same cars have contributed to the knowledge of what happens to highly perishable products during transit. In the past many misunderstandings between shippers and receivers have been due to lack of appreciation of the rapidity of changes in condition in highly perishable products under the vicissitudes of transportation. Dependable information as to the effects of a small quantity of off-condition stock upon the carrying qualities of a lot as a whole have resulted not only in the elimination of the questionable products at shipping point but have had a very beneficial reflex influence upon production practices. Until growers and shippers received authoritative statements through Federal inspection certificates of the serious deterioration from decay during transit, they did not fully realize, from a marketing stand-

point, the serious nature of such diseases as late blight of potatoes, brown rot of peaches, or blue mold rot of citrus and deciduous fruits. The continued reports of losses from these and similar diseases have resulted in a much greater efficiency on the part of shippers and receivers in the application of the preventive methods which have been developed by the Federal and State research men for combating such destructive agencies.

Trade Associations

The necessity of obtaining concerted action in general matters relating to the welfare of the industry has led to the organization of growers and shippers in nonmarketing associations. Such organizations as the California Citrus League and the Florida Growers' and Shippers' League represent the industry in transportation and freight-rate cases, in all legislative matters affecting their interests such as standardization and spraying laws, quarantine measures, and the legal regulation of commission merchants or other dealers in fruits and vegetables.

Local shippers' organizations of a similar character have been formed in the Pacific Northwest. Such associations in Yakima, and Wenatchee, Wash., and Hood River, Oreg., deal principally in traffic matters but also assist their members in the community by acting as a clearing house for reporting crop estimates, stocks in storage, and other such information.

There are also a number of national trade associations which represent various groups of handlers. The International Apple Shippers' Association, the National League of Commission Merchants, the Western Fruit Jobbers' Association, the American Fruit and Vegetable Shippers' Association, the Fruit and Vegetable Brokers' Association and the Melon Distributors' Association fall in this class. These organizations represent their membership in all transportation matters including rate hearings and car service, safeguarding their interests in dealing with legislation affecting the industry, and serve as general bureaus of information.

Marketing by Cooperative Associations

Reports from 1,290 associations handling fruits and vegetables show that these organizations did a business in excess of \$300,000,000 in 1924. Approximately 200,000 growers are members of these associations. The average business per member, therefore, is close to \$1,500. A limited number handled single commodities, many more marketed several kinds of fruits or vegetables, and others handled both fruits and vegetables.

The development of cooperative marketing in the United States dates back to the period preceding the Civil War. However, all associations organized during that period are now out of business. The oldest, active fruit and vegetable organization now operating dates from 1878, and the second from 1886. Doubtless several were formed during the eighties which have since gone out of existence. The citrus fruit growers of California, for example, attempted to organize cooperatively as early as 1885. The grape growers of western New York organized an association in 1886 which operated for three years and was followed by a larger organization.

All substantial progress in the cooperative marketing of fruits and vegetables, however, dates from the formation of cooperative associations of orange growers in southern California from 1892 to 1894. This was followed by the incorporation of a central marketing agency, the Southern California Fruit Exchange, in 1895.

The citrus growers had the example of producers of other commodities to serve as a guide. Twenty-one cooperative creameries now in business were organized in 1892, 18 in 1893, and 31 in 1894. As early as 1863, a cooperative cheese factory which is still in business was formed in New York State. A few farmers' elevators were appearing through the grain States in the eighties and nineties. The development of cooperative marketing of California citrus fruits has been treated in detail in publications of the department and elsewhere.

Following the organization of the California citrus associations came the California Fruit Exchange in 1900, an organization marketing deciduous fruits, the Florida Citrus Exchange in 1909, and the California Raisin Growers' Association in 1912.

The associations fall into three distinct groups with regard to the form of organization, the territory covered and the marketing service offered.

The earlier associations were all local organizations. They were formed by growers located in one community, usually using a common shipping point. At the present time about 90 per cent of the fruit and vegetable associations are organizations of this type.

There has been no single plan adopted for the formation of the local associations. The individual preferences of the founders and the peculiar problems of the industry or locality have generally prescribed the form of organization.

The majority (75 per cent) are incorporated, a little less than half are organized as capital-stock corporations and over 86 per cent, according to reports received by the department, restrict the ownership of stock or membership privileges to producers of the products handled by the associations.

The local associations perform, as a rule, the services of grading, sizing, and packing the commodity. Sometimes, as in the case of citrus fruits, the crop is harvested by the association. Where the association is an "independent local," namely, is not a member of a federation, provision must also be made for selling the crop. The marketing methods and channels already described are open to organizations of this kind. In general, whether an association sells its output to local buyers, consigns, employs a sales agency, or sets up its own distributing machinery will depend upon the strength and experience of the organization.

Federation of local associations for the purpose of forming a central agency to handle sales, collections, traffic matters, and other phases of marketing, have been formed in a number of instances. The best known fruit and vegetable federation is the California Fruit Growers' Exchange, an organization of approximately 200 local associations. The Florida Citrus Exchange, the Mutual Orange Distributors, the Michigan Potato Exchange and the Western New Work Fruit Growers' Cooperative Packing Association are other examples of federations marketing fruits and vegetables.

In the federation, the affiliated local associations have about the same status as the individual members of a local association have in their organization. Each local association is represented on the board of directors of the federation, or sends one or more representatives to an annual meeting at which the directors of the federation are elected. Through contracts running from the central to each local the services that the central is to perform and the obligations of the local are specified.

The duties and authority of the federation vary widely in different instances. When local associations have been operating independently for some time agree to federate, the powers of the federation may be considerably restricted, and where the formation of the federation is contemporaneous with the organization of the locals the federations may assume some degree of supervision over strictly local functions, such as grading and packing.

In general, the local associations comprising a federation perform the local functions of assembling the produce, grading, sizing if required, packing and loading it for shipment. The central takes charge of the shipment at this point and carries on the process of marketing, through its own employees, or agencies with which it may enter into contracts to perform all, or a part of the service. The routing of shipments, collection of the proceeds of sales, the collection of loss and damage claims, general legal matters, and advertising are other functions usually delegated to the central.

In contrast to the independent local association and the federation of locals, there has developed a form of organization generally known as the "centralized" association. These organizations are called also "commodity" cooperative associations, an unfortunate term in that it fails to suggest either the organization characteristics or operating methods of these associations.

The centralized association in its operation combines the functions of the local associations and the federation, local plants are owned, and local managers employed by the associations. In its organization, it covers a large producing area, such as the prune-growing sections of California. Marketing contracts run between all the growers and the association. Directors are elected by the members, usually on a basis whereby several divisions of the producing area each elect one or more directors as their representatives on the board. In some cases, the growers have assigned their voting rights to a group of trustees or a "voting council."

The contract signed by the members is usually for a definite period, five years being a common term. Usually the contracts are noncancelable during this period. This so-called "iron-clad" contract contrasts with the more informal contracts, or lack of a contract, in most local associations. In the federations, also, provision is generally made for the cancellation of the grower's contract during a certain period of each year.

Examples of centralized associations handling fruits and vegetables are the Sun-maid Raisin Growers, and the Prune and Apricot Growers' Association.

The common characteristics of all cooperative associations is that they are nonprofit organizations, controlled by their member patrons. By nonprofit is meant that they are not operated to make a profit on invested capital, other than a fair interest return. Consequently,

marketing services are performed at cost, cost being interpreted to include interest on capital invested and such reserves and investments as it may be necessary to make to advance the interests of the organization. If the sum retained from the proceeds of sales is greater than is required for these purposes, the surplus is returned to the patrons in accordance with the quantity of produce which each shipped through the association.

Grower control is usually assured by a provision that each member shall have one vote and no more. Furthermore, most fruit and vegetable organizations restrict their membership to bona fide producers. In some cases, a member is allowed one vote for each share of stock which he owns, but in such instances it is customary to make the ownership of stock proportional to the uses which the member makes of the association.

The dual relationship of the members to their association distinguishes cooperative organizations from other types of business organizations. The members are joint owners of the business and are also its patrons. They are interested as patrons in obtaining marketing service at the lowest possible cost; as the owners of the business they are interested in its successful operation. When the patron interest predominates, the association may be crippled as a business organization. There is always present, therefore, the necessity for arriving at a balance between these conflicting interests. The conflict is present even when all members are patrons of the organizations. It becomes more pronounced when a portion of the members, or stockholders, are nonproducers; or when an association transacts business for growers who have no interest, as owners, in the organization.

The pooling of returns received for products of the same grade sold over a specified period is a common practice of the cooperative associations. Methods of pooling and the length of the pooling period, however, vary considerably in different associations and for different periods. Table 2 shows the length of the pooling period of 478 associations handling various commodities.

TABLE 2.—Duration of pooling period of 478 fruit and vegetable marketing associations

| Associations marketing | 1 day | 2 to 3 days | 1 week | 8 to 15 days | 1 month | One-fourth of season | One-third of season | One-half of season | Season | Number associations reporting |
|-------------------------------|----------|-------------|----------|--------------|----------|----------------------|---------------------|--------------------|----------|-------------------------------|
| | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | |
| Apples..... | | 2.6 | | | | | | 10.2 | 87.2 | 39 |
| Citrus fruit..... | | .7 | 7.3 | 12.0 | 22.0 | 15.3 | 8.0 | 4.0 | 30.7 | 150 |
| Grapes..... | | 35.7 | | 7.1 | | | | | 57.2 | 14 |
| Strawberries..... | 59.2 | 7.4 | 7.4 | | | | | | 26.0 | 27 |
| Peaches..... | | | 14.3 | 14.3 | | | | | 71.4 | 7 |
| Cranberries..... | | | 20.0 | | | | | | 80.0 | 5 |
| Miscellaneous fruits..... | | | | | | | | 25.0 | 75.0 | 4 |
| Several fruits..... | 11.2 | | 12.5 | 2.5 | | | 1.3 | | 72.5 | 89 |
| Potatoes..... | 14.6 | 12.5 | 29.2 | 8.3 | 10.4 | | 4.2 | 2.1 | 18.8 | 48 |
| Sweet potatoes..... | | | 8.0 | | 8.0 | | 4.0 | | 80.0 | 27 |
| Watermelons..... | | 83.3 | | 16.7 | | | | | | 6 |
| Onions..... | | | 75.0 | | | | | | 25.0 | 4 |
| Miscellaneous vegetables..... | 18.2 | | 9.1 | 9.1 | 9.1 | | | | 54.5 | 11 |
| Several vegetables..... | 33.3 | 4.2 | 20.8 | 4.2 | 4.2 | | | | 33.3 | 24 |
| Fruits and vegetables..... | 21.9 | 6.3 | 15.6 | 3.1 | 18.7 | | | | 34.4 | 33 |

Pooling returns for products simplifies the task of keeping records and obviates the necessity of selling each grower's produce in a separate lot. It also serves as an insurance against loss for the reason that low prices received for any particular lot or shipment are borne by all growers participating in the pool. The relation of standardized grades to pooling will be discussed later.

Cooperative associations have been organized by producers of fruits and vegetables to improve marketing conditions. Often organization has resulted from imagined grievances or from fundamental difficulties that should not be laid at the door of existing agencies. Excessive costs for marketing services, inefficient services and actual abuses at local shipping points, however, have been very frequently the conditions which the growers sought to improve through cooperative marketing. The larger problem of the expeditious and economical distribution and sale of their products has been approached usually after experience in dealing with local matters. The cooperative associations have not been able to accomplish all that has been expected of them. However, they have performed some definite services especially at shipping points, in improving the marketing of fruits and vegetables.

The first of these is the improvement of the quality of the produce and the encouragement of production in accordance with the requirements of the markets. This has been brought about by the better dissemination of marketing information and the better appreciation of the consumers' requirements that come from growers working together in a cooperative association. It is natural that when a grower sells through his own association he will learn something about marketing and, perhaps unconsciously, be guided in his production program by what he has learned.

More directly, however, the adoption of standard grades has influenced production of better varieties, and has given the grower an incentive to devote more attention to the control of insects and fungous diseases and to better methods of fertilization and tillage. The country buyer, in the past, made no close distinction between grades. In fact, fruits and vegetables have been generally bought field or orchard run and in many cases the same price paid to all growers in a neighborhood regardless of the market quality they produced.

The cooperative agencies, through their efforts to assist small growers whose individual business is of little importance to private shippers, have built community packing houses and developed departments to furnish instructions regarding proper handling methods. They have thus had an important influence on production. By pooling products according to grade and making returns to their members on the basis of the price received for each grade, they have demonstrated the advantage of producing the kinds and qualities of commodities the market demands. In addition, by putting the part of the output which would normally constitute the most unreliable part of the shipment on the same basis of quality as the best, they have assisted materially in building a reputation for dependability for the district as a whole.

Not only that, but the large cooperative agency, with the responsibility of marketing a substantial part of the whole crop

of a State or district, has been obliged to adopt a sales policy calculated to yield the best results for the entire district. This has necessitated, especially in years of heavy production, the use of every possible outlet, and it is obvious that under some circumstances some markets are more profitable than others, as each grower is entitled to share the benefits of the association's service equally; the only correct policy is to make returns on the basis of an average price. This means that the whole crop must be pooled and pooling can not be successfully practiced except on the basis of market grades. Without doubt the practice of pooling has given a most powerful stimulus to the standardization of American fruits and vegetables.

The large fruit and vegetable marketing agencies have contributed to the better distribution of shipments and the extension of car-lot markets. A large part of the improvements in marketing may be traced back to improvements in packing and grading developed by the cooperatives. A standardized product makes infinitely easier the task of a produce salesman. It enables the wholesaler and the retailers to handle larger quantities at smaller margins and with less waste and dissatisfaction. However, the cooperatives have been responsible also for the aggressive expansion of markets and have brought about, in part, the more orderly distribution of fruit and vegetable shipments.

An example of progress in this direction is the sales machinery of the California Fruit Growers' Exchange which maintains its own salaried agents in approximately 60 markets and reaches practically every city in the United States and Canada that is large enough to purchase citrus fruits in car lots. Before the organization of the exchange, the smaller cities were supplied, irregularly, from the larger markets in less than carload lots. No one of the several competing shippers maintained a marketing service sufficiently far-reaching to serve these smaller markets. Consequently, only the established wholesale centers received supplies direct from California. The sales department of the exchange is in constant touch with all these markets and has sufficient volume at its disposal to supply the quantity, and to a large extent the grade of fruit each market finds most desirable.

Purchasing Supplies Cooperatively

Coincidental with the growth of the cooperative fruit and vegetable marketing associations have developed a number of purchasing organizations which handle orchard and packing supplies. In many instances, the marketing associations function also as collective purchasing organizations. Generally, they have been able to effect appreciable savings. Such organizations are not peculiar to the fruit and vegetable industry, but are at least as strong in this industry as in any other.

In many cases, the members of fruit and vegetable marketing associations cooperate, either through their marketing organizations or through associations established for the purpose, in handling such matters as labor problems, farm credits or the enforcement of quarantine and pest-control regulations. They also cooperate

through these associations with State and Federal agencies in the investigation of problems of general benefit to the industry. Cooperation is influencing in many ways the general thought and practice of fruit and vegetable growers.

Significance of Cooperative Marketing

To understand and appreciate the significance of cooperative marketing it must be considered in connection with the functions essential to marketing and products must be assembled, graded, packed, transported, and distributed to wholesalers, retailers, and consumers in many widely separated markets. All these services must be financed. Cooperation can not be expected to alter radically marketing problems or methods of marketing. For the most part a cooperative organization must seek to improve existing methods. The success with which an organization is able to reduce marketing costs and improve marketing services will determine its value to its members. The problem of getting fruits and vegetables from the farms and orchards to the consumers economically, in good condition and at prices which are reasonable to the consumer yet return a fair reward for the labor and capital invested in production, is the same whatever types of marketing agencies are set up.

A cooperative association, therefore, is on the same basis as privately owned organizations in undertaking to market fruits and vegetables. Its service to its members depends upon its ability to perform the marketing functions better and more economically than they have been performed in the past. In addition to the performance of services which justify its immediate existence, a cooperative association, because it represents the producer, is under obligation to develop better methods of marketing and adopt those which prove to be practicable.

The development of by-products, canning plants, and fruit-juice factories are examples of the efforts of cooperative agencies to improve their markets. Direct sales to chain stores may also be mentioned, as well as various efforts to induce retailers to adopt better methods of displaying fruits and vegetables and increase the demand. Cooperative associations are vitally interested in such things as terminal-market facilities, transportation service, the margins and costs of retailers, because all of these factors affect the profit of the man who grows the crop. A large part of the possibilities of cooperative marketing lies in the success with which the growers' organizations may be able to assist in solving the distribution problems which arise after their shipments reach the city markets.

One of the limitations of cooperative marketing, however, is the lack of control which the organizations have over the services incident to retail distribution. All the cooperative agencies or any other shipper can do is to deliver a standardized product to the wholesaler and to regulate distribution so that no market will receive more than will be consumed under normal conditions.

The associations can not create a market where none exists, they can not get high prices for poorly graded products or those of inferior quality, nor can they avoid low prices which follow overproduction.

Failure to regulate production in accordance with market demands has been an outstanding limitation of the fruit and vegetable association. Since 1920 shipments of fruits have increased over 30 per cent and vegetable shipments 33 per cent. At the same time the population of the United States has increased not more than 8 to 10 per cent. Prices in general have reflected this condition and have failed to equalize the increased costs of producing the crop.

It seldom has been realized that stabilization of distribution must include stabilization of production. In so far as the supply of fruits and vegetables can be adjusted to conform to the normal demands of the market, both the producers and consumers will benefit.

Up to the present time, the efforts of the fruit and vegetable-marketing organizations have been devoted mainly to preparing for market and selling the products of their members. Many cooperative associations have introduced definite savings and have brought about improvements in the grade and pack of fruit and vegetable products.

The question of the stabilization of production has not been met except incidentally. The Fruit Growers Supply Co., the purchasing organization of the cooperative associations affiliated with the California Fruit Growers Exchange, has maintained a bud-supply department. By furnishing the growers with buds from citrus trees of known productivity and which bear fruit of good quality, it has been instrumental in improving the marketing qualities of California oranges and lemons. Some associations are concerned with questions of fertilization, cultivation, and pruning with the avowed purpose of establishing approved methods and raising the quality of the fruit or vegetable placed on the market.

This, however, is but one phase of the problem. Partly because of the successful merchandising and advertising program of the California Fruit Growers Exchange, as one example, the production of citrus fruits in California has increased enormously. Marketing the crop at a profit to growers has become progressively difficult. Comparable increases are apparent in almost every fruit and vegetable crop. (See figs. 299 and 300.)

If production is outstripping market requirements, the necessary adjustments will be made in time even without conscious planning on the part of the organized growers. Such adjustments have been attended in the past by financial distress to a large number of producers which has extended over several years. If the growers, through their cooperative associations, are able to modify the conditions that make necessary the abandonment of orchards and truck fields and the neglect of those which are kept in tillage, they will perform a service at least equal in value to the improvements they may be able to make in the distribution of the crops once they are produced.

Stabilization of production in the fruit and vegetable industries is confessedly difficult. It is difficult to correlate the production plans of a large number of growers. Weather conditions affecting yields may upset the most carefully made calculations. Nothing can be accomplished unless the growers cooperate for the purpose of marketing their products. Then, having demonstrated their ability to work together and to conduct a marketing business, they may

hope to bring about a degree of correlation between production and demand that does not exist at the present time.

The information the association requires for such a program is being collected in part by the Department of Agriculture and other agencies. As the need for supplemental information becomes apparent, it can be collected, in most instances, by these same agencies.

The basic information necessary are acreages and yields of the crops handled by each association and of competing crops not only in the United States, but from countries selling in the same markets. A knowledge of prices over long periods is necessary. Not only is it necessary to have historical information regarding yields and prices, but it is necessary to use these and further data as a basis to forecast future trends. The crop forecasts of the Department of Agriculture give in advance estimates of the current crop. Acreages of nonbearing fruits show the trend in the production of these crops. Agricultural outlook and "intentions to plant" reports put out by the department in the spring of each year are also available.

General economic conditions are important as an index of the probable purchasing power of the consumer. All this statistical information must be interpreted and made available to the growers by the cooperative association. Such a program on the part of even a few of the cooperative associations marketing fruits and vegetables would do much to make clear to producers the close relationship which must exist between production and marketing.

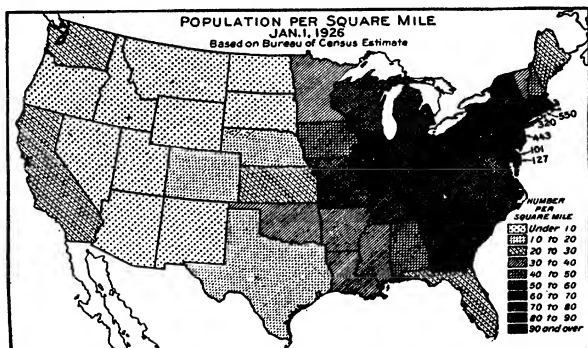


FIG. 325.—The population of the United States is densest around the individual centers, which are also the areas of greatest consumption of fruits and vegetables

Transportation and Storage of Fruits and Vegetables

Transportation and storage facilities are factors of prime importance in the location of areas for fruit and vegetable production in relation to the large consuming centers. The thickly populated industrial regions now consume a great deal more of such foodstuffs than are produced in the closely adjacent territory (fig. 325). Prior to the advent of the steam railroad, fruit and vegetable growing was

merely incidental to general farming, and commercial production of these crops was limited to sections adjacent to the larger towns and seaports. As the railways spread through the country new areas adapted to fruit and vegetable growing became accessible and the improved transportation facilities assuring an outlet to market encouraged new plantings. These new production areas stimulated the development of better transportation facilities and these in turn tended to increase the distance from market in which perishable commodities could be grown successfully on a commercial scale. At the present time, fruits and vegetables are frequently produced in regions far distant from the industrial centers which are the chief markets. Examples of this are the muskmelon and head-lettuce industries of the far West, the citrus industries of Florida and California, and the apple industry of the Pacific Northwest. Such highly perishable commodities are grown at a distance of from 1,000 to 3,000 miles from their principal markets. Industries of this character can exist under these conditions only through the employment of the highly specialized methods of refrigerated transportation which have been developed.

Storage

Although the development of transportation facilities has made possible the production of fruits and vegetables in those geographical regions of the country where they can be grown most readily, the working out of proper methods of storage and the inherent storage quality of the product are probably of foremost importance in determining the extent to which these crops shall be grown. For example, apples or potatoes can be held throughout the year, and the total quantity consumed is much larger than it would be were they not capable of relatively long storage. Strawberry holding in the fresh state is very limited, and the total strawberry production is far less than it would be if it were possible to store them in the fresh state and thus extend the fresh strawberry season.

Storage of fruits or vegetables is the keeping of these products after they are harvested and before marketing, or before they go into consumption. The purpose of storage is to conserve commodities so that they may be used later as foodstuffs or in the industries. Some fruits and vegetables are seasonal in production or at least can be produced most cheaply for given markets at certain seasons in the year. Where the commodities are of such character as will retain their food value and attractiveness in storage, they can be kept in this way. The season for the consumption of the crop can thus be lengthened. The consumer is thereby insured a supply of a given commodity for a longer period, and the producer obtains a market for a longer time and a greater total quantity of produce. There is also less liability of an over supply on the market at any time as the surplus can be placed in storage and held for a later, more favorable market.

With crops such as oranges which are in supply on the market direct from the groves at all seasons of the year, storage is not an important factor in the marketing under normal conditions. With products such as apples storage is essential if the producer is to

escape the ruinous gluts of the market which would occur without storage facilities to assist in the orderly distribution of the crop. The consumer, on the other hand, would be unable to procure apples through a considerable portion of the year. The purposes of storage then are to lengthen the time in which a crop may be marketed and consumed and to prevent a condition of oversupply at one time and undersupply at another, thus assisting in the orderly marketing of the produce. By this method of conserving produce the consumer is assured a more uniform supply and a more varied diet.

Place of Storage

Fruits and vegetables may be stored on the farms where they are produced, at the shipping point, at the large terminal markets, or at some point between the shipping point and the terminal market, the last mentioned being termed storage in transit. All these places of storage are frequently used for the same commodities. In general, it may be said that most of the storage of highly perishable products such as berries, peaches, plums, and summer fruits, also lettuce and celery, is at the terminal markets. These products are so perishable that if they are to be stored at all, it is essential that they be stored near the point of consumption so that they will not have to undergo shipment and extended handling following their removal from storage.

Less perishable commodities, such as apples, winter pears, cabbage, onions, and potatoes, may be, and most of them are, stored in large quantities both at the point of production, in transit, and in the terminal markets. Storage at the point of production for these commodities has the advantage of being immediately accessible during the harvesting of the product. If storage is to be at the terminal markets, the product must undergo considerable handling and delay between the time of harvest and final storage in the terminal markets. With such commodities as apples, which are by far the most important storage fruit, a delay between the time of harvest and the time of placing in storage will result in very serious deterioration of the fruit. Consequently, good storage facilities at or near the point of production will usually insure a firmer apple and more satisfactory storage product. During the harvest season for apples relatively high temperatures prevail which ripen the fruit very rapidly. After one to two months or longer in storage at the shipping point, however, the fruit can be handled and transported under very much cooler climatic conditions. For these reasons, satisfactory shipping-point storage for such products as apples will generally give the most satisfactory results.

The advantages of storage in transit or terminal storage for such commodities as apples are also apparent. The products are near the point of consumption so that advantage can readily be taken of fluctuations in the markets. Also in certain districts of the United States midwinter temperatures are such that the transportation of commodities subject to freezing injury is rather difficult at that season of the year. Consequently, there is an advantage in having a midwinter supply of these commodities at or near the consuming centers before severe winter weather occurs.

Fruits and vegetables which will stand exposures to moderately high temperatures without injury are stored almost entirely at or near the point of production without refrigeration. Such commodities include potatoes, sweet potatoes, and cranberries. Potatoes, which occupy considerably more storage space in a normal year than all the other vegetables combined, are not injured by moderate natural fall temperatures and during the winter and early spring will keep in prime condition for table stock at a temperature of 38° to 40°. Sweet potatoes are second only to potatoes in quantities stored and are practically always stored in the producing region. Cranberries, likewise, can be held very successfully in nonrefrigerated storage in the regions in which they are produced.

Storage in transit is a term applied to the storage of a commodity which has been shipped part way to some terminal market and there placed in storage. As applied to apples of the Pacific Northwest, a car of this fruit might be shipped to some point such as Tulsa, Okla., held in storage there for several months and then reshipped to some point south or east such as New Orleans, or Jacksonville, at a through rate from the point of origin to the final destination, plus a small additional charge per box for the privilege of unloading, reloading, and shipping. Storage in transit has the advantage that it makes possible a much wider distribution of the commodity than does storage in a terminal market which is so located geographically that the commodity can not be moved to another market without retracing a part of its journey. Storage in transit is the principle of diversion in carload shipment carried a step further in that it allows the produce to be unloaded from the cars and held for a time before resuming its journey to its final market. It has the same advantage over shipping-point storage that terminal storage has, namely, of being relatively very much nearer the consuming centers. Thus reshipment can be made at any time, since it is usually for short distances, and advantage can be taken of market fluctuations.

Types of Storage Warehouses

There are two types of storages for fruits and vegetables—the air-cooled storage which depends for its cooling on the natural temperature of the air outside the storage plant, and the cold storage which is cooled either by mechanical means or by ice which has been harvested in the winter and stored for this purpose. There are, of course, a number of modifications in design of these types of storages, and in some cases, there are even combinations of the two types in that an air-cooled storage may utilize ice or machinery for cooling down produce or for maintaining temperatures during warm weather.

In general, the principal vegetable crops are stored in air-cooled storage. Potatoes for table stock are stored almost altogether in this type of storage, which may be constructed underground, partially underground, or wholly above ground. In a plan for an underground storage which has been built and operated successfully ventilation is provided by ports or conduits down to the floor and ventilators in the ceiling. The potatoes are stored in bins along the sides while a driveway through the center of the structure provides

a convenient method for loading and unloading the bins, also space for sorting and handling the potatoes in preparing them for market. The exterior of a potato storage of a type very common in the Maine potato region is shown in Figure 326.

Pits, consisting of stacks of potatoes covered over with straw and earth, to protect them from extremes of heat or cold, are also used rather extensively for holding potatoes through the winter.

Protection from freezing is, in many cases, as important as is the rapid cooling down of the produce. Ventilation of the house so as to regulate the humidity is of great importance to vegetable crops. Much of the loss of potatoes in storage is due to rots caused by



FIG. 326.—Exterior of a potato-storage house in common use in the potato region of Maine. The opening by the doorway is the air intake for a conduit which distributes cool air to all parts of the basement

various fungi which are usually favored by conditions of high humidity.

Cabbage and onions are usually stored in common or air-cooled warehouses in the producing region, though in some cases the last-mentioned crop is held in cold storage. This is particularly true where the air temperatures of the growing region are too high to provide the necessary cooling. Onions store best and longest at temperatures of about 32° F., and it is sometimes difficult to obtain such a temperature with an air-cooled storage.

Sweet potatoes which require a temperature of about 55° F. for best results are stored in large quantities in New Jersey, Delaware, Maryland, and the Southern States. Specially designed houses are used (fig. 327), provided with air ports at the base and ventilators in

the roof, together with a heating system to furnish the proper conditions for the curing of this crop.

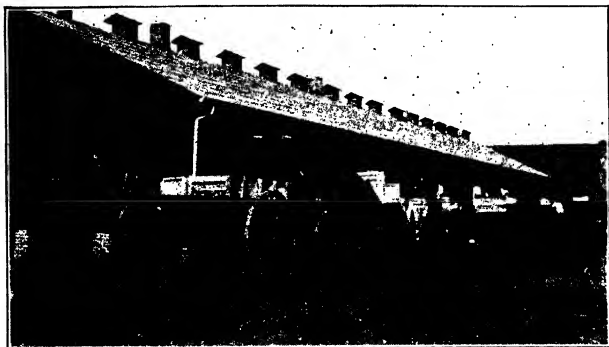


FIG. 327.—Sweet-potato storage house

Air-cooled storages are used for certain kinds of fruit in many localities, and, given the proper climatic conditions, together with houses properly constructed and ventilated, good results may be ob-



FIG. 328.—Common or air-cooled storage for apples

tained from this method of storage. A type of storage recommended for apples is shown in Figure 328. This storage consists of an insu-

lated building provided with large ventilators at the top and inlet ports so arranged that air is admitted at the bottom under the fruit which is stacked in boxes, barrels, or crates on a slatted floor. In manipulating the ventilating devices to cool the house, the inlet ports and ventilators are opened when the air outside is cooler than the fruit or the air within the house, and a current of air passes through. The ventilators and air ports are closed when the air within the house is cooler than the outside air. This type of house is fairly well adapted to the storage of apples at certain seasons of the year in the producing regions of the northern sections of the country in which the climate is such that the temperatures at harvesting time are, as a rule, relatively cool. The success of air-cooled

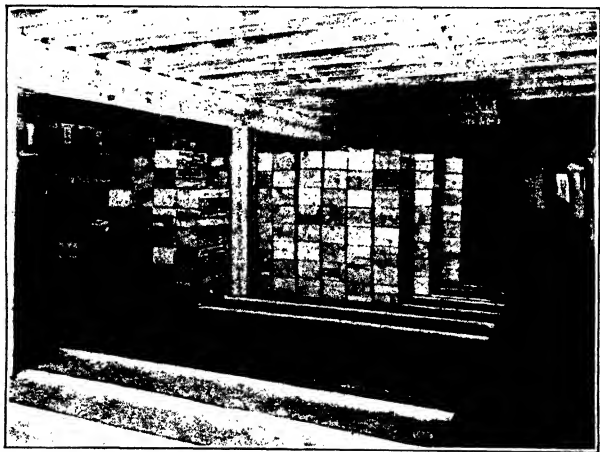


FIG. 329.—Interior of an air-cooled lemon storage house in California

storage for apples depends upon the temperatures which prevail in the region at and following harvest, and upon the varieties produced. Air-cooled storage for apples is usually employed for short storage periods until it is possible to move the crop to market or until the price is favorable. In certain regions, however, it is well adapted to the holding of some varieties until spring.

A somewhat similar air-cooled storage is used for lemons in California (fig. 329). This fruit stores best at a temperature of about 55° F. Climatic conditions in most of the lemon-growing regions are such that this temperature can be maintained most of the time by the proper manipulation of the air ports and ventilators. The best types of lemon storage are cellars or basements either wholly or partially underground. By building in this way, a more even temperature is maintained than is possible with buildings wholly

above ground unless the latter are heavily insulated. As the moisture content of the air is low and the lemons require a humidity of from 85 to 97 per cent in order to obviate excessive shrinkage, water is sprinkled on the floor or evaporated from suitable humidifiers. This also assists in cooling the air. Lemons are kept in these houses for as many as 120 days, and the best grade of lemons are those which are picked green and ripened in these cellar storages. The total storage capacity for lemons in southern California is from 5,000 to 6,000 cars consisting of 406 boxes of 86 pounds each to the car.

In the cranberry-producing sections of the country, this fruit is stored almost exclusively in heavily insulated, air-cooled storage houses and fairly satisfactory results are obtained.

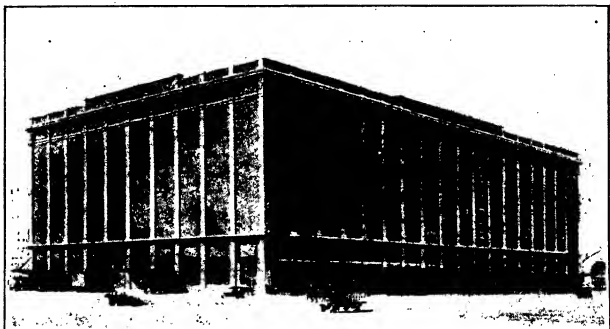


FIG. 330.—A modern cold-storage warehouse

Cold Storage

Cold storage as a means of retarding the deterioration of food products is the result of gradual evolution and had its beginning in the use of natural ice in caves and cellars. Various kinds of ice-cooled chambers were built, and insulation materials developed to decrease the ice meltage and maintain lower temperatures. One of the earliest of the successful cold-storage plants used for fruit storage is mentioned by Taylor² as being operated in Cleveland in 1865. Apples were stored in this plant with success. The first cold-storage plants in the large terminal markets of New York and Chicago were cooled by ice or mixtures of ice and salt. This method of cooling was displaced by the mechanically operated refrigeration machine as soon as its reliability and economy had been demonstrated. At the present time some type of mechanical refrigeration is used in all the large cold-storage plants. A typical modern cold-storage plant is shown in Figure 330.

The application of mechanical refrigeration for the preservation of fruits began about 1880. Since that time there has been a very

² TAYLOR, W. A. INFLUENCE OF REFRIGERATION ON THE FRUIT INDUSTRY, Dept. Agr. yearbook, 1900, pp. 561-580.

rapid increase in the facilities for the cold storage of fruits and vegetables. Since 1900, as shown in Figure 331, the amount of space available for the storage of produce has increased more than 500 per cent. This does not include meat-packinghouse refrigeration, meat markets, and such establishments, but refers to cold-storage warehouses for public storage of food products including fruits and vegetables, meats, dressed poultry, eggs, and dairy products.

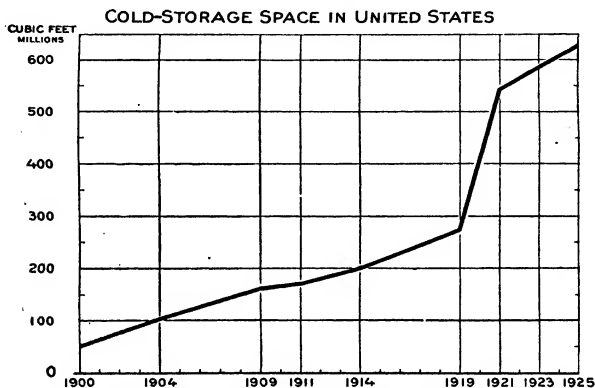


FIG. 331.—The increase of cold-storage space during the period from 1900 to 1925 expressed in terms of millions of cubic feet

Storage Holdings of Fruits and Vegetables

Most of the cold-storage space occupied by fruits and vegetables is used for apples, and the cold-storage holdings of this fruit in December of each year for a number of years are shown in Figure 332. It is noticeable that they increased markedly in the 20 years from 1900 to 1920, the increase being relatively as great as the increase in cold-storage space during that time. The average total production of apples increased very little during this period but the quantity of apples placed in cold storage increased nearly 500 per cent. Only about 2 per cent of the total apple crop produced was placed in cold storage in 1900, whereas something over 9 per cent of the total 1920 crop was in cold storage in December of that year.

The percentage of the commercial apple crop or that portion of the total crop actually marketed, which is in cold storage in December is much higher. The data in Table 3 shows that from 1919 to 1925 from 20 to almost 30 per cent of the commercial crop was in cold storage on December 1. In 1900, nearly 25 per cent of all the cold-storage space, exclusive of that used by meat packinghouses, breweries, creameries, and other enterprises, was occupied with the storage of apples. This is, of course, a very large propor-

tion of storage space, but it must be remembered that apples are the most important of the fruit crops and that many varieties can be kept for a long period. The marketing of the crop is thus spread over a much longer time than would otherwise be possible.

APPLES IN COLD STORAGE

Dec., 1898-1900 and Dec., 1915-1925

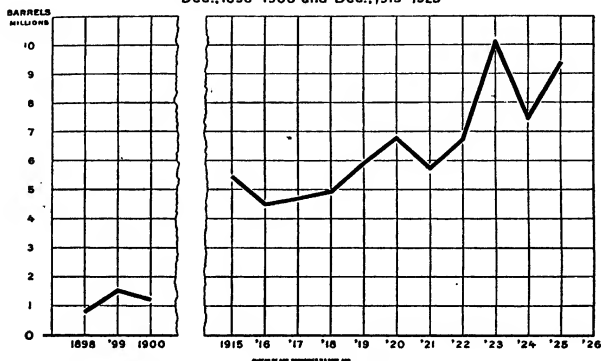


FIG. 332.—The number of barrels of apples in cold storage in December, 1898, 1899, and 1900, and from 1915 to 1925, inclusive

TABLE 3.—Commercial apple crop, cold-storage holdings, December 1, and percentage of latter to former, 1919-1925

| Years | Commercial apple crop | Cold storage holdings Dec. 1 | Commercial crop in cold storage Dec. 1 |
|-----------|-----------------------|------------------------------|--|
| | <i>Barrels</i> | <i>Barrels</i> | <i>Per cent</i> |
| 1919..... | 26,159,000 | 5,923,000 | 22.6 |
| 1920..... | 33,905,000 | 6,787,000 | 20.0 |
| 1921..... | 21,557,000 | 5,739,000 | 26.6 |
| 1922..... | 31,945,000 | 6,743,000 | 21.1 |
| 1923..... | 35,936,000 | 10,069,000 | 28.1 |
| 1924..... | 28,063,000 | 7,473,000 | 26.6 |
| 1925..... | 31,909,000 | 9,398,000 | 29.4 |

There are relatively large holdings of pears in cold storage, certain varieties keeping in good condition until well into the spring. Grapes also, particularly certain varieties from California, are held in large quantities until after New Years. Peaches, plums, cherries, and berries are stored only for short periods. Nuts store well and the demand for cold-storage space for this commodity is on the increase.

Such fruits as berries and cherries are frequently stored in freezing storage and kept frozen until required for use in pies, jams, and marmalades. Large quantities of berries and sour cherries are placed in barrels, with or without sugar, and held in a hard

frozen condition at temperatures of 15° to 20° F. until needed. This fruit is utilized primarily in the preserving trade. The handling of fruit by this method is increasing rapidly, the total pack at the present time (seasons of 1924 and 1925) totaling more than 50,000 barrels of 50 gallons each.

The cold-storage holdings of vegetable crops are relatively small as compared to the fruit holdings. Rather large quantities of celery are put in storage in the Northern States each fall, and held until midwinter. Southern-grown celery is also held in cold storage for short periods. Onions are held in cold storage in relatively large quantities, particularly in the warmer sections of the country where winter temperatures do not average near freezing. Seed potatoes, for very late planting, are handled largely through cold storage. Table stock during years of high prices is handled in cold storage in the warmer sections of the country, including such cities as San Francisco and Los Angeles. Carrots, beets, and other vegetables are handled in cold storage to a very limited extent.

It is difficult to obtain accurate information as to the exact quantity of apples in air-cooled storage or in farm cellars that will later appear in the market. This quantity is large, however, and has an appreciable effect on the market.

It is also difficult to get an accurate estimate of the total quantity of vegetables such as sweet potatoes or potatoes held in storage in the producing regions. Practically all of the winter supply of these commodities, representing a large proportion of the total produced, is held for periods of a few weeks to many months in some type of farm or shipping-point storage.

Physiological Factors Affecting the Storage of Fruits and Vegetables

The theory of storage of fresh or living fruits and vegetables is to furnish the conditions necessary for the slowing down of the life processes of these organisms without stopping them altogether and still keep the products attractive and desirable as articles of food. The principle upon which cold storage is based is that within limits the life processes of fruits and vegetables go on more rapidly at high than at low temperatures. All fruits and vegetables, however, do not react in the same way to these temperature changes, and temperatures around 32° F. which will keep apples in fine condition for months are wholly unsuited for the storage of sweet potatoes, potatoes, or lemons.

Sweet potatoes, after a preliminary curing period at temperatures varying from 80° to 90° F., store best at 55°, and if properly cured and the storage is kept at the proper humidity, can be held for a long period. Apples at this temperature soon break down. Then again, potatoes stored at 32° will keep for a year or two. They, however, develop a sweet taste owing to the accumulation of cane sugar. This is considered undesirable for table stock. Stored at temperatures above 38°, this accumulation of cane sugar does not take place, and the potatoes may be stored throughout the winter and well into the spring without considerable loss.

Since no two kinds of fruit or vegetables behave in exactly the same way under identical storage conditions, it is necessary to work out the proper temperature and moisture conditions for each

commodity, and problems along these lines have claimed the attention of the practical cold-storage man and investigators since the storage of these products became such an important factor in our mode of living. Although much work has been done on these problems, changing conditions are continually presenting new problems and new phases of old problems for solution.

Transportation

The influence of rail transportation on the development of the fruit and vegetable industry has already been given some attention. It is sufficient to note here that the development of rapid and efficient rail transportation, such as exists in this country to-day, has made possible the location of the various fruit and vegetable-producing areas in regions whose climate and soil conditions are favorable to the best development of these crops, with, in many cases, little regard to whether or not they were close to a large market.

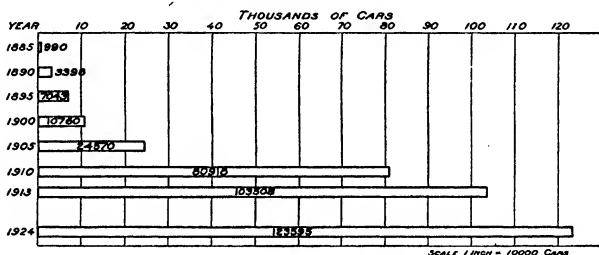


FIG. 333.—Increase in the number of refrigerator cars in the United States from 1885 to 1924. Of the total for 1924 4,274 cars were not equipped with ice tanks. Figures for 1885-1905 are not official; 1910-1924 are official Interstate Commerce Commission figures

Refrigerator-Car Service

The refrigerator car, which has been developed in the last 50 years, has had more influence in commercial-fruit and vegetable growing than any other single factor. The first more or less successful attempts to refrigerate fruits in transit in railway cars were made in the late sixties, from which there has developed a refrigerator-car service now extending over all the railways of the United States.

In 1902, the estimated number of refrigerator cars in service for all purposes was placed at 72,744, and in 1921 it was estimated that there were 118,738, of which 56,124 were privately owned. The increase in the total number of refrigerator cars in 19 years, therefore, amounts to 63 per cent. The Interstate Commerce Commission estimated the number of refrigerator cars in service April 30, 1924, to be 123,595, exclusive of the private cars belonging to the meat packers. (Fig. 333.) The total carloads of fruits and vegetables shipped primarily, although not entirely, in refrigerator cars increased from 659,611 during the calendar year 1920 to 914,542 during 1924.

Fast-Freight Service

It is interesting to note that the schedule for refrigerated shipments from California points to Chicago is 154 hours. This compares with 68 hours for the fast through passenger trains from Los Angeles to Chicago.

Before the general adaptation of the refrigerator car, fast-freight shipments were employed for the movement of fruits and vegetables. Solid trains of fruit were moved on schedules approximating those of passenger trains. This, of course, was a costly method of transportation, but it was successfully used in the delivery of highly perishable products to distant markets. With refrigerator-car service, this rapid movement of perishables is not so necessary, though highly perishable freight schedules are always faster than are those for nonperishable or dead freight. Thus, for the movement of potatoes and other perishable commodities in ordinary box cars, a considerably faster schedule is maintained than for ordinary freight.

Express Service, Including Express Refrigeration

In many fruit and vegetable districts within a radius of 200 to 300 miles of large cities, fruits and vegetables in less than carload lots are frequently handled by express. Often highly perishable fruits and vegetables are shipped great distances by express. Although the express rates on such shipments are, of course, higher than freight rates would be, the type of service and the rapidity of movement sometimes warrants the increased cost with certain extremely perishable products, such as strawberries, asparagus, etc., when shipping to out-of-season markets. For moving such produce in car lots over long distances, special types of refrigerator cars are often used, so constructed that they can be attached to passenger trains. Shipments in this type of equipment are given preferred movement, but the cost of transportation is proportionately greater, and can only be borne by highly perishable commodities having a high sales value.

For less than car-load shipments by express, insulated chests or boxes fitted with ice pans (fig. 334) are employed to a considerable extent for strawberries from the Southeast, and to a limited extent for raspberries from the Pacific Northwest, and for these commodities from certain sections of California. These chests, known as pony refrigerators, vary greatly in construction and arrangement, most of them being simply insulated wooden shipping boxes with two compartments, one for ice and the other for fruit. They vary in size from a box approximately 2 feet to one a little over 3 feet square. Maximum size is limited by the handling facilities of express companies and others, as well as by the quantity demands for the fruit the box contains.

The California boxes are more lightly constructed than most others, and are arranged for reicing in transit. This necessitates separate openings into the ice and fruit compartments. The Florida boxes are, in most cases, shipped with only an original icing. Generally, from one-third to one-fifth the amount of space is reserved for ice, depending upon the efficiency of the walls in retaining refrigeration, and whether or not reicing is possible or desirable while

in transit. The ice compartment is either built in a space located most conveniently in the upper part of the box or is a drawer similarly situated that may be withdrawn for icing in transit.

As the Florida box is not reiced in transit, the fruit chamber and ice compartment are separated only by the galvanized-iron pan that fills the upper part of the box and a smaller pan that divides the box through the center. In a 64-quart size pony refrigerator the top pan holds about 110 pounds, and the lower, or middle, pan about 40 pounds of ice.

The pony refrigerators are returned to the shippers and used over and over again. This method of refrigeration has a place in the shipment of perishables where it is desired to distribute a high-priced commodity, such as winter strawberries over a large area, and where few except the large terminal markets could handle carload shipments.

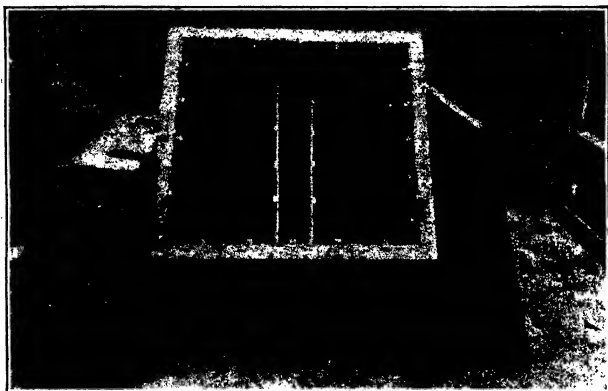


FIG. 334.—Pony refrigerator used for the shipment of strawberries and other very perishable fruits. Central portion is filled with ice; also pan shown at side of refrigerator is placed on top of fruit and filled with ice

Shipments Under Ventilation

Commodities not requiring the low temperatures obtainable under refrigeration are shipped under ventilation. In addition, there are commodities commonly shipped under refrigeration that may be shipped under ventilation during certain seasons of the year. This method of shipment is analagous to the air-cooled storage already discussed and its success is dependent upon the temperature of the air outside being sufficiently cool to hold the produce at the temperature required for successful carriage. It is used with citrus shipments originating in a warm region and traveling within a day or so into much cooler zones. Apples, cabbage, or onions may be transported in this way during the late fall and winter seasons. Most of the potato and all of the sweet-potato shipments move without refriger-

ation. This method of shipment is not used to any extent for highly perishable products such as strawberries, cherries, raspberries, lettuce, broccoli, or commodities requiring quick cooling, the value of which warrants the expense involved in refrigerating the cars.

The equipment used in ventilated transportation is usually the ordinary refrigerator car. These cars are provided with two hatchways at either end (fig. 335) giving access to the bunkers, through which the ice is passed in filling the ice compartments. These hatchways are snugly fitted with heavy insulator plugs, which, when in place, exclude the outside air. For further protection a hinged cover, known as the hatch cover, is provided which completely covers the hatchway and is generally so fitted to the hatch frame that it



FIG. 335.—Top of refrigerator car, showing hatchways used for the ventilation of the car and for the admission of ice to the ice bunkers located in ends of car

extends several inches above the level of the roof and is just below the level of the running board attached to the roof of the car. When such cars are used for ventilated service, the bunkers are not iced, the plugs are removed, and the hatch covers thrown back or held in a raised position by a simple device attached to the cover. The outside air then has free access to the car and circulates in and from the bunker, through the bunker openings, over and through the load. This air circulation is accelerated and is more efficient when the car is in motion. The hatch covers are usually hinged on the side toward the end of the car. In this case with the car in motion, the air enters by way of the rear hatches, circulates through the load, and issues from the car through the forward hatches. The refrigerator car handled in this type of service provides excellent opportunity for air circulation and a consequent benefit to the load.

Some railroads serving territory from which a considerable tonnage of produce is shipped under ventilation provide special equipment for this service. These cars are usually lightly insulated and constructed with openings in the ends which can be opened or closed by adjusting the angle of a louvre grating which fills the ventilator opening, or in some cases, by the opening or closing of a sliding door. In addition to the solid sliding side doors, there is provided an additional side door of the same size, but built either of louvre grating or of close-mesh heavy wire screen. This type of construction allows the car to be used either as an ordinary box car when its end ventilators are closed, or as a ventilator car when the end vents are open and the screen or louvre side doors are placed in position. There is no provision for refrigeration in this type of equipment.

Box cars are frequently used for ventilated shipments of commodities such as potatoes. Ordinarily the only provision for ventilating these cars is an opening at the side door, midway in the car. Ventilation of the lading depends upon circulation within the car of the air admitted through this open or partly open door. The custom is to slide the doors open as far as possible, fasten them, and then lattice or fasten narrow boards across the doorway space. This method does not provide for as thorough ventilation as can be obtained in the regular ventilator car or in the refrigerator car used as a ventilator.

Service and Practice

As has been mentioned, shipments of commodities may move under ventilation when the temperature of the outside air is low enough to cool the commodity and keep it in good condition until it reaches the market destination. Most refrigerator cars used in fruit and and vegetable service can be used as ventilator cars, and this service is available in practically all the important fruit and vegetable-shipping regions of the United States.

The rules for shipping under ventilation provide that the carrier allow the vents to remain open as long as the air outside the car is above a certain temperature, which, under standard practice (known as standard ventilation), at the present time is 32° F. When the outside air temperature drops to 32° the vents are to be closed, and are reopened when the temperature again rises above 32°. These precautions are taken to provide as thorough cooling of the lading as possible without danger of freezing. With commodities moving from a warm region to a colder one, as is the case in most ventilated shipments, this is very important. The term "vents" is applied to any opening in the cars used for the purpose of ventilation.

Shipments Under Refrigeration

By far the greater part of the fruit crop and much of the vegetable crop of the country moves by rail on a journey of such duration and at such seasons of the year that control of transit conditions, especially the temperature inside the cars, is a necessity in order to prevent undue ripening and deterioration. This control is made

possible by means of the refrigerator car, the insulated walls of which provide protection to the lading against extremes of external heat and cold and make it possible to effectively refrigerate the load by the use of ice. Adequate insulation is recognized as an essential feature of refrigerator-car construction. Investigations to determine the degree of protection necessary have been under way for some time, and the results are summarized in standard refrigerator-car specifications issued by the United States Railroad Administration, which call for a minimum of 2 inches of high-grade insulation in side and end walls, and floors of refrigerator cars, and $2\frac{1}{2}$ inches in the ceilings.

In addition to adequate insulation, other features of refrigerator-car construction now regarded as essential for effective and reasonably uniform refrigeration are illustrated in Figure 336. Floor racks raising the load 4 inches or more above the floor, enlarged air openings in ice-bunker bulkheads, low splashboards at edge of drip pans, and basket-type ice bunkers which hold the ice away from the walls leaving space for air flow on all sides, together with insulated solid bulkheads, provide for the circulation and uniform distribu-

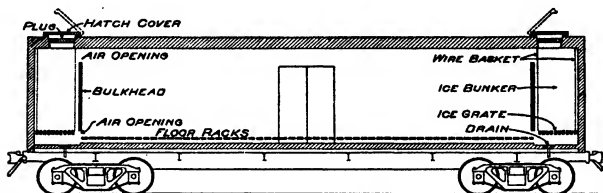


FIG. 336.—Plan of refrigerator car showing floor racks, ice bunkers, and other features

tion of the largest possible volume of air, which is the means by which the refrigeration supplied by the ice is carried through the lading.

In practice the bunkers, which in a standard refrigerator car are designed to hold each 5,000 pounds of ice, are usually filled to capacity before loading the produce into the car. This preicing, as it is called, takes place from 8 to 12 hours before the car is loaded, in order to have the car as cool as possible when loaded. In loading the produce, it is considered good practice to leave air space between the packages, to provide for good circulation of the cooled air through the packages. It is necessary with most types of packages to brace the load thoroughly to keep it from shifting while it is in transit.

If the car is to be shipped under what is known as standard refrigeration, it is hauled to the icing platform (fig. 335) soon after loading and reiced; that is, the bunkers are refilled to capacity. Standard refrigeration also requires that the ice bunkers of the cars be refilled to capacity at each icing station en route to market destination. All highly perishable commodities such as muskmelons, peaches, broccoli, berries, plums, summer pears, and similar commodities, are practically always shipped under standard refrigeration or under full refrigeration with salt added to the ice.

Citrus fruits, apples, or similar commodities, may be shipped under standard refrigeration, ventilation, or under initial icing only. The latter provides for one icing at the beginning of the journey to market and no icing en route. The addition of salt to the ice in refrigerator cars is a growing practice in many shipping districts, particularly in the shipment of highly perishable lading. Shipping instructions call for the addition of a definite percentage of salt by weight at the time of various reicings in transit. After the bunker is filled with ice, a quantity of coarse salt equal to 2, 3, or even 5 per cent of the weight of ice added, is poured on top of the ice in the bunker. The mixture of salt and ice gives lower temperatures and more rapid cooling of the lading than is obtained from ice alone. If too much salt is used, there is some danger of freezing the lading by this practice.

Precooled Shipments

By precooling is meant the cooling down of produce to a good carrying temperature, either before or immediately after it is placed in the car for shipment. In most cases the present practice consists in stacking the containers of fruits or vegetables in well-insulated rooms and circulating a current of cold air over them until they have been cooled to a temperature as low as can be maintained in a refrigerator car. With some commodities water precooling is employed. This consists in treating the commodity with water at temperatures of 35° to 40° F., either by spraying or by immersing in the water. Water precooling is confined to lettuce, celery, spinach, and broccoli and products of this type which are not injured by wetting and can be shipped in that condition without being damaged. Produce is sometimes precooled after it is loaded by forcing cold air into the car through the hatches at one end of the car and removing it from the other end. Precooling by this method is usually carried on at large plants in connection with railroad icing stations.

Other Types of Refrigeration

With vegetables such as lettuce and spinach, it is the practice in some producing regions to put a quantity of crushed ice or a lump of ice in each crate between the layers of vegetables which in melting cools the contents of the package very quickly. This practice must be confined to commodities which will not be mechanically injured by the ice or by being wet. In some cases, the placing of ice on the top of a load in the body of the car is also practiced. These methods of refrigeration are somewhat similar to precooling, in that they attain a quick cooling of the commodity.

Protection from Freezing in Transit

Many vegetables are stored almost entirely in the producing regions and there is also much storage of fruits, especially apples, at points adjacent to where they are produced. These products are in many cases moved to market during the winter months when there is danger of freezing en route. It is necessary, therefore, to provide some method for their protection from low temperature injury.

Under some conditions the insulated car used as a refrigerator car will afford sufficient protection. In the movement of apples from the Pacific Northwest, or potatoes from northern Maine, however, it is necessary to provide special protection.

One of the most common methods for protecting the lading from freezing is to use the ordinary refrigerator car and place stoves in the bunkers. Special stoves have been developed for this service, using kerosene, hard coal, alcohol, charcoal briquettes, or wood as fuel. The present tendency is strongly in the direction of heaters using charcoal for fuel. In some cases, provision is made for the carriers to attend to heating the cars en route, this service being known in certain sections of the country as carriers' protective service. The shippers may, however, furnish such service themselves in which case a messenger is usually sent along with a number of cars to attend to the lighting of the heaters, to keep fuel in the stoves, and to render such service as is necessary to ensure the safe arrival of the commodities at the market. This method of employing refrigerator cars as heater cars is advantageous to both carrier and shipper. During the winter season there is less demand for the equipment for use as refrigerator cars which leaves well-insulated cars free for use in handling products that require protection from low temperatures while in transit.

Cars equipped especially for heater service, with the heaters installed permanently and the car body so constructed that the hot air from the heater is conducted under the floor and around and over the lading are sometimes provided. Because of the relatively short season in which such cars are needed, and the fact that they are not readily adaptable for other uses, it is questionable whether the construction of a special type of heater car is warranted.

Modified Box Cars for Prevention of Freezing

Ordinary box cars are in some cases adapted to the prevention of low-temperature injury to fruit and vegetables by placing a solid lining of boards in such a manner as to leave a 6-inch air space between the lining and sides, ends, and floor of the cars, thus providing a channel for the circulation of air around the load. The doorway is bulkheaded off from the rest of the car and a stove installed in the space between the doors, with the stovepipe extending through a temporary panel placed in position in one of the doorways. This type of heater car is used to a considerable extent in transporting potatoes grown in the Northeastern and New England States. This method requires the services of a messenger to keep the stoves burning and the cars properly heated.

Box cars without heating are also used in the shipment of produce in the winter by providing a false floor and insulating the space beneath the false floor, the sides and ends of the car and the top of the load with a thick layer of shavings or sawdust. This method has been used particularly in the shipment of boxed apples. Its success in preventing frost injury depends entirely, of course, on the heat contained in the produce and the protection afforded by the insulating material. In the further development of this type of service, it remains to determine the most efficient and economical method to use for all types of commodities.

Water Transportation

Since the opening of the Panama Canal, water transportation has assumed increasing importance in the distribution of fruits and vegetables. This route makes possible direct shipment by water from the West coast points to Europe, whereas before, export shipments to these markets required long rail haul and much re-handling. England always has been a good market for American apples, and it is becoming a market for American citrus fruits also. (Fig. 337.) Several lines of steamers equipped with refrigerator holds make regular sailings from the Pacific coast points to Europe, affording good transportation facilities for this export trade. From

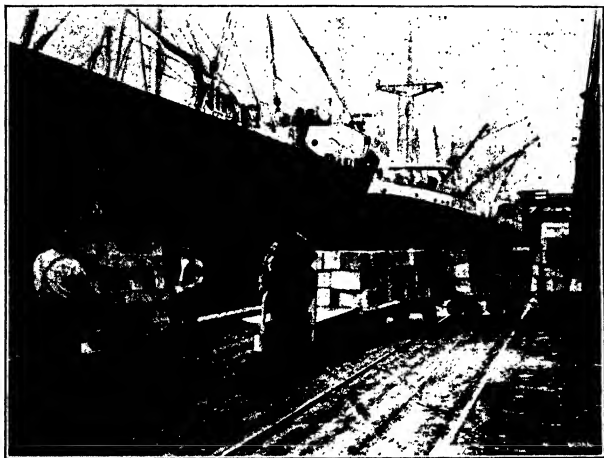


FIG. 337.—Loading citrus fruit at San Pedro, Calif., for shipment to England by way of the Panama Canal

the eastern United States there has been for many years a more or less steady export trade in apples, pears, and some vegetables. With the increase in refrigerated space in the ships on these runs, this trade should increase, as with proper handling it should be possible to transport peaches, plums, and other highly perishable fruits with assurance that they will arrive in fair condition.

Water transportation has been utilized for many years in the coastal trade for fruits and vegetables and with the development of refrigerated ships it bids fair to become more important. Where fruit can be handled direct from the producing region to terminal market by water, undoubtedly, this form of transportation is practicable, but where a considerable rail haul at either end of the journey is necessary, the advantage of water over rail transportation ceases to be so marked.

Motor Transportation

Highway transportation of fruits and vegetables by motor truck from the orchards and gardens direct to the consuming markets is rapidly replacing rail shipments wherever conditions are favorable. Motor transportation is, to a considerable degree, limited to regions relatively near the markets and where the greater part of the distance traversed is covered by hard-surfaced roads. Not only is motor transportation being employed for the quick handling of perishable products between the orchard and truck farm and the rail shipping point, but in many cases where the distance is not too great, the entire trip to market is being made by motor truck. Motor transportation has this advantage, that the produce may be loaded at the orchard or packing house and no extra handling is required until it reaches the market. As compared with rail or water transportation, the direct haul by motor truck is a decided saving in manual labor and it likewise avoids injury to the produce. By the other methods of transportation the produce must first be loaded at the farm, hauled to the shipping point, unloaded upon the platform, and later into the cars or boat, and after its journey by rail or boat, it must again be loaded upon wagons or trucks and hauled to the markets.

Where the distance does not exceed 150 miles, motor transportation in many instances consumes less time than is required in the several operations incident to rail or water transportation. Perishable commodities like strawberries, dewberries, peaches, plums, and grapes are being moved by motor truck in better condition in many cases than when transported by rail or water. Under ordinary conditions the more perishable fruits or vegetables are loaded on the motor truck late in the afternoon and reach the market about midnight, thus making their journey during the early part of the night when the temperature of the air is falling so that the load is well ventilated and cooled en route. Motor transportation over reasonably good roads has been found to cause less injury to the load from jolting than by rail shipment, and in addition the ventilation of the motor load is superior.

Examples of successful motor transportation over relatively long distances are numerous but that on the Eastern Shore of Virginia and Maryland will serve as an example. During the strawberry season of 1925 the strawberry growers of the Virginia Peninsula and those of the adjacent section of Maryland established a motor transport to Philadelphia, Pa., Camden, N. J., and other markets in the general region around Philadelphia. The trucks were loaded at the field packing sheds about 4 p. m. and were unloaded on the Philadelphia wholesale market as a rule between midnight and 1 a. m. and the fruit arrived in excellent condition. The asparagus growers of the Morrisville section in eastern Pennsylvania formed an association and established motor transportation by means of which the product, leaving the farms late in the afternoon, arrived in Newark and Jersey City, N. J., in time for the early morning market. The peach growers of New Jersey have established similar motor transportation for their product which has proved both economical and a great saving in time.

The type of truck employed in this method of moving fruits and vegetables depends on the packages used and the commodity carried. Cabbage is generally loaded in bulk. In this case the truck is provided with vertical side and end racks. For peaches and sweet potatoes, which in certain sections are packed in hampers, the trucks are provided with vertical side and end racks, and also with horizontal racks on which the packages are placed in an upright position, thus forming layers in the load and protecting the lower layers from the weight of those above them. Generally, all loads are covered with a canvas sheet to protect them from dust and heat.

The refrigerated motor truck has not yet been fully developed although attempts have been made to construct one that will operate cheaply and effectively. Trucks of this type, however, are merely insulated boxes with a compartment reserved for ice similar to the bunkers in a refrigerator car. There is one form that depends on the circulation of brine through coils located in the top of the carrying compartment, which, from the standpoint of cooling the load is successful.

Motor transportation is revolutionizing the handling of fruits and vegetables and has materially changed the relationship of producing regions to markets in that sections 100 to 150 miles distant from the market which were formerly inaccessible for production are now within the range of economic utilization. Many cases might be cited where orchard and truck-growing enterprises of the past have failed for the want of this one factor which is so fully supplied in motor transportation.

World Production and World Markets

Imports of fruits and fruit products from the Old World to America began with the earliest colonization days. Because of the character of transportation then available—sailing vessels—it was impossible to transport any except the most nonperishable of the fresh fruits, and then only from the nearest countries from which they could be obtained. Naturally the bulk of the fruits moving in commerce were either dried or preserved. Raisins and prunes early became relatively important among the import commodities, although even these were considered luxuries.

According to accounts even before the Revolutionary period there was considerable importation of fruit products, but no statistics of imports or exports were published until 1821 when the Treasury Department issued a report covering trade of this character. In this report, currants, raisins, figs, plums, prunes, and almonds were separately mentioned but were not listed in such a way as to make it possible to determine the quantity of each imported; the total, however, for the year 1821, was given at 2,878,873 pounds at an estimated value of \$181,035. The report lists not only the dried fruits above mentioned but oranges, lemons, Malaga grapes in jars, tamarinds, citron, Maderia nuts, and filberts, as more or less regular commodities in the auction sales of the time, particularly in the New York markets. With this early beginning there has followed a gradual development of both export and import trade in fruits and vegetables. During the early period the United States was a heavy importer

especially of prunes, raisins, currants, and other dried products, including nuts. During recent years, however, the tide has turned and the United States is now a heavy exporter of most of these commodities.

Few people, including those engaged in the handling of fruits and vegetables, realize the enormous possibilities and influence of world production of or markets for fruits and vegetables. The marketing of perishables is undergoing a constant evolution from the standpoint of source of supply of several of our important food commodities. Under the present development of refrigerated transport service the United States is increasing both its export and import trade in perishable fruits and vegetables with the countries south of the Equator. A study of Tables 4, 5, and 6 will give the reader an idea of the enormous proportions that the imports and exports of fruits, vegetables, and nuts have attained.

TABLE 4.—*Imports of fruits, vegetables, and nuts*¹

| FRUITS | 1922 | | 1923 | |
|---|-------------|--------------|-------------|--------------|
| | Quantity | Value | Quantity | Value |
| Fresh fruits: | | | | |
| Bananas..... bunches..... | 45,063,892 | \$19,145,911 | 43,958,890 | \$19,738,508 |
| Apples..... bus..... | 144,081 | 279,787 | 133,417 | 250,606 |
| Berries..... lbs..... | 1,032,490 | 94,601 | 3,626,010 | 368,914 |
| Grapes..... cu. ft..... | 1,354,493 | 1,909,817 | 830,177 | 1,522,232 |
| Subtropical fruits..... lbs..... | | 9,062,261 | | 10,865,721 |
| Dried fruits..... lbs..... | 126,825,594 | 8,672,754 | 107,486,226 | 6,707,973 |
| Canned or preserved fruits..... lbs..... | 2,252,442 | 356,862 | 12,504,474 | 1,597,082 |
| Other fruits..... lbs..... | | 3,150,793 | 44,045,183 | 3,218,195 |
| Total..... | | 42,662,586 | | 44,269,231 |
| VEGETABLES | | | | |
| Fresh vegetables..... lbs..... | 259,456,940 | 7,169,778 | 276,835,083 | 7,793,538 |
| Dried, canned, and prepared..... lbs..... | 148,525,045 | 13,099,887 | 219,626,807 | 13,407,377 |
| Total..... | | 20,269,665 | | 21,200,915 |
| Grand total..... | | 62,932,251 | | 65,470,146 |

| FRUITS | 1924 | | 1925 | |
|---|-------------|--------------|-------------|--------------|
| | Quantity | Value | Quantity | Value |
| Fresh fruits: | | | | |
| Bananas..... bunches..... | 47,384,017 | \$22,074,410 | 55,483,374 | \$29,692,912 |
| Apples..... bus..... | 96,030 | 205,597 | 85,422 | 176,698 |
| Berries..... lbs..... | 5,254,546 | 408,399 | 5,952,031 | 511,747 |
| Grapes..... cu. ft..... | 107,854 | 337,850 | 119,532 | 549,934 |
| Subtropical fruits..... lbs..... | | 9,455,558 | | 10,401,300 |
| Dried fruits..... lbs..... | 127,430,733 | 6,932,504 | 147,408,006 | 8,426,832 |
| Canned or preserved fruits..... lbs..... | 17,943,504 | 2,185,379 | 25,157,792 | 2,963,464 |
| Other fruits..... lbs..... | 28,238,528 | 1,430,186 | 23,180,802 | 1,408,546 |
| Total..... | | 43,029,883 | | 54,131,431 |
| VEGETABLES | | | | |
| Fresh vegetables..... lbs..... | 319,828,448 | 7,371,166 | 516,620,548 | 11,639,012 |
| Dried, canned, and prepared..... lbs..... | 249,741,439 | 16,324,551 | 303,077,497 | 20,228,448 |
| Total..... | | 23,695,717 | | 31,867,460 |
| Grand total..... | | 66,725,590 | | 85,998,891 |

¹ Figures from Monthly Summaries of Foreign Commerce of the United States, December, 1923, and December, 1925.

TABLE 5.—*Exports of fruits, vegetables, and nuts*¹

| | 1922 | | 1923 | |
|--|---------------|---------------|---------------|---------------|
| | Quantity | Value | Quantity | Value |
| FRUITS | | | | |
| Fresh fruits: | | | | |
| Apples..... bbls. | 540, 703 | \$2, 599, 032 | 1, 401, 881 | \$6, 535, 601 |
| Do..... boxes. | 3, 323, 165 | 7, 396, 634 | 4, 670, 648 | 9, 676, 798 |
| Other fresh fruits..... lbs. | 106, 259, 545 | 5, 353, 932 | 127, 226, 246 | 6, 700, 289 |
| Subtropical fruits..... boxes. | 20, 706, 616 | 8, 780, 004 | 3, 148, 163 | 10, 453, 450 |
| Dried, canned, and preserved..... lbs. | 438, 194, 072 | 50, 078, 930 | 340, 230, 528 | 33, 951, 705 |
| Nuts..... lbs. | 16, 022, 025 | 1, 504, 724 | 10, 511, 278 | 1, 168, 465 |
| Total..... | | 75, 713, 256 | | 68, 480, 308 |
| VEGETABLES | | | | |
| Fresh vegetables..... lbs. | 89, 028, 281 | 7, 690, 451 | 85, 645, 891 | 7, 918, 684 |
| Dried, canned, and prepared..... lbs. | 59, 466, 580 | 9, 960, 202 | 65, 301, 860 | 11, 124, 989 |
| Total..... | | 17, 689, 653 | | 19, 043, 673 |
| Grand total..... | | 93, 402, 909 | | 87, 529, 981 |

| | 1924 | | 1925 | |
|--|---------------|---------------|---------------|---------------|
| | Quantity | Value | Quantity | Value |
| FRUITS | | | | |
| Fresh fruits: | | | | |
| Apples..... bbls. | 1, 890, 716 | \$8, 547, 442 | 1, 706, 916 | \$8, 275, 589 |
| Do..... boxes. | 6, 718, 872 | 15, 739, 601 | 4, 922, 140 | 12, 787, 495 |
| Other fresh fruits..... lbs. | 119, 440, 818 | 6, 405, 423 | 157, 006, 796 | 8, 749, 135 |
| Subtropical fruits..... boxes. | 3, 144, 844 | 10, 596, 234 | 2, 625, 601 | 12, 384, 837 |
| Dried, canned, and preserved..... lbs. | 625, 278, 221 | 53, 153, 458 | 596, 624, 910 | 56, 090, 087 |
| Nuts..... lbs. | 9, 600, 091 | 1, 238, 160 | 8, 119, 636 | 1, 273, 752 |
| Total..... | | 95, 720, 318 | | 99, 560, 895 |
| VEGETABLES | | | | |
| Fresh vegetables..... lbs. | 96, 619, 324 | 8, 448, 478 | 103, 839, 914 | 7, 798, 320 |
| Dried, canned, and prepared..... lbs. | 67, 016, 240 | 10, 080, 113 | 71, 376, 299 | 11, 266, 731 |
| Total..... | | 19, 428, 591 | | 19, 065, 051 |
| Grand total..... | | 115, 148, 909 | | 118, 625, 946 |

¹ Figures from Monthly Summaries of Foreign Commerce of the United States, December, 1923, and December, 1925.

Raisins

The importation of raisins was by far the largest item in the fruit imports listed in the 1821 report of the Treasury Department. Raisins in jars are reported at 1,030,240 pounds, and all other raisins, 1,174,210 pounds. These, together with 24,688 pounds of currants, 259,617 pounds of figs, and 264,818 pounds of almonds, made up the list of recorded imports which were given a value of \$181,035. The exact value of raisins is not stated but from this beginning the imports of raisins steadily increased from decade to decade until 1884, when the maximum import amounting to 56,676,657 pounds, valued at \$3,545,916.15, was reached. Although domestic production had begun before this period it had not attained sufficient importance to have any material effect upon the quantity of raisins imported. However, from 1884 the production of domestic raisins rapidly increased and as a result the importations fell off until 1898 when 3,109,639 pounds, valued at \$167,062.54, were exported and the exports increased in volume until at the present time it has attained the stupendous quantity of 125,923,926 pounds, valued at \$9,291,227.

The first domestic raisins to be offered in the American market consisted of 6,000 boxes in 1873. This product came entirely from California, and mostly from two vineyards in Solano and Yolo Counties. During the early years raisin production was attempted in several districts in California but eventually the bulk of the industry centered in Fresno County which still holds first rank in the production of this commodity.

Plums and Prunes

Plums and prunes are mentioned among the import commodities of the colonial period, but no statistics exist prior to 1821, during which year 125,300 pounds were imported. The value of this importation is not recorded, but from that time on the quantity of prunes and plums imported gradually increased until 1888 when the maximum of 82,914,579 pounds valued at \$2,679,759.16 was brought in. Following 1891, the rate of plum and prune importation rapidly decreased until a low level was reached.

The domestic production of prunes probably traces to a package of scions brought to San Francisco from France in 1856; but it was not until 1870 that orchards of any considerable size were planted. Following 1878 prune culture progressed rapidly in various regions on the Pacific coast. The first cured prunes were exhibited at the California State Fair in 1863, and are said to have been of the German variety. As recently as 1881, the output of the largest growers in California did not exceed 5 to 6 tons of cured fruit per annum. The California production for 1896 was estimated at 55,200,000 pounds.²

Commercial prune culture is located mainly in California, Oregon, Washington, and Idaho, the production centering in Santa Clara and Sonoma Counties, Calif., where conditions are well adapted for the sundrying of the fruit. The total production of dried prunes in the United States in 1925 was estimated at 167,900 tons. The establishment of all-water transportation from Pacific coast points to European countries has greatly aided the exportation of prunes, while the advertising of the food value of the prune has increased domestic consumption.

Currants

The United States imported 13,964,934 pounds of dried commercial currants in 1924, valued at \$1,022,851. These currants are in fact small raisins and not the true currants of our American gardens. The currant varieties of grapes have been established in California and the methods of producing and curing commercial currants have been successfully developed, and their production in the United States bids fair to become a repetition of the history of the raisin industry.

Figs

Importation of dried figs in 1924 amounted to 42,464,895 pounds valued at \$2,478,755. These figures indicate the extent to which the United States is still dependent upon Old World countries for its supply. Although the fig was introduced into this country during the early days of settlement, it is only within comparatively recent

² Yearbook, Department of Agriculture, 1897, p. 316, by W. A. Taylor.

years that the varieties best adapted for drying have become established in the United States and it is not improbable that there will be a great increase in fig production in this country in the near future.

Dates

Dates constitute another of the dried-fruit products which are imported in large quantities each year. According to statistics 63,606,863 pounds of dates were imported in 1924, this quantity being below normal, the estimate for 1925 being 78,705,567 pounds. Date culture has been rather slow in becoming established in the United States and it is improbable that the production of dates in this country will attain such proportions as to provide for domestic requirements at any time in the near future.

Oranges

Auction sales of oranges from the Mediterranean were of frequent occurrence in New York City early in the nineteenth century, but no separate mention of oranges in the schedules of imports appeared until 1855, when their value is given as \$476,694. During the four years that this fruit was separately scheduled the imports varied from that amount to \$753,695 in 1860. From 1862 to 1882, inclusive, oranges are not separately stated; but in 1883, when the item reappears, it amounts to \$3,010,663.56. This was the maximum, and was followed by a decline, which reached its lowest point in 1894.*

At present the importations of oranges are comparatively small, being valued at only \$55,433 in 1924 and \$53,865 for 1925.

Commercial orange culture as now practiced did not begin until after the acquisition of Florida by the United States, and at first was confined to such eligible sites as existed along navigable water which afforded transportation for the fruit. After the close of the Civil War the industry grew with wonderful rapidity as railroads and steamboats made possible the shipment of the fruit longer distances. In the season of 1886-87 over 1,000,000 boxes were marketed, and by 1894-95 the annual crop amounted to over 5,000,000 boxes.[†]

Although this was the maximum output for a period of years owing to the great freeze, the industry soon recovered, and in 1924-25, the shipment of oranges from Florida alone totaled 11,000,000 boxes.[‡]

Present Status of Imports of Fruits and Nuts

The foregoing pages have in a general way given the historical background of the development of import and export fruit trade between the United States and other countries of the world, with, however, no particular reference to the specific country with which the greater part of the trading has been done.

Table 6 shows the imports of fruits and nuts, and the principal countries from which bananas and walnuts come and the quantities of the several products. It shows that we are great consumers of bananas; that the trade in bananas is fairly stable, but in general, is on the increase rather than the decrease. An important feature of this trade, which is also clearly brought out, is the fact that it is an all-American industry, being centered in the Western Hemisphere, and the United States is a very important consumer. Lemons constitute by far the largest volume of fresh citrus fruits imported but the quantity fluctuates considerably from year to year.

* Yearbook, Department of Agriculture, 1897, p. 320, by W. A. Taylor.

† Yearbook, Department of Agriculture, 1897, p. 321, by W. A. Taylor.

‡ Bureau of Agricultural Economics, Crops and Markets, vol. 3, sup. 2, 1926.

TABLE G.—Imports of fruits and nuts

| | 1922 | 1923 | 1924 | 1925 |
|---|-------------|-------------|------------|-------------|
| FRUITS | | | | |
| Bananas..... bunches..... | 45,063,892 | 43,958,890 | 47,384,017 | 55,483,374 |
| Imported from: | | | | |
| Central America..... bunches..... | 29,517,895 | 27,667,941 | 29,920,677 | 34,410,787 |
| Jamaica..... bunches..... | 10,665,120 | 9,234,273 | 10,013,740 | 12,610,495 |
| Cuba..... bunches..... | 1,808,872 | 2,277,011 | 1,709,653 | 2,695,503 |
| Colombia..... bunches..... | 2,205,538 | 2,475,775 | 2,494,949 | 2,195,145 |
| Other countries..... bunches..... | 896,467 | 2,303,890 | 3,244,998 | 3,559,444 |
| Grapefruit..... lbs..... | | 15,262,437 | 15,562,984 | 13,603,556 |
| Lemons..... lbs..... | 111,005,581 | 125,944,524 | 46,884,300 | 116,328,013 |
| Limes..... lbs..... | | 7,250,234 | 4,002,315 | 4,245,008 |
| Oranges..... lbs..... | | | 1,173,677 | 1,107,239 |
| Olives..... gals..... | | 5,735,223 | 8,083,123 | 4,671,065 |
| Pineapples, preserved or prepared..... lbs..... | | | 4,086,170 | 2,976,875 |
| Apples..... bus..... | 144,981 | 133,417 | 96,030 | 85,422 |
| Berries..... lbs..... | 1,032,499 | 3,626,016 | 5,254,546 | 5,952,031 |
| Cherries..... lbs..... | | | 6,668,324 | 2,945,489 |
| Cherries, prepared..... lbs..... | | | 3,514,365 | 12,336,074 |
| Grapes..... cu. ft..... | 1,354,493 | 830,177 | 107,854 | 119,532 |
| Currants..... lbs..... | 21,437,820 | 23,472,586 | 13,964,934 | 14,191,852 |
| Dates..... lbs..... | 53,634,730 | 41,732,727 | 63,606,863 | 78,705,667 |
| Figs..... lbs..... | 34,712,185 | 32,432,892 | 42,464,895 | 46,572,230 |
| Raisins and other dried grapes..... lbs..... | 17,040,859 | 9,848,021 | 7,594,041 | 7,938,357 |
| Other fruits..... lbs..... | | 44,045,183 | 18,570,204 | 20,235,313 |
| Ginger root..... lbs..... | | | 815,124 | 769,866 |
| In their own juices..... lbs..... | 305,043 | 1,507,422 | 1,160,632 | 866,947 |
| Citron or citron peel..... lbs..... | | | 3,881,571 | 3,071,396 |
| Jellies, jams, etc..... lbs..... | | | 2,549,880 | 3,212,215 |
| All other..... lbs..... | 1,947,399 | 10,997,052 | 1,923,762 | 1,924,419 |
| NUTS | | | | |
| Chestnuts (including Marrons)..... lbs..... | 20,587,244 | 25,198,849 | 27,338,284 | 25,710,142 |
| Coconuts..... lbs..... | 79,328,670 | 66,542,697 | 57,271,320 | 59,871,406 |
| Almonds, shelled..... lbs..... | 23,736,332 | 25,895,421 | 22,203,701 | 16,144,335 |
| Almonds, not shelled..... lbs..... | 5,709,277 | 2,634,576 | 3,250,192 | 4,152,113 |
| Brazil and cream..... lbs..... | 45,714,950 | 32,455,299 | 53,183,316 | 21,864,034 |
| Coconut meat..... lbs..... | 34,558,784 | 36,915,957 | 47,302,393 | 47,090,174 |
| Filberts, shelled..... lbs..... | 6,304,995 | 6,813,846 | 5,923,791 | 4,196,630 |
| Filberts, not shelled..... lbs..... | 14,768,722 | 15,584,418 | 9,120,590 | 10,377,890 |
| Walnuts, shelled..... lbs..... | 16,208,518 | 18,245,840 | 19,197,658 | 23,756,276 |
| Walnuts, not shelled..... lbs..... | 31,827,223 | 18,308,605 | 25,100,632 | 28,005,703 |
| Total walnuts..... lbs..... | 48,035,741 | 36,554,445 | 44,298,290 | 51,761,979 |
| Imported from: | | | | |
| France..... lbs..... | 20,488,997 | 19,285,115 | 23,240,120 | 26,061,680 |
| Italy..... lbs..... | 9,537,346 | 11,365,385 | 10,698,970 | 10,388,854 |
| Spain..... lbs..... | 407,802 | 700,721 | 782,694 | 1,140,916 |
| Chile..... lbs..... | 1,051,345 | 2,150 | 1,330,193 | 293,428 |
| China..... lbs..... | 8,358,612 | 2,981,875 | 6,223,495 | 8,308,937 |
| Japan..... lbs..... | 1,508,504 | 118,316 | 466,100 | 1,554,089 |
| Other countries..... lbs..... | 6,595,135 | 2,100,883 | 1,556,718 | 5,348,075 |
| Peanuts, shelled..... lbs..... | 8,050,992 | 48,364,137 | 55,975,573 | 73,134,105 |
| Peanuts, not shelled..... lbs..... | 3,115,297 | 3,938,025 | 4,951,843 | 10,456,967 |
| Pecans..... lbs..... | | | 2,714,673 | 1,002,334 |
| Pignolia..... lbs..... | | | 525,449 | 707,558 |
| Pistache..... lbs..... | | | 1,547,673 | 845,098 |
| Other edible nuts..... lbs..... | | 8,301,948 | 1,905,904 | 2,480,802 |

Among the dried fruits currants, dates, figs, and raisins constitute the great bulk of the imports.

The list of nuts included in the imports is headed by coconuts which will probably ever constitute an important item of import because of the limited area in continental United States adapted to the cultivation of this crop.

With almonds, filberts, and Persian walnuts, however, all of which constitute important items of import, the situation is somewhat different, as all are capable of production in the United States; in fact, there is an increasing domestic production in each of them. It will probably be many years before home production displaces imports in a large measure, but this is within the realm of possibilities.

Although the United States is a very extensive producer of peanuts, it nevertheless takes advantage of the low price at which peanuts can be obtained from the Orient, and brings in a very considerable tonnage of them annually. The quantity has increased very decidedly since 1922, in which year the total of the shelled and unshelled nuts amounted to something over 11,000,000 pounds. In 1925, however, the quantity had increased to over 83,500,000 pounds, a very marked increase, showing that apparently American peanut production is on a very close competitive basis with foreign production. Transportation charges play an important rôle in the relation-ship of domestic and foreign production and marketing of peanuts.

Fruit Exports

The apple was the first fruit exported, trade apparently having been established with the West Indies early in the eighteenth century. There is no record of shipments, however, until 1741 when it is stated that apples from New England were shipped to the West Indies in considerable quantity. So far as known, the first transatlantic shipment of apples consisted of a package of "Newtown Pippin" of the crop of 1758, which Benjamin Franklin received in London. Evidently exports increased in the following years, since it was recorded in 1773 that American apples were found to be an admirable substitute for the English fruit when the crop failed there in that year, and that some of the merchants imported them in great quantities.⁷ The younger Collinson, who recorded the fact, said of them: "They are, notwithstanding, too expensive for common eating, being sold for twopence, threepence, and even fourpence an apple. But their flavor is much superior to anything we can pretend to, and I even think superior to the apples of Italy." The first authentic statistics of apple exports appeared in 1821 in a Treasury statement which records for that year, shipments amounting to 68,443 bushels, valued at \$39,966. No other fruit item was scheduled among exports until 1865.

Records of shipments during the latter part of the eighteenth century are lacking, but the New England export trade in ice, which began with the West Indies in 1805, was accompanied by shipments of apples on a large scale. The ice trade was extended to India and China in 1830, following which New England apples could be had in the ice-receiving ports of those countries. According to the statement of B. G. Boswell,⁸ in 1843, the fruit dealers of Boston had at that time been shipping apples and cranberries to Europe for many years. In 1845, it is stated⁹ that the Newtown Pippins from Ulster County, N. Y., sold in London at \$21 a barrel. The merchant to whom they were consigned wrote that the nobility and other people of great wealth bought them at a guinea a dozen, or about 42 cents an apple.

Patrick Barry wrote from London, in 1849, commenting on the American apples then for sale on that market, and emphasizing the

⁷ U. S. Department of Agriculture Yearbook, 1897, p. 843, W. A. Taylor.

⁸ Transactions American Institute, 1843, p. 125.

⁹ Genesee Farmer, November, 1845, p. 175.

importance of sending abroad none but carefully handled fruit of selected varieties.⁷

American apples found their way to China during the period when the trade in ice was at its height, but it is only within recent years that commercially important quantities of American-grown fruits have been shipped to oriental markets. Though the oriental markets constitute the most distant trade centers for American fruit products, there are a number of others which are equally interesting from a geographical standpoint. With the storage and transportation facilities now available to the exporters of fresh fruits, it is possible to take advantage of the markets of the Southern Hemisphere during the period when their fruits are no longer available so that the markets for the more important fresh fruits, such as apples, pears, and cranberries, are limited only by available facilities on established trade connections.

Each year witnesses an extension of the field and an increase in the total quantity of goods exported. The important foreign markets which now receive fresh fruits from America are found chiefly in Great Britain, continental Europe, South America, the West Indies, and the Orient. The great bulk of American production, however, is absorbed in the markets of the United States. Table 7 shows the countries to which barreled and boxed apples were exported from 1922 to 1925, inclusive, together with the quantity and value in each case. The table shows also the relation of barreled to boxed apples in the export trade, both as regards volume and the extent to which the different types of packages and contents are accepted in the various countries.

TABLE 7.—*Export of boxed and barreled apples from the United States to principal markets, 1922-1925*

| Country of destination | 1922 | | 1923 | | 1924 | | 1925 * | |
|------------------------|---------------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| United Kingdom..... | bbls. 430,508 | \$3,073,320 | 1,206,928 | \$5,598,791 | 1,504,432 | \$7,059,892 | 1,345,899 | \$6,400,496 |
| boxes..... | 2,330,872 | 5,065,005 | 3,103,226 | 6,397,227 | 4,167,941 | 9,894,226 | 2,587,854 | 6,752,549 |
| Canada..... | bbls. 47,743 | 164,294 | 42,190 | 172,251 | 35,936 | 137,103 | 34,949 | 131,944 |
| boxes..... | 414,777 | 771,314 | 502,968 | 739,954 | 556,868 | 797,551 | 547,929 | 1,004,566 |
| Germany..... | bbls. 14 | 191 | 4,042 | 20,142 | 51,565 | 233,620 | 24,130 | 117,044 |
| boxes..... | 14,384 | 29,087 | 33,718 | 78,182 | 619,209 | 1,519,969 | 402,328 | 1,166,718 |
| Netherlands..... | bbls. 283 | 1,944 | 3,397 | 16,616 | 3,879 | 16,526 | 769 | 4,769 |
| boxes..... | 4,858 | 12,990 | 40,067 | 91,619 | 294,580 | 764,422 | 267,846 | 674,625 |
| Brazil..... | bbls. 1,602 | 10,275 | 252 | 2,114 | 1,168 | 7,267 | ..... | 69,290 |
| boxes..... | 36,196 | 147,428 | 55,671 | 189,803 | 106,780 | 400,532 | 147,355 | 619,887 |
| Argentina..... | bbls. 13,000 | 111,615 | 26,877 | 166,217 | 48,973 | 263,240 | 96,147 | 503,372 |
| boxes..... | 45,237 | 183,835 | 95,957 | 328,779 | 105,181 | 406,069 | 131,981 | 484,375 |
| Philippines..... | bbls. 77,502 | 127,862 | 112,347 | 184,108 | 159,992 | 261,546 | 123,310 | 219,504 |
| boxes..... | 1,078 | 6,972 | 37,417 | 179,698 | 94,225 | 445,850 | 85,949 | 444,240 |
| Sweden..... | bbls. 37,727 | 125,741 | 140,265 | 348,006 | 134,312 | 340,729 | 114,426 | 329,685 |
| Denmark..... | bbls. 68 | 515 | 12,628 | 58,779 | 25,023 | 109,866 | 42,391 | 212,727 |
| boxes..... | 25,150 | 75,304 | 75,951 | 182,381 | 80,991 | 185,913 | 93,419 | 348,207 |
| Mexico..... | bbls. 3,913 | 24,844 | 3,677 | 19,529 | 1,812 | 10,663 | ..... | 10,107 |
| boxes..... | 88,303 | 188,870 | 106,291 | 202,824 | 135,487 | 255,748 | 84,405 | 205,842 |
| Norway..... | bbls. 13,229 | 68,479 | 28,836 | 139,905 | 20,897 | 96,181 | 19,295 | 101,664 |
| boxes..... | 118,453 | 331,938 | 208,968 | 478,938 | 90,661 | 247,081 | 82,844 | 267,086 |
| China *..... | bbls. 68 | 467 | 117 | 695 | ..... | ..... | ..... | ..... |
| boxes..... | 27,333 | 49,856 | 44,222 | 78,432 | 71,955 | 136,904 | 73,048 | 169,908 |
| Other..... | bbls. 9,826 | ..... | 12,820 | 64,090 | 17,093 | 91,171 | 37,280 | 138,136 |
| boxes..... | 57,116 | 166,982 | 85,921 | 238,009 | 119,198 | 309,539 | 141,497 | 491,322 |
| Total..... | bbls. 540,703 | 2,599,032 | 1,401,881 | 6,535,601 | 1,880,716 | 8,547,442 | 1,702,916 | 8,275,589 |
| boxes..... | 3,323,165 | 7,896,634 | 4,670,648 | 9,676,798 | 6,718,872 | 15,739,601 | 4,922,140 | 12,787,495 |

* 1925 tentative figures.

* Figures for China include Hongkong.

⁷ U. S. Department of Agriculture Yearbook, 1897, p. 348, W. A. Taylor.

From the above it is evident that American apples are acceptable in the markets of a large portion of the world. The increased demand for American apples in the world markets also indicates that with proper stimulation aided by the exportation of only those varieties and grades of fruit in demand that the export trade in American apples can be very materially increased. Space in this article does not permit a full discussion of the export trade in other fresh fruits which now includes large quantities of oranges, grapefruit, lemons, pears, and nuts.

Exports of Canned and Dried Fruits

Dried fruits constitute a very considerable item in the value of the foreign export trade and canned fruits of American production are finding more and more use in various markets of the world. One of the important openings for the fruit interests is to find those markets which will take American fruits, either fresh, dried, or canned, in sufficient quantities to justify international trade and to endeavor, through fair dealing and the offering of high-grade products, to encourage their use by our foreign neighbors.

TABLE 8.—*Exports in pounds of canned fruits, 1922-1925*

| Fruit | 1922 | 1923 | 1924 | 1925 ¹ |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|
| Apples and apple sauce..... | (?) | (?) | 14,581,453 | 12,358,105 |
| Apricots..... | | 25,771,246 | 37,202,527 | 33,403,130 |
| Cherries..... | 1,925,935 | 1,465,702 | 1,794,006 | 1,695,188 |
| Prunes..... | (?) | (?) | 2,495,067 | 2,881,538 |
| Peaches..... | 57,947,751 | 40,244,591 | 65,851,366 | 84,749,066 |
| Pears..... | 46,492,390 | 40,553,353 | 59,122,987 | 69,457,983 |
| Pineapples..... | 23,099,436 | 17,414,173 | 28,501,951 | 36,267,834 |
| Plums..... | 2,532,900 | 1,522,434 | 1,314,682 | 2,715,633 |
| Other..... | 73,155,300 | 20,604,876 | 13,458,809 | 10,831,572 |
| Totals..... | 205,153,712 | 147,576,375 | 221,312,848 | 263,360,075 |
| Exported to: | | | | |
| Belgium..... | 1,495,473 | 1,133,218 | 5,484,858 | 2,894,405 |
| France..... | 6,583,477 | 3,006,443 | 4,264,557 | 7,198,445 |
| Germany..... | (?) | 661,069 | 3,245,773 | 6,414,612 |
| Netherlands..... | 1,571,697 | 1,620,739 | 3,848,898 | 3,194,310 |
| Norway..... | 888,541 | 929,577 | 420,840 | 289,519 |
| Sweden..... | (?) | 1,100,360 | 1,599,787 | 1,637,122 |
| United Kingdom..... | 170,429,036 | 106,607,966 | 176,723,440 | 207,459,053 |
| Canada..... | 8,445,245 | 11,679,313 | 8,548,175 | 10,099,053 |
| Cuba..... | 1,665,236 | 6,644,345 | 7,066,598 | 6,430,924 |
| British India..... | 912,823 | 1,013,845 | 993,047 | 1,307,207 |
| Dutch East Indies..... | 1,840,161 | 1,671,967 | 1,185,895 | 1,799,259 |
| Japan..... | (?) | 1,459,717 | 1,131,909 | 658,080 |
| Philippines..... | 806,873 | 741,340 | 1,222,564 | 960,586 |
| New Zealand..... | (?) | 1,232,682 | 672,059 | 1,544,391 |
| Other countries..... | 10,515,150 | 8,073,794 | 7,884,448 | 11,473,105 |

¹ Figures subject to revision.

² Not separately shown.

Table 8 showing the important exports of canned fruits, together with the countries receiving them, is exceedingly interesting, in view of the fact that the export trade in 1925 far exceeds that of any previous year, the exports for 1922 being larger than those for 1923. There has been, however, a steady increase in the export trade in canned fruits during 1923, 1924, and 1925. The chief purchaser of American canned fruits is the United Kingdom, with Canada as the next best customer, although Canada purchased in 1925, only about one-twentieth the quantity of American canned fruits that were pur-

chased by the United Kingdom. France, although an important fruit-growing country, is the third best customer on American trade lists for canned fruits, with Cuba in the fourth place and Germany holding fifth place. With the exception of the Netherlands, the remaining countries listed consume annually less than 2,000,000 pounds of these products. During the period from 1923 to 1925 there was a steady and important increase in the quantity of canned fruits going to the United Kingdom. Canadian trade, though much smaller, has shown greater fluctuation, varying from 8,445,000 pounds in 1922 to 10,990,000 pounds in 1925, with a larger purchase in 1923 than in 1925.

In general, the figures indicate a growing popularity for American canned fruits abroad which is a very hopeful sign and should tend to stabilize fruit production in this country.

Exports of dried fruits show a wide variation depending upon production in foreign countries and upon the purchasing ability of those countries. The average annual production of prunes in France, for example, was around 45,000 short tons during the period between 1904 to 1908 and dropped to an average of 20,000 short tons during the period from 1909 to 1913, and below 12,000 short tons during the period from 1919 to 1922. In 1923, the production rose to approximately 30,000 short tons, but the prune crop of France was almost a total failure in 1925. It is but natural that during the years of short production France becomes an important market for American-grown prunes.

Prunes and raisins are our largest items of export trade in dried fruits, raisins being the only commodity showing an increase for 1925. Prunes showed 33.7 per cent decrease in 1925 as compared with 1924; however, the exports of prunes in 1924 were almost four times as great as in 1923. Total exports of all dried fruits fell off 16.8 per cent in 1925 as compared with 1924, but the exports for 1924 were double those of 1923.

The distribution of dried fruits exported from the United States to the five leading markets is shown in Table 9. This shows that the United Kingdom is our leading market for raisins, Germany for apples with the Netherlands a close second, Germany also being our most important market for apricots with the Netherlands a close second. Canada is our best market for dried peaches, France for prunes with the United Kingdom second, and for all other dried fruits the United Kingdom, Sweden, Germany, Canada, and the Netherlands being our best market in the order named. Local conditions in these various countries change the order of their importance as markets for American exports from year to year.

TABLE 9.—Exports of dried and evaporated fruits, 1922-1925

| | 1922 | 1923 | 1924 | 1925 |
|----------------------|------------|------------|-------------|-------------|
| | Pounds | Pounds | Pounds | Pounds |
| Raisins..... | 93,891,071 | 77,814,000 | 92,139,672 | 125,923,926 |
| Exported to: | | | | |
| Denmark..... | 1,645,043 | 3,927,060 | 3,962,942 | 3,379,850 |
| Germany..... | | | 3,369,477 | 14,672,450 |
| Netherlands..... | 5,363,526 | 3,723,240 | 3,862,685 | 12,206,104 |
| United Kingdom..... | 44,160,923 | 17,211,200 | 19,175,515 | 43,635,978 |
| Canada..... | 29,445,185 | 33,855,098 | 41,330,740 | 30,572,791 |
| Mexico..... | 1,033,007 | 1,330,983 | 1,632,820 | 2,010,015 |
| China..... | 683,090 | 3,630,503 | 4,503,551 | 3,384,814 |
| Japan..... | 4,024,188 | 5,939,517 | 4,838,937 | 2,457,774 |
| New Zealand..... | 3,772,303 | 3,747,239 | 3,866,141 | 4,967,129 |
| Other countries..... | 3,763,856 | 4,448,560 | 5,536,804 | 8,637,021 |
| Apples..... | 17,391,339 | 16,707,185 | 29,740,472 | 22,720,824 |
| Exported to: | | | | |
| United Kingdom..... | 2,010,156 | 1,712,058 | 3,046,538 | 1,547,162 |
| Belgium..... | 372,305 | 412,050 | 180,775 | 452,727 |
| Germany..... | 1,554,967 | 2,855,727 | 14,152,474 | 8,332,466 |
| Denmark..... | 1,480,178 | 1,456,559 | 929,778 | 909,439 |
| Canada..... | 188,377 | 16,713 | 77,777 | 267,962 |
| France..... | 1,800,702 | 127,100 | 294,503 | 677,084 |
| Netherlands..... | 5,569,091 | 6,486,452 | 6,872,891 | 6,845,258 |
| Sweden..... | 2,092,426 | 2,021,398 | 2,537,774 | 1,925,537 |
| Mexico..... | 66,236 | 61,628 | 86,274 | 64,982 |
| Japan..... | 5,761 | 1,565 | 8,384 | 1,667 |
| Argentina..... | 32,725 | 97,660 | 99,010 | 111,040 |
| New Zealand..... | 15,000 | 23,375 | 19,125 | 8,750 |
| Other countries..... | 2,188,415 | 1,435,480 | 1,435,160 | 1,576,750 |
| Apricots..... | 9,858,450 | 20,169,265 | 30,456,243 | 20,160,775 |
| Exported to: | | | | |
| Belgium..... | 263,805 | 1,418,911 | 1,159,688 | 1,203,537 |
| Denmark..... | 1,209,710 | 3,385,404 | 1,048,644 | 1,046,236 |
| France..... | 3,231,301 | 535,240 | 985,676 | 1,173,520 |
| Germany..... | | 1,710,590 | 9,723,137 | 4,788,132 |
| Netherlands..... | 729,034 | 3,696,489 | 7,550,533 | 4,160,016 |
| Norway..... | 885,436 | 1,560,003 | 416,115 | 607,882 |
| Sweden..... | 772,784 | 1,284,951 | 1,178,185 | 763,515 |
| United Kingdom..... | 1,000,000 | 3,504,000 | 4,487,142 | 3,264,137 |
| Canada..... | 602,997 | 3,822,885 | 1,896,837 | 1,372,455 |
| Japan..... | | 216,834 | 464,922 | 227,993 |
| Other countries..... | 1,165,259 | 1,027,958 | 1,545,364 | 623,352 |
| Peaches..... | 5,763,923 | 4,655,852 | 12,551,867 | 4,412,232 |
| Exported to: | | | | |
| United Kingdom..... | 443,608 | 1,147,868 | 2,157,079 | 477,453 |
| Belgium..... | 61,823 | 13,887 | 79,375 | 83,864 |
| Germany..... | 366,298 | 609,347 | 5,424,024 | 536,523 |
| Denmark..... | 294,062 | 74,456 | 185,651 | 97,866 |
| Canada..... | 1,831,725 | 1,397,404 | 1,843,428 | 2,074,979 |
| France..... | 1,081,575 | 79,061 | 103,723 | 220,623 |
| Netherlands..... | 209,034 | 80,337 | 1,446,970 | 98,316 |
| Sweden..... | 603,972 | 494,356 | 549,002 | 164,910 |
| Mexico..... | 68,093 | 66,177 | 81,349 | 67,511 |
| Japan..... | 10,386 | 2,673 | 8,355 | 242 |
| Argentina..... | 49,555 | 147,603 | 80,245 | 182,349 |
| New Zealand..... | 43,440 | 9,943 | 25,400 | 5,836 |
| Other countries..... | 700,302 | 523,740 | 567,266 | 401,757 |
| Prunes..... | 94,216,106 | 59,103,787 | 220,911,703 | 146,484,934 |
| Exported to: | | | | |
| Belgium..... | 2,211,142 | 2,614,209 | 5,072,584 | 4,523,923 |
| Denmark..... | 3,265,346 | 1,023,782 | 6,869,914 | 4,192,210 |
| France..... | 29,942,597 | 4,340,324 | 18,091,224 | 38,408,882 |
| Germany..... | 4,217,051 | 2,311,749 | 89,792,087 | 20,637,601 |
| Netherlands..... | 3,901,870 | 2,703,104 | 23,436,177 | 9,167,821 |
| Sweden..... | 5,744,649 | 4,886,701 | 7,377,108 | 4,647,843 |
| United Kingdom..... | 21,798,707 | 19,893,825 | 36,646,629 | 33,647,061 |
| Other Europe..... | | 1,994,058 | 11,828,274 | 7,686,585 |
| Canada..... | 15,434,538 | 13,784,258 | 15,556,610 | 16,552,998 |
| Mexico..... | 879,678 | 890,167 | 976,699 | 937,359 |
| Argentina..... | | 732,386 | 869,064 | 1,504,444 |
| New Zealand..... | 1,194,470 | 1,300,443 | 1,583,089 | 1,607,314 |
| Other countries..... | 5,603,157 | 2,658,691 | 3,012,294 | 2,970,293 |

Although the volume of exports decreased 16.8 per cent in 1925 over 1924, the values fell off only 4.1 per cent, the difference being due to the increase in the quantity of the comparatively high-priced raisins, which helped to offset reductions in the other items. The value of the total exports of dried fruits in 1925 was \$28,928,463.

Distribution to Five Leading Markets in 1925

Raisins.—United Kingdom, 34.6 per cent; Canada 24.3; Germany, 11.7; Netherlands, 9.7; New Zealand 3.9.

Apples.—Germany, 36.6 per cent; Netherlands, 29.9; Sweden, 8.4; United Kingdom, 6.6; Denmark, 3.9.

Apricots.—Germany, 23.9 per cent; Netherlands, 20.9; United Kingdom, 16.4; Denmark, 7.9; Canada, 6.9.

Peaches.—Canada, 46.9 per cent; Germany, 12.2; United Kingdom, 10.9; France, 4.9; Argentine, 4.1.

Prunes.—France, 26.2 per cent; United Kingdom, 23.3; Germany, 14.1; Canada, 11.3; Netherlands, 6.3.

Other dried fruits.—United Kingdom, 25 per cent; Sweden, 22.5; Germany, 14.2; Canada, 11.7; Netherlands, 6.7.

The usual distribution of dried fruits was influenced by several new factors during the last year. The almost complete failure of the French prune crop brought that country to the fore as a purchaser of American prunes. Yugoslav prunes were offered in normal quantities, but these are more preferred in Germany than in France.

The new German tariff on prunes, which fixes a wide differential between prunes in boxes and in bags, has affected our trade to a considerable extent, exports to Germany dropping from nearly 90,000,000 pounds to about 50,000,000, and of this latter quantity, a very large portion consisted of low value prunes shipped in sacks for repacking in that country.¹⁰

Leading Markets Show Increased Purchases of Raisins

With the exception of Canada, Denmark, and Japan, increased amounts of raisins were sent to the 12 countries which lead in the consumption of dried fruits. The reduction in the case of Canada is largely due to the heavy shipments of the preceding year that were made to avoid the recently assessed duty of 3 cents per pound. The Japanese luxury tax of 100 per cent cut the exports to that country nearly in half. The reduction in the case of Denmark was roughly 20 per cent. This may be more apparent than real, for the same quantity of fruit may be reaching that country after transshipment.

The amount of available supplies of peaches, apricots, and apples, together with a good domestic market, are probably the major causes of the reduced exports of these products. Much of these fruits which might otherwise have been exported in the dried condition, were shipped as canned—a form of higher value.

Competition of British Dominions Felt—Probable Trend of Future Demand

The increasing competition of the British Dominions is making itself felt in the United Kingdom market. This will probably become more severe, for in addition to preferential duties, the average quality of these packs is improving. This last factor is of greater interest than the former, for in the past the quality difference was frequently so great that the preference in duties was not sufficient to compensate for it.

While less dried fruits were exported in 1925 than in 1924, yet greater quantities of most of these products were shipped abroad last year to the various countries than in 1922 and 1923, and the total amounts were also larger in nearly every case. It is to be expected that as prosperity increases in Europe, with its resulting rising standard of living, less demand will be made for the relatively low-priced dried fruit and more for the more expensive canned pack, with a greater resulting profit to nearly all those engaged in the industry.¹¹

¹⁰ Department of Commerce Report, Mar. 22, 1926, p. 710.

¹¹ Department of Commerce Report, Mar. 22, 1926, p. 711.

Vegetable Imports

Vegetable growers of this country frequently lose sight of the fact that, in addition to the great quantities of fresh vegetables produced and consumed within the United States, there is a very considerable importation. During 1924 the value of vegetables imported reached \$15,905,000 and our exports were valued at \$11,200,000. The imports came chiefly from our near neighbors—Mexico, Cuba, and Canada; but large quantities of onions in particular came from Spain and Egypt.

Green peas are reported from Canada, Mexico, Bermuda, Japan, the Netherlands, England, other British Isles, Chile, and Germany; but the largest quantities come from Mexico and Bermuda during the month of February.

Table 10 summarizes the imports of dried and fresh vegetables without giving the countries of origin or destination.¹²

TABLE 10.—Imports of dried and fresh vegetables, 1923 and 1924

| | 1923 | | 1924 | |
|-----------------------------|---------------|---------------|---------------|---------------|
| | Pounds | Value | Pounds | Value |
| Dried: | | | | |
| Beans..... | 124, 562, 063 | \$4, 354, 811 | 68, 037, 578 | \$2, 765, 217 |
| Garbanzos (chick-peas)..... | | | 52, 070, 963 | 2, 918, 093 |
| Peas..... | 18, 657, 911 | 805, 450 | 24, 702, 399 | 1, 119, 723 |
| Fresh: | | | | |
| Onions..... | 111, 612, 042 | 2, 281, 868 | 75, 504, 608 | 1, 530, 856 |
| Turnips..... | 114, 559, 768 | 471, 662 | 153, 619, 286 | 691, 140 |
| Potatoes..... | 732, 334 | 1, 069, 097 | 463, 802 | 732, 223 |
| Mushrooms and truffles..... | 5, 120, 364 | 1, 521, 007 | 5, 025, 821 | 1, 721, 831 |
| Tomatoes..... | 46, 989, 608 | 1, 450, 769 | 56, 303, 625 | 1, 883, 531 |
| Other vegetables..... | | 2, 520, 142 | | 2, 543, 185 |
| Total..... | | 14, 474, 806 | | 15, 905, 798 |

Tomatoes reached the United States from December to June, mainly from Bermuda, Cuba, Mexico, and the British West Indies. Car-lot shipments of tomatoes from Mexico during 1924 totaled 1,938 cars, while Cuba furnished our markets a quantity equal to 117 cars. Potatoes come chiefly from two sources—Canada, from which country an important seed supply is received, and from Bermuda, which sends to the Atlantic coast cities table stock in December and January, and later from February to May, in competition with early potatoes from Florida. Besides these, occasional lots are received from the Netherlands, Mexico, Jamaica, and Cuba. Beets are reported as being received from Bermuda in February, March, April, and May; from Jamaica in February, March, and April.

Cabbage is purchased from the Netherlands chiefly and it arrives during January, February, March, and April, but shipments are also reported from Canada and from Cuba. Holland has for many years been a more or less important source of a certain grade of cabbage much prized in this country; but during 1924 Germany contributed shipments of considerable size to this import product.

¹² U. S. Dept. Com. Reports, Feb. 23, 1925, p. 445.

Onions

During the season of 1924, 75,504,608 pounds of onions were imported into the United States. These onions came from Australia, Bermuda, Canada, Chile, Cuba, Egypt, France, Italy, Mexico, Spain, the United Kingdom, Uruguay, and Venezuela.

Table 11 indicates the countries from which onions are imported, together with the months during which the imports reached American markets. It will be noted that Spain and Egypt are the two chief contributing countries.

TABLE 11.—Month of arrival of onion shipments to the United States, and total receipts, 1924

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|----------------|
| Australia..... | | | X | X | | | | | | | | | Bushels (1) |
| Bermuda..... | | | | | X | X | | | | | | | (1) |
| Canada..... | | | | | | | | X | | | X | | 5, 000 |
| Chile..... | | X | X | X | | | | | | | | | (1) |
| Cuba..... | | | X | X | | | | | | | | | 6, 000 |
| Egypt..... | | | X | X | X | X | X | | | | | | 153, 084 |
| France..... | | | | | | | | X | | | | | (1) |
| Italy..... | | X | | | | | X | X | X | | | | 17, 000 |
| Mexico..... | | | X | X | | | | | | | | | 16, 000 |
| Spain..... | X | X | X | X | X | X | X | X | X | X | X | X | 1, 003, 000 |
| United Kingdom..... | | | | | | | | | X | X | X | | 32, 287 |
| Uruguay..... | | | | X | X | | | | | | | | (1) |
| Venezuela..... | | | | | | | X | | | | | | (1) |
| Total..... | | | | | | | | | | | | | 1, 324, 642 |

¹ Detailed figures for all sources lacking.

² Total given is Department of Commerce figure.

As will be seen from Table 11 we have gone far afield for some of the imports of this important vegetable. The 34 shipments from Chile, which, in the main, came during the months of February, March, and April, with the heaviest shipments in the two later months, have a very great significance because these onions are chiefly of the Bermuda type and reach the markets of the United States in advance of the supply from Bermuda and from our own production center in Texas. There is a possibility that in the future Chile will make a very important contribution to the supply of onions between the period of the harvest of the fall onion crop of the North and the receipt of the Bermuda and Texas product. Experiments carried on by our Chilean neighbors indicate a real possibility in this direction.

The Egyptian Onion Situation

The annual production of onions throughout Egypt average approximately 750,000 tons of which 50,000 tons, or 7.5 per cent, are exported in a normal year. Of the exports, Great Britain takes by far the largest quantity, the United States being the second largest consumer of Egyptian onions, receiving as much as 200,000 bushels in some years. Consular comment, under date of March 17, 1921, on the shipment of Egyptian onions to the United States is to the effect that such shipment is highly speculative because of the distance and consequent length of time that the onions are closely stored on shipboard during the voyage and the consequent danger of sprouting. This risk is also incurred, but to a lesser degree, in shipping to Lon-

don and other European markets. The onion imports for 1924 amounted to 75,504,608 pounds, valued at \$1,530,000 in round numbers. These onions, however, are not strictly comparable with or competitors of the Bermuda product from Bermuda and Texas which reach the markets of the United States at the same time. The quantity of this product which can be absorbed with satisfaction to the exporting country will, without a doubt, depend upon the available supply of onions from Bermuda and from Texas, as well as upon the quantity and condition of the hold-over crop of the northern areas.

Spanish Onion Situation

Spain sends to the United States annually a considerable consignment of onions. There are two seasons for the shipment of onions from Spain, one from May into July, during which period the Babosa or spring onion is shipped; and one beginning in July and lasting through the winter during which period the Grano, or fall onion, is exported. The Babosa is a white onion, flat and soft, of poor keeping quality and, for this reason, not popular for exporting except to near-by countries. Few shipments of these onions are made to the United States. The Grano on the other hand, keeps for months and the annual shipments of this variety to the United States often reach as much as 1,000,000 bushels. These onions which are popularly known in the United States as Valencia onions constitute one of the most important receipts from Spain.

Vegetables from Canada

Canadian-grown potatoes find extensive use for seed by the planters of early potatoes in the Southern States. These potatoes are transported from Prince Edward Island and New Brunswick by water to southern ports adjacent to the planting areas. Rutabagas are imported in large quantities from Canada every year, 153,592,555 pounds (about 2,500,000 bushels) coming across the border in 1924.

Mexican Production of Vegetables

The shipment of fresh vegetables from Mexico to the United States and Canada during the season of 1925 indicates that the industry of growing winter vegetables for northern markets is becoming more firmly established each year and is steadily increasing in importance. The chief product from Mexico has always been tomatoes, but other vegetables are being grown and the quantity is increasing proportionately to that of tomatoes. The report of United States Consul Henry C. A. Damm, bearing date of July 31, 1925, records the shipments of fresh vegetables from Mexico for the years 1920-1925, as follows:

TABLE 12.—*Car-lot shipments of vegetables from Mexico*

| Year | Tomatoes | All other vegetables | Year | Tomatoes | All other vegetables |
|-----------|-----------------|----------------------|-----------|-----------------|----------------------|
| | <i>Carloads</i> | <i>Carloads</i> | | <i>Carloads</i> | <i>Carloads</i> |
| 1920..... | 739 | 13 | 1923..... | 1,762 | 441 |
| 1921..... | 786 | 33 | 1924..... | 1,808 | 583 |
| 1922..... | 1,212 | 98 | 1925..... | 2,177 | 753 |

During the season of 1924-25, the shipments of tomatoes passing through the United States to Canadian markets amounted to 228 and 226 cars, respectively. The shipping season for Mexican vegetables begins in December and ends the following June. The peak of the shipment is reached in April and May. Mr. Damm says:

The shipping and marketing of vegetables is in the hands of the Americans who provide the local growers, when necessary, with the seeds, fertilizers, and other requirements, and, therefore have considerable interest in the crop. They also do the selecting and packing which is carried out with great care, and only the best qualities of vegetables are allowed to go forward. During the summer representatives of the packers visit the markets in the United States to establish new connections and to maintain the old. The demand for the vegetables seems to be constantly increasing and no complaints are heard of glutted markets and resulting losses. On the other hand, the markets would appear to be able to absorb even greater quantities than already offered, within the limited time during which there is practically no competition. Prices during the season passed were satisfactory and as far as can be learned, the principal shippers made money.

The growing of vegetables in Mexico, however, is subject to the same difficulties and hazards as found in the States. In the same consular report mention is made of the fact that the growers state that only about 30 per cent of the vegetables grown on the west coast of Mexico are shipped because of the limited season and the growers are beginning to consider the possibility of canneries to take care of the products which can not be marketed in the raw state.

The consul points out the fact that at the present time considerable quantities of American canned tomatoes find their way into Mexico at fairly remunerative prices. If the growers of tomatoes in Mexico should establish canning factories in that territory it will serve either to stimulate greater consumption of canned tomatoes in Mexico or to curtail the market for United States packed tomatoes in Mexico.

Of the other crops which are grown in Mexico recorded in Table 12, lettuce, melons, onions, green peas, green peppers, and potatoes were exported in considerable quantities.

A report was made on July 28, 1925, accompanying a comparative statement of exports declared at this consulate and its agencies during the first half of the year 1925. This period practically covers the vegetable shipping season. The figures representing quantities and values of fresh vegetables below are taken from the statement:

TABLE 13.—*Quantities and value of vegetables shipped into the United States from Mexico, 1924 and 1925*

| Articles | 1924 | | 1925 | |
|---------------------|------------|-----------|------------|-----------|
| | Quantity | Value | Quantity | Value |
| | Pounds | Dollars | Pounds | Dollars |
| Lettuce..... | | | 412,158 | 9,461 |
| Melons..... | 3,674,128 | 69,239 | 4,185,938 | 88,686 |
| Onions..... | 1,272,824 | 43,277 | 687,016 | 23,381 |
| Peas, green..... | 1,564,419 | 53,971 | 3,073,562 | 106,307 |
| Peppers, green..... | 2,548,690 | 89,402 | 3,119,562 | 107,330 |
| Potatoes..... | 93,451 | 3,045 | 253,705 | 6,575 |
| Tomatoes..... | 41,728,954 | 1,522,109 | 55,085,404 | 2,005,775 |
| All other..... | 707,911 | 25,173 | 321,525 | 11,574 |
| Total..... | 51,608,367 | 1,806,216 | 67,138,981 | 2,359,091 |

The magnitude of the Mexican fresh-vegetable industry as well as the diversity of the products which are received from Mexico have not been fully appreciated by United States growers. Although this industry is handicapped by long freight hauls and the difficulty of passing over a foreign border, the climate and labor conditions make it possible for skillful operators to obtain satisfactory returns. In addition the quality of the products is often superior to that of the southern United States.

Imports and Exports of Dried Vegetables

Imports of dried vegetables into the United States are relatively insignificant and consist mainly of special types of peas and beans. Dried peas are imported from France, Germany, the Netherlands, the United Kingdom, Canada, Japan, Chile, China, and New Zealand. In 1924, the imports of dried peas from Canada amounted to 11,193,400 pounds, from the Netherlands 4,999,200 pounds, from China 2,566,200 pounds, and from England 2,114,200 pounds. Dried beans are imported from France, the Netherlands, the United Kingdom, Mexico, Cuba, Argentine, Chile, Japan, British South Africa, Madagascar, and Italy. The total quantity of beans imported in 1924 was 68,037,500 pounds, valued at \$2,765,200. Of these Japan furnished 49 per cent, Italy and England each 10 per cent, and France and Chile each 7 per cent. These figures indicate not only the relatively small quantities of dried vegetables imported into the United States, but also the wide distribution of the countries from which they come.

The export value of the several vegetable crops sent abroad by the United States in 1924 amounted to \$11,217,471. These consisted of dried beans and peas and of fresh onions, potatoes, and other vegetables not specifically enumerated. Beans and peas constitute the main items among the dried vegetables exported from the United States. Between 70 and 75 per cent of the total exports of beans are purchased by Cuba. Other important markets are Nicaragua, Mexico, Honduras, Canada, and Panama, in the order named. The total export of dried beans amounted to 605,284 bushels in 1924, valued at \$2,406,217. The dried peas exported from the United States in 1924 amounted to 76,918 bushels, of which 39,610 bushels went to Cuba and 12,057 bushels to Canada. Important shipments were also made to Venezuela, England, Panama, and Mexico.

Fresh vegetables exported consist principally of potatoes and onions, the principal consumers of these commodities being Canada, Cuba, Panama, Mexico, and the Dominican Republic. Although there is some fluctuation from year to year in the quantity of purchase of these commodities, Cuba is in general the leading purchaser of these crops. Canada is especially interested in early potatoes coming from the Southern States, purchasing liberally during June, July, and August. The supply of potatoes required by Cuba from month to month is considerably larger than that of Canada, but it purchases most heavily, as a rule, during June, July, and August.

The export onion situation is somewhat similar to that of potatoes, so far as Canada is concerned, purchases being made chiefly during May, June, and July, at which time Bermuda onions from

the Rio Grande River section are being marketed. The demand from Cuba, however, is much more constant from month to month than that of Canada. The Cuban market, though showing liberal demands during May, June, and July, is more subject to fluctuations from year to year than that of Canada. There seems to be no continuity in the purchases of onions by Cuba, either from month to month or from year to year. There is a constant market for a fairly liberal quantity of onions from the United States in Cuba, but no marked preference is shown for the crop of any particular season, as is the case with the Canadian market.

Present exports give a clue to the markets of the world which are most interested in American fruit and vegetable products; and the imports show the quantities of certain important items which it may ultimately be possible for American horticulturists to supply. The important future development of American horticulture lies in adequately providing for increased home consumption, and in meeting the foreign demand for canned and dried fruits and vegetables, and in the furnishing of commodities such as dates, figs, currants, and olives which present production leaves to be supplied by importation. .

FEDERAL AND STATE RESEARCH AND INFORMATION SERVICE



By H. P. GOULD, *Bureau of Plant Industry*

THE HORTICULTURAL INDUSTRIES are the most complicated and highly intensive specialties in the field of agriculture. As these industries developed, the need for technical specialists in particular lines to render aid of a character beyond the reach of the average individual producer became apparent as a means of promoting the general welfare of a material proportion of the population. That need has been, and is being met in many different ways.

Research

Through the agencies of the United States Department of Agriculture and the several State colleges and experiment stations, there are organizations devoted to research and the dissemination of new and valuable information which are unlike any other institutions in the world with which they may be compared. The activities carried on by the Federal Government and the individual States naturally fall into two classes—research and informational. As the terms indicate, the research activities have to do with the determining of facts and development of knowledge relating to problems concerning agriculture and the application of that knowledge; the informational activities consist, in effect, of placing information before the public in such a manner that farmers, fruit growers, and others concerned can readily avail themselves of it. In many of these activities the Federal Government and the several State agencies cooperate and supplement one another.

The United States Department of Agriculture

The history of the organization, development, and extension of the United States Department of Agriculture is exceedingly interesting, but it must be passed over here except to state that the genesis of the present department was an appropriation of \$1,000 made by Congress in 1839 for the purpose of collecting and distributing seeds, prosecuting agricultural investigations, and procuring agricultural statistics. This money was to be taken from the Patent Office fund and the work was to be done under the supervision of the Commissioner of Patents who was at that time an official of the Department of State. The commissioner, in his report in January, 1841, stated that 30,000 packets of seeds had been distributed during the year and that agricultural statistics were being prepared for publication. In 1842 these statistics were published with a survey of crop conditions and prospects.

The Department of the Interior was established in 1849 and the Patent Office, with its agricultural work, became a part of it. During the following decade the work in agriculture evidently expanded somewhat but primarily along the lines originally projected.

In 1861 David P. Holloway, of Indiana, became Commissioner of Patents, and Isaac Newton, of Pennsylvania, was placed in charge of the collecting of agricultural statistics. In his first annual report as Commissioner of Patents, Mr. Holloway earnestly advocated a separate establishment in the Government to deal with the interests of Agriculture. His recommendation received early consideration by Congress and with practically no opposition, legislation was enacted which established "at the seat of the Government of the United States a Department of Agriculture." This act became a law with the signature of Abraham Lincoln on May 15, 1862. Isaac Newton, who, as stated above, was in charge of the agricultural work carried on in the Patent Office, was appointed the first Commissioner of Agriculture, and assumed the duties of that office July 1, 1862.

It is of interest to mention, at this point, that one of the first appointments, even if not the very first, made by the new commissioner was that of the late William Saunders to be superintendent of the propagating garden. This was in 1862 very shortly after the commissioner took office. It is recorded that Mr. Saunders aided materially in organizing the work of the new department. He was evidently influential in the appointment of a chemist as one assumed the duties of office on August 21, 1862, after he (Mr. Saunders) had indicated that he was experimenting with new grape varieties of which he wished to have chemical analyses made. The first publication issued by the new Department of Agriculture was a pamphlet prepared by Mr. Saunders giving the objects and aims of the experimental garden.

Thus the horticultural work of the department dates from its very inception as a separate governmental institution. It was carried forward for a long period of years under Mr. Saunders's guidance and who continued in active connection with certain phases of the department's horticultural work until his death in 1900. During his nearly 40 years of service with the department, Mr. Saunders made many valuable contributions to the horticulture of the country.

Perhaps no single accomplishment has been more far-reaching than his introduction from Bahia, Brazil, in 1870 of the orange, later to become known as the Washington Navel. It was on this variety that the orange industry of California very largely developed and at the present time it comprises about one-half of the annual orange crop of that State.

The pomological work of the department was placed in a separate unit when legislation establishing a division of pomology became effective July 1, 1886. H. E. Van Deman, then of Kansas, was appointed the first pomologist, and it was he who organized the work of the new division and directed it for several years. Since then the horticultural work has progressed systematically under various forms of organization.

In passing, it is here noted as a matter of general interest that the Department of Agriculture was given executive rank under an act of Congress approved by President Cleveland February 9, 1889. The office of commissioner was changed to Secretary of Agriculture, the incumbent becoming a member of the President's cabinet.

These statements¹ are given here by way of indicating the early interest and continuous activity of this department in horticulture. Other far-reaching influences were operating during this period. The story of the organization of agricultural education and research in the different States is hardly less entertaining than that of the United States Department of Agriculture.

During the last 60 or 70 years there have been certain events, the outgrowth of recognized needs, which have contributed more than can be estimated to the welfare of the agriculture of the country. The horticultural interests have undoubtedly received their due share of attention and much of the present development in horticulture is undoubtedly the direct outgrowth of the contributions made to agriculture in general as the natural consequence of these events.

The Agricultural Colleges

It is impossible to designate any particular date or any one event as the beginning of modern development in American agriculture since no outstanding epoch has come without being preceded by needs or influences which have found expression in the developments that have followed. However, in many respects what is known as the Morrill Act, which takes its name from the late Senator Justin S. Morrill of Vermont, who was the principal sponsor of the act, establishes the beginning of our present system of State agricultural colleges and experiment stations. The Morrill Act became a law July 2, 1862, on which date the bill, having passed both branches of Congress, was signed by Abraham Lincoln. Although there is not known to be any direct connection between the two acts of Congress, it is exceedingly interesting to redirect attention in this connection to the fact that the act establishing the United States Department of Agriculture had been approved by the President only a few weeks before he signed the Morrill Act, that department

¹ These historical statements concerning the U. S. Department of Agriculture are taken from division of publications Bulletin No. 3, entitled "Historical Sketch of the U. S. Department of Agriculture: Its Objects and Present Organization," compiled by Charles H. Greathouse and published in 1898.

coming officially into being just the day prior (July 1) to the signing of the Morrill Act.

Senator Morrill had done his utmost to obtain the passage of such a bill for a period of five years. During that time his efforts had met with the most strenuous opposition from Members of Congress, some of them considering the bill utterly ruinous, vicious, destructive, and possessing many evils rendering it altogether iniquitous. This bill in its operation donated public lands to the several States and Territories, from the proceeds of which, colleges were to be established for the benefit of agriculture and the mechanic arts. The Morrill Act made possible ultimately the establishing in each of the States and Territories of a college of agriculture and mechanic arts. In many instances these institutions have become the State university, and in some cases provision was made whereby institutions already established received the benefits of the act and became the State institution.

A "second Morrill Act" was passed in 1890, the object of which was to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges, the establishment of which was provided for in the first Morrill Act.

The State Experiment Stations

The second great epoch was the Hatch Act, which was approved by the President March 2, 1887, and which provided for "Agricultural experiment stations in connection with the colleges established in the several States under the provision of an act approved July 2, 1862, and of the acts supplementary thereto." Thus the State experiment stations came into being through Federal aid granted by the Hatch Act. This act was amended once or twice within the next few years, but it was not until 1906, when the Adams Act became effective, the bill having passed Congress with approval by the President on March 16, 1906, that the next material advancement was provided. Though this act established no new type of institution, it provided so much more adequately than was the case prior thereto for investigational work at the experiment stations already established, that it is not inconsistent to look upon it as one of the outstanding epochs in agricultural development.

Information

Cooperative Extension Work

The next noteworthy Federal legislation in behalf of agriculture provided, not for additional investigational work but for the better and more complete dissemination of information already obtained. The legislation which aimed to accomplish this object is commonly known as the Smith-Lever Act. This law provides for cooperative agricultural extension work between the agricultural colleges in the several States and the United States Department of Agriculture. It is under this act, approved May 8, 1914, that the State agricultural extension work is carried on. The farm demonstration work, the home demonstration projects, girls' and boys' club organizations, county agricultural agencies, and various other similar activities

having to do with placing the best available information in the hands of those on the farms are typical of the developments under this legislation. The organization of spray rings and community spraying is one of the outgrowths of this work which has very definitely to do with the fruit interests. In other instances the dissemination of frost warnings, notices of proper times to do orchard spraying in order to take advantage of the seasonal development of some insect or disease, and the quick and timely distribution of other information of importance to an entire community or region has become possible and practicable through the farm organizations that have developed directly in connection with and as a part of the extension work.

Promoting Vocational Education

Another act of Congress which should be mentioned here is the Smith-Hughes bill which was approved by the President February 23, 1917, and became effective the following July. This act provides grants of money from the Federal Treasury to the respective States for the promotion of vocational education. Under this law various lines of educational work are being carried on, mainly in the secondary schools. It includes the background for the successful prosecution of horticultural enterprises on the farm. The educational facilities thus provided are of benefit to many who are unable to avail themselves of the advantages of the colleges established under the Morrill Act, as well as to others who may later go to some land-grant college or other institution of higher learning.

The last step of progress to be noted so far as it has to do with outstanding Federal legislation for the promotion of agriculture is the Purnell bill which was approved February 24, 1925, and became effective the following July. This act has to do with research work, its object being to still further support, promote, and develop research in the sciences having to do with agriculture and rural economy.

All of these acts of the United States Congress have, of course, had for their object the aiding of agriculture in general, the administration of the funds for particular purposes being left mainly in the hands of the college and experiment-station officials in the different States. Naturally in those States in which, for climatic or other reasons, the horticultural possibilities are limited, relatively small expenditures for horticulture are made, whereas in those where the fruit and vegetable industries are extensive a correspondingly large proportion of the funds have, as a rule, been devoted to them. Extension work in horticulture is being conducted on Federal or State funds, or both, in 42 of the 48 States. In this work about 90 extension specialists are employed and they are assisted from time to time by members of the college-teaching and experiment station staffs. Approximately \$340,000 a year is now being expended in the work of extending the best methods and practices to the horticultural interests covering fruits, nuts, vegetables, and landscape improvement on farms.

Naturally, in all of these many lines of activity made possible through Federal aid, the States have assumed obligations and have made financial contributions for the maintenance and expansion of

the institutions established through grants from the Federal treasury. In some of the States this financial support has been notably liberal, whereas in others a very much more conservative attitude on the part of the State legislatures has been exercised.

Other lines of informational service should be briefly mentioned here. The extension work provided by the Smith-Lever Act has been listed. The other features centering mainly in the United States Department of Agriculture, but in most instances conducted cooperatively with the States, are the market news service, crop and livestock estimates, and crop outlook reports.

The Market News Service

Through the market news service the Bureau of Agricultural Economics undertakes to keep the growers informed in regard to market conditions, prices and other features which are of service to them in the distribution of their products. This service includes the reporting daily during the active shipping season of certain perishable products, the number of carloads received and unloaded in the large market centers of the country and also the number of cars "on track" en route to market. These reports are made widely available to those concerned with the interests represented. Present-moment information in regard to market conditions, particularly with respect to the available supply of any product in the different markets, is of the greatest concern to the grower or the shipper in the distribution of perishable crops.

Statistics, Crop Estimates, and Outlook

In a similar manner the crop estimates issued from time to time during the growing season keep the producer and the shipper informed as the season advances with respect to the quantity of different kinds of produce which is in sight throughout the country. Extremely careful discrimination in marketing of competing crops from different producing regions is often necessary and it is only when full knowledge is at hand of available supplies and their location that the grower and shipper can proceed intelligently.

The crop outlook or "intention to plant" reports are perhaps of relatively little seasonal importance to the fruit grower, since in the very nature of the crops which he handles, he can not quickly adjust his production from season to season, although such reports may be of some value to the fruit grower as an aid in determining whether or not it is wise to extend his plantings with a view to future supply. On the other hand, information in regard to "intent to plant" may be of the very greatest importance to the vegetable grower whose acreage in any crop is subject to change from season to season. If a grower has information concerning the acreage in any crop which competing growers intend to plant, it becomes possible for him to give that intent due consideration in determining his own acreage. When the principle involved in this feature is fully accepted and rigidly applied, it will go a long way in eliminating troublesome surpluses.

Regulatory Legislation

Considerable regulatory legislation that concerns the horticulture of the country has been enacted by the United States Congress and these laws are administered by the Secretary of Agriculture through different branches of the department. Three different aspects of regulatory work are of particular interest here. Under the pure food and drugs act, the purity of fruit and vegetable products such as cider vinegar, jellies, fruit butters, fruit juices, peanut butter, vegetable oils, and the like is assured, while permissible adulterants must be clearly indicated in the labels used.

The Insecticide and Fungicide Board in the department created by the "insecticide act of 1910," so-called, sees to it that the materials offered for sale in interstate commerce for the control of insects and diseases are truthfully represented and capable of accomplishing the ends claimed for them.

The Federal Horticultural Board, another unit of the department, is the Secretary's instrument for administering the Federal plant quarantine law. Under the authority conferred by Congress in providing for this control measure, the board regulates the importation of plants from foreign countries with a view to preventing the introduction of injurious insects and diseases. In case of a menacing outbreak of some insect or disease in some part of the country, this board establishes quarantines and regulations for their effective operation which are intended to prevent the spread and to aid in the control of the trouble.

Though the Federal plant quarantine measure covers all types of economic plants and the insects and diseases to which they are subject, in its actual operation, it doubtless affects plants that are important horticulturally more largely than those of any other agricultural group. The law applies in matters where interstate commerce is involved, and which State laws do not reach.

State Departments of Agriculture

Another channel of service is represented by the State department of agriculture which exists in nearly every State. The service to the horticultural interests varies with conditions in the different States, and with the provisions and limitations under which each department operates. As a rule, the State regulatory laws relating to the agricultural interests are administered by the State agricultural departments, rather than the experiment stations. For instance, in many States the nursery and orchard inspection laws, State insecticide and fungicide control measures, and other orchard sanitary regulations, including plant and insect quarantines, are administered under the State department of Agriculture. In other instances, notably California where the fruit interests are paramount in the agriculture of the State, each county horticulturally important has a horticultural commissioner who is a member of the State department of agriculture organization. State fruit and vegetable standardization regulations, standardized package laws, and other similar State measures are also administered, as a rule, by the departments of agriculture in the different States. Other services are rendered the horticultural interests by these State agencies, but those men-

tioned are somewhat typical. This type of State work deals with matters within the State where Federal legislation does not apply.

Briefly stated, the Federal and State institutions concerned with the horticultural industries of the country have contributed to those interests and are sources of aid to growers and others in many different ways, including the development of information on the geographical limitations of different crops; the adaptability of varieties to different conditions and regions, and their suitability for different purposes; methods of culture and cultural requirements; insect and disease enemies with methods of control; protection against rodents and other pests and parasites; market and crop news service; marketing including methods of distribution and sale, standardization, grading, packing, transporting, and storing.

Introducing Foreign Seeds and Plants

The United States Department of Agriculture from its very inception has been concerned in the introduction from foreign countries of valuable seeds and plants, and its introductions have included many horticultural crops and varieties that have directly contributed to the development of industries or have been useful in other ways, especially in the breeding of new varieties. In the latter field both Federal and State agencies have made, and are continuing to make very noteworthy progress.

The aim in the breeding of new varieties is improvement in practically all the essential qualities of fruits, vegetables, and other horticultural crops. The perfect variety does not exist in any crop. Better varieties are needed in the direction of improved dessert, shipping, storing, and keeping qualities; increased hardiness, including resistance to extremes of heat, cold, and moisture; better adapted to different uses—canning, drying, and the like; greater resistance to disease; earlier or later ripening varieties of particular kinds to fill some vacancy in sequence of maturity—all these and still other objectives are in the aims of horticultural plant breeders. Measurable progress is being made in many of these directions.

Any farmer, whether his interests are large or small, or the city resident with only a window box of plants, has the unrestricted privilege of taking any problems of plant culture or of animal husbandry to the specialists connected with his State institution or with the United States Department of Agriculture. Although countless problems still remain to be solved, new ones are forever coming up, and questions are constantly presenting themselves for which there is no solution immediately at hand, there is available, free for the asking, aid in the solution of many of the farmers' problems. Those problems have stimulated much of the research of past years along agricultural lines and in the sciences related thereto. Numberless experiments and other types of investigation have been undertaken for no other object than that some problem with which farmers had to contend might be given a practical solution. The policy that has in the past guided research workers, extension specialists and others connected with the Federal and State institutions having to do with agriculture will be the guiding policy in the future. It is theirs to serve.

HORTICULTURAL OUTLOOK

By L. C. CORBETT and W. R. BEATTIE, *Bureau of Plant Industry*

THE LAST HALF CENTURY has been a period remarkable for invention and for industrial and territorial expansion. Horticulture has participated with other agricultural activities in the general progress. New industries have been inaugurated and developed; established industries have been expanded and extended into new territory until practically every known phase of horticulture has been tried and every available area has been tested. The future outlook for the fruit and vegetable industry can be forecast only through comparison with what has taken place during the last half century. Horticulture has shared with other agricultural activities in an enormous development. The period has been marked by unusual expansion of certain phases of the industry and development of new regions of production. The factors that have contributed largely to the growth of horticultural activities have been the increase and concentration of the industrial population, the increased production capacity of those engaged in horticultural enterprises, the improvement of transportation, and the geographical distribution of horticultural production to include the areas best suited to the various enterprises.

A study of census figures covering the increase and distribution of population during the last 50 years serves as a guide as to what is most likely to occur in the future, while a comparison of the relocation of fruit and vegetable production activities serves as a basis for predicting the possibilities of the future. Mass or specialized production characterizes the present trend in industrial production and in many respects this has applied to horticultural enterprises. To what extent this may hold true for the future is difficult

to predict, but it is safe to assume that any extensive decentralization of industrial enterprises in this country will not occur in the near future; on the other hand, with the United States occupying its present position in the industrial world, we may look forward to a still greater expansion of business along with which will come an increased demand for the products of horticulture.

The geographic spread of the horticultural industry during the last 50 years has merely shown the possibilities of fruit and vegetable production in the United States; in fact, the resources of the country in this line have in reality been only touched upon. In practically every section where specialized fruit or vegetable production has developed, there remains thousands of acres of suitable land waiting to be utilized, either through reclamation or by a change of cropping system. Where our markets are now supplied annually with approximately 32,000 cars of muskmelons, 110,000 cars of apples, 80,000 cars of citrus fruits, 40,000 cars of cabbage, 200,000 cars of potatoes, and other crops in proportion, it is not too optimistic to anticipate that eventually the markets of the country may require 10 times these quantities.

The law of supply and demand has been the governing factor in the past and will continue to exert its controlling influence in the future. New and specialized methods of production have developed and others are certain to follow. The work of scientists during the last 40 years has laid a broad foundation for the control of insect, disease, and other enemies of horticulture, and though the expansion of the industry has increased the hazards of production, science and engineering skill have furnished the means of control. The progressive spirit of the thousands of growers has contributed most largely to the results through the acceptance and application of the work of the scientists.

Horticultural enterprises of the past have suffered loss from many sources, but the prospect for the future is decidedly optimistic, and much of the uncertainty of horticultural production will doubtless be removed through the more general application of scientific methods. The reader may here be interested in a brief review of some of the factors which have had an important bearing on the spread and development of horticultural production. The same influences are in operation to-day and doubtless will continue to shape the development of horticultural enterprises.

Expansion and Exploitation

The past 50-year period has been marked by unusual activity in the development of certain industries and certain territories. As is usual with exploitation it was frequently overdone, and as a result, the natural or normal growth of legitimate crop production has been frequently diverted and sometimes actually retarded. Overexploitation of any industry, no matter how sound and legitimate it may be, tends to delay the normal growth of the industry in that particular region. Overzealous promoters, honest enough in their intent, have in reality proved not only a menace to those with whom they actually had business dealings but have, by increasing production and development of marginal territory, been to a considerable

extent responsible for the present complicated and unsatisfactory economic situation which in many particulars now surrounds the horticulture of the country.

Effect of Distribution of Production Areas

The distribution of the producing areas from which an annual supply of any crop is drawn has two important economic aspects, succession in production, and regional competition.

Production in Succession

In a country with as broad geographical limits as the United States, it is possible to find regions or areas which possess suitable environmental conditions for the production of short-season crops so that, by taking advantage of the seasonal changes, it is possible to develop production areas which, in succession, maintain a supply of the particular crop throughout the 12 months. The lettuce industry was formerly confined to special areas in Florida which furnished the markets for a period during the winter, and to territory in New York from which a summer and fall supply was contributed. These outdoor sources, supplemented by the greenhouse product, constituted the main sources of the commercial supply. With the extension of transportation and the development of improved packing and shipping practices, it has become possible to take advantage of areas which, because of their winter or summer climates make possible a continuous supply of this commodity throughout the year. This has had a very direct bearing upon the extensive greenhouse industry which derives a part of its revenue from the growing of lettuce under glass during the winter season. As long as the winter supply of outdoor-grown lettuce was relatively limited and the price was fairly comparable with that of lettuce grown under glass, greenhouse lettuce comprised one of the most profitable forcing crops, because it is better adapted than other vegetables to the short days and limited sunshine of the winter months. With the development of the lettuce industry on an extensive scale, in regions capable of successfully producing it in the open during midwinter as well as during the heated portion of midsummer, the greenhouse crop has been brought into serious competition.

Regional Competition

The second feature growing out of wide distribution of production, besides the extension of the season of availability of a crop in the market, is that of the economic differential which is introduced in the relative cost of production. The cost of transporting, from distant and near-by regions, crops which come into competition in the same markets may determine the success or failure of the industry in any region. Long hauls can be undertaken so long as the price of the commodity meets the various cost factors of production and transportation and still leaves a reasonable margin of profit. But when the same commodity from near-by and distant producing centers, competes in the same market, then the differential which exists between the near-by and the distant producing terri-

tory in cost of transportation becomes to a considerable extent an economic advantage in favor of the near-by locality. When it is possible to overcome this difference to an extent by care in handling, grading, and packing, it still acts as a factor limiting the quantity of the product which can be profitably marketed from the distant centers of production. This important factor in geographic areas from which are shipped competitive products will sooner or later bring about a decided readjustment in the quality production of some of our important horticultural crops.

Noncompetitive Crops

There are certain horticultural crops which, because of their noncompetitive character and the fact that they can only be successfully produced in very restricted areas within the continental boundaries of the United States and its island possessions, will continue to thrive so long as the total production of the commodity does not exceed a quantity which the market will absorb at a remunerative price. Such noncompetitive crops are lemons and Valencia oranges in California, grapefruit in Florida, and pineapples from Porto Rico. Not so, however, with the winter oranges of Florida and California. With this crop, although both producing fields are distant from the great centers of consumption, there is nevertheless competition; and with them the problem is to regulate production to the demands of the market in such a way as to properly safeguard the requirements of the markets and still maintain a profitable industry.

Seasonal and Acreage Adjustments

Another important feature of crop geography manifests itself in the handling of several of our leading truck crops. Because of the diversity in the climatic conditions obtaining in various parts of the United States it has been possible to develop two or more regions of production for several of the vegetable crops. Outstanding among these are the potato, cabbage, and onion, and to a less extent celery. The crop of potatoes upon which the people depend annually for their supply is grown primarily in the northern tier of States including Maine, New York, Michigan, Wisconsin, Minnesota, and Idaho. The principal exception to this is the production in Colorado. These States are all large producing areas and it is from them that the great consuming centers receive the major portion of their annual supply. Each season, however, an important supplemental supply of freshy dug potatoes from Florida and other points along the Atlantic coast as the season advances, find a ready market. The production from this region increases in volume as the supply of stored potatoes diminishes until in summer the supply of potatoes for the great cities of the Northeast is chiefly derived from a region extending from Norfolk, Va., to Maine. The combined production of these two great areas supplemented by the crop of the Pacific coast supply the markets of the country throughout the 12 months of the year.

An outstanding feature of these complementary producing territories is the fact that if there is an unusually large production in the northern territory, the southern production can be gauged to meet the probable demands of the markets. On the other hand, if through low yields or crop failure in the North, there is an apparent shortage of stored potatoes, the southern growers have the opportunity to expand their acreage to cover the probable shortage. The adjustments of production which are possible with potatoes are also possible with cabbage and with onions, and to a less extent with celery.

These climatic areas have been made increasingly effective in meeting the market requirements of the country by the development of varieties especially adapted to them. If it were not for the fact that early varieties especially suited for cultivation in the South are planted, the program would not be as successful as it is. The relative hardiness of the plants of the Wakefield strains of cabbage when grown during the winter months, and their ready response to favorable growing conditions has made possible the extensive winter cultivation of cabbage in parts of the South.

In like manner the Bermuda onion-growing sections of Texas and southern California, and other States, serve to supplement the fall-stored crop of the North, thus providing a year-around supply of onions. Similar relationships exist in the fruit industry, in which the sequence of ripening in the different regions provides a continuous market supply over a long period. A good example is found in the strawberry, which as a local crop is of short duration, but in sequence the shipments begin in December from Florida and continue until July from the extreme northern sections. The addition of the ever-bearing varieties has now completed the annual cycle for fresh strawberries. In like manner the peach season begins in May in the earliest sections and continues until October, when the late varieties in the northern regions are harvested.

These examples of the relation which crop production in different areas bears to the yearly supply, as well as the effect which one may have on the other, are important elements to be considered in working out a satisfactory production for the future. This situation will become more acute as the consuming population of the country increases. With fruit and vegetable crops the problem is to accurately adjust the acreage in any given production area to the requirements of the market during the period when that region normally has access to and control of the market. With short-season crops like strawberries and peaches the adjustment of acreage to market requirements is a factor which if not carefully guarded is likely to lead to disastrous consequences. In fact even the most painstaking care in this respect may be upset when through unusual seasonal conditions the harvest period of two regions, which naturally follow in sequence, are thrown together; then the markets are oversupplied which usually results in loss.

If the industries are to prove profitable production must be kept within the quantity the markets will absorb at prices which return a profit to the grower.

Influence of Cost Factors on the Location of Industries

The long-time agricultural enterprises such as the tree-fruit industries are often very seriously affected by changes which may take place in the basic factors entering into the economics of their production. The modification of freight rates, interest rates, taxes, commission charges, or storage charges, may markedly benefit or handicap long-time industries such as the production of tree fruits or vine crops.

Such industries located in marginal areas of production, if they have to contend with marked increases in any one or several of these important items of production cost, may suffer the penalty of failure in the region in which they have been developed and as a result, a general relocation of the commercial industry may be brought about. The great changes in freight rates, in labor costs, and in interest charges, as well as taxes which are the inheritance of the World War, are beginning to show a marked influence upon many of the already extensively developed fruit areas of the country. Some of these fruit regions are meeting the situation by substituting more highly profitable and less competitive crops.

Population and Production

Horticultural development like general agricultural development, has outrun in certain phases of its activities, the normal increases of the consuming population. As a result of this expansion, together with the fact that some of the basic factors affecting the cost of producing and transporting products to the market have been materially increased during the last decade, many horticultural activities must be adjusted to the new economic environment which has been created.

As long as the industrial activities of the Nation remain prosperous and good wage rates are maintained, food materials will be absorbed at prices fairly comparable with those now obtaining. As soon, however, as industrial conditions become less prosperous and the purchasing power of the wage earners is reduced, horticultural products along with other food products will feel the restraining influence of the reduced purchasing power. With industries such as the production of apples and other tree fruits which require several years to come into bearing, but which remain productive for a long period, the relative advantages of various producing regions must be considered together with the rate at which population is increasing at present as compared with the expansion during the period of development of most of our present orchard areas when immigration laws were more liberal than at present. These factors together with the natural hazards of the weather must be taken into account in the planting of new orchards.

Horticultural Production National not Local

Fruit and vegetable production with the present facilities for transportation has developed far beyond any early conception of the market gardener and local fruit grower. The horticultural industries are national in their scope and bearing, and States possess-

ing extraordinary natural advantages for the development of particular industries should see to it that the development of these industries is maintained in such a manner as to adequately provide the demands of the market, but at the same time to safeguard the financial well-being of the industry. It is not to be presumed that every individual who has an orchard or a truck farm will be successful, but, in general, regions possessing satisfactory natural conditions for the development of particular crops and enjoying suitable and adequate transportation facilities should, in the main, be fairly prosperous. As soon as the general condition of an industry in a particular region indicates that the majority of the better growers of the community are not succeeding financially, it is high time that the territory took stock of itself and set about to lower its cost of production or turn its attention to some industry which can be more advantageously and successfully maintained.

Business interests, including manufacture and transportation, are so intimately related with agricultural and horticultural production that their mutual interdependence must at all times be kept in mind and other industries so directed as to help agriculture maintain itself on a satisfactory financial basis. This can not be done if agriculture and other industries are antagonistic and not a part of a common community. One can not succeed without the other, neither can one afford to exploit the other. The experience of the period during and immediately following the World War brought home to the people of the United States a keen realization of the mutual interdependence of its several economic units and consequently the necessity for maintaining a highly self-sustaining industrial and economic fabric.

This dependence of one industry upon another is markedly demonstrated in the results which follow any overdevelopment. Such development usually leads to stagnation in production with its consequent curtailment of employment and, to that extent, impairment of the purchasing power of the population which reflects itself in every line of business. Each business is in a sense its "brother's keeper," and must be developed, maintained, and operated on that basis in order that all may enjoy a fair degree of prosperity.

The horticultural industries of the country can not be economically and successfully expanded out of proportion to the other industrial developments of the Nation. It is essential, therefore, that students of horticulture look not merely to the production possibilities in a given region, but to the total prospective production of a given commodity.

Production and Prices

The prices of fruits and vegetables, like the prices of other commodities, are dependent upon many factors among which are the consumptive capacity and demand of each particular market for the commodity in question and the supply and competition among products themselves. With fruits and vegetables, as with other commodities, a point may be reached at which the supply so completely overtakes the demand that the market may be said to be saturated. Any additional supply of like quality causes a slump and may lead to demoralization of the market. On the other hand a slight decrease

in supply over demand may cause prices to respond out of proportion to the actual shortage of the supply.

This reaction of price levels is frequently observed in the annual harvest of potatoes. A crop slightly above normal frequently depresses prices out of proportion to the actual surplus, and conversely a slight shortage in the supply results in as marked a change in the opposite direction and usually to a degree out of proportion to the shortage of the supply.

Shortages in supply of both fruits and vegetables with consequent increase in prices lead to substitution of other commodities for those, the price of which has been unduly increased. This affects the price of the substitute commodity and leads to dislocation of trade. In general, the production of fruits and vegetables which is well timed and satisfactorily apportioned to the market demands leads to the greatest satisfaction of the producer, the tradesman, and the consumer.

No artificial stimulus or devices can be successfully used to bring about the disposition of abnormally abundant crops at satisfactory prices for the producer. In general, price levels will be governed by supply and demand. The demand will be determined to a large degree by the purchasing power of the public at any given time. On the other hand, the consumer must not reach the conclusion that, because his purchasing power is low, that prices of fruits and vegetables will for any considerable period of time remain below the cost of production plus transportation and other necessary handling and distributing charges. No industry can survive for long on a price basis which does not yield a satisfactory profit above cost of production.

The all-important question in connection with the production of fruits and vegetables of any kind is "Will it pay?" Ultimately in a well-developed system of permanent agriculture consumption requirements will be better understood than at the present time, and the plantings of all important perishable crops will be so adjusted as to provide an adequate quantity to satisfy the demands of the market at a price which will return a reasonable profit to the producer. When such adjustments in agriculture are finally worked out many of the present difficulties and discouragements which beset agricultural industries will disappear. Such a state of industry can hardly be attained with the present knowledge and business organization of the producers. Progress has been made in the right direction and it is believed that each year will witness substantial advances.

Production Adjustment to Food Requirements

If the future production of fruits and vegetables can be maintained with a reasonable degree of accuracy on such a basis as to adequately meet the requirements of the people, both for fresh and for canned products, horticulture has a bright outlook and may count upon reasonable prosperity. Overstimulation of production through exploitation or lack of consideration of competition which such products will meet in the open markets of the country is bound to lead to disaster. Such unfortunate additions to the general market supply not

only disastrously affect the regions responsible for them but the surplus which is thus created acts as a depressing element on the markets for all like products and therefore indirectly affects every region producing that crop.

It is probably too much to expect that knowledge of production and market requirements will be so applied that seasons of scarcity and overproduction will not occur. It is inevitable that seasons will differ and each will return its harvest in proportion to the combination of elements which make up the season.

By a careful study of the range of such fluctuation in a given territory over a long period of years, together with knowledge of the average yield of each commodity, it will become possible for growers more nearly to approach a reasonable supply to meet the demands of the market. Despite the best-laid plans, seasons will occur, particularly with orchard and truck crops, in which there will be unusual yields per acre. When such conditions prevail over a large portion of the territory producing a commodity, the total production will be greatly augmented and a corresponding depression in prices will result. Certain vegetable crops are particularly subject to wide fluctuations in annual yields, and for that reason are highly speculative and constitute a large hazard in agriculture. The best that can be done is to maintain production as close to the average of a considerable period as is practicable and endeavor to arrange a cropping system which is sufficiently diverse so that when there is little or no profit in one commodity, some other may be in sufficient demand to return a profit and thereby provide an income for the grower.

It seldom happens that all of the crops of a satisfactory farming enterprise are unprofitable in any given year. It is the general average of a series of years from a well-ordered system of crop production which should be taken into account in determining the success or failure of a horticultural enterprise, rather than the returns from a single activity. However, no enterprise can long survive if one or more of its major factors is continually operated at a loss.

Although the future of horticulture is dependent upon general business prosperity, the closer relationship that has been formed both among the fruit and vegetable growers themselves and between growers, dealers, and consumers, has tended to stabilize all horticultural production. The results of studies of the nutritive value of fruits and vegetables have popularized horticultural products in the minds of the people in general, and the adoption of standard grades and packs has created a basis on which the business and sale of horticultural products may be definitely conducted.

On the whole, the future outlook for the horticultural industries is good within the limitations of sound judgment and stabilized production. Horticultural enterprises are less subject to exploitation than formerly and the future holds the promise of fewer failures through lack of experience and judgment in the establishment of the various activities. Our export trade is increasing, especially for the standard fruits, and with our own expanding population there is a constantly increasing demand for the products of horticulture within the United States.

Miscellaneous Lists

List of new Farmers' Bulletins, Department Bulletins, Department Circulars, Miscellaneous Circulars, and Statistical Bulletins issued from July 1, 1923, to January 31, 1926, classified by general subject matter

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List of Land-Grant Colleges in the United States

May, 1926

This list includes all colleges of agriculture and mechanic arts receiving the benefits of the acts of Congress of July 2, 1862, and August 30, 1890. Those marked with an asterisk (*) do not maintain courses of instruction in agriculture.

| State or Territory | Name of institution and location | President ¹ |
|--------------------|--|------------------------|
| ALABAMA..... | Alabama Polytechnic Institute, Auburn..... | Spright Dowell. |
| ALASKA..... | Agricultural and Mechanical Institute for Negroes, Normal..... | T. R. Parker. |
| ARIZONA..... | Alaska Agricultural College and School of Mines, Fairbanks..... | C. E. Bunnell. |
| ARKANSAS..... | College of Agriculture of University of Arizona, Tucson..... | J. J. Thorner.* |
| | College of Agriculture of University of Arkansas, Fayetteville..... | D. T. Gray.* |
| CALIFORNIA..... | State Agricultural, Mechanical and Normal School, Pine Bluff..... | R. E. Malone.* |
| COLORADO..... | College of Agriculture of University of California, Berkeley..... | E. D. Merrill.* |
| CONNECTICUT..... | State Agricultural College of Colorado, Fort Collins..... | C. A. Lory. |
| DELAWARE..... | Connecticut Agricultural College, Storrs..... | C. L. Beach. |
| | School of Agriculture, University of Delaware, Newark..... | C. A. McCue.* |
| FLORIDA..... | State College for Colored Students, Dover..... | R. S. Grossley. |
| | College of Agriculture of University of Florida, Gainesville..... | Wilmon Newell.* |
| | Florida Agricultural and Mechanical College for Negroes, Tallahassee..... | J. R. E. Lee. |
| GEORGIA..... | Georgia State College of Agriculture, Athens..... | A. M. Soule. |
| | Georgia State Industrial College, Savannah..... | C. G. Wiley. |
| HAWAII..... | University of Hawaii, Honolulu..... | A. J. Dean. |
| IDaho..... | College of Agriculture of University of Idaho, Moscow..... | E. J. Iddings.* |
| ILLINOIS..... | College of Agriculture of University of Illinois, Urbana..... | H. W. Mumford.* |
| INDIANA..... | School of Agriculture of Purdue University, LaFayette..... | J. H. Skinner.* |
| IOWA..... | Iowa State College of Agricultural and Mechanical Arts, Ames..... | R. A. Pearson. |
| KANSAS..... | Kansas State Agricultural College, Manhattan..... | F. D. Farrell. |
| KENTUCKY..... | College of Agriculture of University of Kentucky, Lexington..... | T. P. Cooper.* |
| | Kentucky Normal and Industrial Institute for Colored Persons, Frankfort..... | G. P. Russell. |
| LOUISIANA..... | Louisiana State University and Agricultural and Mechanical College, Baton Rouge..... | T. D. Boyd. |
| | Southern University and Agricultural and Mechanical College, Scotlandville..... | J. S. Clark. |

¹ The name of the dean of the college of agriculture is given where that college is a part of a university.

* Dean.

Superintendent.

List of Land-Grant Colleges in the United States—Continued

| State or Territory | Name of institution and location | President |
|---------------------|--|------------------------------|
| MAINE..... | College of Agriculture of University of Maine, Orono..... | L. S. Merrill. ³ |
| MARYLAND..... | University of Maryland, College Park..... | A. F. Woods. |
| MASSACHUSETTS..... | Princess Anne Academy, Princess Anne..... | T. H. Kiah. ⁴ |
| | Massachusetts Agricultural College, Amherst..... | E. M. Lewis. ⁵ |
| | *Massachusetts Institute of Technology, Cambridge..... | S. W. Stratton. |
| MICHIGAN..... | Michigan State College of Agriculture and Applied Science, East Lansing..... | K. L. Butterfield. |
| MINNESOTA..... | Department of Agriculture of the University of Minnesota, University Farm, St. Paul..... | W. C. Coffey. ¹ |
| MISSISSIPPI..... | Mississippi Agricultural and Mechanical College, A. & M. College..... | B. M. Walker. |
| | Alcorn Agricultural and Mechanical College, Alcorn..... | L. J. Rowan. |
| MISSOURI..... | College of Agriculture of University of Missouri, Columbia..... | F. B. Mumford. ³ |
| | *School of Mines and Metallurgy of University of Missouri, Rolla..... | A. L. McRae. ⁵ |
| MONTANA..... | Lincoln University, Jefferson City..... | N. B. Young. |
| | Montana State College of Agricultural and Mechanical Arts, Bozeman..... | Alfred Atkinson. |
| NEBRASKA..... | College of Agriculture of University of Nebraska, Lincoln..... | E. A. Burnett. ³ |
| NEVADA..... | College of Agriculture of University of Nevada, Reno..... | Robert Stewart. ³ |
| NEW HAMPSHIRE..... | The University of New Hampshire, Durham..... | R. D. Hetzel. |
| NEW JERSEY..... | State College of Agricultural and Mechanical Arts of Rutgers University and State University of New Jersey, New Brun- swick..... | J. G. Lipman. ³ |
| NEW MEXICO..... | New Mexico College of Agricultural and Mechanical Arts, State College..... | H. L. Kent. |
| NEW YORK..... | New York State College of Agriculture, Ithaca..... | A. R. Mann. ³ |
| NORTH CAROLINA..... | North Carolina State College of Agriculture and Engineering, State College Station, Raleigh..... | E. C. Brooks. |
| | Negro Agricultural and Technical College, Greensboro..... | F. D. Bluford. |
| NORTH DAKOTA..... | North Dakota Agricultural College, State College Station, Fargo..... | J. L. Coulter. |
| OHIO..... | College of Agriculture of Ohio State University, Columbus..... | Alfred Vivian. ¹ |
| OKLAHOMA..... | Oklahoma Agricultural and Mechanical College, Stillwater..... | Bradford Knapp. |
| | Colored Agricultural and Normal University, Langston..... | I. W. Young. |
| OREGON..... | Oregon Agricultural College, Corvallis..... | W. J. Kerr. |
| PENNSYLVANIA..... | School of Agriculture of Pennsylvania State College, State College..... | R. L. Watts. ³ |
| PORTO RICO..... | College of Agricultural and Mechanical Arts of University of Porto Rico, Mayaguez..... | C. E. Horne. ³ |
| RHODE ISLAND..... | Rhode Island State College, Kingston..... | Howard Edwards. |
| SOUTH CAROLINA..... | Clemson Agricultural College of South Carolina, Clemson College..... | E. W. Sikes. |
| | The Colored Normal, Industrial, Agricultural and Mechanical College of South Carolina, Orangeburg..... | R. S. Wilkinson. |
| SOUTH DAKOTA..... | South Dakota State College of Agricultural and Mechanical Arts, Brookings..... | C. W. Pugsley. |
| TENNESSEE..... | College of Agriculture of University of Tennessee, Knoxville..... | C. A. Willson. ³ |
| | Tennessee Agricultural and Industrial State Normal School, Nashville..... | W. J. Hale. |
| TEXAS..... | Agricultural and Mechanical College of Texas, College Station..... | T. O. Walton. |
| | Prairie View State Normal and Industrial College, Prairie View..... | P. E. Bledsoe. ⁴ |
| UTAH..... | Agricultural College of Utah, Logan..... | E. G. Peterson. |
| VERMONT..... | College of Agriculture of University of Vermont, Burlington..... | J. L. Hills. ³ |
| VIRGINIA..... | Virginia Agricultural and Mechanical College and Polytechnic Institute, Blacksburg..... | J. A. Burruss. |
| | Virginia Normal and Industrial Institute, Ettricks..... | J. M. Gandy. |
| WASHINGTON..... | State College of Washington, Pullman..... | E. O. Holland. |
| WEST VIRGINIA..... | College of Agriculture of West Virginia University, Morgantown..... | G. R. Lyman. ³ |
| | West Virginia Collegiate Institute, Institute..... | J. W. Davis. |
| WISCONSIN..... | College of Agriculture of University of Wisconsin, Madison..... | H. L. Russell. ³ |
| WYOMING..... | College of Agriculture of University of Wyoming, Laramie..... | J. A. Hill. ³ |

³ Dean.
⁴ Principal.

⁵ Acting president.
⁶ Director.

List of Agricultural Experiment Stations in the United States

May, 1926

This list gives the post-office addresses of the agricultural experiment stations in the United States, followed by the name of the director or other officer in charge:

ALABAMA—

(College station), Auburn: M. J. Funchess.
(Canebrake station), Uniontown: W. A. Cammack.
(Tuskegee station), Tuskegee Institute: G. W. Carver.

ALASKA—Sitka: C. C. Georgeson.

ARIZONA—Tucson: J. J. Thorner.

ARKANSAS—Fayetteville: D. T. Gray.

CALIFORNIA—Berkeley: E. D. Merrill.

COLORADO—Fort Collins: C. P. Gillette.

CONNECTICUT—

State station, New Haven: } W. L. Slate, Jr.
Storrs station, Storrs: }

DELAWARE—Newark: C. A. McCue.

FLORIDA—Gainesville: Wilmon Newell.

GEORGIA—

(State station), Experiment: H. P. Stuckey.
Coastal Plain station, Tifton: S. H. Starr.

GUAM, ISLAND OF—Guam: C. W. Edwards.

HAWAII—

(Federal station), Honolulu: J. M. Westgate.
(Sugar Planters' station), Honolulu: H. P. Agee.

IDAHO—Moscow: E. J. Iddings.

ILLINOIS—Urbana: H. W. Mumford.

INDIANA—La Fayette: G. I. Christie.

IOWA—Ames: C. F. Curtiss.

KANSAS—Manhattan: L. E. Call.

KENTUCKY—Lexington: T. P. Cooper.

LOUISIANA—

State station, University Station, Baton Rouge: }
Sugar station, Baton Rouge: } W. R. Dodson.
North Louisiana station, Calhoun: }
Rice station, Crowley: }
Fruit and Truck station, Hammond: }

MAINE—Orono: W. J. Morse.

MARYLAND—College Park: H. J. Patterson.

MASSACHUSETTS—Amherst: S. B. Haskell.

MICHIGAN—East Lansing: R. S. Shaw.

MINNESOTA—University Farm, St. Paul: W. C. Coffey.

MISSISSIPPI—A. and M. College: J. R. Ricks.

MISSOURI—

(College station), Columbia: F. B. Mumford.
(Fruit station), Mountain Grove: F. W. Faurot.
(Poultry station), Mountain Grove: T. W. Noland.

MONTANA—Bozeman: F. B. Linfield.

NEBRASKA—Lincoln: E. A. Burnett.

NEVADA—Reno: S. B. Doten.

NEW HAMPSHIRE—Durham: J. C. Kendall.

NEW JERSEY—New Brunswick: J. G. Lipman.

NEW MEXICO—State College: Fabian Garcia.

NEW YORK—

State station, Geneva: } R. W. Thatcher.
Cornell station, Ithaca: }

NORTH CAROLINA—State College Station, Raleigh: R. Y. Winters.

NORTH DAKOTA—State College Station, Fargo: P. F. Trowbridge.

OHIO—Wooster: C. G. Williams.

OKLAHOMA—Stillwater: C. T. Dowell.

OREGON—Corvallis: J. T. Jardine.

PENNSYLVANIA—

(College station), State College: R. L. Watts.
(Institute of Animal Nutrition), State College: E. B. Forbes.

PORTO RICO—

(Federal station), Mayaguez: D. W. May.
(Insular station), Rio Piedras: R. M. Ramos.

RHODE ISLAND—Kingston: B. L. Hartwell.

SOUTH CAROLINA—Clemson College: E. W. Barre.

SOUTH DAKOTA—Brookings: J. W. Wilson.

TENNESSEE—Knoxville: C. A. Mooers.

TEXAS—College Station: B. Youngblood.

UTAH—Logan: William Peterson.

VERMONT—Burlington: J. L. Hills.

VIRGINIA—

(College station), Blacksburg: A. W. Drinkard, Jr.
(Truck station), Norfolk: T. C. Johnson.

VIRGIN ISLANDS, U. S. A.—St. Croix: J. B. Thompson.

WASHINGTON—

(College station), Pullman: E. C. Johnson.
(Western Washington station), Puyallup: W. A. Linklater.¹

WEST VIRGINIA—Morgantown: H. G. Knight.

WISCONSIN—Madison: H. L. Russell.

WYOMING—Laramie: J. A. Hill.

¹ Superintendent.

National Forests

June 30, 1925

| Forest | State in which located | Net area | Forest | State in which located | Net area |
|---------------|--|--------------|-----------------|---|--------------|
| | | <i>Acres</i> | | | <i>Acres</i> |
| Absaroka | Montana | 841,086 | Knox | Kentucky | 22,660 |
| Alabama | Alabama | 105,054 | Kootenai | Montana | 1,331,513 |
| Allegheny | Pennsylvania | 103,265 | La Sal | Colorado and Utah | 530,922 |
| Angeles | California | 829,499 | Lassen | California | 943,366 |
| Apache | Arizona and New Mexico | 1,564,218 | Leadville | Colorado | 927,444 |
| Arapaho | Colorado | 635,900 | Lemhi | Idaho | 1,354,747 |
| Arkansas | Arkansas | 663,378 | Lee | Virginia | 7,177 |
| Ashley | Utah and Wyoming | 986,199 | Lewis and Clark | Montana | 810,731 |
| Beartooth | Montana | 659,919 | Lincoln | New Mexico | 1,114,127 |
| Beaverhead | do | 1,339,919 | Lolo | Montana | 850,677 |
| Benning | Georgia | 75,590 | Luquillo | Porto Rico | 12,443 |
| Bighorn | Wyoming | 1,125,632 | Madison | Montana | 931,020 |
| Bitterroot | Montana | 1,047,071 | Malheur | Oregon | 1,048,666 |
| Blackfoot | do | 836,967 | Manti | Utah | 723,867 |
| Black Hills | South Dakota and Wyoming | 620,441 | Manzano | New Mexico | 608,061 |
| Boise | Idaho | 1,062,693 | McClellan | Alabama | 15,350 |
| Cabinet | Montana | 829,077 | Meade | Maryland | 4,726 |
| Cache | Idaho and Utah | 776,952 | Medicine Bow | Wyoming | 550,911 |
| California | California | 820,105 | Michigan | Michigan | 126,762 |
| Caribou | Idaho and Wyoming | 704,569 | Minidoka | Idaho and Utah | 591,199 |
| Carson | New Mexico | 1,067,092 | Minnesota | Minnesota | 190,945 |
| Cascade | Oregon | 1,023,510 | Missoula | Montana | 1,030,257 |
| Challis | Idaho | 1,253,519 | Modoc | California | 1,432,532 |
| Chelan | Washington | 1,835,855 | Mono | California and Nevada | 1,250,888 |
| Cherokee | Georgia, North Carolina, and Tennessee | 211,824 | Monongahela | Virginia and West Virginia | 170,902 |
| Chugach | Alaska | 4,792,060 | Montezuma | Colorado | 696,583 |
| Clearwater | Idaho | 785,376 | Mount Baker | Washington | 1,460,697 |
| Cleveland | California | 549,575 | Mount Hood | Oregon | 1,053,879 |
| Cochetopa | Colorado | 908,787 | Nantahala | Georgia, North Carolina, and South Carolina | 226,086 |
| Cocumino | Arizona | 1,710,696 | Natural Bridge | Virginia | 142,721 |
| Coeur d'Alene | Idaho | 661,692 | Nebraska | Nebraska | 205,945 |
| Colorado | Colorado | 828,403 | Nevada | Nevada | 1,175,222 |
| Columbia | Washington | 764,926 | Nexperce | Idaho | 1,658,759 |
| Cookville | do | 746,135 | Ochoco | Oregon | 717,904 |
| Coronado | Arizona and New Mexico | 1,461,429 | Olympic | Washington | 1,530,867 |
| Crocker | California and Oregon | 353,267 | Ozark | Arkansas | 299,099 |
| Crook | Arizona | 1,998,814 | Payette | Idaho | 1,204,160 |
| Custer | Montana and South Dakota | 590,793 | Pend Oreille | do | 674,579 |
| Datli | New Mexico | 1,754,161 | Pike | Colorado | 1,064,936 |
| Deerlodge | Montana | 820,158 | Pine Plains | New York | 9,800 |
| Deschutes | Oregon | 1,294,743 | Pisgah | North Carolina and Tennessee | 268,124 |
| Dix | New Jersey | 6,785 | Plumas | California | 1,109,864 |
| Dixie | Nevada and Utah | 852,208 | Powell | Utah | 1,050,462 |
| Eldorado | California and Nevada | 552,918 | Prescott | Arizona | 1,164,968 |
| Euatis | Virginia | 4,220 | Ranier | Washington | 1,276,964 |
| Fishlake | Utah | 1,362,600 | Rio Grande | Colorado | 1,135,778 |
| Fishhead | Montana | 1,721,478 | Routt | do | 748,558 |
| Florida | Florida | 342,771 | Salmon | Idaho | 1,664,026 |
| Freemont | Oregon | 849,264 | San Isabel | Colorado | 598,386 |
| Gallatin | Montana | 675,159 | San Juan | do | 1,239,361 |
| Gila | New Mexico | 1,596,215 | Santa Barbara | California | 2,022,136 |
| Grand Mesa | Colorado | 659,264 | Santa Fe | New Mexico | 1,270,450 |
| Gunnison | do | 905,156 | Santiam | Oregon | 610,913 |
| Harney | South Dakota | 508,701 | Savanna | Illinois | 10,710 |
| Hayden | Colorado and Wyoming | 393,893 | Sawtooth | Idaho | 1,158,269 |
| Helena | Montana | 681,291 | Selway | do | 1,689,157 |
| Holy Cross | Colorado | 1,124,329 | Sequoia | California | 1,430,484 |
| Humboldt | Nevada | 1,334,170 | Shasta | do | 833,786 |
| Humphreys | Virginia | 3,184 | Shenandoah | Virginia and West Virginia | 362,387 |
| Idaho | Idaho | 1,856,722 | Shoshone | Wyoming | 1,583,986 |
| Inyo | California and Nevada | 1,697,126 | Sierra | California | 1,433,400 |
| Jackson | South Carolina | 20,225 | Siskiyou | California and Oregon | 1,362,167 |
| Jefferson | Montana | 1,040,636 | Sitgreaves | Arizona | 639,688 |
| Kalbar | Arizona | 769,894 | Stasiaw | Oregon | 847,436 |
| Kanab | Idaho and Washington | 444,481 | Snoqualmie | Washington | 699,574 |
| Klamath | California and Oregon | 1,533,980 | Stanislaus | California | 810,667 |
| | | | St. Joe | Idaho | 851,170 |
| | | | Superior | Minnesota | 800,161 |
| | | | Tahoe | California and Nevada | 614,159 |
| | | | Targhee | Idaho and Wyoming | 1,376,417 |

National Forests—Continued

| Forest | State in which located | Net area | Forest | State in which located | Net area |
|----------------|--|--------------|---------------------|------------------------------|--------------|
| | | <i>Acres</i> | | | <i>Acres</i> |
| Teton..... | Wyoming..... | 1,880,812 | Uncompahgre... | Colorado..... | 778,341 |
| Tobyhanna..... | Pennsylvania..... | 30,870 | Upton..... | New York..... | 6,154 |
| Toiyabe..... | Nevada..... | 1,882,659 | Wallawa..... | Oregon..... | 967,240 |
| Tongass..... | Alaska..... | 16,542,214 | Wasatch..... | Utah..... | 608,261 |
| Tonto..... | Arizona..... | 2,269,885 | Washakie..... | Wyoming..... | 800,326 |
| Trinity..... | California..... | 1,410,027 | Weiser..... | Idaho..... | 568,946 |
| Tusayan..... | Arizona..... | 1,271,170 | Wenatchee..... | Washington..... | 838,184 |
| Ulate..... | Utah..... | 1,076,978 | White River..... | Colorado..... | 884,974 |
| Umatilla..... | Oregon and Washington..... | 1,228,900 | Whitman..... | Oregon..... | 1,319,035 |
| Umpqua..... | Oregon..... | 1,009,687 | White Mountain..... | Maine and New Hampshire..... | 439,508 |
| Unaka..... | North Carolina, Tennessee, and Virginia..... | 152,195 | Wichita..... | Oklahoma..... | 61,480 |
| | | | Wyoming..... | Wyoming..... | 1,667,549 |

Federal Game and Bird Refuges

DEPARTMENT OF AGRICULTURE

| Designation | Acres | Game and birds on refuge | Designation | Acres | Game and birds on refuge |
|------------------------------------|--------|--|--|--------|---|
| <i>Bureau of biological survey</i> | | | <i>Bureau of biological survey—Continued</i> | | |
| ALABAMA: Petit Bois Island..... | 635 | Sea birds. | MICHIGAN: Huron Islands..... | 83 | Sea birds. |
| ALASKA: Aleutian Islands..... | | Do. | Siskiyou Islands..... | 9 | Do. |
| Bering Sea..... | | Do. | MINNESOTA: Mille Lacs..... | 7 | Do. |
| Bogoslof..... | | Do. | MONTANA: Montana National Bison range..... | 13,522 | Buffalo, 390; elk, 275; antelope, 67; deer, 69; grouse, ring-necked pheasants, ducks. |
| Chamisso Island..... | | Do. | Nine pipe..... | | Waterfowl. |
| Forrester Island..... | | Do. | Pablo..... | | Do. |
| Harey Islands..... | | Do. | Pishkun..... | 3,160 | Do. |
| St. Lazarus..... | | Do. | Willow Creek..... | 3,200 | Do. |
| Tuxedni..... | | Do. | NEBRASKA: Niobrara..... | 16,125 | Buffalo, 37; elk, 60; deer, 1; pinnated and sharp-tailed grouse. |
| Yukon Delta..... | | Do. | North Platte..... | 5,107 | Waterfowl, waders. |
| ARIZONA: Salt River..... | 21,120 | White pelicans, cormorants, waterfowl, waders. | NEVADA: Anaho Islands..... | 248 | White pelicans, cormorants, gulls. |
| ARKANSAS: Big Lake..... | 7,774 | Waterfowl. | NEW MEXICO: Carlsbad..... | 18,680 | Waterfowl, waders. |
| Walker Lake..... | 15 | Waders. | Rio Grande..... | 55,680 | Do. |
| CALIFORNIA: Clear Lake..... | 33,840 | Waterfowl, waders, cormorants. | NORTH DAKOTA: Chase Lake..... | 2,839 | Waterfowl, white pelicans, gulls, terns, waders, shore birds. |
| Farallon..... | | Sea birds. | Stump Lake..... | 28 | Same as on Chase Lake. |
| FLORIDA: Caloosahatchee..... | | Waders. | Sullys Hill National Game Preserve..... | 700 | Buffalo, 10; elk, 44; deer, 3; sharp-tailed and pinnated grouse, ring-necked pheasants. |
| Indian Key..... | 90 | Sea birds, waders. | OREGON: Cold Springs..... | 2,520 | Waterfowl. |
| Island Bay..... | | Waders. | Klamath Lake..... | 81,619 | Waterfowl, pelicans, gulls, waders, shore birds. |
| Key West..... | | Sea birds. | Lake Malheur..... | 88,960 | Same as Klamath Lake. |
| Matlacha Pass..... | | Waders. | Three Arch Rocks..... | | Sea birds. |
| Mosquito Inlet..... | | Waders, pelicans, ducks. | | | |
| Palma Sola..... | | Waders. | | | |
| Passage Key..... | 37 | Sea birds, waders. | | | |
| Pelican Island..... | 6 | Brown pelicans, shorebirds. | | | |
| Pine Island..... | | Shorebirds, waders. | | | |
| Tortugas Keys..... | 141 | Sea birds. | | | |
| HAWAII: Hawaiian Islands..... | | Do. | | | |
| IDAH0: Deer Flat..... | 12,360 | Waterfowl, waders. | | | |
| Minidoka..... | 13,240 | Waterfowl, waders, shorebirds. | | | |
| LOUISIANA: Breton Island..... | | Sea birds. | | | |
| East Timbalier..... | 68 | Do. | | | |
| Shell Keys..... | | Do. | | | |
| Tern Islands..... | | Do. | | | |

Federal Game and Bird Refuges—Continued

DEPARTMENT OF AGRICULTURE—Continued.

| Designation | Acres | Game and birds on refuge | Designation | Acres | Game and birds on refuge |
|--|--------|---|--|---------|---|
| <i>Bureau of biological survey—Continued</i> | | | <i>Bureau of biological survey—Continued</i> | | |
| PORTO RICO. | | | WYOMING. | | |
| Culebra..... | | Sea birds, non-game birds. | Elk Refuge..... | 2,760 | Elk (in winter), ducks, sage grouse |
| Desecheo Island..... | | Do. | Pathfinder. | 35,120 | Waterfowl. |
| SOUTH DAKOTA: | | | Shoshone..... | 10,040 | Do. |
| Belle Fourche.. | 13,680 | Waterfowl, waders. | Flat Creek..... | 40 | Do. |
| Wind Cave National Game Preserve | 4,160 | Buffalo, 72; elk, 150; deer, 2; antelope, 24; grouse. | <i>Forest Service</i> | | |
| UTAH: Strawberry Valley. | 8,560 | Waterfowl. | ARIZONA: Grand Canyon Game Preserve. | 613,120 | Deer, mountain sheep, grouse |
| WASHINGTON: | | | NORTH CAROLINA: Pisgah Game Preserve. | 77,045 | Buffalo, elk, deer, turkeys, quail. |
| Concoquilly..... | 1,120 | Do. | OKLAHOMA: Wichita National Game Preserve | 57,120 | Buffalo, elk, deer, antelope, turkeys, quail. |
| Copalis Rock..... | 6 | Sea birds. | SOUTH DAKOTA: Custer State Park Game Sanctuary. | 26,640 | Deer, blue and ruffed grouse. |
| Dungeness Spit.. | 227 | Sea birds, water fowl | WASHINGTON: Mount Olympus National Monument. | 299,370 | Olympic elk, deer, bear, grouse. |
| Ediz Hook..... | 84 | Waterfowl. | | | |
| Flattery Rocks..... | 68 | Sea birds. | | | |
| Smith Island..... | | Waterfowl | | | |
| Quillayute Needles. | 117 | Sea birds. | | | |
| WISCONSIN: | | | | | |
| Gravel Island (Lake Michigan). | | Gulls. | | | |
| Green Bay..... | | Do. | | | |

DEPARTMENT OF COMMERCE

| | | | | | |
|---|---------|----------------------------------|--|-------|---|
| <i>Bureau of Fisheries</i> | | | <i>Bureau of Light-houses—Continued</i> | | |
| ALASKA: | | | CALIFORNIA—Con. | | |
| Afognak Forest and Fish Cultural Reserve. | 512,000 | Sea otters. | South Farallon Island Light-house Reservation. | 120 | Auklets, guillemots, cormorants, petrels, gulls, puffins. |
| Pribilof Islands Reservation. | 49,000 | Fur seals, sea lions, sea birds. | LOUISIANA: Chandeleur Lighthouse Reservation. | 5,000 | Gulls, terns, skimmers, pelicans, willet. |
| <i>Bureau of Light-houses</i> | | | WASHINGTON: | | |
| CALIFORNIA: | | | New Dungeness Lighthouse Reservation. | 190 | Sea birds. |
| Ano Nuevo Island Light-house Reservation. | | | Smith Island Lighthouse Reservation. | 5,600 | Sea birds, geese, brant. |

DEPARTMENT OF THE INTERIOR

| | | | | | |
|--|-----------|--|--|--------|----------------------------|
| <i>National Park Service¹</i> | | | <i>National Park Service—Continued</i> | | |
| ALASKA: | | | ARIZONA—Contd. | | |
| Katmai National Monument. | 1,080,000 | Brown bears, foxes, waterfowl. | Papago Saguro National Monument. | 2,050 | Nongame birds. |
| Mount McKinley National Park. | 1,498,000 | Sheep 800, caribou numerous, moose very numerous, bears, grouse. | Petrified Forest National Monument. | 25,625 | Do. |
| ARIZONA: | | | CALIFORNIA: | | |
| Grand Canyon National Park. | 613,120 | Sheep, deer, beavers, grouse. | General Grant National Park. | 2,536 | Deer, bears, grouse, quail |

¹ There are many national monuments under the National Park Service on which wild animals and birds are protected, in addition to those listed, which are not especially adapted for game refuges, as follows: Slicks, Montezuma, Tumacacori, Casa Grande, Navajo, Lewis and Clark, Scotts Bluff, El Morro, Chaco Canyon, Gran Quivira, Capulin Mountain, Verendrye, Natural Bridge, Rainbow, Dinosaur, and Devils Tower.

Federal Game and Bird Refuges—Continued

DEPARTMENT OF THE INTERIOR—Continued

| Designation | Acres | Game and birds on refuge | Designation | Acres | Game and birds on refuge |
|---|---------|---|---|-----------|---|
| <i>National Park Service—Contd.</i> | | | <i>National Park Service—Contd.</i> | | |
| CALIFORNIA—Con. Lassen Volcanic National Park. | 79,562 | Deer, bears, grouse, quail. | MONTANA—Con. Yellowstone National Park (see Idaho and Wyoming). | 126,720 | (See Wyoming.) |
| Muir Woods National Monument. | 424 | Nongame birds. | NORTH DAKOTA: Sullys Hill National Park. | 780 | Buffalo, elk, white-tailed deer, ring-necked pheasants, sharp-tailed and pinnated grouse. |
| Sequoia National Park. | 161,597 | Elk, bears, deer, grouse, quail. | OKLAHOMA: Platt National Park. | 849 | Buffalo, 2; elk, 1; deer, in exhibition inclosure. |
| Yosemite National Park. | 719,622 | Deer, bears, grouse, quail. | OREGON: Crater Lake National Park. | 159,359 | Black bears, deer, grouse. |
| COLORADO: Colorado National Monument. | 13,883 | Deer. | SOUTH DAKOTA: Wind Cave National Park. | 10,900 | Grouse. |
| Mesa Verde National Park. | 46,937 | Elk, deer. | UTAH: Zion National Park. | 76,800 | Deer, grouse. |
| Rocky Mountain National Park. | 254,327 | Elk, sheep, deer, bears (grizzly, brown and black), grouse. | WASHINGTON: Mount Rainier National Park. | 207,360 | Black bears, deer, goats, grouse. |
| HAWAIIAN ISLANDS: Hawaii National Park. | 75,295 | Hawaiian geese, nongame birds. | WYOMING: Yellowstone National Park (see Idaho and Montana). | 1,992,960 | Buffalo, tame, 566; wild, over 100; mountain sheep, 250; antelope, no estimate—150 kids in 1921; moose 800; elk; white-tailed deer, 100; mule deer, 1,200; grizzly bears, 40; black bears, 120. |
| IDAHO: Yellowstone National Park (see Montana and Wyoming). | 23,040 | (See Wyoming.) | | | |
| MAINE: Lafayette National Parks. | 5,000 | Deer, moose, beavers, grouse, ducks, geese | | | |
| MONTANA: Glacier National Park. | 961,681 | Deer, elk, moose, sheep, goats, bears, grouse, ptarmigan, waterfowl, nongame birds. | | | |

NAVY DEPARTMENT¹

| | | | | | |
|--|-------|---------------------------|--|--------|--------------------------|
| CALIFORNIA: South Farallon Islands (see Department of Commerce, Bureau of Light-houses). | 10 | Cormorants and sea birds. | VIRGINIA: Naval Operation Base, Hampton Roads. | 945 | Nongame birds. |
| HAWAII: Midway Islands. | ----- | Sea birds. | Navy Mine Depot, Yorktown. | 12,467 | Turkeys, quail, rabbits. |

WAR DEPARTMENT²

| | | | | | |
|--|-------|--|--|-------|--|
| GEORGIA: Chickamauga and Chattanooga National Military Park (see Tennessee). | 6,543 | | TENNESSEE: Chickamauga and Chattanooga National Military Park (see Georgia). | 6,543 | |
| MISSISSIPPI: Vicksburg National Military Park. | 1,823 | | Shiloh National Military Park. | 3,546 | |

¹ Naval ammunition depot, St. Julians Creek, 221.6 acres; navy yard, Norfolk, 261.6 acres—both largely covered by buildings and plants. Birds protected by order of Commandant, Fifth Naval District.

² There are four other national military parks which afford protection to birds but are not strictly game refuges. These are Antietam battle field, Guilford Courthouse, Gettysburg, and Lincoln's birthplace.

AGRICULTURAL STATISTICS

UNITED STATES DEPARTMENT OF AGRICULTURE YEARBOOK, 1925

Prepared under the direction of the Statistical Committee: W. F. Callander, Lewis B. Flohr, Joseph A. Becker, and G. B. L. Arner

INTRODUCTION

Statistics of acreage, yield per acre, and production in the United States are estimates made by the Division of Crop and Livestock Estimates. For the year 1909, acreages are as reported by the Bureau of the Census; acreages in 1919 are based upon the census, supplemented by State enumerations. Acreages in 1924 are revised to or toward the preliminary reports of the agricultural census of 1924. In the intercensal years from 1911 to 1915, estimated acreages were obtained by applying estimated percentages of decrease or increase to the published acreage in the preceding year. The estimates from 1915 to 1918, from 1919 to 1923, and for 1925 are based upon acreage changes from year to year as shown by a sample of approximately 2 per cent of the crop acreages in each year, supplemented by State enumerations. Yields per acre are estimates based upon reports of one or more farmers in each agricultural township, on the average yield per acre in their localities. Production is acreage times yield per acre. Production estimates are in some cases revised in the following year on the basis of State enumerations and record of shipments.

Estimates of farm stocks, shipments, quality, crop condition, and miscellaneous information concerning crops are based either upon sample data or upon estimates of crop reporters for their localities. The sources of these data are indicated in the notes accompanying the tables.

Estimated prices received by producers on the specified dates are based upon reports of farmers and country dealers on the average price paid to farmers, and do not relate to any specified grade. Farm value as shown is computed by applying the December 1 farm price to the total production. The average price received for the portion of the crop sold may be greater or less than this price, depending upon the price changes previous and subsequent to December 1 and the amount of the crop sold at the different prices.

Numbers of livestock on farms in 1910 correspond to the census enumeration as of April 15 in that year. The number on January 1, 1920, is based upon the census enumeration as of that date, supplemented by enumerations by State agencies, such as assessors and brand inspection boards and by records of shipments during 1920. The number on January 1, 1925, is revised to or toward the preliminary reports of the agricultural census of 1924, supplemented by enumerations by State agencies, such as assessor and brand inspection boards, and by records of shipments during 1925. In the intercensal years, from 1911 to 1916 the numbers of livestock were obtained by methods identical with those used for crop acreages. Estimates from 1917 to 1919, from 1920 to 1923, and for 1925 are based upon a sample of approximately 2 per cent, supplemented by trends derived from assessors' enumerations, reports of brand inspection boards, market movements, and stockyard receipts. The census bases are not always comparable from one decade to another, due both to changes of dates and classifications.

The average value per head on January 1 is estimated from reports of correspondents relating to livestock in their vicinity. These are inventory values as distinguished from the monthly prices which relate to sales. The farm value on January 1 is computed by applying the average value per head to the number of head on farms.

Certain statistics represent enumerations made by the department in connection with the administration of regulatory and inspection laws. Certain other statistics represent enumerations made by the department in compliance with general legislation authorizing the collection and dissemination of information on agricultural products.

Statistics relating to supplies, movements, and market prices of agricultural products in the United States are derived from official sources as far as available; otherwise from reliable unofficial sources. In all cases wherein the data presented did not cover the field or a major sample thereof, data most representative of the various commodities, movements, and markets have been selected.

With some crops marketing and movement into consumptive channels takes place entirely within the calendar year in which the crop was produced. For many crops marketing takes place during portions of two calendar years. For a few crops, as potatoes, marketing extends beyond a 12-month period. In order that the movement and prices of the particular crop may be followed through, the months in which the crop moved have been used as the "year." Estimated prices received by producers are indices of price trends rather than prices actually received.

Weighted averages of prices are shown in all cases where a weighting factor was available. For instance, the weighted price of wheat in Chicago is based on the number of carload sales reported, which range from 42 to 55 per cent of all receipts on that market. In the case of hogs at Chicago, the weighted average price is based on total sales of butcher hogs to slaughterers. With many commodities, however, data as to quantities sold are unobtainable; in all such cases average prices are based on price quotations without reference to quantity.

It should be remembered that, due to changes in market conditions or quality of delivery in different years on or under the same grade description or specifications, prices derived from different sources may not be strictly comparable, although for most general purposes they are entirely satisfactory. For instance, the changes in the description of many kinds of livestock which were made July 1, 1925, while not affecting certain price series; made others only fairly comparable and made comparison impossible in other cases. The data as to commercial stocks and movements of various commodities are as nearly complete as practicable and feasible, and are considered fairly representative.

Data originating with other departments and agencies are included because of their general interest to the agricultural industry. The sources of such data are given in connection with the tables. Care has been taken to quote only such sources as are generally considered reliable.

Statistics of acreage and production in foreign countries are compiled as far as possible from official sources and are therefore subject to whatever errors may result from shortcomings in the reporting and statistical services of the various countries. Inaccuracies also result from differences in nomenclature and classification in foreign countries, and through the conversion of foreign units into domestic equivalents. Except where otherwise stated, pre-war data refer to pre-war boundaries. Yields per acre are calculated from acreage and production, both rounded to thousand units, and are therefore subject to a greater possibility of error when calculated for countries with small acreage.

The tables of international trade cover substantially the international trade of the world. The total imports and the total exports in any one year can not be expected to balance, although disagreements tend to be compensated over a series of years. Among the sources of disagreement are: The different periods covered by the "year" of various countries; imports received in the year subsequent to the year of export; lack of uniformity in classification of goods as among countries; different trade practices and varying degrees of failure in recording countries of origin and ultimate destination; different practices in recording reexported goods; and different methods of treating free ports. The exports given are domestic exports and the imports given are imports for consumption, whenever it is possible to distinguish such imports from general imports. While there are some inevitable omissions, there may be some duplication because of reshipments which do not appear as such in the official reports. In the trade tables, figures for the United States include Alaska, Porto Rico, and Hawaii, but not the Philippine Islands.

Since the statistics for the current year are in many cases preliminary and subject to revision on the basis of later and fuller information, the reader is cautioned to use always the figures as they appear in the latest issue of the Yearbook. For many commodities, long-time tables appear in the Statistical Bulletin series of the department. Current information gathered by the department may be found in the current issues of the Monthly Supplement to "Crops and Markets," "Foreign Crops and Markets," and in various mimeographed or multigraphed releases. Current information gathered by other governmental agencies and by private agencies may be found in the current issues of reports by those agencies.

STATISTICS OF GRAINS

WHEAT

TABLE 1.—Wheat: Acreage, production, value, exports, etc., United States, 1909–1925

| Year | Acreage harvested | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Chicago cash price per bushel No. 2 northern spring ² | | | | Domestic exports, including flour, fiscal year beginning July 1 ³ | Imports, including flour, fiscal year beginning July 1 ³ | Per cent of crop exported |
|-----------------|-------------------|------------------------|---------------|---|-------------------|-----------------------------|--|-------|---------------|-------|--|---|---------------------------|
| | | | | | | | December | | Following May | | | | |
| | | | | | | | Low | High | Low | High | | | |
| | 1,000 acres | Bush. of 60 lbs. | 1,000 bushels | Cents | 1,000 dollars | Dollars | Cts. | Cts. | Cts. | Cts. | Bushels | Bushels | Per cent |
| 1909-- | 44,863 | 15.8 | 700,434 | 98.4 | 690,108 | 15.57 | 106 | 119½ | 100 | 119½ | 87,364,318 | 815,617 | 12.5 |
| 1910-- | 45,681 | 13.9 | 635,121 | 88.3 | 561,051 | 12.28 | 104 | 110 | 98 | 106 | 69,311,760 | 1,146,558 | 10.9 |
| 1911-- | 49,543 | 12.5 | 621,338 | 87.4 | 543,063 | 10.96 | 105 | 170 | 115 | 122 | 79,689,404 | 3,413,626 | 12.8 |
| 1912-- | 45,814 | 15.9 | 730,267 | 76.0 | 555,280 | 12.12 | 85 | 90¾ | 96 | 96 | 142,879,596 | 1,282,039 | 19.6 |
| 1913-- | 50,184 | 15.2 | 763,380 | 79.9 | 610,122 | 12.16 | 89½ | 93 | 96 | 100 | 145,590,349 | 2,383,537 | 19.1 |
| Aver. 1909-1913 | 47,097 | 14.7 | 690,108 | 85.7 | 591,725 | 12.56 | 97.9 | 104.7 | 99.9 | 108.6 | 104,967,085 | 1,808,275 | 15.2 |
| 1914-- | 53,541 | 16.6 | 891,017 | 98.6 | 878,680 | 16.41 | 115 | 131 | 141 | 164½ | 332,464,975 | 715,369 | 37.3 |
| 1915-- | 60,469 | 17.0 | 1,025,901 | 91.9 | 942,303 | 15.58 | 106 | 128½ | 116 | 126 | 243,117,028 | 7,187,650 | 23.7 |
| 1916-- | 52,316 | 12.2 | 636,318 | 160.3 | 1,019,908 | 19.50 | 155½ | 190 | 258 | 340 | 203,573,928 | 24,924,965 | 32.0 |
| 1917-- | 45,089 | 14.1 | 636,655 | 200.8 | 1,278,112 | 28.35 | 220 | 220 | 220 | 220 | 132,678,633 | 31,215,213 | 20.8 |
| 1918-- | 59,181 | 15.6 | 921,438 | 204.2 | 1,881,826 | 31.80 | 220 | 220 | 245 | 280 | 287,401,579 | 11,288,591 | 31.2 |
| 1919-- | 75,694 | 12.8 | 967,979 | 214.9 | 2,080,056 | 27.48 | 280 | 325 | 205 | 345 | 219,864,548 | 5,495,516 | 22.7 |
| 1920-- | 61,143 | 13.6 | 833,027 | 143.7 | 1,197,263 | 19.58 | 164 | 187 | 142 | 178 | 366,077,439 | 57,398,002 | 43.9 |
| Aver. 1914-1920 | 58,205 | 14.5 | 844,606 | 156.9 | 1,325,458 | 22.77 | 180.1 | 200.2 | 202.4 | 236.2 | 255,011,181 | 19,746,475 | 30.2 |
| 1921-- | 63,096 | 12.8 | 814,906 | 92.6 | 754,834 | 11.85 | 118½ | 138 | 127 | 173 | 379,406,799 | 17,251,482 | 34.3 |
| 1922-- | 62,317 | 13.9 | 867,598 | 100.7 | 873,412 | 14.02 | 121 | 139½ | 120½ | 129½ | 221,923,194 | 19,944,934 | 25.6 |
| 1923-- | 59,659 | 13.4 | 797,394 | 92.3 | 736,006 | 12.34 | 110 | 119½ | 111½ | 130 | 156,429,824 | 28,044,999 | 19.6 |
| 1924-- | 62,364 | 16.5 | 862,627 | 129.9 | 1,120,787 | 21.40 | 156½ | 190 | 169½ | 175 | 258,022,900 | 6,199,424 | 29.9 |
| 1925* | 52,200 | 12.8 | 669,365 | 141.6 | 947,993 | 18.16 | 165½ | 186½ | 177 | 177 | 258,022,900 | 6,199,424 | 29.9 |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

¹ Based on price received by producers, Dec. 1.² No. 1 northern spring to 1915. Chicago Daily Trade Bulletin.³ Compiled from Foreign Commerce and Navigation of U. S. 1909-1918 and June issues of the Monthly Summaries of Foreign Commerce, 1919-1925.⁴ Preliminary.

TABLE 2.—Winter and spring wheat: Acreage sown and harvested, production, and farm value, United States, 1910-1925

| Year | Winter wheat | | | | | Spring wheat | | | | |
|--------|--------------------------------|-------------------|------------------------|---------------|---|-------------------------|-------------|------------------------|---------------|---|
| | Acreage sown in preceding fall | Acreage harvested | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Total farm value Dec. 1 | Acreage | Average yield per acre | Production | Price per bushel received by producers Dec. 1 |
| | | | | | | | | | | |
| | 1,000 acres | 1,000 acres | Bush. | 1,000 bushels | Cents | 1,000 dollars | 1,000 acres | Bush. | 1,000 bushels | Cents |
| 1910-- | 31,659 | 27,329 | 15.9 | 434,142 | 88.1 | 382,318 | 18,352 | 11.0 | 200,979 | 88.9 |
| 1911-- | 32,648 | 29,162 | 14.8 | 430,656 | 88.0 | 379,151 | 20,381 | 9.4 | 190,682 | 86.0 |
| 1912-- | 33,229 | 26,571 | 15.1 | 399,919 | 80.9 | 323,572 | 19,243 | 17.2 | 330,348 | 70.1 |
| 1913-- | 33,274 | 31,699 | 16.5 | 523,561 | 82.9 | 433,996 | 18,485 | 13.0 | 239,819 | 73.4 |
| 1914-- | 37,158 | 36,008 | 19.0 | 684,990 | 98.6 | 675,623 | 17,533 | 11.8 | 206,027 | 96.6 |
| 1915-- | 42,431 | 41,806 | 16.3 | 673,947 | 94.7 | 638,149 | 19,161 | 18.4 | 351,864 | 86.4 |
| 1916-- | 39,245 | 34,709 | 13.8 | 480,553 | 162.7 | 781,906 | 17,607 | 8.8 | 155,765 | 152.8 |
| 1917-- | 38,359 | 27,257 | 15.1 | 412,901 | 202.8 | 837,237 | 17,832 | 12.5 | 228,754 | 197.0 |
| 1918-- | 43,126 | 37,130 | 15.2 | 565,099 | 206.3 | 1,165,995 | 22,051 | 16.2 | 356,339 | 200.9 |
| 1919-- | 51,485 | 50,494 | 15.3 | 760,377 | 210.5 | 1,600,805 | 25,200 | 8.2 | 207,602 | 200.9 |
| 1920-- | 44,561 | 40,016 | 15.3 | 610,597 | 148.6 | 907,231 | 21,127 | 10.5 | 224,430 | 150.4 |
| 1921-- | 45,626 | 43,414 | 13.8 | 600,316 | 95.1 | 571,044 | 20,282 | 10.6 | 214,389 | 85.6 |
| 1922-- | 47,930 | 42,358 | 13.8 | 586,878 | 104.7 | 614,399 | 19,939 | 14.1 | 280,720 | 92.3 |
| 1923-- | 46,091 | 39,508 | 14.5 | 571,777 | 95.1 | 543,530 | 20,151 | 11.2 | 226,617 | 85.3 |
| 1924-- | 38,664 | 35,489 | 16.6 | 589,632 | 131.6 | 776,227 | 16,875 | 16.2 | 272,995 | 126.2 |
| 1925-- | 39,956 | 31,269 | 12.7 | 398,486 | 147.9 | 589,504 | 20,931 | 12.9 | 270,879 | 132.3 |

Division of Crop and Livestock Estimates.

TABLE 3.—Wheat: Acreage, production, and total farm value, by States, 1924 and 1925

| State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|---------------------|--------------------|-------------------|----------------------------------|-------------------|---|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| Maine..... | 4 | 6 | 104 | 168 | 177 | 286 |
| Vermont..... | 1 | 2 | 21 | 42 | 32 | 63 |
| New York..... | 327 | 308 | 6,117 | 5,998 | 8,809 | 9,117 |
| New Jersey..... | 54 | 58 | 999 | 1,218 | 1,568 | 1,742 |
| Pennsylvania..... | 1,136 | 1,136 | 18,744 | 22,720 | 26,991 | 33,398 |
| Ohio..... | 1,857 | 1,598 | 33,446 | 24,002 | 48,496 | 37,920 |
| Indiana..... | 1,704 | 1,772 | 28,972 | 25,700 | 41,140 | 39,833 |
| Illinois..... | 2,307 | 2,231 | 37,052 | 35,880 | 50,391 | 53,774 |
| Michigan..... | 840 | 823 | 20,132 | 13,996 | 27,782 | 21,833 |
| Wisconsin..... | 116 | 120 | 2,786 | 2,414 | 3,566 | 3,284 |
| Minnesota..... | 1,716 | 2,200 | 37,863 | 29,110 | 49,222 | 39,853 |
| Iowa..... | 455 | 412 | 9,199 | 6,952 | 11,683 | 9,431 |
| Missouri..... | 1,607 | 1,671 | 21,388 | 22,077 | 28,446 | 33,115 |
| North Dakota..... | 8,500 | 9,605 | 135,450 | 112,378 | 168,147 | 147,215 |
| South Dakota..... | 2,408 | 2,747 | 36,120 | 32,378 | 45,150 | 41,429 |
| Nebraska..... | 3,061 | 2,676 | 58,519 | 34,150 | 71,393 | 47,927 |
| Kansas..... | 9,817 | 8,001 | 159,964 | 74,810 | 204,754 | 110,709 |
| Delaware..... | 100 | 103 | 1,780 | 1,906 | 2,563 | 2,764 |
| Maryland..... | 510 | 520 | 8,058 | 10,920 | 11,684 | 16,489 |
| Virginia..... | 630 | 630 | 8,442 | 8,946 | 12,494 | 14,403 |
| West Virginia..... | 122 | 128 | 1,586 | 1,728 | 2,331 | 2,730 |
| North Carolina..... | 414 | 406 | 4,406 | 4,406 | 7,949 | 7,637 |
| South Carolina..... | 57 | 46 | 627 | 506 | 1,066 | 836 |
| Georgia..... | 76 | 99 | 722 | 1,040 | 1,220 | 1,893 |
| Kentucky..... | 200 | 236 | 2,000 | 3,304 | 2,946 | 5,286 |
| Tennessee..... | 310 | 367 | 3,255 | 4,588 | 4,785 | 7,616 |
| Alabama..... | 6 | 7 | 60 | 77 | 97 | 135 |
| Mississippi..... | 5 | 5 | 63 | 90 | 93 | 144 |
| Arkansas..... | 33 | 39 | 390 | 390 | 506 | 585 |
| Oklahoma..... | 3,556 | 3,449 | 56,996 | 28,282 | 70,551 | 41,675 |
| Texas..... | 1,365 | 819 | 25,252 | 6,552 | 32,575 | 10,156 |
| Montana..... | 3,163 | 3,221 | 51,799 | 24,601 | 64,226 | 48,243 |
| Idaho..... | 827 | 926 | 16,059 | 26,042 | 21,037 | 32,552 |
| Wyoming..... | 141 | 149 | 2,141 | 2,634 | 2,377 | 3,253 |
| Colorado..... | 1,360 | 1,148 | 19,620 | 14,532 | 23,063 | 19,726 |
| New Mexico..... | 215 | 80 | 3,050 | 492 | 3,812 | 738 |
| Arizona..... | 32 | 32 | 672 | 672 | 948 | 1,176 |
| Utah..... | 201 | 233 | 3,315 | 5,949 | 4,307 | 7,704 |
| Nevada..... | 14 | 15 | 321 | 468 | 461 | 653 |
| Washington..... | 1,850 | 2,072 | 26,380 | 26,940 | 34,294 | 47,981 |
| Oregon..... | 960 | 910 | 14,963 | 18,900 | 18,964 | 25,704 |
| California..... | 377 | 608 | 5,655 | 11,457 | 8,709 | 16,956 |
| United States..... | 52,364 | 52,200 | 862,627 | 669,365 | 1,120,787 | 947,993 |

Division of Crop and Livestock Estimates.

¹ Preliminary

TABLE 4.—Winter and spring wheat: Acreage sown and harvested, production, and farm value December 1, by States, 1925¹

| States | Winter wheat | | | | | | Spring wheat | | | | | |
|---------------------|--------------------------------|-------------------|------------------------|---------------|---|-------------------------|--------------|------------------------|---------------|---|-------------------------|--|
| | Acreage sown in preceding fall | Acreage harvested | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Total farm value Dec. 1 | Acreage | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Total farm value Dec. 1 | |
| | 1,000 acres | 1,000 acres | Bushels | 1,000 bushels | Cents | 1,000 dollars | 1,000 acres | Bushels | 1,000 bushels | Cents | 1,000 dollars | |
| Maine..... | | | | | | | 6 | 23.0 | 168 | 170 | 286 | |
| Vermont..... | | | | | | | 2 | 21.0 | 42 | 150 | 63 | |
| New York..... | 308 | 300 | 19.5 | 5,850 | 152 | 8,892 | 8 | 18.5 | 148 | 152 | 225 | |
| New Jersey..... | 59 | 58 | 21.0 | 1,218 | 143 | 1,742 | | | | | | |
| Pennsylvania..... | 1,159 | 1,136 | 20.0 | 22,720 | 147 | 33,398 | | | | | | |
| Ohio..... | 2,070 | 1,594 | 15.0 | 23,910 | 158 | 37,778 | 4 | 22.9 | 92 | 154 | 142 | |
| Indiana..... | 1,973 | 1,768 | 14.5 | 25,636 | 155 | 39,736 | 4 | 16.0 | 64 | 151 | 97 | |
| Illinois..... | 2,269 | 2,185 | 16.0 | 34,960 | 150 | 52,440 | 46 | 20.0 | 920 | 145 | 1,334 | |
| Michigan..... | 830 | 818 | 17.0 | 13,906 | 156 | 21,693 | 5 | 18.0 | 90 | 155 | 140 | |
| Wisconsin..... | 76 | 53 | 19.0 | 1,007 | 136 | 1,370 | 67 | 21.0 | 1,407 | 136 | 1,914 | |
| Minnesota..... | 202 | 170 | 16.0 | 2,720 | 136 | 3,699 | 2,030 | 13.0 | 26,390 | 137 | 36,154 | |
| Iowa..... | 424 | 386 | 17.0 | 6,562 | 136 | 8,924 | 26 | 15.0 | 390 | 130 | 507 | |
| Missouri..... | 1,752 | 1,664 | 13.2 | 21,965 | 150 | 32,948 | 7 | 16.0 | 112 | 149 | 167 | |
| North Dakota..... | | | | | | | 9,606 | 11.7 | 112,378 | 131 | 147,215 | |
| South Dakota..... | 167 | 126 | 11.5 | 1,438 | 127 | 1,826 | 2,622 | 11.8 | 30,940 | 128 | 39,603 | |
| Nebraska..... | 3,078 | 2,493 | 12.7 | 31,661 | 141 | 44,642 | 183 | 13.6 | 2,489 | 132 | 3,285 | |
| Kansas..... | 10,740 | 8,562 | 8.7 | 74,750 | 148 | 110,630 | 9 | 6.7 | 60 | 130 | 78 | |
| Delaware..... | 106 | 103 | 18.5 | 1,906 | 145 | 2,764 | | | | | | |
| Maryland..... | 628 | 520 | 21.0 | 10,920 | 151 | 16,489 | | | | | | |
| Virginia..... | 643 | 630 | 14.2 | 8,946 | 101 | 14,403 | | | | | | |
| West Virginia..... | 142 | 128 | 13.5 | 1,728 | 158 | 2,730 | | | | | | |
| North Carolina..... | 412 | 406 | 11.0 | 4,466 | 171 | 7,637 | | | | | | |
| South Carolina..... | 48 | 46 | 11.0 | 506 | 185 | 936 | | | | | | |
| Georgia..... | 104 | 99 | 10.5 | 1,040 | 182 | 1,893 | | | | | | |
| Kentucky..... | 271 | 236 | 14.0 | 3,304 | 160 | 5,286 | | | | | | |
| Tennessee..... | 390 | 367 | 12.5 | 4,588 | 166 | 7,616 | | | | | | |
| Alabama..... | 7 | 7 | 11.0 | 77 | 175 | 135 | | | | | | |
| Mississippi..... | 8 | 5 | 13.0 | 60 | 160 | 144 | | | | | | |
| Arkansas..... | 33 | 30 | 13.0 | 390 | 150 | 585 | | | | | | |
| Oklahoma..... | 4,479 | 3,449 | 8.2 | 28,282 | 147 | 41,675 | | | | | | |
| Texas..... | 1,780 | 819 | 8.0 | 6,552 | 155 | 10,156 | | | | | | |
| Montana..... | 650 | 495 | 14.5 | 7,185 | 133 | 9,761 | 3,026 | 10.5 | 31,772 | 140 | 44,482 | |
| Idaho..... | 478 | 406 | 27.0 | 10,962 | 125 | 12,702 | 520 | 29.0 | 15,080 | 126 | 18,850 | |
| Wyoming..... | 34 | 29 | 16.0 | 464 | 124 | 575 | 120 | 18.0 | 2,160 | 124 | 2,676 | |
| Colorado..... | 1,337 | 896 | 12.0 | 10,752 | 136 | 14,623 | 252 | 15.0 | 3,780 | 125 | 5,103 | |
| New Mexico..... | 173 | 62 | 3.0 | 186 | 150 | 234 | 28 | 12.0 | 336 | 150 | 504 | |
| Arizona..... | 38 | 32 | 21.0 | 672 | 175 | 1,176 | | | | | | |
| Utah..... | 148 | 145 | 21.0 | 3,045 | 130 | 3,958 | 88 | 33.0 | 2,904 | 129 | 3,746 | |
| Nevada..... | 2 | 2 | 26.0 | 52 | 146 | 76 | 13 | 32.0 | 416 | 146 | 607 | |
| Washington..... | 1,240 | 372 | 25.0 | 9,300 | 128 | 11,904 | 1,700 | 16.2 | 27,540 | 131 | 36,077 | |
| Oregon..... | 1,000 | 350 | 22.0 | 7,700 | 136 | 10,472 | 560 | 20.0 | 11,200 | 136 | 15,232 | |
| California..... | 804 | 603 | 19.0 | 11,457 | 148 | 16,956 | | | | | | |
| United States..... | 39,956 | 31,260 | 12.7 | 398,486 | 147.9 | 589,504 | 20,931 | 12.9 | 270,879 | 132.3 | 358,489 | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 5.—Wheat: Yield per acre, by States, 1909–1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|---------|------|------|------|------|------|----------------------|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|----------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| Me. | 25.5 | 29.7 | 21.0 | 23.5 | 25.5 | 25.0 | 27.0 | 28.0 | 27.0 | 14.0 | 22.0 | 18.8 | 22.0 | 22.7 | 17.0 | 25.0 | 26.0 | 26.0 | 28.0 | 24.4 |
| Vt. | 25.0 | 29.3 | 27.8 | 25.0 | 24.5 | 26.3 | 29.0 | 30.0 | 25.0 | 20.0 | 22.0 | 16.0 | 19.0 | 28.0 | 14.0 | 21.0 | 21.0 | 21.0 | 21.0 | 19.6 |
| N. Y. | 21.0 | 23.7 | 19.5 | 16.0 | 20.0 | 20.0 | 22.5 | 25.0 | 22.0 | 21.0 | 18.0 | 21.0 | 21.8 | 21.5 | 19.0 | 21.0 | 20.0 | 18.0 | 19.5 | 19.4 |
| N. J. | 17.9 | 18.5 | 17.4 | 18.5 | 17.6 | 18.0 | 18.0 | 20.0 | 20.0 | 19.0 | 17.0 | 18.0 | 16.0 | 18.3 | 19.0 | 20.0 | 20.0 | 18.5 | 21.0 | 19.7 |
| Pa. | 17.0 | 17.8 | 13.5 | 18.0 | 17.0 | 16.7 | 18.1 | 18.5 | 19.0 | 17.5 | 17.0 | 17.5 | 16.6 | 17.7 | 17.5 | 18.5 | 19.0 | 16.5 | 20.0 | 18.3 |
| Ohio | 15.9 | 16.2 | 16.0 | 8.0 | 18.0 | 14.8 | 18.5 | 20.3 | 13.5 | 22.0 | 19.0 | 19.9 | 12.7 | 18.0 | 12.4 | 14.0 | 18.2 | 18.0 | 15.0 | 15.5 |
| Ind. | 15.3 | 15.5 | 14.7 | 8.0 | 18.5 | 14.4 | 17.4 | 17.2 | 12.0 | 18.5 | 21.0 | 14.9 | 12.0 | 16.1 | 12.0 | 14.5 | 16.5 | 17.0 | 14.5 | 14.9 |
| Ill. | 17.4 | 15.0 | 16.0 | 8.3 | 18.7 | 15.1 | 18.5 | 19.0 | 11.0 | 18.7 | 22.1 | 11.7 | 11.5 | 17.4 | 16.1 | 17.8 | 18.0 | 16.1 | 16.1 | 16.7 |
| Mich. | 18.8 | 18.5 | 18.0 | 10.0 | 15.3 | 16.0 | 19.7 | 21.3 | 16.6 | 18.0 | 14.0 | 21.9 | 4.5 | 17.8 | 15.7 | 14.0 | 17.0 | 24.0 | 17.0 | 17.5 |
| Wis. | 19.5 | 19.3 | 15.9 | 19.0 | 19.3 | 18.6 | 19.1 | 22.7 | 17.6 | 22.3 | 24.0 | 21.3 | 15.1 | 19.2 | 13.1 | 17.1 | 16.6 | 24.0 | 20.1 | 18.2 |
| Minn. | 16.8 | 18.4 | 10.1 | 15.5 | 16.2 | 14.9 | 10.0 | 17.0 | 7.6 | 17.5 | 20.9 | 9.4 | 9.8 | 13.3 | 9.7 | 13.7 | 12.7 | 22.1 | 13.2 | 14.3 |
| Iowa | 17.0 | 21.0 | 16.4 | 10.8 | 20.0 | 19.0 | 18.5 | 20.0 | 16.3 | 19.9 | 18.9 | 14.8 | 17.5 | 18.0 | 17.9 | 22.2 | 18.5 | 20.0 | 16.9 | 19.2 |
| Mo. | 14.7 | 13.5 | 15.7 | 7.2 | 17.1 | 14.8 | 17.0 | 12.8 | 8.5 | 15.3 | 17.2 | 21.3 | 12.5 | 18.8 | 10.9 | 12.5 | 13.0 | 13.8 | 13.2 | 12.6 |
| N. Dak. | 13.7 | 8.0 | 8.0 | 18.0 | 10.5 | 11.0 | 11.2 | 18.2 | 5.5 | 8.0 | 13.6 | 6.9 | 9.0 | 10.3 | 8.5 | 14.1 | 7.4 | 15.7 | 11.7 | 11.5 |
| S. Dak. | 14.1 | 12.8 | 4.0 | 14.2 | 9.0 | 10.8 | 9.1 | 17.1 | 6.8 | 14.0 | 19.0 | 8.2 | 9.2 | 11.9 | 9.1 | 13.4 | 9.6 | 15.0 | 11.8 | 11.8 |
| Nebr. | 18.8 | 16.2 | 13.4 | 17.6 | 17.9 | 16.8 | 18.6 | 18.3 | 12.4 | 13.8 | 11.1 | 21.8 | 16.8 | 16.0 | 15.1 | 14.3 | 9.9 | 19.1 | 12.8 | 14.2 |
| Kans. | 14.4 | 14.1 | 13.0 | 7.5 | 15.3 | 13.5 | 20.5 | 12.5 | 12.0 | 12.3 | 14.1 | 13.8 | 15.4 | 14.4 | 12.2 | 12.6 | 10.1 | 16.2 | 8.7 | 12.0 |
| Del. | 14.0 | 17.0 | 16.7 | 17.5 | 14.5 | 15.9 | 20.5 | 15.0 | 15.0 | 16.5 | 13.0 | 12.0 | 17.0 | 15.6 | 11.5 | 16.2 | 18.0 | 17.8 | 18.5 | 16.4 |
| Md. | 14.5 | 17.4 | 15.5 | 15.0 | 13.3 | 15.1 | 21.6 | 16.1 | 16.0 | 17.0 | 15.5 | 15.3 | 17.0 | 16.7 | 14.0 | 16.5 | 19.2 | 15.8 | 21.0 | 17.3 |
| Va. | 11.2 | 12.8 | 12.0 | 11.6 | 13.6 | 12.2 | 14.5 | 13.8 | 12.7 | 13.0 | 12.0 | 11.1 | 12.5 | 12.9 | 9.8 | 12.5 | 13.3 | 13.4 | 14.2 | 12.6 |
| W. Va. | 13.0 | 12.5 | 11.1 | 14.5 | 13.0 | 12.9 | 15.0 | 15.0 | 14.5 | 14.0 | 14.2 | 13.5 | 12.5 | 14.1 | 12.5 | 11.5 | 13.0 | 13.0 | 13.5 | 12.7 |
| N. C. | 9.5 | 11.4 | 10.6 | 8.9 | 11.7 | 10.4 | 12.0 | 10.9 | 10.5 | 10.0 | 7.0 | 7.9 | 11.7 | 10.0 | 7.5 | 9.0 | 11.1 | 12.0 | 11.0 | 10.1 |
| S. C. | 10.0 | 11.0 | 11.4 | 9.2 | 12.3 | 10.8 | 11.5 | 10.8 | 10.6 | 10.5 | 11.0 | 10.0 | 11.0 | 10.8 | 11.0 | 8.0 | 11.0 | 11.0 | 11.0 | 10.4 |
| Ga. | 10.0 | 10.8 | 12.0 | 9.3 | 12.2 | 10.8 | 12.1 | 11.0 | 11.4 | 8.5 | 10.0 | 21.0 | 10.0 | 10.5 | 10.5 | 8.0 | 9.2 | 9.5 | 10.5 | 9.5 |
| Ky. | 11.8 | 12.8 | 12.7 | 10.6 | 13.6 | 12.2 | 16.5 | 11.0 | 9.0 | 12.0 | 13.0 | 11.1 | 10.2 | 11.9 | 10.0 | 11.5 | 12.4 | 10.8 | 14.0 | 11.6 |
| Tenn. | 10.4 | 11.7 | 11.5 | 10.5 | 12.0 | 11.2 | 15.5 | 10.5 | 9.5 | 9.2 | 10.0 | 9.3 | 9.5 | 10.5 | 10.0 | 9.5 | 10.2 | 10.5 | 12.5 | 10.8 |
| Ala. | 10.5 | 12.0 | 11.5 | 10.6 | 11.7 | 11.3 | 13.0 | 12.0 | 9.5 | 10.0 | 9.0 | 9.0 | 9.6 | 10.3 | 10.5 | 10.9 | 10.0 | 10.0 | 11.0 | 10.5 |
| Miss. | 11.0 | 14.0 | 12.0 | 12.0 | 14.0 | 12.6 | 13.0 | 20.0 | 15.0 | 15.0 | 16.5 | 14.0 | 10.0 | 14.8 | 14.0 | 12.0 | 15.0 | 12.0 | 14.0 | 14.3 |
| Ark. | 11.4 | 13.9 | 10.5 | 10.0 | 13.0 | 11.8 | 13.0 | 12.5 | 8.0 | 16.0 | 12.0 | 9.5 | 9.5 | 11.5 | 9.3 | 13.0 | 11.1 | 11.0 | 15.0 | 11.6 |
| Okla. | 12.8 | 16.8 | 8.0 | 12.8 | 18.0 | 12.0 | 19.0 | 11.6 | 9.7 | 11.5 | 12.6 | 14.0 | 16.0 | 13.5 | 12.5 | 9.5 | 11.0 | 16.0 | 8.2 | 11.4 |
| Tex. | 9.1 | 15.0 | 9.4 | 15.0 | 17.5 | 13.2 | 13.0 | 15.5 | 11.0 | 12.0 | 10.0 | 16.5 | 13.0 | 13.0 | 10.0 | 8.0 | 10.5 | 18.5 | 8.0 | 11.0 |
| Mont. | 30.8 | 22.0 | 25.7 | 24.1 | 23.8 | 26.9 | 20.2 | 26.5 | 19.3 | 10.4 | 12.6 | 2.7 | 10.3 | 14.6 | 12.8 | 14.6 | 14.6 | 16.4 | 10.7 | 13.7 |
| Idaho | 27.8 | 22.6 | 30.7 | 28.6 | 27.6 | 27.5 | 26.2 | 28.0 | 23.8 | 20.3 | 21.3 | 18.2 | 22.2 | 22.9 | 24.0 | 22.1 | 22.8 | 19.4 | 28.1 | 24.3 |
| Wyo. | 28.7 | 28.9 | 28.0 | 28.7 | 28.0 | 28.7 | 22.9 | 28.0 | 28.0 | 22.1 | 22.5 | 14.4 | 20.0 | 21.7 | 17.2 | 21.4 | 15.9 | 15.2 | 21.7 | 16.0 |
| Colo. | 29.5 | 22.3 | 18.9 | 24.2 | 22.1 | 23.2 | 23.8 | 24.2 | 21.0 | 22.6 | 12.3 | 13.7 | 18.0 | 19.2 | 13.5 | 13.4 | 13.0 | 14.4 | 12.7 | 13.4 |
| N. Mex. | 24.5 | 20.0 | 22.9 | 20.9 | 18.8 | 21.4 | 24.2 | 22.2 | 21.8 | 16.7 | 16.7 | 19.0 | 18.3 | 18.8 | 13.6 | 8.4 | 12.0 | 14.2 | 6.2 | 10.9 |
| Ariz. | 25.0 | 22.2 | 29.6 | 30.7 | 32.0 | 27.9 | 28.0 | 28.0 | 29.0 | 25.0 | 26.0 | 25.5 | 24.0 | 26.4 | 21.0 | 26.0 | 26.0 | 21.0 | 21.0 | 23.0 |
| Utah | 25.9 | 22.1 | 22.8 | 25.7 | 24.2 | 24.0 | 25.0 | 25.7 | 21.2 | 19.1 | 20.2 | 15.4 | 19.5 | 20.9 | 22.8 | 19.3 | 24.1 | 11.6 | 25.5 | 21.6 |
| Nev. | 28.7 | 26.5 | 28.3 | 29.0 | 27.7 | 28.1 | 29.6 | 29.6 | 28.9 | 27.8 | 25.5 | 22.1 | 22.2 | 26.4 | 23.5 | 25.5 | 22.5 | 42.2 | 23.1 | 25.8 |
| Wash. | 23.2 | 16.9 | 22.7 | 23.5 | 23.2 | 21.9 | 23.5 | 25.7 | 23.7 | 15.8 | 13.1 | 16.8 | 16.9 | 19.4 | 22.8 | 12.9 | 25.0 | 14.3 | 17.8 | 18.6 |
| Oreg. | 20.0 | 22.2 | 21.0 | 22.5 | 21.0 | 21.9 | 20.8 | 22.2 | 22.3 | 14.5 | 14.7 | 19.0 | 20.9 | 19.3 | 23.4 | 17.3 | 24.1 | 11.6 | 20.8 | 20.4 |
| Calif. | 14.0 | 18.0 | 18.0 | 17.0 | 14.0 | 16.2 | 17.0 | 16.0 | 16.0 | 19.8 | 15.0 | 15.5 | 14.0 | 16.2 | 15.0 | 21.5 | 21.0 | 15.0 | 19.0 | 18.4 |
| U. S. | 15.8 | 13.9 | 12.5 | 15.9 | 15.2 | 14.7 | 16.6 | 17.0 | 12.2 | 14.1 | 11.5 | 16.2 | 13.6 | 14.6 | 12.8 | 13.9 | 13.4 | 14.6 | 12.8 | 13.9 |

Division of Crop and Livestock Estimates.

TABLE 6.—*Winter wheat: Yield per acre in States producing both winter and spring wheat, 1909-1925*

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909-1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914-1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921-1925 |
|---------|------|------|------|------|------|------------------|------|------|------|------|------|------|------|------------------|------|------|------|------|------|------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| N. Y. | 21.0 | 23.7 | 19.5 | 16.0 | 20.0 | 20.0 | 22.5 | 25.0 | 21.0 | 21.0 | 18.0 | 22.0 | 22.3 | 21.7 | 19.5 | 19.5 | 20.4 | 18.7 | 19.5 | 19.5 |
| Ohio | 15.9 | 16.2 | 16.0 | 8.0 | 18.0 | 14.8 | 18.5 | 20.3 | 13.5 | 22.0 | 19.0 | 20.0 | 12.7 | 18.0 | 12.4 | 14.0 | 18.2 | 18.0 | 15.0 | 15.5 |
| Ind. | 15.3 | 15.0 | 14.7 | 8.0 | 18.5 | 14.4 | 17.4 | 17.2 | 12.0 | 18.5 | 21.0 | 15.0 | 21.2 | 16.2 | 12.0 | 14.5 | 16.5 | 17.0 | 14.5 | 14.9 |
| Ill. | 17.4 | 15.0 | 16.0 | 8.3 | 18.7 | 15.1 | 18.5 | 19.0 | 11.0 | 18.5 | 21.5 | 17.5 | 15.1 | 17.3 | 16.2 | 17.5 | 18.0 | 16.0 | 16.0 | 16.7 |
| Mich. | 18.8 | 18.0 | 18.0 | 10.0 | 15.3 | 16.0 | 19.7 | 21.3 | 16.6 | 18.0 | 14.0 | 20.3 | 15.6 | 17.9 | 18.0 | 14.0 | 17.0 | 24.0 | 17.0 | 17.6 |
| Wis. | 20.4 | 20.0 | 17.5 | 19.5 | 20.1 | 19.5 | 21.5 | 23.0 | 19.0 | 24.0 | 21.2 | 19.6 | 22.0 | 21.5 | 16.0 | 18.6 | 17.0 | 25.5 | 19.0 | 19.2 |
| Minn. | | | | | 16.2 | | 19.5 | 19.5 | 14.0 | 18.0 | 18.0 | 15.0 | 19.6 | 17.7 | 14.0 | 14.0 | 16.0 | 23.0 | 16.0 | 17.0 |
| Iowa | 21.6 | 21.2 | 19.7 | 23.0 | 23.4 | 21.8 | 21.6 | 21.5 | 18.5 | 17.5 | 20.5 | 18.3 | 19.7 | 19.7 | 19.2 | 23.3 | 21.8 | 20.4 | 17.0 | 19.7 |
| Mo. | 14.7 | 13.8 | 15.7 | 12.5 | 17.1 | 14.8 | 17.0 | 12.3 | 8.5 | 15.3 | 17.7 | 13.5 | 12.5 | 13.8 | 10.9 | 12.5 | 13.0 | 13.3 | 13.2 | 12.6 |
| S. Dak. | | | | | 9.0 | | 14.0 | 20.5 | 18.5 | 14.0 | 17.0 | 13.0 | 14.5 | 15.2 | 14.0 | 19.0 | 10.0 | 16.0 | 11.5 | 14.3 |
| Nebr. | 19.4 | 16.5 | 13.8 | 18.0 | 18.6 | 17.3 | 19.3 | 18.5 | 20.0 | 12.0 | 11.1 | 14.8 | 17.4 | 16.2 | 15.3 | 14.5 | 10.0 | 19.5 | 12.7 | 14.4 |
| Kans. | 14.5 | 14.2 | 10.8 | 15.5 | 13.0 | 14.6 | 20.5 | 16.5 | 12.0 | 12.2 | 11.4 | 13.8 | 15.4 | 15.4 | 12.2 | 12.6 | 10.1 | 16.3 | 8.7 | 12.0 |
| Mont. | 32.5 | 22.0 | 31.7 | 24.5 | 25.6 | 27.3 | 23.0 | 27.0 | 21.5 | 13.0 | 12.7 | 5.2 | 21.2 | 16.3 | 12.0 | 15.5 | 21.7 | 17.0 | 11.4 | 15.6 |
| Idaho | 29.0 | 23.7 | 73.1 | 52.8 | 72.7 | 28.1 | 27.5 | 29.0 | 24.0 | 18.0 | 22.0 | 18.5 | 20.0 | 22.7 | 24.0 | 19.5 | 52.8 | 17.0 | 27.0 | 23.1 |
| Wyo. | 32.5 | 25.0 | 26.0 | 28.0 | 25.0 | 27.3 | 24.0 | 26.0 | 21.0 | 20.0 | 24.0 | 12.0 | 20.0 | 21.0 | 19.0 | 14.0 | 15.0 | 18.0 | 16.0 | 15.8 |
| Colo. | 29.7 | 23.0 | 18.0 | 24.5 | 21.1 | 23.3 | 25.0 | 26.0 | 20.0 | 23.0 | 10.5 | 13.2 | 17.5 | 19.3 | 12.0 | 13.0 | 12.0 | 14.0 | 12.0 | 12.6 |
| N. Mex. | | 20.0 | 25.0 | 20.0 | 18.6 | | 25.0 | 20.0 | 16.5 | 10.0 | 10.0 | 19.1 | 18.2 | 17.3 | 12.6 | 5.5 | 9.5 | 14.0 | 3.0 | 8.9 |
| Utah | 24.0 | 20.0 | 20.0 | 24.0 | 18.6 | 22.3 | 25.0 | 25.0 | 20.0 | 14.0 | 16.6 | 12.7 | 15.9 | 18.5 | 19.6 | 14.0 | 19.9 | 13.3 | 21.0 | 17.6 |
| Nev. | | 24.0 | 23.0 | 27.5 | 23.0 | | 29.0 | 26.0 | 24.5 | 26.0 | 29.0 | 19.1 | 17.8 | 24.7 | 20.2 | 19.7 | 25.7 | 23.0 | 26.0 | 22.9 |
| Wash. | 25.8 | 20.5 | 27.3 | 27.6 | 27.0 | 25.6 | 26.5 | 27.6 | 26.5 | 21.5 | 22.5 | 21.1 | 12.4 | 24.4 | 27.9 | 15.6 | 27.5 | 17.0 | 23.5 | 22.6 |
| Oreg. | 21.0 | 23.7 | 22.2 | 26.8 | 21.4 | 23.0 | 22.0 | 24.0 | 23.0 | 17.5 | 17.0 | 21.2 | 22.2 | 21.0 | 25.5 | 19.0 | 25.0 | 16.7 | 22.0 | 21.6 |
| U. S. | 15.8 | 15.9 | 14.8 | 15.1 | 16.5 | 15.6 | 19.6 | 16.3 | 13.8 | 15.1 | 15.2 | 15.1 | 15.3 | 15.7 | 13.8 | 13.8 | 14.5 | 16.6 | 12.7 | 14.3 |

Division of Crop and Livestock Estimates.

TABLE 7.—*Spring wheat: Yield per acre in States producing both winter and spring wheat, 1909-1925*

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909-1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914-1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921-1925 |
|---------|------|------|------|------|------|------------------|------|------|------|------|------|------|------|------------------|------|------|------|------|------|------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| N. Y. | | | | | | | | | | 21.0 | 20.0 | 15.0 | 18.0 | | 14.5 | 16.0 | 16.5 | 19.0 | 18.5 | 16.9 |
| Ohio | | | | | | | | | | | 21.5 | 16.0 | 13.0 | | 12.5 | 15.0 | 19.5 | 23.0 | 22.9 | 18.6 |
| Ind. | | | | | | | | | | 20.0 | 23.0 | 9.0 | 12.0 | | 12.0 | 11.0 | 16.5 | 18.0 | 16.0 | 14.4 |
| Ill. | | | | | | | | | | 25.0 | 26.9 | 14.5 | 16.5 | | 14.5 | 14.5 | 17.0 | 20.0 | 52.0 | 17.3 |
| Mich. | | | | | | | | | | 17.7 | 18.0 | 11.2 | 10.0 | | 9.0 | 14.5 | 15.0 | 18.5 | 18.0 | 15.0 |
| Wis. | 19.0 | 18.7 | 14.5 | 18.5 | 18.6 | 17.9 | 17.0 | 22.5 | 16.6 | 21.2 | 24.7 | 12.4 | 12.6 | 18.1 | 11.1 | 15.3 | 16.0 | 21.0 | 21.0 | 16.9 |
| Minn. | 16.8 | 16.0 | 10.1 | 11.5 | 5.0 | 14.9 | 10.5 | 17.0 | 7.5 | 17.5 | 32.1 | 9.3 | 9.5 | 13.2 | 9.5 | 13.7 | 12.5 | 21.5 | 13.0 | 14.1 |
| Iowa | 17.4 | 20.9 | 13.8 | 17.0 | 17.0 | 16.7 | 13.5 | 16.7 | 13.0 | 21.5 | 18.0 | 9.5 | 11.3 | 14.8 | 10.3 | 14.3 | 12.9 | 17.0 | 21.0 | 13.9 |
| Mo. | | | | | | | | | | 9.0 | 15.8 | 8.5 | 13.0 | | 12.0 | 13.5 | 13.0 | 15.4 | 16.0 | 14.0 |
| S. Dak. | 14.1 | 12.8 | 4.0 | 14.2 | 9.0 | 10.8 | 9.0 | 17.0 | 6.3 | 14.0 | 19.0 | 8.0 | 9.0 | 11.8 | 9.0 | 13.2 | 9.5 | 15.0 | 11.8 | 11.7 |
| Nebr. | 14.0 | 13.9 | 10.0 | 14.1 | 12.0 | 12.8 | 11.5 | 16.0 | 12.5 | 16.5 | 11.9 | 8.5 | 9.5 | 12.3 | 11.3 | 11.4 | 9.0 | 13.5 | 13.6 | 11.8 |
| Kans. | 11.5 | 8.4 | 4.2 | 15.0 | 8.5 | 9.5 | 15.0 | 12.0 | 10.5 | 6.0 | 8.0 | 9.3 | 12.5 | 10.5 | 8.2 | 8.3 | 9.0 | 10.5 | 6.7 | 8.5 |
| Mont. | 28.5 | 22.0 | 25.2 | 23.5 | 21.5 | 24.2 | 17.0 | 23.0 | 18.0 | 9.0 | 12.5 | 2.3 | 10.0 | 13.5 | 12.0 | 14.4 | 14.0 | 16.0 | 21.0 | 15.0 |
| Idaho | 26.0 | 20.4 | 42.9 | 29.8 | 32.5 | 26.3 | 24.0 | 29.5 | 22.5 | 22.0 | 21.0 | 18.0 | 24.0 | 22.7 | 24.0 | 23.0 | 29.0 | 22.0 | 29.0 | 25.4 |
| Wyo. | 27.0 | 25.0 | 26.0 | 29.0 | 25.0 | 26.4 | 22.0 | 26.0 | 22.0 | 22.0 | 26.0 | 15.0 | 20.0 | 22.0 | 17.0 | 14.0 | 16.0 | 18.5 | 18.0 | 16.0 |
| Colo. | 29.4 | 21.9 | 19.5 | 24.0 | 21.0 | 23.2 | 22.5 | 21.0 | 19.5 | 22.0 | 17.5 | 15.4 | 19.4 | 19.6 | 19.0 | 15.0 | 16.0 | 16.0 | 15.0 | 16.2 |
| N. Mex. | 24.5 | 20.0 | 20.0 | 52.2 | 19.0 | 21.2 | 25.0 | 22.5 | 21.5 | 18.0 | 24.0 | 18.7 | 18.5 | 20.9 | 16.6 | 11.1 | 14.0 | 15.0 | 12.0 | 13.7 |
| Utah | 23.5 | 23.3 | 37.0 | 29.9 | 22.0 | 27.6 | 25.0 | 23.0 | 25.0 | 25.0 | 23.8 | 18.7 | 23.7 | 24.2 | 26.3 | 25.5 | 29.9 | 22.2 | 23.0 | 27.4 |
| Nev. | 23.7 | 29.0 | 33.2 | 53.0 | 23.0 | 30.3 | 30.0 | 32.0 | 31.5 | 28.0 | 25.0 | 34.1 | 23.0 | 27.3 | 24.0 | 27.3 | 32.5 | 32.2 | 33.0 | 26.3 |
| Wash. | 26.0 | 14.5 | 18.5 | 20.0 | 41.9 | 18.8 | 20.0 | 22.2 | 21.5 | 18.6 | 9.5 | 13.0 | 11.9 | 16.0 | 15.0 | 9.3 | 22.0 | 9.2 | 16.2 | 14.8 |
| Oreg. | 18.7 | 18.0 | 17.7 | 19.5 | 19.5 | 18.7 | 16.5 | 17.0 | 23.0 | 11.0 | 11.0 | 13.0 | 17.0 | 15.4 | 17.0 | 11.5 | 21.0 | 13.0 | 20.0 | 16.9 |
| U. S. | 15.8 | 11.0 | 9.4 | 17.2 | 13.0 | 13.8 | 11.8 | 18.4 | 8.8 | 12.5 | 16.2 | 8.2 | 10.5 | 12.3 | 10.6 | 14.1 | 11.2 | 16.2 | 12.9 | 13.6 |

Division of Crop and Livestock Estimates.

TABLE 8.—Durum wheat: ¹ Acreage harvested, yield per acre, and production, by States, 1917-1925

| State and year | Acreage harvested | Average yield per acre | Production | State and year | Acreage harvested | Average yield per acre | Production |
|-------------------------|-------------------|------------------------|---------------|-------------------------|-------------------|------------------------|---------------|
| Minnesota: | 1,000 acres | Bushels | 1,000 bushels | South Dakota—Continued. | 1,000 acres | Bushels | 1,000 bushels |
| 1917..... | 100 | 15.5 | 1,557 | 1922..... | 1,239 | 15.5 | 19,208 |
| 1918..... | 123 | 20.0 | 2,460 | 1923..... | 1,275 | 12.0 | 15,300 |
| 1919..... | 125 | 11.9 | 1,485 | 1924..... | 997 | 15.3 | 15,254 |
| 1920..... | 115 | 12.0 | 1,383 | 1925 ¹ | 1,049 | 13.8 | 14,476 |
| 1921..... | 147 | 11.9 | 1,754 | Montana: | | | |
| 1922..... | 248 | 16.0 | 3,960 | 1917..... | 149 | 9.0 | 1,343 |
| 1923..... | 225 | 12.7 | 2,858 | 1918..... | 350 | 12.9 | 4,516 |
| 1924..... | 126 | 21.5 | 2,709 | 1919..... | 209 | 4.5 | 942 |
| 1925 ¹ | 142 | 15.2 | 2,158 | 1920..... | 368 | 11.5 | 4,231 |
| North Dakota: | | | | 1921..... | 380 | 11.2 | 4,259 |
| 1917..... | 1,574 | 9.0 | 14,168 | 1922..... | 279 | 14.7 | 4,108 |
| 1918..... | 2,204 | 14.0 | 30,856 | 1923..... | 128 | 10.2 | 1,306 |
| 1919..... | 2,749 | 7.9 | 21,720 | 1924..... | 126 | 18.0 | 2,268 |
| 1920..... | 3,210 | 10.5 | 33,702 | 1925 ¹ | 121 | 10.0 | 1,210 |
| 1921..... | 3,788 | 9.7 | 36,741 | Total, 4 States: | | | |
| 1922..... | 4,026 | 15.0 | 60,397 | 1917..... | 2,397 | 10.9 | 26,009 |
| 1923..... | 3,667 | 9.1 | 33,370 | 1918..... | 3,313 | 15.2 | 50,356 |
| 1924..... | 2,922 | 16.2 | 47,336 | 1919..... | 3,782 | 8.2 | 30,998 |
| 1925 ¹ | 3,362 | 14.5 | 48,749 | 1920..... | 4,409 | 10.9 | 48,200 |
| South Dakota: | | | | 1921..... | 5,276 | 10.1 | 53,324 |
| 1917..... | 573 | 15.6 | 8,941 | 1922..... | 5,792 | 15.1 | 87,669 |
| 1918..... | 636 | 19.5 | 12,403 | 1923..... | 5,295 | 10.0 | 52,834 |
| 1919..... | 699 | 9.8 | 6,848 | 1924..... | 4,171 | 16.2 | 67,567 |
| 1920..... | 716 | 12.4 | 8,884 | 1925 ¹ | 4,674 | 14.2 | 66,598 |
| 1921..... | 961 | 11.0 | 10,570 | | | | |

Division of Crop and Live stock Estimates.

¹ Included in spring wheat in Table 4.¹ Preliminary.

TABLE 9.—Wheat: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1909-1924

| Year | Adverse weather conditions | | | | | | | | | | Plant diseases | Insect pests | Animal pests | Defective seed | Other and unknown causes | Total |
|-----------|----------------------------|--------------------|------------------|-------------------------------|------------|------------|------------|----------------|----------------|------------|----------------|--------------|------------------|----------------|--------------------------|-------------|
| | Deficient moisture | Excessive moisture | Floods | Frost, freeze, or winter kill | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | | |
| 1909..... | P. ct. 8.5 | P. ct. 3.2 | P. ct. 0.7 | P. ct. 2.4 | P. ct. 2.0 | P. ct. 1.2 | P. ct. 0.6 | P. ct. 0.3 | P. ct. 18.9 | P. ct. 1.6 | P. ct. 1.1 | P. ct. 0.3 | P. ct. 0.1 | P. ct. 0.8 | P. ct. 0.8 | P. ct. 22.6 |
| 1910..... | 18.9 | .9 | .2 | 6.6 | 5.5 | 2.6 | .2 | .1 | 30.0 | .8 | 1.9 | .4 | .2 | .5 | .5 | 33.8 |
| 1911..... | 25.5 | .8 | (¹) | 1.5 | .4 | 3.8 | .1 | .2 | 32.3 | 1.9 | 1.9 | .2 | .2 | 1.3 | 1.3 | 37.8 |
| 1912..... | 8.1 | 1.8 | .3 | 9.5 | 1.5 | 1.8 | .4 | .6 | 24.0 | 1.8 | 2.3 | .3 | .2 | .9 | .9 | 29.6 |
| 1913..... | 14.1 | .4 | .2 | 1.9 | .7 | 1.7 | .3 | .5 | 19.8 | .3 | 2.2 | .1 | .1 | 1.0 | 1.0 | 23.5 |
| 1914..... | 6.7 | 1.4 | .1 | 1.1 | 1.0 | 2.7 | .2 | .2 | 12.4 | 3.0 | 2.6 | .1 | .1 | .6 | .6 | 18.8 |
| 1915..... | 1.3 | 7.3 | 1.0 | 1.2 | 1.6 | .1 | .4 | .1 | 13.0 | 2.4 | 3.6 | .1 | .1 | .5 | .5 | 19.7 |
| 1916..... | 6.9 | 3.8 | .6 | 5.1 | 1.3 | 2.7 | .2 | .6 | 21.2 | 12.5 | 4.0 | .1 | .1 | .8 | .8 | 38.7 |
| 1917..... | 19.1 | .4 | .1 | 11.8 | 1.0 | 1.6 | .2 | .2 | 34.4 | .7 | .7 | .1 | .1 | .3 | .3 | 36.3 |
| 1918..... | 14.6 | .3 | .1 | 3.8 | 1.1 | 2.0 | .2 | .2 | 22.3 | 1.5 | 1.1 | .2 | .1 | .5 | .5 | 25.7 |
| 1919..... | 12.3 | 6.2 | .4 | 1.3 | .8 | 2.8 | .3 | .2 | 24.3 | 10.2 | 2.5 | .1 | (¹) | .5 | .5 | 37.6 |
| 1920..... | 8.1 | 2.3 | .2 | 4.2 | 1.0 | 1.5 | .4 | .0 | 17.7 | 9.5 | 4.4 | .1 | .1 | .4 | .4 | 32.2 |
| 1921..... | 13.3 | 2.0 | .2 | 3.1 | 1.4 | 3.6 | .3 | .0 | 23.9 | 5.2 | 3.6 | .1 | .1 | .2 | .2 | 33.1 |
| 1922..... | 12.1 | 2.0 | .4 | 2.2 | 2.0 | 1.4 | .2 | .1 | 21.4 | 3.4 | 3.4 | .1 | .1 | .3 | .3 | 28.7 |
| 1923..... | 8.6 | 4.0 | .3 | 4.0 | 1.4 | .8 | .2 | .0 | 19.5 | 4.6 | 4.6 | .1 | .1 | .3 | .3 | 30.2 |
| 1924..... | 9.4 | 2.3 | .2 | 3.6 | 1.4 | .5 | .2 | .2 | 17.8 | 1.5 | 2.1 | .2 | .1 | .2 | .2 | 21.0 |

Division of Crop and Livestock Estimates.

¹ Less than 0.05 per cent.

TABLE 10.—Winter wheat: Percentage of acreage abandoned,¹ 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------|-----------|-----------|-----------|-----------|-----------|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------|-----------|-----------|-----------|-----------|-----------|----------------------|
| | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. |
| N. Y. | 5.2 | 1.4 | 4.2 | 5.1 | 3.6 | 3.6 | 1.0 | 1.2 | 1.0 | 4.0 | 15.0 | 0.7 | 1.5 | 3.5 | 2.0 | 2.5 | 3.2 | 3.3 | 2.5 | 2.8 |
| N. J. | 3.2 | 3.4 | 3.4 | 5.7 | 4.0 | 3.9 | 4.5 | 4.0 | 3.0 | 5.0 | 6.0 | 1.5 | 10.0 | 4.9 | 1.8 | 4.0 | 3.0 | 4.0 | 2.5 | 3.1 |
| Pa. | 2.7 | 2.3 | 3.8 | 4.6 | 3.0 | 3.3 | 2.0 | 4.9 | 2.5 | 4.0 | 5.0 | .5 | 3.5 | 3.2 | 1.0 | 2.0 | 2.5 | 3.0 | 2.9 | 2.3 |
| Ohio. | 10.0 | 5.6 | 3.2 | 45.2 | 3.3 | 13.5 | 1.3 | 1.8 | 18.0 | 4.0 | 5.0 | .1 | 16.0 | 6.6 | 2.0 | 2.5 | 12.5 | 12.0 | 30.0 | 11.8 |
| Ind. | 8.5 | 6.0 | 3.6 | 46.5 | 3.5 | 13.6 | 1.3 | 2.0 | 30.0 | 20.0 | 1.0 | 1.0 | 13.0 | 9.8 | 3.0 | 5.0 | 6.0 | 9.0 | 14.0 | 7.4 |
| Ill. | 7.5 | 8.0 | 4.1 | 53.5 | 2.0 | 15.0 | 2.0 | 2.0 | 33.0 | 35.0 | 3.0 | 1.0 | 18.0 | 13.4 | 2.3 | 5.0 | 5.5 | 17.0 | 3.7 | 6.7 |
| Mich. | 5.0 | 5.5 | 3.2 | 26.0 | 4.5 | 8.8 | 2.3 | 1.0 | 3.5 | 5.0 | 24.0 | 1.0 | 7.0 | 6.3 | 2.5 | 2.0 | 4.5 | 1.0 | 2.5 | 2.5 |
| Wis. | 6.0 | 4.4 | 7.2 | 7.2 | 4.6 | 5.9 | 5.0 | 3.0 | 20.0 | 5.0 | 45.0 | 2.0 | 4.0 | 12.0 | 10.0 | 16.0 | 4.0 | 3.0 | 22.0 | 11.0 |
| Minn. | | | | | | | 8.0 | 3.0 | 25.0 | 15.0 | 18.0 | 3.5 | 14.0 | 12.4 | 7.0 | 12.0 | 15.0 | 5.0 | 16.0 | 11.0 |
| Iowa. | 4.0 | 28.1 | 4.0 | 18.3 | 3.5 | 11.6 | 2.0 | 1.0 | 18.0 | 32.0 | 13.0 | .4 | 6.0 | 14.6 | 1.0 | 2.0 | 5.0 | 2.5 | 9.0 | 3.9 |
| Mo. | 9.0 | 17.5 | 3.0 | 23.2 | 1.5 | 10.8 | 1.4 | 2.5 | 30.0 | 22.0 | 1.0 | .6 | 9.0 | 8.1 | 2.0 | 3.7 | 1.8 | 7.0 | 1.5 | 2.2 |
| S. Dak. | 7.2 | 23.5 | 10.0 | 10.5 | 2.0 | 11.6 | 14.0 | 3.0 | 9.0 | 34.0 | 20.0 | 5.0 | 15.0 | 14.3 | 7.5 | 6.0 | 40.0 | 10.7 | 20.0 | 16.8 |
| Nebr. | 7.2 | 23.5 | 10.0 | 10.5 | 2.0 | 11.6 | 4.0 | 1.0 | 4.0 | 75.0 | 10.0 | .3 | 8.0 | 14.6 | 2.0 | 12.0 | 25.0 | 3.0 | 21.0 | 12.6 |
| Kans. | 8.0 | 30.7 | 27.0 | 18.0 | 6.0 | 17.9 | 4.5 | 3.5 | 5.0 | 53.0 | 29.0 | .4 | 16.0 | 15.9 | 8.0 | 37.0 | 28.0 | 4.5 | 24.8 | 18.5 |
| Del. | 2.0 | 1.7 | 3.4 | 3.9 | 2.7 | 2.7 | 2.0 | 2.5 | 3.0 | 3.5 | 9.0 | .0 | 5.0 | 3.6 | 2.5 | 2.0 | 3.0 | 5.0 | 3.0 | 3.1 |
| Md. | 1.5 | 1.1 | 2.9 | 3.0 | 1.8 | 2.1 | 1.5 | 3.0 | 3.8 | 4.2 | 5.0 | .5 | 4.0 | 3.1 | 2.0 | 2.0 | 3.2 | 3.8 | 3.5 | 2.9 |
| Va. | 1.3 | 2.9 | 2.6 | 2.8 | 1.8 | 2.3 | 1.9 | 3.5 | 2.0 | 5.0 | 1.0 | 1.0 | 3.0 | 2.5 | 2.2 | 1.5 | 2.5 | 5.0 | 4.0 | 3.0 |
| W. Va. | 1.7 | 3.6 | 4.0 | 3.3 | 2.3 | 3.2 | 2.0 | 2.0 | 2.0 | 2.5 | 2.0 | .5 | 4.0 | 2.1 | 1.5 | 1.5 | 3.5 | 10.0 | 12.5 | 5.8 |
| N. C. | 1.8 | 3.5 | 3.8 | 3.3 | 2.5 | 3.0 | 2.6 | 4.0 | 1.5 | 10.0 | 2.0 | 1.0 | 2.0 | 3.3 | 2.0 | 1.0 | 2.0 | 3.0 | 2.5 | 2.1 |
| S. C. | 3.3 | 3.8 | 3.5 | 4.3 | 4.0 | 3.8 | 3.0 | 3.3 | 3.0 | 25.0 | 2.0 | 2.0 | 2.0 | 5.8 | 2.5 | 10.0 | 2.0 | 5.0 | 4.0 | 4.7 |
| Ga. | 3.0 | 6.0 | 3.3 | 5.0 | 3.0 | 4.1 | 3.0 | 5.0 | 4.0 | 38.0 | 11.0 | 6.0 | 5.0 | 10.3 | 3.5 | 9.0 | 5.0 | 42.0 | 5.5 | 13.0 |
| Ky. | 5.5 | 6.5 | 3.9 | 13.0 | 5.0 | 6.8 | 2.3 | 7.0 | 6.0 | 16.0 | 2.0 | 1.0 | 14.0 | 6.9 | 3.5 | 3.0 | 3.5 | 25.0 | 13.0 | 9.6 |
| Tenn. | 3.0 | 6.4 | 4.3 | 5.6 | 3.2 | 4.5 | 2.0 | 4.5 | 4.5 | 35.0 | 2.0 | 1.8 | 14.0 | 9.1 | 2.0 | 2.0 | 2.5 | 14.0 | 6.0 | 5.3 |
| Ala. | 5.0 | 6.7 | 6.2 | 7.0 | 4.3 | 5.8 | 8.0 | 5.0 | 6.0 | 30.0 | 3.0 | 2.0 | 3.0 | 8.1 | 5.0 | 6.0 | 7.0 | 25.0 | 6.0 | 10.0 |
| Miss. | 0 | 0 | 10.0 | 17.0 | 2.5 | 5.9 | 15.0 | 10.0 | 6.0 | 25.0 | 5.0 | 5.8 | 10.0 | 10.9 | 20.0 | 5.0 | 8.0 | 50.0 | 25.0 | 21.6 |
| Ark. | 3.0 | 3.3 | 5.0 | 7.0 | 2.4 | 4.1 | 2.5 | 2.0 | 5.0 | 5.0 | 1.0 | 1.7 | 6.0 | 3.3 | 4.0 | 3.5 | 4.0 | 5.0 | 7.0 | 4.7 |
| Tex. | 37.0 | 3.3 | 7.0 | 1.5 | 11.0 | 12.0 | 5.0 | .5 | 33.0 | 25.0 | 45.0 | 3.0 | 10.0 | 17.4 | 4.0 | 41.0 | 8.0 | 2.0 | 62.0 | 23.4 |
| Okl. | 7.5 | 5.0 | 34.0 | 10.5 | 7.0 | 12.8 | 3.0 | .5 | 5.0 | 17.0 | 20.0 | .1 | 13.0 | 8.4 | 4.0 | 24.0 | 9.0 | 2.0 | 17.0 | 11.2 |
| Mont. | 15.5 | 15.0 | 5.4 | 3.7 | 7.0 | 9.3 | 5.0 | 5.0 | 25.0 | 22.0 | 12.0 | 4.5 | 22.0 | 13.6 | 15.0 | 9.0 | 18.0 | 6.0 | 70.0 | 23.6 |
| Idaho. | 4.2 | 4.0 | 4.7 | 3.8 | 5.0 | 4.3 | 2.0 | 4.0 | 5.5 | 10.0 | 4.0 | 2.0 | 18.0 | 5.4 | 3.0 | 6.0 | 4.0 | 4.0 | 17.5 | 6.9 |
| Wyo. | 2.9 | 4.5 | 7.7 | 8.7 | 4.6 | 5.7 | 4.0 | 2.0 | 5.0 | 15.0 | 10.0 | 4.0 | 6.0 | 6.6 | 8.0 | 11.0 | 17.0 | 3.0 | 17.0 | 11.2 |
| Colo. | 6.0 | 10.0 | 11.4 | 7.8 | 5.1 | 8.1 | 8.0 | 3.0 | 8.0 | 20.0 | 7.0 | 1.0 | 12.0 | 8.4 | 8.0 | 20.0 | 33.0 | 4.5 | 14.0 | 15.9 |
| N. Mex. | 0 | 0 | 0 | 10.9 | 14.2 | 5.0 | 7.0 | 2.5 | 8.0 | 28.0 | 35.0 | 5.0 | 15.0 | 14.4 | 10.0 | 60.0 | 50.0 | 10.0 | 70.0 | 40.0 |
| Ariz. | 0 | 0 | 0 | 15.0 | 5.0 | 4.0 | 5.0 | 3.5 | 6.0 | 10.0 | 13.0 | 5.0 | 6.0 | 6.8 | 10.0 | 1.0 | 8.0 | 2.0 | 3.0 | 4.8 |
| Utah. | 9.0 | 5.0 | 2.6 | 7.1 | 8.5 | 6.4 | 3.0 | 3.0 | 2.0 | 5.0 | 2.0 | 4.5 | 4.0 | 3.4 | 4.0 | 2.0 | 2.5 | 2.0 | 2.0 | 2.5 |
| Nev. | 5.0 | 0 | 5.9 | 5.0 | 13.3 | 5.8 | 4.5 | 4.0 | 3.0 | 5.0 | 1.0 | 5.0 | 12.0 | 4.9 | 8.0 | 1.0 | 2.0 | 2.0 | 2.0 | 3.0 |
| Wash. | 4.0 | 7.6 | 4.9 | 4.5 | 5.6 | 5.3 | 4.5 | 4.0 | 20.0 | 33.0 | 5.0 | 3.0 | 20.0 | 12.8 | 2.0 | 7.0 | 5.0 | 18.0 | 72.0 | 20.8 |
| Oreg. | 3.0 | 6.0 | 3.9 | 1.6 | 5.0 | 3.9 | 2.0 | 2.5 | 2.0 | 11.0 | 2.0 | 1.5 | 3.0 | 3.4 | 1.0 | 4.0 | 3.0 | 1.0 | 70.0 | 15.8 |
| Calif. | 16.3 | 5.2 | 8.0 | 8.0 | 30.0 | 13.5 | 5.0 | 5.0 | 20.0 | 20.0 | 15.0 | 10.0 | 16.0 | 12.0 | 28.0 | 8.7 | 8.0 | 54.0 | 19.0 | 23.5 |
| U. S. | 7.4 | 13.7 | 10.7 | 20.0 | 5.0 | 11.4 | 3.1 | 2.6 | 11.6 | 28.9 | 13.2 | 1.1 | 12.3 | 10.4 | 4.7 | 14.4 | 14.3 | 7.4 | 21.7 | 12.5 |

Division of Crop and Livestock Estimates.

¹ Based on percentages reported abandoned to May 1 by crop reporters. Total for season used in December estimate may be greater or less.

TABLE 11.—Wheat: Acreage and yield per acre in specified countries, average 1909–1913, annual 1922–1925

| Country | Acreage | | | | | Yield per acre | | | | |
|---|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------------|---------------|---------------|---------------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMISPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| Canada..... | 1,000 acres 9,945 | 1,000 acres 22,423 | 1,000 acres 22,672 | 1,000 acres 22,056 | 1,000 acres 21,968 | Bush. 19.8 | Bush. 17.8 | Bush. 20.9 | Bush. 11.9 | Bush. 19.0 |
| United States..... | 47,097 | 62,317 | 59,659 | 52,364 | 52,200 | 14.7 | 13.9 | 13.4 | 16.5 | 12.8 |
| Mexico..... | 2,174 | 2,618 | 3,055 | 1,404 | 1,717 | 5.2 | 4.5 | 7.4 | 6.0 | 6.0 |
| Total North America..... | 50,216 | 87,358 | 85,386 | 75,824 | 75,875 | | | | | |
| EUROPE | | | | | | | | | | |
| United Kingdom: | | | | | | | | | | |
| England and Wales..... | 1,787 | 1,967 | 1,740 | 1,545 | 1,499 | 31.2 | 31.2 | 31.5 | 32.2 | 33.9 |
| Scotland..... | 57 | 65 | 59 | 49 | 48 | 39.9 | 38.8 | 39.3 | 37.3 | 41.0 |
| Ireland..... | 43 | 41 | 39 | 32 | 37.0 | 34.6 | 32.5 | 32.7 | 32.7 | 26.7 |
| Norway..... | 12 | 25 | 25 | 21 | 21 | 25.5 | 25.7 | 23.5 | 23.5 | 26.7 |
| Sweden..... | 255 | 356 | 362 | 322 | 363 | 31.8 | 26.7 | 30.4 | 21.4 | 38.7 |
| Denmark..... | 154 | 237 | 205 | 149 | 196 | 41.1 | 39.0 | 43.2 | 39.3 | 45.0 |
| Netherlands..... | 138 | 150 | 154 | 118 | 130 | 36.1 | 41.1 | 40.3 | 39.2 | 39.5 |
| Belgium..... | 404 | 300 | 345 | 340 | 378 | 37.6 | 35.4 | 38.8 | 38.2 | 37.2 |
| Luxemburg..... | 27 | 23 | 16 | 22 | 22 | 22.8 | 7.5 | 18.8 | 14.2 | 22.0 |
| France..... | 16,800 | 13,072 | 13,672 | 13,620 | 13,754 | 19.7 | 18.6 | 20.2 | 20.6 | 23.9 |
| Spain..... | 9,547 | 10,309 | 10,488 | 10,379 | 10,722 | 13.7 | 12.2 | 15.0 | 11.7 | 15.2 |
| Portugal..... | 1,211 | 1,156 | 1,055 | 945 | 8.6 | 8.6 | 12.5 | 9.1 | 20.6 | 33.5 |
| Italy..... | 11,793 | 11,489 | 11,554 | 11,284 | 11,673 | 15.6 | 14.1 | 19.5 | 15.1 | 20.6 |
| Switzerland..... | 105 | 103 | 105 | 104 | 105 | 31.6 | 22.8 | 34.2 | 29.9 | 33.5 |
| Germany..... | 4,029 | 3,395 | 3,653 | 3,623 | 3,835 | 32.6 | 21.2 | 29.1 | 24.6 | 30.8 |
| Austria..... | 635 | 460 | 475 | 482 | 487 | 20.2 | 16.1 | 18.7 | 17.6 | 24.6 |
| Czechoslovakia..... | 1,718 | 1,675 | 1,607 | 1,497 | 1,526 | 22.0 | 20.1 | 24.0 | 21.5 | 24.0 |
| Hungary..... | 3,712 | 3,522 | 3,320 | 3,499 | 3,602 | 19.3 | 15.5 | 20.4 | 14.7 | 18.8 |
| Yugoslavia..... | 3,982 | 3,673 | 3,842 | 4,244 | 4,882 | 15.6 | 12.1 | 15.9 | 13.6 | 18.8 |
| Greece..... | 1,134 | 890 | 1,071 | 2,462 | 2,537 | 14.4 | 10.7 | 12.5 | 11.5 | 19.6 |
| Bulgaria..... | 2,409 | 2,226 | 2,303 | 7,838 | 8,157 | 15.7 | 16.9 | 15.7 | 11.5 | 12.8 |
| Rumania..... | 9,515 | 6,547 | 6,648 | 2,651 | 2,724 | 16.7 | 14.1 | 15.4 | 9.0 | 21.2 |
| Poland..... | 3,550 | 2,574 | 2,514 | 2,651 | 2,724 | 19.0 | 16.5 | 19.8 | 12.3 | 19.1 |
| Lithuania..... | 211 | 194 | 202 | 210 | 277 | 15.5 | 16.9 | 14.7 | 15.8 | 18.2 |
| Latvia..... | 85 | 70 | 106 | 106 | 119 | 17.4 | 13.7 | 15.5 | 14.9 | 18.1 |
| Estonia..... | 23 | 52 | 56 | 44 | 30 | 15.8 | 14.6 | 13.2 | 12.3 | 20.2 |
| Finland..... | 8 | 38 | 40 | 37 | 37 | 17.1 | 18.7 | 21.4 | 20.2 | 13.2 |
| Russia, European..... | 57,420 | 16,418 | 26,478 | 33,214 | 36,561 | 10.6 | 9.6 | 10.1 | 7.4 | |
| Total European countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 70,456 | 62,522 | 63,391 | 64,646 | 66,624 | 15.7 | 16.4 | 19.5 | 16.0 | 20.6 |
| Including Russia..... | 127,876 | 78,940 | 89,869 | 97,860 | 103,185 | 15.1 | 14.9 | 16.7 | 13.1 | 17.9 |
| NORTH AFRICA | | | | | | | | | | |
| Morocco..... | (1,700) | 2,068 | 2,249 | 2,461 | 2,545 | 6.2 | 8.9 | 11.6 | 8.3 | |
| Algeria..... | 3,521 | 3,739 | 3,118 | 3,492 | 3,640 | 10.0 | 6.6 | 11.6 | 4.9 | 11.1 |
| Tunis..... | 1,310 | 1,072 | 1,606 | 1,108 | 1,507 | 4.8 | 3.4 | 6.2 | 4.7 | 6.6 |
| Egypt..... | 1,314 | 1,518 | 1,537 | 1,416 | 1,380 | 25.6 | 24.1 | 26.5 | 24.1 | 26.6 |
| Total North Africa countries reporting all years shown..... | 7,845 | 8,397 | 8,510 | 8,477 | 9,072 | | | | | |

¹ Where changes in boundary have occurred averages are estimates for territory within present boundaries.² Two-year average.³ Three-year average.⁴ One year only.⁵ Four-year average.

TABLE 11.—Wheat: Acreage and yield per acre in specified countries, average 1909–1913, annual 1922–1925—Continued

| Country | Acreage | | | | | Yield per acre | | | | |
|--|--------------------------------|-------------|-------------|-------------|------------------|--------------------------------|-------|-------|-------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMISPHERE— Continued | | | | | | | | | | |
| ASIA | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Bush. | Bush. | Bush. | Bush. | Bush. |
| Cyprus..... | | 191 | 191 | 190 | | | 13.1 | 13.7 | | |
| India..... | 29,224 | 28,207 | 30,852 | 31,181 | 31,773 | 12.0 | 13.1 | 12.1 | 11.6 | 10.6 |
| Russia (Asiatic)..... | 16,789 | 5,822 | 7,556 | 12,800 | 10,528 | 9.0 | 7.8 | 7.9 | 10.5 | |
| Japanese Empire: | | | | | | | | | | |
| Japan..... | 1,179 | 1,229 | 1,196 | 1,150 | 1,156 | 21.3 | 23.9 | 22.2 | 22.1 | 23.6 |
| Chosen..... | 574 | 890 | 873 | 884 | | 12.0 | 11.1 | 9.3 | 11.6 | |
| Formosa..... | 15 | 10 | 8 | | | 11.3 | 9.1 | 9.5 | | |
| Kwantung..... | 4 | | | | | 10.0 | 12.0 | | | |
| Total Northern Hemisphere countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 167,920 | 187,713 | 189,335 | 181,278 | 184,500 | | | | | |
| Including Russia..... | 242,129 | 209,953 | 223,369 | 227,292 | 231,589 | | | | | |
| SOUTHERN HEMISPHERE | | | | | | | | | | |
| Argentina..... | 16,051 | 16,254 | 17,177 | 17,792 | 19,197 | 9.2 | 12.0 | 14.4 | 10.7 | 11.2 |
| Uruguay..... | 791 | 663 | 1,055 | 850 | 1,047 | 8.2 | 7.8 | 12.6 | 11.7 | |
| Chile..... | 1,003 | 1,473 | 1,379 | 1,400 | 1,503 | 20.0 | 17.6 | 20.4 | 17.8 | |
| Peru..... | 192 | 278 | | | | | 10.8 | | | |
| Union of South Africa ² | 803 | (800) | 779 | 741 | 1,058 | 7.5 | | 7.7 | 7.6 | 7.9 |
| Australia..... | 7,603 | 9,764 | 9,540 | 10,755 | 10,000 | 11.9 | 11.2 | 13.1 | 15.3 | 11.0 |
| New Zealand..... | 241 | 276 | 174 | 167 | 158 | 28.7 | 30.4 | 24.0 | 32.8 | |
| Total Southern Hemisphere countries excluding Peru..... | 26,492 | 29,230 | 30,104 | 31,705 | 32,963 | | | | | |
| Total all countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 194,412 | 216,943 | 219,439 | 212,983 | 217,463 | | | | | |
| Including Russia..... | 268,621 | 239,183 | 253,473 | 258,997 | 264,552 | | | | | |

Division of Statistical and Historical Research. Official sources and the International Institute of Agriculture unless otherwise stated. Estimates given are for crops harvested during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Excluding Turkestan and Transcaucasia.

² Excluding native locations.

TABLE 12.—Wheat: Monthly marketings by farmers, as reported by about 3,500 mills and elevators, United States, 1917–1924

| Year beginning July 1 | Percentage of year's receipts | | | | | | | | | | | |
|--------------------------|-------------------------------|------|-------|------|------|------|------|------|------|------|-----|------|
| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| 1917..... | 7.4 | 13.4 | 19.3 | 18.0 | 13.7 | 7.6 | 4.7 | 3.9 | 3.7 | 4.1 | 3.1 | 2.1 |
| 1918..... | 17.6 | 19.9 | 18.0 | 13.8 | 8.7 | 7.3 | 4.6 | 3.1 | 2.0 | 1.6 | 1.9 | 1.5 |
| 1919..... | 17.1 | 22.2 | 18.6 | 11.1 | 7.5 | 5.7 | 4.2 | 3.0 | 2.9 | 3.1 | 3.4 | 3.2 |
| 1920..... | 12.1 | 14.3 | 18.9 | 10.6 | 6.9 | 6.2 | 5.5 | 5.3 | 4.9 | 5.0 | 6.4 | 6.9 |
| 1921..... | 12.1 | 18.2 | 14.2 | 10.6 | 6.9 | 5.4 | 4.4 | 4.9 | 3.9 | 3.2 | 3.5 | 3.6 |
| 1922..... | 14.8 | 17.3 | 14.2 | 12.0 | 8.6 | 7.4 | 5.5 | 5.1 | 4.3 | 3.7 | 3.4 | 3.7 |
| 1923..... | 13.4 | 17.6 | 16.7 | 13.7 | 9.5 | 6.2 | 4.6 | 4.8 | 3.3 | 2.9 | 3.7 | 3.6 |
| 1924..... | 13.6 | 19.8 | 17.5 | 14.5 | 8.6 | 5.6 | 5.3 | 4.2 | 2.5 | 1.6 | 3.1 | 3.7 |

Division of Crop and Livestock Estimates.

TABLE 13.—Wheat: Production in specified countries, average 1909-1913, annual 1922-1925

[Thousand bushels—i. e., 000 omitted]

| Country | Average ¹ 1909-1913 | 1922 | 1923 | 1924 | 1925 preliminary |
|---|-----------------------------------|----------------------|----------------------|-------------|---------------------|
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| Canada..... | 197, 119 | 399, 788 | 474, 199 | 262, 097 | 416, 850 |
| United States..... | 890, 108 | 867, 598 | 797, 381 | 892, 627 | 609, 365 |
| Mexico..... | ² 11, 481 | 13, 626 | 13, 657 | 10, 357 | 10, 321 |
| Total North America..... | 898, 708 | 1, 281, 010 | 1, 285, 237 | 1, 155, 081 | 1, 096, 536 |
| EUROPE | | | | | |
| United Kingdom: | | | | | |
| England and Wales..... | 55, 770 | 61, 312 | 54, 872 | 49, 760 | 50, 773 |
| Scotland..... | 2, 273 | 2, 520 | 2, 320 | 1, 829 | 1, 968 |
| Ireland..... | 1, 597 | 1, 417 | 1, 260 | 1, 045 | ..... |
| Norway..... | 306 | 643 | 587 | 403 | 561 |
| Sweden..... | 8, 103 | 9, 513 | 11, 005 | 6, 876 | 14, 056 |
| Denmark..... | 6, 322 | 9, 249 | 8, 858 | 5, 864 | 8, 818 |
| Netherlands..... | 4, 976 | 6, 181 | 6, 211 | 4, 631 | 5, 135 |
| Belgium..... | 15, 199 | 10, 615 | 13, 376 | 13, 004 | 14, 004 |
| Luxemburg..... | 615 | 173 | 301 | 312 | 484 |
| France..... | ³ 323, 644 | 243, 315 | 275, 569 | 281, 179 | 329, 077 |
| Spain..... | 130, 446 | 125, 469 | 157, 110 | 121, 778 | 162, 594 |
| Portugal..... | ¹ 11, 850 | 10, 008 | 13, 190 | 8, 630 | ..... |
| Italy..... | 194, 393 | 161, 641 | 224, 836 | 170, 144 | 240, 849 |
| Switzerland..... | 3, 314 | 2, 348 | 3, 593 | 3, 112 | 3, 518 |
| Germany..... | 131, 274 | 71, 926 | 106, 448 | 89, 199 | 118, 213 |
| Austria..... | 12, 813 | 7, 422 | 8, 889 | 8, 490 | 11, 986 |
| Czechoslovakia..... | 37, 879 | 33, 621 | 36, 226 | 32, 226 | 36, 574 |
| Hungary..... | 71, 493 | 54, 729 | 67, 703 | 61, 568 | 67, 553 |
| Yugoslavia..... | 62, 024 | 44, 472 | 61, 068 | 57, 771 | 82, 317 |
| Greece..... | ¹ 16, 273 | 9, 553 | 13, 356 | 9, 661 | 11, 441 |
| Bulgaria..... | 37, 823 | 37, 704 | 36, 223 | 28, 317 | 49, 645 |
| Rumania..... | ² 158, 672 | 92, 007 | 102, 120 | 70, 421 | 104, 608 |
| Poland..... | 63, 675 | 42, 378 | 49, 735 | 32, 498 | 57, 871 |
| Lithuania..... | 3, 264 | 3, 274 | 2, 965 | 3, 319 | 5, 291 |
| Latvia..... | 1, 475 | 958 | 1, 641 | 1, 582 | 2, 168 |
| Estonia..... | 364 | 761 | 737 | 543 | 544 |
| Finland..... | 137 | 710 | 687 | 790 | 746 |
| Russia, European..... | 607, 828 | 157, 009 | 268, 953 | 246, 919 | 482, 164 |
| Total European countries reporting all years shown: | | | | | |
| Excluding Russia..... | ⁴ 1, 334, 327 | 1, 032, 474 | 1, 246, 438 | 1, 045, 379 | 1, 380, 854 |
| Including Russia..... | 1, 942, 355 | 1, 189, 483 | 1, 513, 191 | 1, 292, 298 | 1, 863, 018 |
| NORTH AFRICA | | | | | |
| Morocco..... | (17, 000) | 12, 894 | 20, 060 | 28, 660 | 21, 078 |
| Algeria..... | 35, 181 | 22, 575 | 36, 168 | 17, 156 | 40, 309 |
| Tunis..... | 6, 224 | 3, 674 | 9, 921 | 5, 181 | 9, 321 |
| Egypt..... | 33, 662 | 36, 648 | 40, 654 | 34, 186 | 36, 642 |
| Total North Africa..... | 92, 047 | 75, 791 | 106, 793 | 85, 183 | 107, 950 |
| ASIA | | | | | |
| Cyprus..... | 2, 216 | 2, 496 | 2, 611 | 1, 851 | ..... |
| India..... | 351, 841 | 366, 987 | 372, 363 | 360, 640 | 324, 651 |
| Russia (Asiatic)..... | 151, 113 | ⁵ 45, 359 | ⁵ 59, 932 | 134, 808 | 178, 966 |
| Japanese Empire: | | | | | |
| Japan..... | 25, 088 | 29, 315 | 28, 578 | 25, 408 | 29, 539 |
| Chosen..... | 6, 996 | 9, 922 | 8, 101 | 10, 289 | 10, 983 |
| Formosa..... | 169 | 91 | 76 | ..... | ..... |
| Kwantung..... | ⁶ 40 | 48 | ..... | ..... | ..... |
| Total Northern Hemisphere countries reporting all years shown: | | | | | |
| Excluding Russia..... | 2, 709, 109 | 2, 795, 499 | 3, 045, 510 | 2, 661, 978 | 2, 950, 463 |
| Including Russia..... | 3, 498, 050 | 2, 997, 867 | 3, 372, 185 | 3, 043, 706 | 3, 611, 593 |

¹ Where changes in boundary have occurred as a result of the world war estimates have been adjusted to correspond with the area within the post-war boundaries.

² Four-year average.

³ One year only.

⁴ The estimate for the five-year period 1909-1913 given in this table is somewhat larger than the figures obtained by averaging those five years in Table 14. This is because in the detailed table estimates for warring countries are for postwar boundaries, whereas in Table 14 they are for prewar territory. As a result, in excluding Russia, which lost territory in the war, a smaller area is excluded in the detailed table than in Table 14.

⁵ Excluding Turkestan and Transcaucasia.

⁶ Three-year average.

TABLE 13.—Wheat: Production in specified countries, average 1909-1913, annual 1922-1925—Continued

| Country | Average ¹ 1909-1913 | 1922 | 1923 | 1924 | 1925 preliminary |
|---|-----------------------------------|-----------|-----------|-----------|---------------------|
| SOUTHERN HEMISPHERE | | | | | |
| Argentina..... | 147,059 | 195,842 | 247,807 | 191,138 | 214,765 |
| Uruguay..... | ² 6,517 | 5,152 | 13,344 | 9,909 | — |
| Chile..... | 20,062 | 25,937 | 28,090 | 24,865 | 29,652 |
| Peru..... | ³ 2,868 | 2,995 | — | — | — |
| Union of South Africa..... | 6,034 | 6,059 | 5,973 | 5,067 | 8,333 |
| Australia..... | 90,497 | 109,455 | 124,903 | 164,612 | 107,000 |
| New Zealand..... | 6,925 | 8,395 | 4,175 | 5,471 | 4,953 |
| Total Southern Hemisphere countries reporting all periods shown.. | 270,577 | 345,688 | 411,038 | 391,753 | 364,703 |
| Total Northern Hemisphere and Southern Hemisphere countries reporting all years shown: | | | | | |
| Excluding Russia..... | 2,979,686 | 3,141,187 | 3,456,548 | 3,053,730 | 3,315,166 |
| Including Russia..... | 3,738,627 | 3,343,555 | 3,783,233 | 3,435,450 | 3,970,296 |
| Estimated world total:⁴ | | | | | |
| Excluding Russia..... | ⁴ 3,006,000 | 3,184,000 | 3,510,000 | 3,099,000 | 3,349,000 |
| Including Russia..... | 3,765,000 | 3,386,000 | 3,837,000 | 3,481,000 | 4,010,000 |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Production as reported is for the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Four-year average.

² One year only.

³ See p. 752 footnote.

⁴ Excluding native locations, which produced 359,000 bushels in 1918 and 290,000 bushels in 1921.

⁵ Excludes a few minor producing countries which do not enter into world trade or for which no estimates are available.

TABLE 14.—Wheat: World production, 1909-1925

(Thousand bushels—i. e., 000 omitted)

| Year | Production for countries reporting all years | Preliminary estimate of world production, excluding Russia | Preliminary estimate of total Europe excluding Russia | Selected countries | | | | | | |
|-------------------------|--|--|---|----------------------|----------------------|---------|---------|-----------|-----------|---------|
| | | | | Russia ¹ | France | Italy | India | Argentina | Australia | Canada |
| 1909..... | 2,256,298 | 2,804,000 | 1,240,000 | 846,166 | 359,174 | 190,378 | 285,197 | 131,010 | 90,414 | 166,744 |
| 1910..... | 2,132,508 | 2,762,000 | 1,201,000 | 836,242 | 252,963 | 193,403 | 359,647 | 145,981 | 95,112 | 132,049 |
| 1911..... | 2,276,539 | 3,028,000 | 1,347,000 | 563,485 | 322,339 | 192,395 | 375,629 | 166,190 | 71,636 | 230,924 |
| 1912..... | 2,368,750 | 3,077,000 | 1,394,000 | 801,497 | 334,333 | 165,720 | 370,515 | 187,391 | 91,981 | 224,169 |
| 1913..... | 2,378,490 | 3,080,000 | 1,301,000 | 1,027,062 | 319,370 | 214,772 | 368,219 | 104,723 | 103,344 | 231,717 |
| 1914..... | 2,308,555 | 2,815,000 | 1,072,000 | ² 827,756 | 282,689 | 169,582 | 312,368 | 169,166 | 24,892 | 161,280 |
| 1915..... | 2,629,132 | 3,477,000 | 1,125,000 | ³ 826,784 | 222,776 | 170,541 | 376,992 | 169,019 | 179,066 | 393,543 |
| 1916..... | 2,022,136 | 2,713,000 | 1,049,000 | — | 204,908 | 176,530 | 328,045 | 84,121 | 152,420 | 262,781 |
| 1917..... | 2,022,502 | 2,853,000 | 740,000 | — | 134,675 | 139,999 | 382,144 | 234,818 | 114,734 | 253,743 |
| 1918..... | 2,372,983 | 2,899,000 | 909,000 | — | ⁴ 228,698 | 183,294 | 370,421 | 180,182 | 75,636 | 189,075 |
| 1919..... | 2,238,391 | 2,797,000 | 899,000 | — | ⁴ 187,091 | 169,769 | 290,261 | 216,954 | 45,975 | 193,260 |
| 1920..... | 2,261,992 | 2,922,000 | 949,000 | ⁴ 267,141 | 236,929 | 141,337 | 377,888 | 156,133 | 145,874 | 263,189 |
| 1921..... | 2,349,616 | 3,133,000 | 1,216,000 | ⁴ 171,384 | 323,467 | 194,071 | 250,357 | 191,012 | 129,089 | 300,858 |
| 1922..... | 2,310,268 | 3,184,000 | 1,044,000 | ⁴ 202,368 | 243,315 | 161,641 | 366,987 | 196,842 | 106,455 | 399,786 |
| 1923..... | 2,479,146 | 3,509,000 | 1,361,000 | ⁴ 326,686 | 275,566 | 224,836 | 372,363 | 247,807 | 124,993 | 474,199 |
| 1924..... | 2,390,864 | 3,098,000 | 1,055,000 | ⁴ 681,727 | 281,179 | 170,144 | 360,640 | 191,138 | 164,612 | 262,097 |
| 1925 ¹ | 2,352,180 | 3,349,000 | 1,381,000 | ⁴ 661,130 | 326,077 | 240,849 | 324,651 | 214,765 | 107,000 | 416,830 |

Division of Statistical and Historical Research. For each year is shown the production during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Preliminary.

² Includes all Russian territory reporting for years named.

³ Excludes Poland.

⁴ Production within postwar boundaries, and therefore not comparable with earlier years.

TABLE 15.—Wheat: Supply and distribution and per capita disappearance in the United States

[Thousand bushels—1. c., 000 omitted]

| Item | Year beginning July 1 | | | | | | 1924 | 1925 |
|---|-----------------------|--------------------|--------------------|---------|---------|---------|---------|---------|
| | Average, 1899-1908 | Average, 1909-1913 | Average, 1914-1920 | 1921 | 1922 | 1923 | | |
| Supply: | | | | | | | | |
| Stocks on farms July 1..... | 46,423 | 28,872 | 32,631 | 56,707 | 32,359 | 35,894 | 30,980 | 29,348 |
| Stocks in country mills and elevators, July 1..... | 27,000 | 29,000 | 26,997 | 27,167 | 28,756 | 37,117 | 36,626 | 25,287 |
| Commercial visible (Bradstreet's), July 1..... | 31,817 | 24,168 | 19,290 | 9,966 | 20,342 | 29,403 | 38,597 | 31,803 |
| Stocks of flour (in terms of wheat), July 1..... | 7-114 | 8,024 | 8,240 | 6,651 | 7,461 | 10,048 | 9,207 | 8,168 |
| New crop..... | 677,927 | 690,108 | 844,605 | 814,905 | 867,598 | 797,881 | 802,027 | 699,365 |
| Imports (flour included), July 1 to June 30..... | 746 | 1,808 | 19,746 | 17,252 | 19,945 | 28,045 | 6,199 | ----- |
| Total supply..... | 791,027 | 781,980 | 951,509 | 932,648 | 976,461 | 937,888 | 984,236 | ----- |
| Distribution: | | | | | | | | |
| Exports (flour included), July 1-June 30..... | 152,623 | 104,967 | 255,011 | 279,407 | 221,923 | 156,430 | 258,023 | ----- |
| Reexports, July 1-June 30..... | 397 | 195 | 561 | 383 | 208 | 88 | 92 | ----- |
| Shipments (flour included) to Alaska, Hawaii, Porto Rico..... | 1,722 | 2,445 | 2,476 | 2,576 | 2,787 | 2,851 | 2,662 | ----- |
| Estimated seed requirements..... | 70,444 | 72,326 | 88,312 | 96,249 | 91,413 | 79,378 | 87,627 | ----- |
| Carry over on June 30— | | | | | | | | |
| On farms..... | 40,654 | 32,485 | 36,127 | 32,359 | 35,894 | 30,980 | 29,348 | ----- |
| In country mills and elevators..... | 25,400 | 31,600 | 26,449 | 28,756 | 37,117 | 36,626 | 25,287 | ----- |
| Commercial visible (Bradstreet's)..... | 28,668 | 25,326 | 18,265 | 20,342 | 29,403 | 38,597 | 31,803 | ----- |
| Flour (in terms of wheat)..... | 6,986 | 8,628 | 7,938 | 7,461 | 10,048 | 9,207 | 8,168 | ----- |
| Total distribution..... | 326,894 | 277,972 | 435,139 | 467,533 | 428,793 | 354,157 | 443,010 | ----- |
| Disappearance for food, feed, and loss..... | 464,133 | 504,008 | 516,370 | 465,115 | 547,668 | 583,731 | 541,226 | ----- |
| Population, Jan. 1..... | 82,614 | 94,378 | 102,880 | 108,541 | 109,956 | 111,371 | 112,786 | ----- |
| Per capita disappearance, food, feed, and loss, bushels..... | 5.6 | 5.3 | 5.0 | 4.3 | 5.0 | 5.2 | 4.8 | ----- |

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¹ Compiled from Chicago Daily Trade Bulletin. Stocks in country mills and elevators, from 1899-1918, are stocks in second hands less visible supply on July 1, as given by Chicago Daily Trade Bulletin.

TABLE 16.—Wheat: Farm stocks, supplies, and shipments, United States, 1909-1925

| Year begin- ning July 1 | Stocks in mills and elevators July 1 ¹ | Old stocks on farms July 1 ² | Crop | | | Total supplies (except visible) | Stocks on farms Mar. 1, follow- ing ³ | Stocks in mills and elevators Mar. 1, follow- ing ⁴ | Shipped out of country where grown ⁵ |
|----------------------------|--|--|-------------------|--------------------------------------|---------------------------|--|--|---|---|
| | | | Quant- ity | Weight per bushel ⁶ | Qual- ity ⁷ | | | | |
| | 1,000 bushels | 1,000 bushels | 1,000- bushels | Pounds | Per cent | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| 1909..... | 14,171 | 700,434 | 57.9 | 90.4 | 714,606 | 163,371 | ----- | 428,262 | |
| 1910..... | 35,725 | 635,121 | 58.5 | 92.1 | 671,846 | 162,708 | ----- | 352,921 | |
| 1911..... | 34,071 | 621,338 | 57.8 | 88.3 | 655,409 | 122,041 | 98,710 | 348,739 | |
| 1912..... | 23,876 | 730,267 | 58.3 | 90.0 | 754,143 | 156,471 | 118,400 | 449,881 | |
| 1913..... | 35,515 | 763,380 | 58.7 | 93.2 | 798,895 | 151,795 | 93,627 | 411,733 | |
| 1914..... | 32,236 | 891,017 | 58.0 | 89.7 | 923,253 | 152,908 | 85,955 | 541,198 | |
| 1915..... | 28,972 | 1,025,801 | 57.9 | 88.4 | 1,054,773 | 244,448 | 155,027 | 633,380 | |
| 1916..... | 74,731 | 636,318 | 57.1 | 87.0 | 711,049 | 100,650 | 89,178 | 361,088 | |
| 1917..... | 15,611 | 636,658 | 58.5 | 92.4 | 652,266 | 107,746 | 66,384 | 325,500 | |
| 1918..... | 8,063 | 921,438 | 58.8 | 93.1 | 929,501 | 128,703 | 107,037 | 541,666 | |
| 1919..... | 19,672 | 19,261 | 967,979 | 56.3 | 82.1 | 1,006,912 | 169,904 | 123,233 | 591,553 |
| 1920..... | 37,304 | 49,546 | 833,027 | 57.4 | 88.9 | 919,877 | 217,037 | 87,075 | 491,635 |
| 1921..... | 27,167 | 56,707 | 814,905 | 57.0 | 85.8 | 898,779 | 134,253 | 75,071 | 502,470 |
| 1922..... | 28,756 | 32,359 | 867,598 | 57.7 | 87.6 | 928,713 | 156,067 | 102,908 | 584,069 |
| 1923..... | 37,117 | 35,894 | 797,394 | 57.4 | 87.5 | 870,405 | 157,721 | 95,384 | 505,788 |
| 1924..... | 36,626 | 30,981 | 862,627 | 58.9 | 93.1 | 920,224 | 112,042 | 67,622 | 620,458 |
| 1925 ⁸ | 25,287 | 29,348 | 699,365 | 58.3 | 89.0 | 724,000 | 99,279 | 75,429 | 456,397 |

Division of Crop and Livestock Estimates. Prior to 1918 stocks in mills and elevators not included.

¹ Based on percentage of crop as estimated by about 3,500 mill and elevator operators.² Based on percentage of crop on farms as estimated by crop reporters.³ Based on estimates of crop reporters on Nov. 1.⁴ Percentage of "a high medium grade" as estimated by crop reporters at time of harvest.⁵ Based on percentage shipped out as estimated by crop reporters.⁶ Preliminary.

TABLE 17.—Wheat: Receipts and shipments, 11 primary markets, 1909-1925—Continued

[Thousands of bushels—1. e., 000 omitted]

| Year beginning July 1 | Detroit | | Kansas City | | Peoria | | Omaha | | Indianapolis | | Total | |
|----------------------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|
| | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments |
| 1909..... | 1,821 | 167 | 34,092 | 22,087 | 1,304 | 1,002 | (1) | (1) | (1) | (1) | 247,251 | 138,491 |
| 1910..... | 2,003 | 105 | 40,537 | 26,709 | 1,225 | 1,074 | (1) | (1) | (1) | (1) | 224,878 | 120,878 |
| 1911..... | 2,861 | 401 | 23,627 | 16,970 | 1,518 | 1,106 | 11,080 | 9,690 | 176 | 173 | 233,025 | 157,504 |
| 1912..... | 977 | 715 | 48,374 | 33,415 | 1,951 | 1,616 | 20,193 | 13,133 | 1,560 | 462 | 380,777 | 236,201 |
| 1913..... | 1,442 | 842 | 32,162 | 23,730 | 1,629 | 1,424 | 16,463 | 11,968 | 1,896 | 812 | 310,354 | 209,852 |
| Average 1909- 1913..... | 1,821 | 446 | 35,756 | 24,576 | 1,525 | 1,244 | 15,892 | 11,594 | 1,211 | 482 | 279,257 | 172,595 |
| 1914..... | 2,763 | 2,012 | 77,745 | 65,650 | 3,786 | 3,827 | 17,767 | 11,639 | 3,028 | 916 | 438,616 | 312,324 |
| 1915..... | 2,809 | 1,580 | 70,442 | 51,632 | 4,503 | 5,336 | 25,613 | 16,215 | 4,851 | 1,967 | 512,441 | 315,855 |
| 1916..... | 2,724 | 1,082 | 68,720 | 62,878 | 2,670 | 2,468 | 31,194 | 29,221 | 2,890 | 929 | 373,123 | 264,167 |
| 1917..... | 1,697 | 260 | 22,226 | 8,255 | 2,195 | 1,422 | 8,565 | 6,096 | 2,990 | 1,192 | 154,883 | 74,010 |
| 1918..... | 1,608 | 308 | 54,106 | 35,696 | 3,406 | 3,371 | 19,730 | 15,115 | 5,477 | 2,080 | 410,051 | 288,340 |
| 1919..... | 1,686 | 299 | 62,215 | 55,673 | 3,668 | 4,295 | 26,555 | 21,962 | 7,471 | 1,840 | 408,843 | 280,841 |
| 1920..... | 1,656 | 149 | 87,148 | 64,637 | 2,199 | 2,011 | 28,192 | 24,372 | 4,491 | 458 | 372,755 | 248,944 |
| Average 1914- 1920..... | 2,121 | 811 | 67,515 | 49,208 | 2,232 | 2,203 | 22,521 | 17,807 | 4,600 | 1,269 | 385,102 | 247,733 |
| 1921..... | 1,578 | 234 | 90,574 | 69,065 | 2,564 | 1,709 | 25,310 | 25,559 | 4,056 | 890 | 385,637 | 276,850 |
| 1922..... | 1,797 | 80 | 77,684 | 52,464 | 4,855 | 4,070 | 25,356 | 19,505 | 5,185 | 906 | 420,166 | 267,145 |
| 1923..... | 1,884 | 120 | 60,516 | 38,083 | 2,221 | 1,678 | 17,896 | 13,441 | 6,081 | 1,450 | 333,388 | 199,197 |
| 1924..... | 1,915 | 304 | 89,444 | 64,590 | 2,095 | 1,699 | 29,120 | 26,529 | 4,336 | 811 | 478,555 | 371,514 |
| 1924 | | | | | | | | | | | | |
| July..... | 43 | | 19,732 | 4,800 | 100 | 73 | 2,032 | 874 | 404 | 11 | 35,126 | 16,537 |
| August..... | 203 | 6 | 23,698 | 12,677 | 670 | 527 | 8,541 | 5,485 | 1,394 | 79 | 86,012 | 49,820 |
| September..... | 499 | 102 | 11,657 | 10,637 | 324 | 328 | 4,383 | 4,284 | 444 | 115 | 79,748 | 56,543 |
| October..... | 324 | 5 | 10,677 | 7,714 | 214 | 174 | 5,183 | 4,795 | 335 | 67 | 83,090 | 68,831 |
| November..... | 184 | 4 | 5,145 | 4,693 | 135 | 106 | 1,994 | 2,626 | 286 | 10 | 56,962 | 48,818 |
| December..... | 209 | 4 | 3,348 | 5,021 | 68 | 49 | 1,168 | 1,552 | 195 | 136 | 32,095 | 29,497 |
| 1925 | | | | | | | | | | | | |
| January..... | 130 | | 2,972 | 4,405 | 242 | 94 | 1,689 | 1,886 | 417 | 193 | 21,975 | 18,118 |
| February..... | 175 | 116 | 2,687 | 3,500 | 53 | 97 | 1,305 | 1,677 | 326 | 111 | 17,608 | 15,130 |
| March..... | 79 | 23 | 2,375 | 4,383 | 48 | 33 | 944 | 1,631 | 143 | 28 | 16,190 | 17,728 |
| April..... | 38 | 16 | 874 | 2,486 | 41 | 20 | 372 | 418 | 104 | 53 | 9,631 | 13,965 |
| May..... | 86 | 13 | 2,326 | 2,095 | 115 | 63 | 920 | 874 | 186 | 7 | 17,238 | 20,667 |
| June..... | 45 | 15 | 3,953 | 1,879 | 85 | 135 | 599 | 427 | 135 | 1 | 19,780 | 15,865 |
| July..... | 97 | | 10,624 | 4,513 | 191 | 138 | 2,462 | 961 | 1,199 | 36 | 35,971 | 20,634 |
| August..... | 144 | | 8,576 | 3,811 | 280 | 216 | 2,996 | 2,160 | 955 | 57 | 40,424 | 25,783 |
| September..... | 105 | | 4,550 | 2,511 | 272 | 266 | 1,688 | 1,770 | 299 | 26 | 56,846 | 27,184 |
| October..... | 74 | | 3,409 | 2,115 | 198 | 189 | 1,324 | 1,159 | 209 | 38 | 33,087 | 24,409 |
| November..... | 140 | 35 | 4,307 | 1,346 | 200 | 174 | 1,010 | 450 | 277 | 114 | 33,023 | 22,822 |
| December..... | 94 | 31 | 5,324 | 1,916 | 97 | 99 | 1,388 | 845 | 91 | 157 | 32,479 | 20,042 |

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1 No report

TABLE 18.—Wheat: Estimated requirements, surplus, and deficiency, by States, 1925-26

| Geographic division and State | Population, Jan. 1, 1926 | Estimated, per capita consumption | | Estimated requirements for food and feed, average 1920-1924 per capita basis | Estimated seed requirements ¹ | Total requirements, average 1920-1924 food and feed basis plus seed | December, 1925, production estimate | Surplus (+) or deficiency (-) for export and unaccounted disposition 1925-26, average 1920-1924 per capita basis |
|-------------------------------|--------------------------|-----------------------------------|---------------------------|--|--|---|-------------------------------------|--|
| | | 1911 ¹ | Average 1924 ² | | | | | |
| | | <i>Bushels</i> | <i>Bushels</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> |
| New England: | | | | | | | | |
| Maine..... | 788,383 | 4.7 | 4.2 | 3,311 | 12 | 3,323 | 168 | -3,155 |
| New Hampshire..... | 452,817 | 5.0 | 4.4 | 1,992 | ----- | 1,992 | ----- | -1,992 |
| Vermont..... | 352,428 | 5.4 | 4.8 | 1,692 | 4 | 1,696 | 42 | -1,654 |
| Massachusetts..... | 4,170,747 | 5.0 | 4.4 | 18,351 | ----- | 18,351 | ----- | -18,351 |
| Rhode Island..... | 686,027 | 4.3 | 3.8 | 2,007 | ----- | 2,007 | ----- | -2,007 |
| Connecticut..... | 1,589,089 | 4.6 | 4.0 | 6,356 | ----- | 6,356 | ----- | -6,356 |
| Middle Atlantic: | | | | | | | | |
| New York..... | 11,232,724 | 5.4 | 4.8 | 53,917 | 570 | 54,487 | 5,998 | -48,489 |
| New Jersey..... | 3,640,142 | 5.0 | 4.4 | 16,017 | 108 | 16,125 | 1,218 | -14,907 |
| Pennsylvania..... | 9,644,843 | 5.8 | 5.1 | 48,679 | 2,191 | 50,870 | 22,720 | -28,150 |
| E. North Central: | | | | | | | | |
| Ohio..... | 6,535,462 | 6.2 | 5.5 | 35,945 | 3,237 | 39,182 | 24,002 | -15,180 |
| Indiana..... | 3,109,558 | 6.7 | 5.0 | 15,548 | 2,640 | 18,188 | 25,700 | -7,512 |
| Illinois..... | 7,147,791 | 5.6 | 5.0 | 35,739 | 2,767 | 38,506 | 35,890 | -2,628 |
| Michigan..... | 4,339,766 | 5.0 | 4.4 | 19,095 | 1,529 | 20,624 | 13,996 | -6,628 |
| Wisconsin..... | 2,865,311 | 5.2 | 4.6 | 13,180 | 232 | 13,412 | 2,414 | -10,998 |
| W. North Central: | | | | | | | | |
| Minnesota..... | 2,631,005 | 7.2 | 6.4 | 16,838 | 3,207 | 20,045 | 29,110 | -9,065 |
| Iowa..... | 2,421,421 | 5.3 | 4.7 | 11,381 | 706 | 12,087 | 6,962 | -5,135 |
| Missouri..... | 3,490,936 | 5.2 | 4.6 | 16,058 | 1,674 | 17,732 | 22,077 | -4,345 |
| North Dakota..... | 641,192 | 7.2 | 6.4 | 4,104 | 12,967 | 17,071 | 112,378 | -95,307 |
| South Dakota..... | 685,303 | 6.5 | 5.8 | 3,975 | 3,675 | 7,650 | 32,378 | -24,728 |
| Nebraska..... | 1,377,936 | 6.8 | 6.1 | 7,027 | 4,167 | 11,194 | 34,160 | -22,966 |
| Kansas..... | 1,816,941 | 5.8 | 5.1 | 9,266 | 13,686 | 22,952 | 74,810 | -51,858 |
| South Atlantic: | | | | | | | | |
| Delaware..... | 238,965 | 5.0 | 4.4 | 1,051 | ----- | 1,051 | 1,906 | +855 |
| Maryland..... | 1,570,249 | 5.0 | 4.4 | 6,909 | 875 | 7,784 | 10,920 | -3,136 |
| District of Columbia..... | 520,937 | 5.3 | 4.7 | 2,448 | ----- | 2,448 | ----- | -2,448 |
| Virginia..... | 2,502,506 | 4.5 | 4.0 | 10,010 | 972 | 10,982 | 8,946 | -2,036 |
| West Virginia..... | 1,653,504 | 5.7 | 5.0 | 8,268 | 223 | 8,491 | 1,728 | -6,763 |
| North Carolina..... | 2,834,906 | 4.5 | 4.0 | 11,340 | 511 | 11,851 | 4,466 | -7,385 |
| South Carolina..... | 1,815,035 | 4.3 | 3.8 | 6,997 | 54 | 6,951 | 506 | -6,445 |
| Georgia..... | 3,120,243 | 4.0 | 3.5 | 10,921 | 118 | 11,039 | 1,040 | -9,999 |
| Florida..... | 1,290,355 | 4.6 | 4.0 | 5,161 | ----- | 5,161 | ----- | -5,161 |
| E. South Central: | | | | | | | | |
| Kentucky..... | 2,515,948 | 4.5 | 4.0 | 10,064 | 339 | 10,403 | 3,304 | -7,099 |
| Tennessee..... | 2,457,600 | 4.1 | 3.6 | 8,848 | 479 | 9,327 | 4,588 | -4,739 |
| Alabama..... | 2,512,291 | 4.0 | 3.5 | 8,798 | 10 | 8,808 | 77 | -8,726 |
| Mississippi..... | 1,790,618 | 4.0 | 3.5 | 6,267 | 10 | 6,277 | 90 | -6,187 |
| W. South Central: | | | | | | | | |
| Arkansas..... | 1,891,447 | 4.0 | 3.5 | 6,620 | 34 | 6,654 | 390 | -6,264 |
| Louisiana..... | 1,909,363 | 4.5 | 4.0 | 7,637 | ----- | 7,637 | ----- | -7,637 |
| Oklahoma..... | 2,318,306 | 6.0 | 5.3 | 12,287 | 6,125 | 18,412 | 28,282 | -9,870 |
| Texas..... | 5,262,742 | 5.4 | 4.8 | 25,261 | 1,976 | 27,237 | 6,552 | -20,685 |
| Mountain: | | | | | | | | |
| Montana..... | 683,715 | 5.8 | 5.1 | 3,487 | 5,236 | 8,723 | 34,601 | -25,878 |
| Idaho..... | 515,232 | 6.5 | 5.8 | 2,968 | 1,128 | 4,116 | 28,042 | -23,926 |
| Wyoming..... | 232,525 | 6.3 | 5.6 | 1,302 | 257 | 1,559 | 2,624 | -1,065 |
| Colorado..... | 1,049,682 | 6.0 | 5.3 | 5,568 | 2,352 | 7,915 | 14,532 | -6,617 |
| New Mexico..... | 386,036 | 7.9 | 7.0 | 2,702 | 210 | 2,912 | 492 | -2,420 |
| Arizona..... | 436,183 | 7.2 | 6.4 | 2,792 | 41 | 2,833 | 672 | -2,161 |
| Utah..... | 508,789 | 6.1 | 5.4 | 2,747 | 389 | 3,136 | 5,949 | -2,813 |
| Nevada..... | 77,407 | 6.1 | 5.4 | 418 | 24 | 442 | 468 | -26 |
| Pacific: | | | | | | | | |
| Washington..... | 1,524,254 | 6.0 | 5.3 | 8,079 | 3,053 | 11,132 | 36,840 | -25,708 |
| Oregon..... | 870,270 | 6.1 | 5.4 | 4,969 | 2,234 | 7,203 | 18,900 | -11,697 |
| California..... | 4,948,084 | 5.6 | 5.0 | 21,240 | 1,245 | 22,485 | 11,457 | -11,028 |
| United States..... | 116,256,965 | 5.31 | 4.70 | 545,877 | 81,577 | 627,454 | 669,365 | +41,911 |

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¹ The consumption figures in this column were obtained by a survey in 1911 by the Bureau of Crop Estimates.² The figures in this column shown for the individual States were computed on the ratio between the United States consumption in 1911 (5.31 bushels) and the per capita disappearance during the five years July, 1920-June 30, 1925 (4.701 bushels). The average disappearance for the latter period was 38.53 per cent of the 1911 disappearance.³ The seed requirements are based on the spring acreage of 1925 and the 1925 fall sowing according to the December, 1925, estimates. The rate of seeding in each State was applied to the acreage in that State.

TABLE 19.—Wheat: Visible supply in the United States, 1909-1925

CHICAGO BOARD OF TRADE¹

[Thousand bushels—i. e., 000 omitted]

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
|-----------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|
| 1909..... | 9,756 | 7,609 | 9,166 | 19,442 | 27,001 | 31,066 | 42,738 | 26,463 | 25,515 | 29,013 | 26,228 | 18,647 |
| 1910..... | 12,034 | 12,376 | 26,457 | 34,969 | 40,120 | 42,989 | 44,282 | 43,251 | 39,868 | 34,152 | 27,605 | 26,838 |
| 1911..... | 23,863 | 41,316 | 48,057 | 52,709 | 65,199 | 69,948 | 70,480 | 60,425 | 57,080 | 51,042 | 41,722 | 30,847 |
| 1912..... | 23,350 | 18,841 | 19,586 | 31,658 | 41,712 | 55,400 | 65,342 | 64,913 | 63,786 | 58,996 | 47,157 | 37,940 |
| 1913..... | 30,163 | 37,677 | 44,530 | 52,061 | 55,105 | 58,868 | 63,743 | 60,806 | 57,021 | 51,892 | 43,378 | 29,775 |
| Av. 1909-1913..... | 19,833 | 23,564 | 29,559 | 38,168 | 45,827 | 51,658 | 54,319 | 51,172 | 48,654 | 45,013 | 37,218 | 28,809 |
| 1914..... | 13,248 | 29,744 | 31,534 | 51,596 | 65,922 | 74,086 | 72,861 | 60,252 | 49,686 | 39,323 | 26,439 | 19,062 |
| 1915..... | 7,948 | 6,582 | 7,767 | 15,900 | 22,639 | 48,797 | 67,311 | 65,458 | 63,553 | 57,387 | 48,864 | 44,463 |
| 1916..... | 42,628 | 40,889 | 54,660 | 57,418 | 60,703 | 62,026 | 59,534 | 48,721 | 44,916 | 39,317 | 25,756 | 28,896 |
| 1917..... | 14,209 | 5,819 | 5,058 | 7,789 | 14,908 | 21,031 | 18,936 | 13,869 | 9,739 | 5,381 | 2,194 | 1,146 |
| 1918..... | 785 | 17,155 | 48,821 | 90,623 | 122,604 | 121,561 | 119,711 | 130,613 | 118,219 | 92,546 | 49,502 | 23,702 |
| 1919..... | 8,681 | 20,903 | 56,828 | 84,909 | 96,352 | 89,742 | 75,363 | 60,359 | 50,875 | 44,787 | 42,784 | 37,101 |
| 1920..... | 19,799 | 17,487 | 20,758 | 27,391 | 35,500 | 43,127 | 43,063 | 34,212 | 28,159 | 18,463 | 13,448 | 8,334 |
| Av. 1914-1920..... | 15,328 | 19,797 | 32,204 | 47,945 | 59,804 | 65,767 | 65,254 | 59,496 | 52,164 | 42,458 | 29,855 | 23,246 |
| 1921..... | 8,061 | 24,658 | 38,741 | 52,705 | 54,333 | 47,763 | 49,468 | 42,290 | 40,055 | 35,897 | 31,281 | 26,341 |
| 1922..... | 17,773 | 19,667 | 27,349 | 32,354 | 32,278 | 33,428 | 37,673 | 46,776 | 47,507 | 45,785 | 44,521 | 32,981 |
| 1923..... | 26,312 | 36,693 | 56,541 | 63,932 | 69,189 | 71,808 | 71,852 | 67,162 | 64,072 | 59,649 | 51,461 | 43,111 |
| 1924..... | 34,901 | 41,734 | 69,119 | 81,897 | 89,902 | 100,363 | 91,492 | 77,510 | 70,677 | 57,434 | 45,681 | 34,968 |
| 1925..... | 26,670 | 29,655 | 32,566 | 49,371 | 43,920 | 44,780 | | | | | | |

BRADSTREET'S²

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
|-----------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|--------|--------|
| 1909..... | 12,771 | 12,611 | 15,514 | 28,589 | 37,820 | 41,688 | 37,949 | 36,638 | 34,461 | 37,558 | 33,771 | 24,795 |
| 1910..... | 16,396 | 17,053 | 38,352 | 48,437 | 53,420 | 57,002 | 59,369 | 56,357 | 50,566 | 42,697 | 34,656 | 32,769 |
| 1911..... | 29,639 | 40,389 | 54,581 | 61,500 | 73,792 | 81,215 | 81,501 | 70,748 | 66,982 | 59,826 | 48,022 | 35,094 |
| 1912..... | 27,615 | 23,595 | 26,862 | 40,998 | 52,494 | 67,575 | 77,471 | 76,131 | 73,895 | 69,000 | 53,508 | 43,687 |
| 1913..... | 34,420 | 43,196 | 51,960 | 61,485 | 66,663 | 72,061 | 74,854 | 71,264 | 66,191 | 59,631 | 49,327 | 33,602 |
| Av. 1909-1913..... | 24,168 | 28,569 | 37,458 | 48,202 | 56,838 | 63,908 | 66,229 | 62,228 | 58,419 | 53,802 | 43,857 | 34,183 |
| 1914..... | 17,136 | 36,456 | 39,964 | 61,784 | 76,262 | 86,332 | 85,957 | 81,776 | 58,923 | 46,287 | 31,407 | 22,871 |
| 1915..... | 10,734 | 9,361 | 12,679 | 22,498 | 33,338 | 60,678 | 60,150 | 77,834 | 73,748 | 66,691 | 57,658 | 52,512 |
| 1916..... | 50,515 | 49,591 | 65,754 | 70,420 | 75,455 | 76,191 | 73,584 | 59,477 | 54,160 | 48,525 | 32,831 | 34,876 |
| 1917..... | 19,901 | 11,692 | 10,315 | 13,072 | 22,855 | 29,633 | 26,476 | 20,436 | 15,484 | 10,180 | 6,656 | 4,379 |
| 1918..... | 2,465 | 20,462 | 54,236 | 98,155 | 131,852 | 131,584 | 129,627 | 140,607 | 127,207 | 100,605 | 55,247 | 27,626 |
| 1919..... | 10,873 | 25,968 | 65,479 | 95,550 | 107,783 | 101,058 | 85,117 | 68,494 | 58,632 | 51,909 | 47,756 | 41,233 |
| 1920..... | 23,404 | 20,226 | 24,195 | 32,169 | 41,596 | 48,273 | 47,797 | 38,475 | 31,945 | 22,229 | 17,584 | 10,598 |
| Av. 1914-1920..... | 19,290 | 24,822 | 38,946 | 56,235 | 69,877 | 76,250 | 75,530 | 68,586 | 60,014 | 49,475 | 35,591 | 27,728 |
| 1921..... | 9,966 | 28,727 | 47,159 | 62,758 | 62,767 | 53,507 | 56,776 | 48,802 | 46,714 | 42,287 | 36,044 | 31,497 |
| 1922..... | 20,342 | 23,077 | 32,479 | 38,025 | 39,023 | 39,764 | 43,856 | 53,823 | 54,562 | 51,862 | 49,521 | 37,203 |
| 1923..... | 29,408 | 40,526 | 63,922 | 72,630 | 79,034 | 82,269 | 84,030 | 75,111 | 72,914 | 66,739 | 60,393 | 48,696 |
| 1924..... | 38,597 | 46,193 | 79,700 | 92,363 | 100,712 | 108,997 | 99,121 | 84,416 | 76,437 | 62,766 | 49,629 | 38,328 |
| 1925..... | 28,285 | 34,041 | 39,800 | 56,639 | 52,394 | 52,686 | | | | | | |

¹ Division of Statistical and Historical Research.² Compiled from the annual reports of the Chicago Board of Trade to December, 1922. January, 1923, to date from the Chicago Daily Trade Bulletin. Reported on the Saturday nearest the first of the month. The Chicago Board of Trade "visible" includes grain stored east of the Rockies only. It covers 22 interior and seaboard points of large accumulation and grain in transit by canals and lakes.³ From the Chicago Daily Trade Bulletin.⁴ Compiled from Bradstreet's. Includes grain stored at approximately fifty interior and seaboard points of accumulation and grain in transit by canals and lakes; also Pacific coast stocks at Portland, Tacoma, and Seattle. Reported on the Saturday nearest the first of the month.

TABLE 20.—Wheat: Classification of cars graded by licensed inspectors, all inspection points

| Year beginning July 1 | Receipts | | | | | | | | | | Shipments | | | | | | | | | |
|--|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|----------|----------|----------|----------|--|--|--|--|--|
| | Total of all classes and subclasses under each grade, by cars, annual inspections 1917-1924 | | | | | | | | | | Total of all classes and subclasses under each grade, by cars, annual inspections 1917-1924 | | | | | | | | | |
| | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | Sample | Total | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | Sample | Total | | | | | | |
| Class | | | | | | | | | | | | | | | | | | | | |
| 1917 | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | | | | | |
| 1918 | 60,848 | 91,143 | 59,421 | 23,435 | 15,766 | 15,402 | 266,015 | 17,926 | 26,559 | 17,833 | 6,503 | 4,299 | 3,625 | 76,745 | Cars | | | | | |
| 1919 | 300,264 | 203,965 | 63,827 | 101,270 | 10,017 | 18,247 | 622,980 | 246,577 | 87,173 | 143,770 | 18,460 | 1,519 | 3,181 | 357,052 | Cars | | | | | |
| 1920 | 45,427 | 192,003 | 187,533 | 101,270 | 40,423 | 28,799 | 604,464 | 16,902 | 143,770 | 86,744 | 18,460 | 6,335 | 4,648 | 276,559 | Cars | | | | | |
| 1921 | 153,080 | 241,329 | 124,184 | 49,703 | 38,367 | 69,675 | 656,337 | 44,537 | 268,752 | 44,407 | 9,889 | 8,980 | 7,724 | 384,539 | Cars | | | | | |
| 1922 | 91,844 | 290,259 | 147,537 | 51,703 | 27,690 | 59,290 | 647,374 | 21,414 | 255,512 | 34,243 | 7,864 | 4,753 | 11,662 | 335,448 | Cars | | | | | |
| 1923 | 138,020 | 210,327 | 131,368 | 48,466 | 15,028 | 38,998 | 583,005 | 28,387 | 226,008 | 37,610 | 6,421 | 2,823 | 6,495 | 307,744 | Cars | | | | | |
| 1924 | 107,481 | 153,353 | 101,759 | 43,857 | 24,069 | 24,984 | 465,573 | 45,617 | 137,406 | 28,200 | 5,605 | 4,973 | 5,816 | 227,713 | Cars | | | | | |
| 1924 | 191,525 | 263,763 | 97,533 | 43,746 | 10,298 | 18,559 | 625,477 | 104,344 | 260,291 | 14,293 | 4,160 | 2,194 | 3,617 | 388,899 | Cars | | | | | |
| Total inspections, by grade and class, July 1, 1924, to June 30, 1925 | | | | | | | | | | | | | | | | | | | | |
| Hard Red Spring | 78,680 | 19,206 | 13,018 | 8,758 | 1,817 | 2,291 | 123,800 | 72,426 | 6,932 | 2,487 | 1,242 | 285 | 565 | 83,937 | Cars | | | | | |
| Durum | 6,575 | 17,205 | 5,423 | 4,287 | 4,479 | 912 | 34,831 | 1,411 | 24,757 | 672 | 115 | 27 | 48 | 27,060 | Cars | | | | | |
| Hard Red Winter | 79,421 | 182,837 | 62,800 | 16,890 | 4,788 | 10,215 | 346,450 | 24,903 | 192,387 | 7,028 | 1,323 | 991 | 1,263 | 227,855 | Cars | | | | | |
| Soft Red Winter | 7,710 | 10,792 | 12,096 | 6,422 | 1,610 | 2,787 | 50,417 | 2,142 | 17,968 | 2,602 | 737 | 374 | 522 | 24,346 | Cars | | | | | |
| White | 2,000 | 6,990 | 1,956 | 1,956 | 272 | 170 | 17,542 | 213 | 4,606 | 309 | 36 | 1 | 7 | 5,172 | Cars | | | | | |
| Mixed | 17,139 | 17,763 | 8,032 | 5,987 | 1,332 | 2,184 | 52,437 | 3,349 | 13,631 | 1,195 | 707 | 516 | 1,181 | 20,579 | Cars | | | | | |
| Total of all classes and subclasses under each grade, by percentages, annual inspections 1917-1924 | | | | | | | | | | | | | | | | | | | | |
| 1917 | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | | | | | |
| 1918 | 22.9 | 34.3 | 22.3 | 8.8 | 5.9 | 3.8 | 100 | 23.4 | 34.6 | 23.2 | 8.3 | 5.6 | 4.7 | 100 | Per cent | | | | | |
| 1919 | 45.2 | 31.6 | 10.2 | 4.3 | 1.6 | 2.9 | 3.0 | 69.1 | 34.4 | 31.3 | 1.7 | 0.4 | 0.9 | 100 | Per cent | | | | | |
| 1920 | 7.5 | 31.8 | 16.7 | 16.7 | 8.2 | 4.8 | 100 | 6.0 | 52.0 | 31.3 | 2.3 | 2.3 | 1.7 | 100 | Per cent | | | | | |
| 1921 | 23.3 | 36.8 | 18.9 | 7.6 | 3.8 | 7.6 | 100 | 11.7 | 94.9 | 11.5 | 2.6 | 2.3 | 2.0 | 100 | Per cent | | | | | |
| 1922 | 14.2 | 41.6 | 22.8 | 8.0 | 4.3 | 9.1 | 100 | 6.4 | 76.2 | 12.2 | 2.3 | 1.9 | 2.1 | 100 | Per cent | | | | | |
| 1923 | 22.7 | 36.1 | 22.5 | 8.3 | 2.7 | 6.7 | 100 | 8.2 | 73.5 | 12.7 | 2.5 | 2.2 | 2.6 | 100 | Per cent | | | | | |
| 1924 | 23.1 | 35.1 | 21.8 | 9.4 | 5.2 | 5.4 | 100 | 20.0 | 60.3 | 12.7 | 2.5 | 2.2 | 2.6 | 100 | Per cent | | | | | |
| 1924 | 30.6 | 42.2 | 15.6 | 7.0 | 1.6 | 3.0 | 100 | 26.8 | 66.9 | 3.7 | 1.1 | 0.6 | 0.9 | 100 | Per cent | | | | | |
| Total inspections, by grade and class, July 1, 1924, to June 30, 1925 | | | | | | | | | | | | | | | | | | | | |
| Hard Red Spring | 63.6 | 15.6 | 10.5 | 7.1 | 1.5 | 1.8 | 100 | 86.3 | 8.2 | 3.0 | 1.5 | 0.3 | 0.7 | 100 | Per cent | | | | | |
| Durum | 18.9 | 40.4 | 15.6 | 12.1 | 1.4 | 2.6 | 100 | 5.2 | 91.6 | 2.5 | 0.4 | 0.1 | 0.2 | 100 | Per cent | | | | | |
| Hard Red Winter | 22.9 | 52.8 | 15.2 | 4.7 | 1.4 | 3.0 | 100 | 10.9 | 84.4 | 3.1 | 0.6 | 0.4 | 0.6 | 100 | Per cent | | | | | |
| Soft Red Winter | 15.3 | 30.3 | 24.0 | 12.7 | 3.2 | 5.5 | 100 | 8.8 | 73.8 | 10.7 | 3.0 | 1.5 | 2.2 | 100 | Per cent | | | | | |
| White | 11.4 | 30.5 | 35.4 | 11.1 | 1.6 | 1.0 | 100 | 4.1 | 89.1 | 6.0 | 0.7 | 2.5 | 0.1 | 100 | Per cent | | | | | |
| Mixed | 32.7 | 33.9 | 15.3 | 11.4 | 2.5 | 4.2 | 100 | 75.3 | 66.2 | 5.8 | 3.4 | 2.5 | 5.8 | 100 | Per cent | | | | | |
| Grain Division. | | | | | | | | | | | | | | | | | | | | |

Grain Division.

TABLE 21.—Dockage assessed on wheat at Minnesota markets, 1909-1924

| Year beginning Sept. 1 | Number of cars on which dockage is assessed | Amount of wheat in cars ¹ | Amount of dockage assessed ² | Per cent. of dockage assessed | Year beginning Sept. 1 | Number of cars on which dockage is assessed | Amount of wheat in cars ¹ | Amount of dockage assessed ² | Per cent. of dockage assessed |
|------------------------|---|--------------------------------------|---|-------------------------------|------------------------|---|--------------------------------------|---|-------------------------------|
| | <i>Cars</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Per ct.</i> | | <i>Cars</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Per ct.</i> |
| 1909..... | 150,699 | 195,908,700 | 5,354,837.8 | 2.7 | 1917..... | 88,830 | 115,479,000 | 4,041,765.0 | 3.5 |
| 1910..... | 91,995 | 119,593,600 | 2,272,276.5 | 1.9 | 1918..... | 157,452 | 204,687,600 | 4,776,044.0 | 2.3 |
| 1911..... | 103,399 | 134,418,700 | 4,054,964.1 | 3.0 | 1919..... | 85,657 | 111,354,100 | 5,010,934.5 | 4.5 |
| 1912..... | 182,800 | 237,640,000 | 6,495,493.3 | 2.7 | 1920..... | 127,976 | 166,308,900 | 7,486,598.0 | 4.5 |
| 1913..... | 137,483 | 178,727,900 | 6,553,356.3 | 3.7 | 1921..... | 107,452 | 139,687,600 | 5,343,060.7 | 3.8 |
| 1914..... | 126,897 | 164,966,100 | 5,911,235.2 | 3.6 | 1922..... | 138,668 | 180,268,400 | 7,589,299.6 | 4.2 |
| 1915..... | 219,165 | 284,914,500 | 10,826,761.0 | 3.8 | 1923..... | 97,469 | 133,801,162 | 7,091,452.0 | 5.3 |
| 1916..... | 94,942 | 123,424,000 | 5,986,093.1 | 4.8 | 1924..... | 161,426 | 219,377,934 | 7,311,867.0 | 3.3 |

Division of Statistical and Historical Research. Compiled from Minnesota State Grain Inspection Department data.

¹Based on 1,300 bushels to the car, from 1909-1922; on number of cars and total wheat, 1923-24.

²Based on 60 pounds to bushel.

TABLE 22.—Wheat, and wheat including flour: Domestic, exports from the United States by months, 1910-1925

[Thousand bushels—i. e., 000 omitted]

WHEAT

| Year ended June 30 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | 2,783 | 6,157 | 7,156 | 8,566 | 8,427 | 3,737 | 1,428 | 1,106 | 1,204 | 2,953 | 2,487 | 626 | 45,690 |
| 1911..... | 862 | 2,131 | 2,228 | 3,200 | 2,506 | 3,409 | 2,802 | 1,349 | 1,883 | 1,815 | 1,371 | 616 | 23,720 |
| 1912..... | 3,260 | 6,253 | 5,088 | 3,350 | 2,299 | 3,084 | 2,043 | 1,243 | 1,352 | 1,386 | 603 | 199 | 30,100 |
| 1913..... | 545 | 5,800 | 13,153 | 15,255 | 10,584 | 9,490 | 8,441 | 4,356 | 4,896 | 6,060 | 7,159 | 5,661 | 91,603 |
| 1914..... | 9,404 | 24,348 | 11,971 | 7,434 | 3,852 | 5,737 | 4,968 | 3,947 | 3,457 | 3,066 | 6,810 | 7,395 | 92,394 |
| A. v. 1910-1914..... | 3,371 | 8,987 | 7,919 | 7,573 | 5,533 | 5,087 | 3,940 | 2,412 | 2,493 | 3,062 | 3,680 | 2,900 | 56,913 |
| 1915..... | 26,337 | 24,341 | 25,867 | 19,578 | 10,182 | 28,874 | 24,088 | 24,432 | 20,541 | 22,758 | 14,227 | 9,396 | 259,643 |
| 1916..... | 7,366 | 11,838 | 21,526 | 18,040 | 13,500 | 12,624 | 13,461 | 15,084 | 17,293 | 16,509 | 14,571 | 5,906 | 173,774 |
| 1917..... | 6,355 | 10,000 | 13,108 | 11,985 | 14,279 | 14,473 | 18,906 | 10,394 | 7,886 | 14,233 | 11,359 | 15,804 | 149,831 |
| 1918..... | 5,069 | 5,170 | 2,613 | 5,415 | 4,878 | 4,491 | 1,914 | 1,048 | 1,687 | 1,024 | 353 | 467 | 34,119 |
| 1919..... | 225 | 15,120 | 26,848 | 31,319 | 16,067 | 25,084 | 9,943 | 5,992 | 10,208 | 17,338 | 14,029 | 16,390 | 178,553 |
| 1920..... | 5,834 | 12,941 | 17,090 | 13,687 | 15,116 | 9,620 | 8,480 | 4,938 | 6,939 | 4,176 | 10,864 | 12,846 | 122,431 |
| 1921..... | 23,838 | 27,694 | 30,771 | 35,803 | 26,035 | 25,908 | 21,345 | 18,469 | 14,601 | 17,642 | 25,932 | 25,235 | 293,268 |
| A. v. 1915-1921..... | 10,804 | 16,166 | 19,689 | 17,976 | 15,582 | 17,282 | 14,019 | 11,474 | 11,308 | 13,382 | 13,048 | 12,292 | 173,021 |
| 1922..... | 24,842 | 58,537 | 30,842 | 18,206 | 13,955 | 10,451 | 10,038 | 5,577 | 7,645 | 4,856 | 9,366 | 14,008 | 208,321 |
| 1923..... | 14,979 | 33,703 | 25,967 | 18,282 | 10,577 | 9,676 | 7,207 | 5,991 | 4,291 | 4,943 | 9,973 | 9,252 | 154,961 |
| 1924..... | 8,843 | 14,198 | 15,408 | 9,239 | 4,148 | 4,960 | 4,421 | 3,095 | 2,958 | 3,747 | 2,811 | 4,975 | 78,793 |
| 1925..... | 4,048 | 10,835 | 32,662 | 45,128 | 27,831 | 17,791 | 8,484 | 7,387 | 9,960 | 8,424 | 9,870 | 7,070 | 195,490 |
| 1926..... | 5,295 | 7,901 | 9,391 | 4,354 | 4,696 | 3,695 | | | | | | | |

WHEAT, INCLUDING FLOUR, IN TERMS OF GRAIN¹

| Year ended June 30 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | 4,629 | 8,835 | 12,472 | 13,898 | 12,996 | 9,126 | 4,973 | 3,527 | 3,737 | 5,230 | 4,977 | 2,864 | 87,364 |
| 1911..... | 3,132 | 4,948 | 6,185 | 7,451 | 6,755 | 8,043 | 5,128 | 5,128 | 5,617 | 5,242 | 5,822 | 3,958 | 69,312 |
| 1912..... | 6,276 | 10,176 | 10,760 | 8,233 | 6,576 | 7,981 | 5,816 | 5,031 | 5,853 | 4,928 | 3,385 | 3,149 | 79,099 |
| 1913..... | 3,008 | 9,111 | 16,907 | 20,746 | 16,154 | 14,488 | 13,446 | 9,194 | 8,800 | 10,819 | 11,789 | 9,149 | 142,880 |
| 1914..... | 12,965 | 28,248 | 17,513 | 13,111 | 9,617 | 10,621 | 9,704 | 7,555 | 6,952 | 7,040 | 10,915 | 11,247 | 145,600 |
| A. v. 1910-1914..... | 6,002 | 12,244 | 12,771 | 12,806 | 10,419 | 10,052 | 8,188 | 6,087 | 6,193 | 6,761 | 7,461 | 6,074 | 104,967 |
| 1915..... | 30,174 | 27,618 | 31,433 | 25,664 | 28,867 | 37,122 | 32,027 | 31,428 | 28,145 | 26,224 | 20,288 | 13,446 | 332,465 |
| 1916..... | 11,681 | 20,436 | 26,801 | 23,769 | 19,264 | 20,416 | 20,892 | 21,066 | 24,071 | 22,424 | 12,423 | 12,221 | 243,117 |
| 1917..... | 10,553 | 14,819 | 18,106 | 16,151 | 18,006 | 15,689 | 24,003 | 13,550 | 12,439 | 18,506 | 16,221 | 21,358 | 203,574 |
| 1918..... | 8,422 | 9,736 | 7,182 | 11,522 | 10,614 | 15,301 | 12,450 | 10,452 | 12,207 | 12,664 | 10,915 | 11,378 | 152,579 |
| 1919..... | 11,154 | 19,496 | 28,248 | 34,631 | 21,980 | 33,589 | 22,103 | 15,842 | 20,314 | 31,129 | 26,308 | 32,628 | 257,472 |
| 1920..... | 18,624 | 30,120 | 25,020 | 20,979 | 23,306 | 15,128 | 12,274 | 10,881 | 16,881 | 13,721 | 25,889 | 21,754 | 219,965 |
| 1921..... | 34,655 | 32,674 | 34,964 | 43,083 | 30,989 | 30,186 | 27,105 | 23,074 | 20,766 | 24,801 | 31,624 | 32,177 | 366,077 |
| A. v. 1915-1921..... | 17,182 | 20,742 | 24,492 | 23,662 | 21,593 | 24,383 | 21,551 | 18,006 | 19,260 | 21,738 | 21,601 | 20,111 | 255,011 |
| 1922..... | 30,413 | 66,963 | 38,950 | 25,211 | 19,563 | 15,015 | 15,011 | 10,991 | 14,374 | 10,449 | 14,267 | 18,200 | 576,407 |
| 1923..... | 19,124 | 35,964 | 31,830 | 26,077 | 17,578 | 16,428 | 12,519 | 12,197 | 10,726 | 10,196 | 14,396 | 12,881 | 221,923 |
| 1924..... | 12,822 | 19,029 | 22,465 | 18,552 | 12,147 | 13,000 | 12,143 | 10,019 | 9,574 | 8,416 | 7,300 | 287 | 156,430 |
| 1925..... | 7,600 | 21,106 | 36,244 | 53,463 | 35,102 | 24,326 | 12,928 | 11,597 | 16,202 | 12,721 | 12,976 | 10,758 | 258,023 |
| 1926..... | 5,789 | 11,823 | 12,992 | 8,910 | 8,621 | 8,265 | | | | | | | |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States, July, 1910-December, 1925.

¹Includes exports of flour milled from Canadian wheat imported in bond. Does not include reexports.

TABLE 23.—*Wheat, flour not included: Imports into the United States from Canada, 1914-1926*¹

[Thousand bushels—1. c., 000 omitted]

| Year ended June 30 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|--------------------|-------|------------------|------------------|-------|-------|--------|-------|-------|-------|-------|-------|-------|--------|
| 1914..... | 4 | (²) | (²) | 231 | 104 | 127 | 885 | 175 | 235 | 13 | 73 | 43 | 1,800 |
| 1915..... | 35 | 69 | 7 | 3 | 102 | 5 | 14 | 47 | 35 | 13 | 19 | 21 | 270 |
| 1916..... | 60 | 441 | 348 | 1,755 | 796 | 470 | 386 | 218 | 194 | 258 | 504 | 243 | 5,673 |
| 1917..... | 128 | 394 | 943 | 1,507 | 2,606 | 838 | 805 | 1,837 | 2,993 | 3,125 | 5,459 | 3,574 | 23,709 |
| 1918..... | 1,954 | 1,398 | 840 | 1,712 | 5,674 | 3,732 | 7,339 | 27 | 218 | 71 | 958 | 761 | 24,684 |
| 1919..... | 508 | 24 | 27 | 55 | 176 | 168 | 39 | 42 | 44 | 281 | 1,474 | 1,893 | 4,731 |
| 1920..... | 118 | 28 | 143 | 564 | 404 | 309 | 753 | 534 | 526 | 50 | 410 | 124 | 3,963 |
| 1921..... | 36 | 170 | 1,842 | 9,800 | 9,522 | 11,185 | 4,504 | 4,403 | 2,671 | 4,564 | 1,902 | 89 | 50,698 |
| 1922..... | 713 | 239 | 81 | 878 | 1,184 | 2,062 | 3,120 | 199 | 2,673 | 483 | 1,231 | 1,610 | 14,463 |
| 1923..... | 3,070 | 1,152 | 782 | 2,566 | 3,176 | 2,616 | 252 | 211 | 345 | 2,812 | 946 | 122 | 18,050 |
| 1924..... | 1,838 | 596 | 1,234 | 2,832 | 5,264 | 3,050 | 2,958 | 2,413 | 2,574 | 2,209 | 1,364 | 949 | 27,276 |
| 1925..... | 1,240 | 46 | 309 | 420 | 346 | 702 | 381 | 1,527 | 61 | 374 | 712 | 96 | 6,106 |
| 1926..... | 722 | 699 | 1,371 | 3,049 | 2,892 | 2,065 | | | | | | | |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States, July, 1914-December, 1925.

¹ Includes all imports, free, dutiable, or in bond.

² Less than 500 bushels.

TABLE 24.—*Wheat: Imports from Canada; for consumption, duty paid; for milling in bond and export; and imports on which drawback has been allowed, June 1, 1921, to December 31, 1925.*

| Year | General imports from Canada | Imports for consumption (duty paid) | Imports on which drawback was allowed ¹ | Imports for milling in bond and export |
|-------------------------------------|-----------------------------|-------------------------------------|--|--|
| 2021-22 | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> |
| June-September..... | 1,123,947 | 676,585 | 4,638 | 2,190,180 |
| October-December..... | 4,115,128 | 2,897,579 | | 2,323,332 |
| January-March..... | 5,992,151 | 2,206,737 | | 1,659,325 |
| April-June..... | 3,323,971 | 2,674,677 | | |
| Total..... | 14,555,197 | 8,455,578 | 4,638 | 6,172,837 |
| 2022-23 | | | | |
| July-September..... | 5,003,783 | 2,513,575 | | 2,444,891 |
| October-December..... | 8,322,154 | 3,165,026 | | 3,098,888 |
| January-March..... | 805,785 | 1,045,155 | | 1,501,964 |
| April-June..... | 3,879,745 | 684,394 | | 1,335,044 |
| Total..... | 18,012,467 | 7,408,150 | | 9,280,787 |
| 2023-24 | | | | |
| July-September..... | 3,666,490 | 1,052,563 | 3,201 | 2,711,185 |
| October-December..... | 11,146,796 | 5,945,148 | 9,594 | 4,440,299 |
| January-March..... | 7,942,481 | 4,884,572 | | 3,038,703 |
| April-June..... | 4,621,077 | 1,798,651 | 5,320 | 3,694,550 |
| Total..... | 27,276,774 | 13,680,934 | 18,115 | 13,904,737 |
| 2024-25 | | | | |
| July-September..... | 1,595,364 | 42,856 | 34,613 | 1,570,182 |
| October-December..... | 1,469,979 | 168,396 | 983 | 1,156,394 |
| January-March..... | 1,919,128 | 34,432 | | 1,501,977 |
| April-June..... | 1,184,553 | 24,768 | 12,906 | 1,685,572 |
| Total..... | 6,169,024 | 270,452 | 48,493 | 5,814,115 |
| 2025-26 | | | | |
| July-September..... | 2,791,922 | 41,062 | (²) | 2,750,299 |
| October-December..... | 3,142,106 | 1,205,061 | (²) | 6,901,721 |
| Total (8 months) ⁴ | 10,984,028 | 1,246,723 | (²) | 9,551,960 |

Division of Statistical and Historical Research. Compiled from official records of the Bureau of Foreign and Domestic Commerce.

¹ Included in imports for consumption.

² Four months; emergency tariff act became effective May 23, 1921.

³ None reported for this period.

⁴ Preliminary.

TABLE 25.—Wheat, including flour: Exports from the United States, by customs district groups, 1923-1925

| Customs district groups | Year ended June 30 | | | | | | | | |
|---|-------------------------|-------------------------|-------------------------|---------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|
| | Wheat | | | Wheat flour | | | Wheat, including flour | | |
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Canadian border and Lake ports ¹ | 1,000 bushels 32,371 | 1,000 bushels 17,964 | 1,000 bushels 55,766 | 1,000 barrels 44 | 1,000 barrels 83 | 1,000 barrels 43 | 1,000 bushels 32,571 | 1,000 bushels 18,338 | 1,000 bushels 55,960 |
| Atlantic coast ² | 53,790 | 12,987 | 53,004 | 6,897 | 6,228 | 6,591 | 84,827 | 41,011 | 82,665 |
| Gulf coast ³ | 48,239 | 13,508 | 69,200 | 3,478 | 3,946 | 4,835 | 63,887 | 31,274 | 90,957 |
| Mexican border ⁴ | 726 | 1,587 | 143 | 92 | 198 | 62 | 1,140 | 2,481 | 423 |
| Pacific coast ⁵ | 19,825 | 32,747 | 17,377 | 4,372 | 6,795 | 2,365 | 39,498 | 63,328 | 28,019 |
| Total exports..... | 154,951 | 78,793 | 195,490 | 14,883 | 17,253 | 13,896 | 221,923 | 156,430 | 258,094 |

Division of Statistical and Historical Research. Compiled from official records of the Bureau of Foreign and Domestic Commerce, 1923-1925.

¹ Includes Montana and Idaho, Dakota, Duluth and Superior, Wisconsin, Michigan, Chicago, Vermont, St. Lawrence, Buffalo, Ohio, Minnesota.

² Includes Maine and New Hampshire, New York, Philadelphia, Maryland, Virginia, South Carolina, Georgia, Porto Rico, Connecticut, Rhode Island, Massachusetts.

³ Includes Florida, Mobile, New Orleans, Sabine, Galveston.

⁴ Includes Arizona, San Antonio, El Paso.

⁵ Includes San Diego, Los Angeles, San Francisco, Oregon, Washington, Alaska, and Hawaii.

TABLE 26.—Wheat: Production, and inspection for export, by classes, United States, July, 1921, to December, 1925

[Thousand bushels—i. e., 000 omitted]

| Class ¹ | Year beginning July 1 | | | | | | | | July-December, 1925 | |
|--------------------------|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|
| | 1921 | | 1922 | | 1923 | | 1924 | | Estimated production ¹ | Inspections of United States wheat for export |
| | Estimated production ¹ | Inspections of United States wheat for export | Estimated production ¹ | Inspections of United States wheat for export | Estimated production ¹ | Inspections of United States wheat for export | Estimated production ¹ | Inspections of United States wheat for export | | |
| Hard Red Spring Durum | 131,075 | 20,145 | 169,615 | 8,718 | 126,876 | 1,022 | 202,270 | 16,760 | 153,950 | 2,761 |
| Hard Red Winter | 56,971 | 8,697 | 90,819 | 12,271 | 55,256 | 4,908 | 71,138 | 5,945 | 68,655 | 1,977 |
| Soft Red Winter | 290,053 | 78,477 | 279,957 | 51,654 | 241,851 | 19,640 | 313,303 | 90,840 | 186,035 | 6,304 |
| White ² | 237,393 | 18,998 | 247,882 | 20,846 | 271,631 | 9,810 | 220,980 | 6,944 | 188,805 | 1,283 |
| Mixed ³ | 99,413 | 738 | 79,325 | 13,602 | 101,767 | 18,653 | 54,936 | 10,063 | 71,920 | 7,624 |
| Type sample ⁴ | | 18,963 | | 25,047 | | 5,435 | | 9,386 | | 8,231 |
| Flour as wheat | | 42,894 | | | | | | | | |
| Other wheat ⁵ | | 71,066 | | 66,972 | | 77,637 | | 62,533 | | 24,047 |
| | | 19,889 | | 22,813 | | 19,325 | | 47,552 | | 12,091 |
| Total | 814,905 | 279,407 | 867,598 | 221,923 | 797,381 | 156,430 | 862,627 | 250,023 | 669,365 | 59,378 |

Division of Statistical and Historical Research for estimated production by classes; Grain Division for inspections of United States wheat for export.

¹ The spring and winter wheats listed do not include the spring and winter in the white wheats. Production estimates are based on the estimate of percentage classification by States as reported for 1920 and 1923 to the Division of Crop and Livestock Estimates; the percentages for 1921 and 1922 were interpolated from the 1920 and 1923 percentages. The estimated production for 1925 is based on 1923 percentages, and is subject to revision.

² White wheat in the Pacific Northwest region consists of both spring and winter wheat; no attempt has been made to classify this wheat as other than white wheat, part of which is spring and part winter.

³ From July 1, 1921, to June 30, 1923, 70 per cent of the exports of mixed wheat is estimated as durum.

⁴ Prior to July 1, 1923, practically all wheat exported from the Pacific coast was shipped on the basis of "Portland (Oreg.) Chamber of Commerce type sample." Since July 1, 1922, all wheat exported from the Pacific coast has been inspected on the basis of Federal grades and classes.

⁵ Exports of wheat other than reported as "Federal inspected."

TABLE 27.—Wheat, including flour: International trade, average 1910–1914, annual 1923–1925

[Thousand bushels—l. e., 000 omitted]

| Country | Year ended June 30 | | | | | | | |
|--------------------------------------|---------------------|----------------------|---------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| | Average 1910–1914 | | 1923 | | 1924 | | 1925 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria..... | ¹ 639 | ¹ 5,936 | ¹ 4,800 | 987 | ¹ 1,588 | 10,365 | ² 2,458 | 1,892 |
| Argentina..... | ¹ 3 | 85,220 | | 145,428 | | 170,009 | | 127,029 |
| Australia..... | ¹ 7 | 49,732 | 17 | 49,625 | ² | 83,384 | | 123,580 |
| British India..... | 332 | 50,821 | 586 | 24,148 | ¹ 717 | ¹ 18,924 | ¹ 49 | ¹ 45,209 |
| Bulgaria..... | | 11,182 | (¹) | 4,289 | 18 | 2,442 | ¹ 1,309 | ¹ 293 |
| Canada..... | 447 | 94,286 | 381 | 274,886 | 430 | 343,781 | 651 | 194,849 |
| Chile..... | ¹ 170 | ¹ 2,593 | 676 | 608 | ¹ 31 | ¹⁰ 4,590 | | ¹ 8,581 |
| Hungary..... | ¹ 7,214 | ¹ 40,116 | ¹ 224 | ¹ 4,921 | ¹ 4 | ¹ 15,404 | ¹ 643 | ¹ 15,064 |
| Rumania..... | ¹ 198 | ¹ 54,630 | (¹) | ¹ 1,593 | | ¹ 8,820 | | ¹ 14,285 |
| Russia..... | ¹ 556 | ¹ 164,862 | | | | ¹³ 23,192 | | ¹³ 328 |
| Spain..... | 6,009 | 71 | 51 | 191 | (¹) | 277 | (¹) | ¹ 310 |
| United States..... | 1,808 | 104,967 | 19,945 | 221,923 | 28,045 | 156,430 | 6,199 | 258,023 |
| Yugoslavia..... | | | | ¹ 980 | | ¹ 5,770 | | ¹ 9,571 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | ¹ 11,402 | ¹ 871 | ¹ 13,063 | ¹ 150 | 17,544 | | 16,474 | |
| Belgium..... | 72,877 | 21,965 | 41,267 | 1,775 | 43,176 | 3,412 | 45,135 | 5,791 |
| Brazil..... | ¹ 20,495 | | 21,979 | | ¹⁴ 11,554 | | | |
| Ceylon..... | | | | | ¹⁵ 753 | | ¹⁵ 791 | |
| Cuba..... | 4,248 | | 5,773 | | 6,108 | | | |
| Czechoslovakia..... | | | ¹ 12,100 | ¹ 1,997 | 19,487 | 464 | 23,902 | 834 |
| Denmark..... | ¹ 7,155 | ¹ 597 | 6,304 | 321 | 9,526 | 229 | 7,205 | 796 |
| Egypt..... | ¹ 8,244 | ¹ 59 | 7,326 | 20 | 7,825 | 171 | 9,476 | 88 |
| Estonia..... | | | | | ¹⁶ 880 | | ¹⁶ 850 | |
| Finland..... | ¹ 4,912 | (¹) | 4,563 | | 4,881 | | 4,212 | (¹) |
| France..... | 44,081 | ¹ 1,230 | 44,133 | 2,779 | 54,213 | 2,797 | 38,233 | 2,803 |
| French Indo-China..... | | | ¹⁶ 703 | | ¹ 951 | | ¹ 1,089 | |
| Germany..... | 91,851 | 23,300 | 42,676 | 623 | 29,751 | 161 | 76,243 | 5,227 |
| Greece..... | ¹ 7,035 | ¹ 2 | 18,479 | ¹ 5 | 18,733 | ¹ 2 | ¹ 21,746 | |
| Irish Free State..... | | | | | | | 19,101 | |
| Italy..... | 56,431 | 3,637 | 112,003 | 1,776 | 77,552 | 7,080 | 102,126 | 5,867 |
| Japan..... | ¹ 4,116 | ¹ 28 | ¹ 15,316 | ¹ 620 | ¹ 28,706 | ¹ 328 | ¹ 15,471 | ¹³ 1,562 |
| Latvia..... | | | ¹ 1,107 | ¹ 13 | ¹ 1,777 | ¹ 6 | ¹ 1,963 | ¹³ 18 |
| Netherlands..... | ¹ 80,702 | ¹ 58,435 | 25,035 | 3,365 | 30,762 | 3,385 | 30,623 | 4,507 |
| New Zealand..... | ¹ 163 | ¹ 918 | (¹) | 714 | 1,459 | 2 | 3,029 | 2 |
| Norway..... | ¹ 3,674 | | 6,619 | ¹ 9 | 6,507 | ¹ 15 | 5,489 | ¹³ 15 |
| Poland..... | | | ¹ 2,472 | ¹ 36 | ¹ 2,556 | ¹ 14 | ¹³ 11,548 | ¹³ 22 |
| Portugal..... | 2,630 | 219 | | | | | | |
| Sweden..... | ¹ 7,080 | ¹ 23 | 8,999 | 701 | 12,214 | 309 | 11,461 | 107 |
| Switzerland..... | ¹ 16,937 | ¹ 14 | 16,553 | 1 | 16,253 | (¹) | 14,355 | (¹) |
| Syria and Lebanon..... | | | | | ¹⁷ 401 | | ¹⁰ 1,738 | |
| Tunisia..... | ¹ 1,746 | ¹ 960 | ¹ 1,980 | ¹ 1,283 | ¹ 495 | ¹ 3,262 | ¹⁰ 1,942 | ¹³ 94 |
| Union of South Africa..... | ¹ 6,274 | ¹ 253 | 5,644 | 11 | 6,882 | ¹⁸ 2 | 6,773 | ¹³ 16 |
| United Kingdom..... | 219,474 | 4,493 | 209,290 | 6,465 | 224,136 | 13,741 | 234,512 | ¹⁴ 18,443 |
| Total 42 countries..... | 688,908 | 790,420 | 651,024 | 752,223 | 665,897 | 879,368 | 715,856 | 835,216 |

Division of Statistical and Historical Research. Official sources except where otherwise noted.

¹ Year ended July 31 as compiled by the International Institute of Agriculture.

² Wheat only.

³ Average of calendar years, 1909–1913.

⁴ International Institute of Agriculture.

⁵ Twelve months' sea-trade, nine months' land-trade.

⁶ Sea-trade only.

⁷ Less than 500 bushels.

⁸ Eight months.

⁹ Nine months.

¹⁰ Eleven months, International Institute of Agriculture.

¹¹ Ten months' wheat, seven months' flour.

¹² Commercial source.

¹³ Ten months ended May 31, International Institute of Agriculture.

¹⁴ Six months.

¹⁵ Wheat flour only.

¹⁶ Ten months.

TABLE 28.—Wheat: Estimated price per bushel, received by producers, United States, 1909-1925

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted av. |
|---------------------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|---------|--------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1909..... | 114.0 | 101.2 | 94.9 | 97.2 | 99.2 | 101.0 | 104.2 | 105.0 | 104.8 | 102.2 | 98.8 | 96.4 | 100.7 |
| 1910..... | 97.1 | 97.4 | 94.1 | 92.0 | 98.4 | 88.4 | 88.2 | 87.6 | 84.6 | 84.2 | 85.4 | 95.3 | 91.7 |
| 1911..... | 83.2 | 83.8 | 80.6 | 82.0 | 89.4 | 87.7 | 88.2 | 86.6 | 81.2 | 80.1 | 101.2 | 100.9 | 84.3 |
| 1912..... | 94.4 | 87.8 | 84.6 | 83.6 | 79.9 | 76.1 | 78.0 | 80.2 | 79.8 | 80.0 | 81.8 | 82.0 | 83.3 |
| 1913..... | 79.2 | 77.1 | 77.5 | 77.4 | 78.4 | 80.4 | 81.3 | 82.4 | 83.6 | 84.0 | 84.2 | 80.6 | 79.3 |
| Av. 1909-1913..... | 93.6 | 89.5 | 87.7 | 88.1 | 87.3 | 86.7 | 88.4 | 89.2 | 88.9 | 89.3 | 90.3 | 89.0 | 88.7 |
| 1914..... | 76.7 | 84.9 | 93.4 | 95.4 | 97.9 | 103.2 | 118.8 | 131.8 | 132.6 | 135.6 | 135.6 | 117.2 | 99.4 |
| 1915..... | 104.6 | 100.8 | 93.2 | 92.0 | 92.5 | 97.4 | 108.4 | 100.6 | 100.1 | 101.2 | 96.5 | 98.2 | 98.2 |
| 1916..... | 100.0 | 119.2 | 133.8 | 147.4 | 159.4 | 155.3 | 157.6 | 164.6 | 172.2 | 213.0 | 247.2 | 234.8 | 144.4 |
| 1917..... | 224.5 | 219.3 | 205.2 | 200.3 | 200.4 | 201.4 | 201.6 | 202.0 | 202.6 | 203.1 | 203.0 | 202.8 | 205.8 |
| 1918..... | 203.8 | 205.0 | 205.7 | 205.9 | 205.1 | 204.5 | 206.2 | 207.8 | 211.1 | 222.6 | 229.8 | 225.2 | 206.3 |
| 1919..... | 219.6 | 211.4 | 207.6 | 211.4 | 214.0 | 223.4 | 233.8 | 231.2 | 230.3 | 242.6 | 250.8 | 256.0 | 218.6 |
| 1920..... | 242.9 | 225.4 | 216.5 | 201.2 | 165.8 | 146.4 | 149.2 | 148.2 | 140.4 | 122.1 | 119.0 | 119.8 | 182.9 |
| Av. 1914-1920..... | 107.4 | 106.6 | 105.0 | 104.8 | 102.2 | 161.7 | 167.9 | 170.6 | 170.0 | 177.1 | 183.8 | 178.8 | 105.1 |
| 1921..... | 108.5 | 103.0 | 103.4 | 99.9 | 93.4 | 93.0 | 95.2 | 107.0 | 117.0 | 119.0 | 118.8 | 109.6 | 104.4 |
| 1922..... | 99.8 | 92.6 | 89.2 | 94.1 | 99.4 | 103.2 | 104.6 | 104.4 | 106.0 | 108.4 | 108.2 | 100.8 | 98.0 |
| 1923..... | 89.6 | 86.4 | 91.0 | 94.2 | 93.7 | 94.5 | 98.7 | 98.0 | 98.8 | 95.8 | 96.8 | 98.5 | 92.4 |
| 1924..... | 105.8 | 116.8 | 114.2 | 129.7 | 133.6 | 141.1 | 162.1 | 169.8 | 164.0 | 140.5 | 149.1 | 152.7 | 127.8 |
| 1925..... | 140.3 | 159.4 | 144.4 | 136.4 | 148.8 | 153.7 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Crop and Livestock Estimates. Mean of prices reported on 1st of month and 1st of succeeding month, July 1909-December, 1923.

TABLE 29.—Wheat: Estimated price per bushel, received by producers, December 1, average 1909-1913, annual 1914-1925

| State | Av. 1909-1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914-1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921-1925 |
|---------------------|---------------|------|------|-------|-------|-------|-------|-------|---------------|------|-------|------|-------|-------|---------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| Maine..... | 108 | 109 | 112 | 187 | 235 | 237 | 220 | 230 | 190 | 175 | 170 | 115 | 170 | 170 | 161 |
| Vermont..... | 104 | 100 | 107 | 166 | 236 | 231 | 227 | 200 | 181 | 125 | 145 | 140 | 150 | 150 | 142 |
| New York..... | 99 | 108 | 101 | 168 | 210 | 215 | 215 | 173 | 170 | 108 | 118 | 110 | 144 | 152 | 126 |
| New Jersey..... | 99 | 106 | 106 | 164 | 213 | 215 | 220 | 205 | 176 | 113 | 110 | 110 | 157 | 142 | 127 |
| Pennsylvania..... | 96 | 104 | 104 | 162 | 205 | 214 | 216 | 170 | 168 | 103 | 110 | 100 | 144 | 147 | 121 |
| Ohio..... | 96 | 105 | 104 | 169 | 204 | 212 | 212 | 165 | 167 | 108 | 117 | 99 | 145 | 158 | 125 |
| Indiana..... | 93 | 103 | 102 | 169 | 203 | 208 | 210 | 167 | 166 | 108 | 112 | 98 | 142 | 155 | 123 |
| Illinois..... | 91 | 101 | 100 | 165 | 201 | 208 | 210 | 161 | 164 | 100 | 107 | 94 | 138 | 168 | 117 |
| Michigan..... | 95 | 103 | 101 | 167 | 204 | 209 | 210 | 168 | 166 | 104 | 115 | 96 | 138 | 156 | 122 |
| Wisconsin..... | 89 | 100 | 95 | 160 | 202 | 205 | 215 | 154 | 162 | 97 | 109 | 98 | 128 | 136 | 112 |
| Minnesota..... | 86 | 102 | 99 | 162 | 202 | 204 | 250 | 136 | 163 | 97 | 101 | 96 | 130 | 137 | 112 |
| Iowa..... | 84 | 98 | 87 | 156 | 196 | 200 | 200 | 140 | 154 | 88 | 99 | 89 | 127 | 136 | 108 |
| Missouri..... | 91 | 98 | 98 | 165 | 195 | 203 | 209 | 160 | 161 | 99 | 105 | 97 | 133 | 150 | 117 |
| North Dakota..... | 83 | 101 | 87 | 152 | 200 | 203 | 241 | 139 | 159 | 85 | 90 | 86 | 128 | 131 | 104 |
| South Dakota..... | 82 | 94 | 86 | 160 | 196 | 199 | 240 | 115 | 154 | 87 | 92 | 81 | 125 | 128 | 108 |
| Nebraska..... | 79 | 95 | 84 | 160 | 195 | 197 | 202 | 121 | 122 | 83 | 96 | 88 | 122 | 140 | 105 |
| Kansas..... | 85 | 95 | 89 | 164 | 198 | 199 | 215 | 130 | 156 | 94 | 98 | 94 | 128 | 149 | 112 |
| Delaware..... | 94 | 109 | 109 | 162 | 208 | 222 | 213 | 171 | 171 | 98 | 108 | 106 | 144 | 145 | 119 |
| Maryland..... | 95 | 106 | 105 | 171 | 207 | 219 | 215 | 165 | 170 | 108 | 112 | 100 | 148 | 151 | 122 |
| Virginia..... | 101 | 106 | 106 | 165 | 216 | 219 | 224 | 180 | 174 | 116 | 122 | 110 | 148 | 161 | 131 |
| West Virginia..... | 104 | 108 | 108 | 160 | 217 | 221 | 220 | 190 | 175 | 117 | 122 | 116 | 147 | 158 | 132 |
| North Carolina..... | 111 | 117 | 120 | 176 | 234 | 230 | 233 | 210 | 189 | 144 | 136 | 128 | 160 | 171 | 149 |
| South Carolina..... | 129 | 145 | 138 | 180 | 200 | 200 | 258 | 255 | 219 | 208 | 157 | 154 | 170 | 185 | 175 |
| Georgia..... | 126 | 124 | 129 | 188 | 200 | 208 | 263 | 240 | 215 | 175 | 150 | 147 | 169 | 192 | 165 |
| Kentucky..... | 98 | 108 | 106 | 166 | 212 | 214 | 211 | 191 | 172 | 118 | 118 | 108 | 143 | 160 | 129 |
| Tennessee..... | 101 | 105 | 108 | 169 | 222 | 214 | 222 | 195 | 176 | 120 | 123 | 115 | 147 | 166 | 134 |
| Alabama..... | 118 | 120 | 126 | 188 | 270 | 245 | 245 | 230 | 204 | 163 | 160 | 130 | 162 | 175 | 156 |
| Mississippi..... | 106 | 125 | 105 | 175 | 300 | 250 | 250 | 213 | 208 | 130 | 145 | 114 | 160 | 160 | 189 |
| Arkansas..... | 96 | 99 | 101 | 168 | 201 | 207 | 202 | 190 | 186 | 100 | 108 | 108 | 132 | 150 | 119 |
| Oklahoma..... | 87 | 92 | 89 | 167 | 194 | 201 | 205 | 135 | 155 | 86 | 96 | 92 | 124 | 147 | 110 |
| Texas..... | 101 | 99 | 107 | 173 | 210 | 215 | 200 | 172 | 168 | 100 | 110 | 109 | 138 | 155 | 119 |
| Montana..... | 76 | 91 | 78 | 161 | 192 | 194 | 234 | 128 | 154 | 88 | 89 | 87 | 124 | 139 | 104 |
| Idaho..... | 71 | 87 | 80 | 146 | 182 | 192 | 205 | 125 | 145 | 72 | 90 | 80 | 121 | 132 | 120 |
| Wyoming..... | 88 | 89 | 78 | 145 | 200 | 189 | 212 | 125 | 150 | 79 | 82 | 80 | 111 | 124 | 95 |
| Colorado..... | 82 | 87 | 80 | 150 | 193 | 195 | 202 | 135 | 149 | 76 | 89 | 83 | 118 | 136 | 100 |
| New Mexico..... | 101 | 90 | 90 | 150 | 215 | 210 | 200 | 140 | 158 | 104 | 102 | 108 | 125 | 160 | 122 |
| Arizona..... | 115 | 125 | 115 | 150 | 219 | 200 | 228 | 232 | 190 | 125 | 115 | 140 | 141 | 175 | 189 |
| Utah..... | 78 | 86 | 86 | 152 | 178 | 188 | 210 | 153 | 150 | 75 | 90 | 91 | 120 | 134 | 103 |
| Nevada..... | 88 | 95 | 96 | 140 | 180 | 208 | 214 | 189 | 159 | 128 | 128 | 115 | 150 | 148 | 132 |
| Washington..... | 77 | 100 | 82 | 133 | 193 | 196 | 214 | 135 | 152 | 86 | 104 | 85 | 138 | 136 | 147 |
| Oregon..... | 80 | 102 | 84 | 145 | 182 | 201 | 212 | 130 | 151 | 85 | 108 | 86 | 129 | 136 | 99 |
| California..... | 86 | 104 | 85 | 152 | 200 | 216 | 204 | 180 | 164 | 107 | 115 | 108 | 164 | 148 | 126 |
| United States..... | 86.0 | 94.6 | 91.9 | 160.8 | 200.8 | 204.2 | 214.9 | 143.7 | 159.2 | 92.6 | 100.7 | 92.3 | 129.9 | 142.6 | 111.4 |

Division of Crop and Livestock Estimates.

TABLE 30.—Wheat: Weighted average price per bushel of reported cash sales

NO. 1 DARK NORTHERN SPRING, MINNEAPOLIS, 1917-1925¹

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Weighted average ² |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1917 | | \$2.50 | \$2.21 | \$2.21 | \$2.21 | \$2.21 | \$2.21 | \$2.21 | \$2.21 | \$2.21 | \$2.21 | \$2.21 | |
| 1918 | \$2.21 | 2.29 | 2.24 | 2.23 | 2.25 | 2.25 | 2.25 | 2.29 | 2.41 | 2.63 | 2.68 | 2.56 | 2.35 |
| 1919 | 2.72 | 2.71 | 2.77 | 2.84 | 3.00 | 3.25 | 3.34 | 2.90 | 2.97 | 3.23 | 3.26 | 3.01 | 3.00 |
| 1920 | 2.95 | 2.59 | 2.64 | 2.21 | 1.82 | 1.73 | 1.81 | 1.74 | 1.72 | 1.57 | 1.67 | 1.74 | 2.01 |
| 1921 | 1.81 | 1.69 | 1.66 | 1.36 | 1.30 | 1.43 | 1.39 | 1.58 | 1.59 | 1.66 | 1.71 | 1.53 | 1.48 |
| 1922 | 1.67 | 1.22 | 1.20 | 1.21 | 1.28 | 1.31 | 1.28 | 1.31 | 1.29 | 1.35 | 1.32 | 1.22 | 1.29 |
| 1923 | 1.18 | 1.22 | 1.26 | 1.26 | 1.19 | 1.19 | 1.24 | 1.27 | 1.26 | 1.26 | 1.30 | 1.37 | 1.24 |
| 1924 | 1.47 | 1.38 | 1.35 | 1.51 | 1.64 | 1.71 | 1.98 | 1.94 | 1.80 | 1.60 | 1.73 | 1.69 | 1.58 |
| 1925 | 1.66 | 1.67 | 1.58 | 1.58 | 1.67 | 1.77 | | | | | | | |

NO. 1 NORTHERN SPRING, MINNEAPOLIS, 1909-1925¹

| | | | | | | | | | | | | | |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1909 | 1.29 | 1.00 | 1.04 | 1.04 | 1.05 | 1.12 | 1.14 | 1.14 | 1.15 | 1.11 | 1.10 | 1.09 | 1.09 |
| 1910 | 1.21 | 1.13 | 1.09 | 1.08 | 1.04 | 1.03 | 1.06 | 1.02 | .98 | .96 | .99 | .97 | 1.05 |
| 1911 | .99 | 1.05 | 1.09 | 1.10 | 1.05 | 1.02 | 1.06 | 1.06 | 1.08 | 1.10 | 1.16 | 1.13 | 1.07 |
| 1912 | 1.09 | .98 | .89 | .90 | .84 | .82 | .89 | .87 | .85 | .88 | .91 | .92 | .87 |
| 1913 | .91 | .88 | .87 | .84 | .85 | .86 | .87 | .93 | .92 | .91 | .94 | .92 | .88 |
| A v. 1909-1913 | 1.10 | 1.02 | 1.09 | .99 | .97 | .97 | 1.00 | 1.00 | 1.00 | .99 | 1.02 | 1.01 | .99 |
| 1914 | .92 | 1.10 | 1.12 | 1.11 | 1.18 | 1.20 | 1.38 | 1.52 | 1.49 | 1.58 | 1.58 | 1.35 | 1.20 |
| 1915 | 1.44 | 1.18 | .97 | 1.03 | 1.02 | 1.14 | 1.29 | 1.26 | 1.14 | 1.22 | 1.22 | 1.11 | 1.09 |
| 1916 | 1.21 | 1.64 | 1.64 | 1.79 | 1.95 | 1.79 | 1.93 | 1.86 | 2.03 | 2.38 | 2.96 | 2.73 | 1.76 |
| 1917 | 2.60 | 2.47 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.20 |
| 1918 | 2.17 | 2.23 | 2.23 | 2.19 | 2.22 | 2.22 | 2.21 | 2.24 | 2.36 | 2.56 | 2.59 | 2.48 | 2.25 |
| 1919 | 2.66 | 2.59 | 2.56 | 2.67 | 2.85 | 3.07 | 3.01 | 2.67 | 2.84 | 3.06 | 3.09 | 2.93 | 2.72 |
| 1920 | 2.88 | 2.66 | 2.54 | 2.16 | 1.79 | 1.66 | 1.79 | 1.72 | 1.66 | 1.53 | 1.57 | 1.69 | 2.07 |
| A v. 1914-1920 | 1.99 | 1.97 | 1.89 | 1.87 | 1.88 | 1.89 | 1.97 | 1.92 | 1.96 | 2.07 | 2.17 | 2.07 | 1.90 |
| 1921 | 1.67 | 1.48 | 1.51 | 1.34 | 1.25 | 1.31 | 1.34 | 1.51 | 1.51 | 1.58 | 1.61 | 1.49 | 1.43 |
| 1922 | 1.49 | 1.11 | 1.10 | 1.15 | 1.23 | 1.25 | 1.23 | 1.26 | 1.24 | 1.30 | 1.28 | 1.17 | 1.20 |
| 1923 | 1.12 | 1.18 | 1.21 | 1.20 | 1.14 | 1.16 | 1.19 | 1.21 | 1.21 | 1.21 | 1.22 | 1.25 | 1.17 |
| 1924 | 1.37 | 1.31 | 1.30 | 1.46 | 1.48 | 1.66 | 1.89 | 1.87 | 1.71 | 1.50 | 1.67 | 1.64 | 1.56 |
| 1925 | 1.59 | 1.64 | 1.50 | 1.49 | 1.55 | 1.69 | | | | | | | |

NO. 2 RED WINTER, CHICAGO, 1909-1925¹

| | | | | | | | | | | | | | |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1909 | 1.10 | 1.04 | 1.07 | 1.20 | 1.18 | 1.25 | 1.26 | 1.23 | 1.18 | 1.11 | 1.11 | 1.01 | 1.10 |
| 1910 | 1.07 | 1.02 | .99 | .96 | .93 | .94 | .98 | .91 | .90 | .90 | .90 | .91 | 1.02 |
| 1911 | .86 | .90 | .93 | 1.00 | .96 | .96 | .97 | 1.01 | 1.03 | 1.09 | 1.16 | 1.10 | .90 |
| 1912 | 1.05 | 1.03 | 1.03 | 1.06 | .99 | .86 | 1.09 | .99 | .95 | 1.02 | 1.03 | 1.00 | 1.03 |
| 1913 | .87 | .85 | .93 | .92 | .92 | .94 | .97 | .97 | .95 | .95 | .99 | .82 | .88 |
| A v. 1909-1913 | .90 | .97 | .99 | 1.03 | 1.00 | .99 | 1.05 | 1.02 | 1.00 | 1.01 | 1.05 | .97 | .99 |
| 1914 | .82 | .93 | 1.11 | 1.12 | 1.16 | 1.20 | 1.39 | 1.57 | 1.52 | 1.59 | 1.55 | 1.24 | 1.08 |
| 1915 | 1.13 | 1.11 | 1.08 | 1.12 | 1.12 | 1.23 | 1.30 | 1.23 | 1.13 | 1.22 | 1.15 | 1.05 | 1.13 |
| 1916 | 1.23 | 1.43 | 1.53 | 1.66 | 1.85 | 1.76 | 1.89 | 1.74 | 1.99 | 2.43 | 2.94 | 2.76 | 1.63 |
| 1917 | 2.80 | 2.30 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.16 | 2.17 | 2.25 |
| 1918 | 2.22 | 2.21 | 2.25 | 2.25 | 2.24 | 2.29 | 2.34 | 2.28 | 2.36 | 2.52 | 2.76 | 2.32 | 2.22 |
| 1919 | 2.23 | 2.24 | 2.24 | 2.24 | 2.29 | 2.44 | 2.64 | 2.42 | 2.53 | 2.63 | 3.10 | 2.89 | 2.24 |
| 1920 | 2.63 | 2.49 | 2.53 | 2.18 | 2.01 | 2.02 | 1.96 | 1.85 | 1.65 | 1.41 | 1.67 | 1.47 | 2.23 |
| A v. 1914-1920 | 1.82 | 1.81 | 1.84 | 1.82 | 1.83 | 1.87 | 1.96 | 1.89 | 1.91 | 2.00 | 2.19 | 1.99 | 1.83 |
| 1921 | 1.24 | 1.22 | 1.29 | 1.18 | 1.23 | 1.21 | 1.34 | 1.38 | 1.40 | 1.44 | 1.24 | 1.18 | 1.25 |
| 1922 | 1.14 | 1.07 | 1.06 | 1.18 | 1.27 | 1.32 | 1.30 | 1.35 | 1.31 | 1.32 | 1.28 | 1.16 | 1.14 |
| 1923 | 1.00 | 1.00 | 1.05 | 1.11 | 1.06 | 1.09 | 1.13 | 1.13 | 1.09 | 1.06 | 1.07 | 1.15 | 1.02 |
| 1924 | 1.29 | 1.31 | 1.31 | 1.53 | 1.55 | 1.86 | 1.95 | 2.00 | 1.91 | 1.66 | 1.89 | 1.87 | 1.58 |
| 1925 | 1.59 | 1.68 | 1.67 | 1.63 | 1.70 | 1.80 | | | | | | | |

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¹Compiled from Minneapolis Daily Market Record. Prior to the promulgation of the Federal grades, August 1, 1917, the subclass Dark Northern did not exist.

²Average of daily prices weighted by carlot sales.

³Compiled from the Chicago Daily Trade Bulletin.

⁴Based on small number of sales.

TABLE 30.—Wheat: Weighted average price per bushel of reported cash sales—Con.

NO. 2 RED WINTER, ST. LOUIS, 1909-1925¹

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Weighted average ² |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$1.13 | \$1.12 | \$1.14 | \$1.23 | \$1.22 | \$1.28 | \$1.30 | \$1.27 | \$1.23 | \$1.12 | \$1.16 | \$1.02 | \$1.13 |
| 1910..... | 1.07 | 1.02 | 1.02 | 1.00 | .96 | .98 | 1.03 | .96 | .93 | .90 | .94 | .88 | .99 |
| 1911..... | .84 | .88 | .94 | 1.00 | .96 | .97 | 1.02 | 1.01 | 1.04 | 1.13 | 1.21 | 1.11 | .94 |
| 1912..... | 1.03 | 1.04 | 1.03 | 1.09 | 1.04 | 1.07 | 1.11 | 1.09 | 1.08 | 1.09 | 1.04 | .99 | 1.05 |
| 1913..... | .85 | .88 | .94 | .93 | .94 | .95 | .96 | .95 | .95 | .94 | .96 | .84 | .89 |
| Av. 1909-1913..... | .98 | .99 | 1.01 | 1.05 | 1.02 | 1.05 | 1.08 | 1.06 | 1.05 | 1.04 | 1.06 | .97 | 1.00 |
| 1914..... | .87 | .93 | 1.10 | 1.10 | 1.11 | 1.18 | 1.40 | 1.57 | 1.50 | 1.54 | 1.50 | 1.19 | 1.10 |
| 1915..... | 1.17 | 1.14 | 1.14 | 1.21 | 1.16 | 1.23 | 1.84 | 1.30 | 1.17 | 1.22 | 1.20 | 1.10 | 1.20 |
| 1916..... | 1.25 | 1.45 | 1.60 | 1.73 | 1.87 | 1.83 | 1.96 | 1.88 | 2.05 | 2.66 | 3.04 | 2.65 | 1.63 |
| 1917..... | 2.36 | 2.32 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.23 |
| 1918..... | 2.21 | 2.21 | 2.19 | 2.22 | 2.22 | 2.32 | 2.41 | 2.38 | 2.55 | 2.71 | 2.60 | 2.41 | 2.23 |
| 1919..... | 2.22 | 2.20 | 2.21 | 2.24 | 2.29 | 2.48 | 2.70 | 2.55 | 2.58 | 2.76 | 2.99 | 2.89 | 2.30 |
| 1920..... | 2.73 | 2.51 | 2.58 | 2.26 | 2.02 | 1.99 | 2.02 | 1.90 | 1.66 | 1.41 | 1.58 | 1.50 | 2.13 |
| Av. 1914-1920..... | 1.83 | 1.82 | 1.85 | 1.84 | 1.83 | 1.88 | 2.00 | 1.96 | 1.95 | 2.06 | 2.15 | 1.98 | 1.84 |
| 1921..... | 1.23 | 1.23 | 1.36 | 1.26 | 1.20 | 1.21 | 1.22 | 1.38 | 1.42 | 1.41 | 1.38 | 1.18 | 1.27 |
| 1922..... | 1.12 | 1.09 | 1.14 | 1.23 | 1.29 | 1.36 | 1.37 | 1.39 | 1.36 | 1.39 | 1.33 | 1.23 | 1.21 |
| 1923..... | .97 | .99 | 1.09 | 1.16 | 1.12 | 1.14 | 1.16 | 1.18 | 1.14 | 1.13 | 1.12 | 1.16 | 1.07 |
| 1924..... | 1.35 | 1.38 | 1.40 | 1.66 | 1.63 | 1.79 | 2.10 | 2.02 | 1.86 | 1.77 | 1.86 | 1.89 | 1.59 |
| 1925..... | 1.59 | 1.72 | 1.71 | 1.70 | 1.71 | 1.84 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

NO. 2 HARD WINTER, KANSAS CITY, 1909-1925¹

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Weighted average ² |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$1.14 | \$1.02 | \$1.02 | \$1.06 | \$1.04 | \$1.10 | \$1.11 | \$1.11 | \$1.10 | \$1.08 | \$1.07 | \$1.08 | \$1.07 |
| 1910..... | 1.04 | 1.00 | .99 | .95 | .91 | .93 | .95 | .90 | .88 | .88 | .90 | .88 | .98 |
| 1911..... | .87 | .93 | .95 | 1.04 | 1.00 | 1.00 | 1.05 | 1.03 | 1.05 | 1.09 | 1.11 | 1.09 | .97 |
| 1912..... | .92 | .89 | .88 | .88 | .83 | .84 | .87 | .86 | .86 | .88 | .87 | .88 | .88 |
| 1913..... | .82 | .83 | .87 | .84 | .83 | .84 | .85 | .86 | .88 | .87 | .90 | .85 | .84 |
| Av. 1909-1913..... | .96 | .93 | .94 | .95 | .92 | .94 | .97 | .95 | .95 | .96 | .97 | .96 | .95 |
| 1914..... | .78 | .91 | 1.04 | 1.02 | 1.08 | 1.13 | 1.34 | 1.54 | 1.49 | 1.54 | 1.50 | 1.21 | 1.05 |
| 1915..... | 1.36 | 1.26 | 1.07 | 1.07 | 1.03 | 1.12 | 1.20 | 1.20 | 1.05 | 1.12 | 1.10 | 1.00 | 1.19 |
| 1916..... | 1.14 | 1.41 | 1.57 | 1.67 | 1.85 | 1.72 | 1.89 | 1.82 | 1.97 | 2.43 | 3.01 | 2.74 | 1.71 |
| 1917..... | 2.68 | 2.61 | 2.12 | 2.12 | 2.12 | 2.12 | 2.12 | 2.12 | 2.12 | 2.12 | 2.12 | 2.12 | 2.52 |
| 1918..... | 2.20 | 2.16 | 2.16 | 2.16 | 2.15 | 2.24 | 2.31 | 2.26 | 2.39 | 2.62 | 2.60 | 2.47 | 2.19 |
| 1919..... | 2.25 | 2.18 | 2.24 | 2.30 | 2.46 | 2.63 | 2.82 | 2.42 | 2.49 | 2.75 | 2.93 | 2.76 | 2.42 |
| 1920..... | 2.68 | 2.45 | 2.44 | 2.07 | 1.76 | 1.69 | 1.71 | 1.62 | 1.55 | 1.33 | 1.47 | 1.38 | 1.83 |
| Av. 1914-1920..... | 1.87 | 1.85 | 1.81 | 1.77 | 1.78 | 1.81 | 1.92 | 1.85 | 1.67 | 1.99 | 2.10 | ..... | 1.85 |
| 1921..... | 1.18 | 1.15 | 1.22 | 1.10 | 1.09 | 1.09 | 1.13 | 1.29 | 1.34 | 1.35 | 1.34 | 1.17 | 1.20 |
| 1922..... | 1.13 | 1.04 | 1.04 | 1.13 | 1.17 | 1.17 | 1.14 | 1.15 | 1.16 | 1.20 | 1.16 | 1.04 | 1.13 |
| 1923..... | .96 | 1.01 | 1.09 | 1.12 | 1.09 | 1.09 | 1.13 | 1.11 | 1.09 | 1.04 | 1.06 | 1.08 | 1.05 |
| 1924..... | 1.20 | 1.19 | 1.20 | 1.37 | 1.43 | 1.62 | 1.82 | 1.81 | 1.71 | 1.51 | 1.63 | 1.60 | 1.35 |
| 1925..... | 1.54 | 1.64 | 1.58 | 1.68 | 1.63 | 1.72 | | | | | | | |

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¹ Average of daily prices weighted by carlot sales.² Compiled from St. Louis Daily Market Reporter.³ Compiled from Kansas City Daily Price Current.

TABLE 31.—Wheat: Average price per bushel of daily cash closing prices, 1909-1925

NO. 2 HARD WINTER, NEW YORK¹

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909..... | \$1.31 | \$1.12 | \$1.12 | \$1.20 | \$1.19 | \$1.24 | \$1.26 | \$1.33 | \$1.27 | \$1.19 | \$1.14 | \$1.05 | \$1.20 |
| 1910..... | 1.14 | 1.10 | 1.06 | 1.04 | 1.02 | 1.02 | 1.08 | 1.03 | 1.00 | .99 | 1.03 | .97 | 1.04 |
| 1911..... | .98 | .98 | 1.04 | 1.10 | 1.05 | 1.07 | 1.11 | 1.13 | 1.13 | 1.19 | 1.24 | 1.20 | 1.10 |
| 1912..... | 1.10 | 1.03 | 1.01 | 1.02 | .98 | .99 | 1.06 | 1.04 | 1.00 | 1.03 | 1.02 | 1.04 | 1.03 |
| 1913..... | .99 | .97 | .98 | .95 | .98 | 1.00 | .93 | 1.02 | 1.02 | 1.02 | 1.05 | 1.00 | .99 |
| Av. 1909-1913..... | 1.10 | 1.04 | 1.04 | 1.06 | 1.04 | 1.06 | 1.09 | 1.11 | 1.08 | 1.08 | 1.10 | 1.05 | 1.07 |
| 1914..... | .92 | 1.01 | 1.13 | 1.12 | 1.23 | 1.31 | 1.52 | 1.72 | 1.66 | 1.67 | 1.65 | 1.37 | 1.36 |
| 1915..... | 1.36 | 1.22 | 1.20 | 1.24 | (?) | (?) | 1.40 | 1.42 | 1.25 | 1.29 | 1.24 | 1.15 | 1.28 |
| 1916..... | 1.26 | 1.57 | 1.68 | 1.84 | 2.00 | 1.87 | 2.09 | 2.00 | 2.16 | 2.63 | 3.07 | (?) | 2.02 |
| 1917..... | 2.44 | 2.46 | 2.28 | 2.64 | 2.81 | 2.62 | 2.26 | 2.26 | 2.26 | 2.26 | 2.26 | 2.26 | 2.40 |
| 1918..... | 2.31 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.37 |
| 1919..... | 2.36 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 | 2.37 | 2.37 | 2.61 | 3.02 | 3.09 | 2.98 | 2.55 |
| 1920..... | 2.92 | 2.62 | 2.65 | 2.33 | 2.06 | 1.95 | 2.00 | 1.90 | 1.81 | 1.59 | 1.75 | 1.67 | 2.10 |
| Av. 1914-1920..... | 1.94 | 1.95 | 1.96 | 1.99 | ----- | ----- | 2.00 | 2.01 | 2.00 | 2.12 | 2.21 | 1.97 | 2.01 |
| 1921..... | 1.46 | 1.36 | 1.38 | 1.20 | 1.16 | 1.25 | 1.23 | 1.43 | 1.45 | 1.51 | 1.49 | 1.30 | 1.35 |
| 1922..... | 1.32 | 1.23 | 1.19 | 1.33 | 1.36 | 1.37 | 1.32 | 1.30 | 1.33 | 1.37 | 1.34 | 1.25 | 1.31 |
| 1923..... | 1.16 | 1.14 | 1.16 | 1.22 | 1.19 | 1.22 | 1.25 | 1.28 | 1.24 | 1.20 | 1.21 | 1.26 | 1.21 |
| 1924..... | 1.39 | 1.43 | 1.44 | 1.60 | 1.64 | 1.80 | 2.00 | 2.03 | 1.88 | 1.65 | 1.81 | 1.78 | 1.70 |
| 1925..... | 1.69 | 1.77 | 1.62 | 1.62 | 1.77 | 1.94 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

NO. 1 NORTHERN SPRING, WINNIPEG¹

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909..... | \$1.31 | \$1.19 | \$1.00 | \$0.97 | \$0.97 | \$0.98 | \$1.03 | \$1.03 | \$1.04 | \$1.03 | \$0.98 | \$0.93 | \$1.04 |
| 1910..... | 1.08 | 1.07 | 1.03 | .98 | .92 | .90 | .94 | .93 | .90 | .90 | .95 | .97 | .96 |
| 1911..... | .95 | 1.01 | 1.01 | 1.00 | .99 | .95 | .95 | .97 | .98 | 1.01 | 1.04 | 1.06 | .99 |
| 1912..... | 1.07 | 1.06 | 1.00 | .91 | .85 | .80 | .82 | .84 | .85 | .89 | .93 | .96 | .92 |
| 1913..... | .97 | .95 | .89 | .81 | .83 | .84 | .85 | .88 | .90 | .90 | .93 | .94 | .89 |
| Av. 1909-1913..... | 1.08 | 1.06 | .99 | .93 | .91 | .89 | .92 | .93 | .93 | .95 | .97 | .97 | .96 |
| 1914..... | .90 | 1.08 | 1.13 | 1.11 | 1.18 | 1.18 | 1.36 | 1.53 | 1.49 | 1.57 | 1.61 | 1.32 | 1.29 |
| 1915..... | 1.35 | 1.25 | .95 | .96 | 1.02 | 1.07 | 1.22 | 1.26 | 1.10 | 1.15 | 1.17 | 1.11 | 1.13 |
| 1916..... | 1.18 | 1.49 | 1.59 | 1.72 | 1.93 | 1.76 | 1.80 | 1.68 | 1.85 | 2.33 | 2.75 | 2.49 | 1.88 |
| 1917..... | 2.34 | 2.40 | 2.25 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 2.24 |
| 1918..... | 2.21 | 2.21 | 2.24 | 2.24 | 2.24 | 2.24 | 2.24 | 2.24 | 2.24 | 2.24 | 2.24 | 2.24 | 2.24 |
| 1919..... | 2.16 | 2.16 | 2.53 | 2.53 | 2.52 | 2.44 | 2.40 | 2.31 | 2.36 | 2.40 | 2.38 | 2.32 | 2.38 |
| 1920..... | 2.33 | 2.33 | 2.45 | 2.11 | 1.84 | 1.67 | 1.71 | 1.66 | 1.68 | 1.57 | 1.67 | 1.69 | 1.89 |
| Av. 1914-1920..... | 1.78 | 1.84 | 1.88 | 1.84 | 1.85 | 1.80 | 1.85 | 1.84 | 1.85 | 1.92 | 2.00 | 1.91 | 1.86 |
| 1921..... | 1.64 | 1.56 | 1.33 | 1.04 | 1.02 | 1.05 | 1.08 | 1.31 | 1.37 | 1.40 | 1.44 | 1.31 | 1.30 |
| 1922..... | 1.85 | 1.17 | .99 | 1.01 | 1.10 | 1.08 | 1.07 | 1.10 | 1.10 | 1.19 | 1.15 | 1.12 | 1.12 |
| 1923..... | 1.06 | 1.11 | 1.04 | .96 | .96 | .91 | .94 | .97 | .95 | .96 | 1.03 | 1.12 | 1.00 |
| 1924..... | 1.85 | 1.42 | 1.42 | 1.60 | 1.64 | 1.73 | 1.96 | 1.97 | 1.76 | 1.56 | 1.82 | 1.71 | 1.66 |
| 1925..... | 1.62 | 1.67 | 1.38 | 1.27 | 1.42 | 1.67 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

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¹ Compiled from New York Journal of Commerce.² Nominal.³ Compiled from Winnipeg Farmers' Advocate, July 1909-September 1923; November 1923-December 1924, from Minneapolis Daily Market Record.

TABLE 32.—Wheat: Weighted average price¹ per bushel of reported cash sales of all classes and grades combined at markets named, 1918–1925

MINNEAPOLIS

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Weighted average ¹ |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1918..... | 212.8 | 221.3 | 219.6 | 218.6 | 220.5 | 220.0 | 218.9 | 221.2 | 230.5 | 245.3 | 251.8 | 239.8 | 222.4 |
| 1919..... | 248.9 | 230.1 | 234.0 | 240.9 | 261.6 | 278.5 | 276.5 | 245.6 | 254.8 | 255.3 | 297.0 | 278.7 | 257.6 |
| 1920..... | 274.6 | 247.1 | 244.9 | 208.9 | 172.4 | 163.0 | 167.8 | 155.5 | 151.5 | 135.1 | 144.5 | 148.0 | 187.9 |
| 1921..... | 145.3 | 132.2 | 138.6 | 121.5 | 117.3 | 117.7 | 120.2 | 138.9 | 141.3 | 148.2 | 149.7 | 136.5 | 131.2 |
| 1922..... | 140.5 | 114.2 | 111.0 | 113.8 | 122.3 | 123.1 | 119.2 | 120.9 | 121.2 | 126.5 | 124.8 | 115.9 | 119.2 |
| 1923..... | 110.7 | 111.2 | 114.6 | 115.3 | 109.4 | 108.9 | 114.1 | 118.4 | 116.2 | 115.3 | 118.6 | 125.4 | 113.9 |
| 1924..... | 135.7 | 133.0 | 132.8 | 148.4 | 150.8 | 167.3 | 180.4 | 187.9 | 174.8 | 152.5 | 167.8 | 164.1 | 154.4 |
| 1925..... | 158.9 | 158.7 | 149.4 | 147.9 | 157.6 | 168.3 | --- | --- | --- | --- | --- | --- | --- |

KANSAS CITY

| | | | | | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1918..... | 220.2 | 215.5 | 214.0 | 213.2 | 212.4 | 217.5 | 223.1 | 219.8 | 227.1 | 252.0 | 248.0 | 233.8 | 218.1 |
| 1919..... | 219.3 | 214.4 | 215.9 | 221.2 | 235.9 | 252.2 | 266.3 | 233.4 | 241.5 | 263.5 | 286.3 | 273.5 | 244.9 |
| 1920..... | 267.4 | 245.6 | 246.0 | 206.6 | 176.3 | 170.2 | 173.0 | 164.6 | 154.6 | 133.5 | 147.5 | 139.7 | 190.2 |
| 1921..... | 117.0 | 115.0 | 120.4 | 106.8 | 107.6 | 168.2 | 111.1 | 127.4 | 131.4 | 132.3 | 125.9 | 113.2 | 118.2 |
| 1922..... | 111.0 | 103.2 | 104.1 | 111.1 | 114.5 | 116.3 | 114.0 | 115.1 | 115.4 | 119.7 | 115.9 | 104.1 | 110.8 |
| 1923..... | 94.9 | 99.2 | 102.6 | 107.1 | 101.3 | 99.9 | 103.6 | 106.5 | 104.2 | 101.6 | 102.1 | 107.3 | 101.9 |
| 1924..... | 121.3 | 120.3 | 120.5 | 138.0 | 143.9 | 162.3 | 184.8 | 181.4 | 172.0 | 151.4 | 162.7 | 159.1 | 134.5 |
| 1925..... | 155.3 | 165.8 | 156.3 | 157.3 | 162.1 | 170.9 | --- | --- | --- | --- | --- | --- | --- |

CHICAGO

| | | | | | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1918..... | 225.0 | 223.0 | 220.6 | 220.6 | 220.6 | 223.2 | 222.3 | 220.1 | 230.8 | 250.0 | 252.5 | 232.8 | 223.0 |
| 1919..... | 223.9 | 222.2 | 221.9 | 225.7 | 242.0 | 249.5 | 272.2 | 235.5 | 242.0 | 289.8 | 295.8 | 280.5 | 226.1 |
| 1920..... | 264.9 | 248.8 | 249.8 | 209.9 | 180.7 | 173.4 | 178.6 | 171.9 | 157.3 | 139.7 | 156.5 | 142.7 | 276.3 |
| 1921..... | 124.1 | 119.8 | 124.4 | 112.0 | 107.9 | 110.5 | 112.7 | 128.6 | 129.7 | 132.4 | 132.7 | 115.9 | 121.6 |
| 1922..... | 113.4 | 107.0 | 104.5 | 113.4 | 119.0 | 123.6 | 117.6 | 120.6 | 120.0 | 124.8 | 119.3 | 109.3 | 112.2 |
| 1923..... | 90.1 | 99.6 | 101.0 | 106.8 | 103.1 | 105.3 | 108.6 | 110.3 | 109.7 | 106.1 | 107.8 | 113.7 | 102.5 |
| 1924..... | 120.4 | 125.7 | 121.5 | 142.7 | 145.0 | 165.3 | 184.3 | 186.8 | 168.9 | 146.6 | 166.0 | 161.6 | 135.7 |
| 1925..... | 155.0 | 162.4 | 141.3 | 139.0 | 153.5 | 171.7 | --- | --- | --- | --- | --- | --- | --- |

ST. LOUIS

| | | | | | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1918..... | 221.6 | 221.0 | 221.2 | 222.0 | 221.7 | 230.5 | 230.2 | 231.2 | 252.3 | 262.3 | 257.8 | 239.5 | 223.6 |
| 1919..... | 226.7 | 218.6 | 218.3 | 220.9 | 224.8 | 224.9 | 252.5 | 247.4 | 253.5 | 275.8 | 293.1 | 283.0 | 225.2 |
| 1920..... | 273.3 | 245.9 | 253.1 | 218.2 | 197.2 | 191.2 | 194.7 | 183.7 | 163.8 | 139.8 | 155.0 | 148.2 | 210.1 |
| 1921..... | 123.3 | 118.3 | 122.6 | 111.6 | 107.7 | 109.0 | 118.3 | 181.3 | 133.1 | 133.3 | 130.6 | 113.1 | 120.4 |
| 1922..... | 107.4 | 108.4 | 107.2 | 116.7 | 125.6 | 128.0 | 124.5 | 128.0 | 125.8 | 129.6 | 124.8 | 114.3 | 115.8 |
| 1923..... | 96.6 | 97.1 | 102.6 | 111.4 | 106.9 | 109.6 | 112.1 | 113.1 | 110.3 | 108.2 | 109.1 | 112.6 | 104.5 |
| 1924..... | 131.9 | 128.8 | 130.5 | 147.8 | 154.2 | 170.3 | 198.6 | 188.5 | 176.0 | 164.7 | 178.0 | 176.4 | 149.0 |
| 1925..... | 156.7 | 167.2 | 163.6 | 163.9 | 167.8 | 179.3 | --- | --- | --- | --- | --- | --- | --- |

FOUR MARKETS COMBINED

| | | | | | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1918..... | 221.2 | 219.9 | 218.5 | 218.3 | 219.4 | 220.6 | 220.7 | 221.3 | 232.4 | 249.2 | 251.7 | 238.2 | 221.7 |
| 1919..... | 223.1 | 221.0 | 223.6 | 229.3 | 246.5 | 256.8 | 267.9 | 240.1 | 248.6 | 278.2 | 292.3 | 277.0 | 241.8 |
| 1920..... | 270.6 | 247.3 | 246.6 | 205.8 | 175.1 | 167.2 | 172.4 | 163.2 | 154.3 | 135.3 | 147.6 | 144.1 | 193.3 |
| 1921..... | 122.9 | 121.7 | 128.5 | 117.3 | 113.1 | 113.8 | 115.8 | 131.4 | 136.1 | 138.5 | 135.0 | 122.5 | 123.7 |
| 1922..... | 117.1 | 107.6 | 108.6 | 113.4 | 120.0 | 121.3 | 118.3 | 120.0 | 120.4 | 125.0 | 122.2 | 112.6 | 116.0 |
| 1923..... | 99.8 | 102.7 | 109.5 | 112.6 | 107.3 | 106.4 | 111.4 | 112.7 | 112.6 | 111.0 | 111.6 | 117.9 | 108.5 |
| 1924..... | 126.2 | 124.6 | 128.3 | 145.0 | 148.9 | 166.4 | 189.5 | 185.9 | 174.0 | 163.4 | 167.4 | 163.7 | 145.6 |
| 1925..... | 156.6 | 161.9 | 150.7 | 150.0 | 159.1 | 169.7 | --- | --- | --- | --- | --- | --- | --- |

Division of Statistical and Historical Research. Compiled from daily trade papers of markets named.

¹The prices in this table are comparable with farm prices in that the farm prices are averages of the several prices reported which cover all classes and grades sold from the farm.

²Average of daily prices weighted by car-lot sales.

TABLE 33.—Wheat, good average quality imported red: Average spot price per bushel of 60 pounds at Liverpool, 1914-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Aver. |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1914..... | 1.02 | 1.04 | 1.07 | 1.07 | 1.11 | 1.09 | 1.05 | 1.28 | 1.29 | 1.28 | 1.38 | 1.47 | 1.18 |
| 1915..... | 1.07 | 1.95 | 1.91 | 1.94 | 1.98 | 1.65 | 1.63 | 1.61 | 1.67 | 1.71 | 1.59 | 1.73 | 1.75 |
| 1916..... | 1.94 | 1.90 | 2.00 | 1.93 | 1.71 | 1.55 | 1.58 | 1.96 | 2.00 | 2.15 | 2.22 | 2.39 | 1.94 |
| 1917..... | 2.39 | 2.43 | 2.42 | 2.46 | 2.46 | 2.46 | 2.50 | 2.50 | 2.38 | 2.26 | 2.26 | 2.26 | 2.40 |
| 1918..... | 2.32 | 2.32 | 2.39 | 2.32 | 2.32 | 2.32 | 2.32 | 2.32 | 2.32 | 2.39 | 2.46 | 2.46 | 2.38 |
| 1919..... | 2.46 | 2.46 | 2.43 | 2.41 | 2.41 | 2.39 | 2.29 | 2.29 | 2.16 | 2.16 | 2.11 | 1.95 | 2.29 |
| 1920..... | 1.90 | 1.75 | 2.11 | 2.37 | 2.34 | 2.40 | 2.34 | 2.20 | 2.13 | 2.34 | 2.53 | 2.39 | 2.23 |
| Av. 1914-1920..... | 1.96 | 1.98 | 2.05 | 2.07 | 2.05 | 1.98 | 1.96 | 2.01 | 1.99 | 2.04 | 2.08 | 2.09 | 2.02 |
| 1921..... | 2.33 | 2.14 | 2.14 | 2.13 | 2.18 | 1.96 | 1.71 | 1.59 | 1.56 | 1.31 | 1.26 | 1.37 | 1.81 |
| 1922..... | 1.37 | (1) | 1.56 | 1.58 | 1.59 | 1.44 | 1.49 | 1.35 | 1.29 | 1.44 | 1.52 | 1.54 | 1.47 |
| 1923..... | 1.42 | 1.41 | 1.40 | 1.46 | (1) | (1) | (1) | 1.26 | 1.22 | 1.23 | 1.25 | (1) | ----- |
| 1924..... | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | 1.61 | 1.74 | 1.77 | 1.88 | ----- |
| 1925..... | 2.10 | 2.14 | 1.99 | 1.75 | 1.86 | 1.76 | 1.59 | 1.94 | (1) | 1.61 | 1.64 | ----- | ----- |

Division of Statistical and Historical Research. Compiled from Broomhall's 1921 Yearbook, 1914-1920; from Corn Trade News, 1921 to date. Conversions at current exchange rate.

¹ No quotations.

TABLE 34.—Wheat, Barletta:¹ Average price per bushel of 60 pounds at Buenos Aires, 1912-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1912..... | \$1.01 | \$1.00 | \$1.00 | \$1.03 | \$0.96 | \$0.99 | \$0.99 | \$1.01 | \$1.02 | \$1.01 | \$0.96 | \$0.92 | \$0.99 |
| 1913..... | .91 | 1.00 | .93 | .99 | .95 | 1.02 | 1.02 | 1.01 | *1.07 | *1.08 | *1.08 | .95 | 1.00 |
| 1914..... | .96 | .99 | .98 | .95 | 1.01 | .99 | 1.01 | 1.22 | 1.23 | *1.12 | *1.24 | *1.22 | 1.03 |
| 1915..... | 1.26 | 1.42 | 1.39 | 1.44 | 1.48 | 1.35 | 1.33 | 1.29 | 1.31 | 1.36 | 1.31 | 1.29 | 1.34 |
| 1916..... | 1.05 | 1.06 | .96 | .95 | .85 | .83 | .84 | 1.06 | 1.19 | 1.49 | 1.74 | 1.48 | 1.12 |
| 1917..... | 1.06 | 1.64 | 1.67 | 1.72 | 2.00 | 2.21 | 2.23 | 2.02 | 2.00 | 2.02 | 2.10 | 1.79 | 1.92 |
| 1918..... | 1.56 | 1.55 | 1.56 | 1.59 ¹ | 1.57 | 1.56 | 1.50 | 1.41 | 1.42 | 1.41 | 1.46 | 1.46 | 1.51 |
| 1919..... | 1.31 | 1.31 | 1.27 | 1.27 | 1.33 | 1.34 | 1.82 | 1.94 | 1.85 | 1.66 | 1.71 | 1.63 | 1.64 |
| 1920..... | 1.66 | 1.75 | 2.02 | 2.55 | 2.79 | 2.58 | 2.85 | 2.43 | 2.48 | 2.58 | 1.75 | 1.86 | 2.36 |
| Av. 1914-1920..... | 1.35 | 1.39 | 1.41 | 1.50 | 1.58 | 1.55 | 1.65 | 1.62 | 1.64 | 1.66 | 1.76 | 1.52 | 1.55 |
| 1921..... | 1.76 | 1.58 | 1.62 | 1.46 | 1.48 | 1.50 | 1.45 | 1.43 | 1.50 | 1.22 | 1.05 | 1.05 | 1.42 |
| 1922..... | 1.04 | 1.26 | 1.32 | 1.30 | 1.32 | 1.22 | 1.27 | 1.20 | 1.16 | 1.22 | 1.29 | 1.22 | 1.23 |
| 1923..... | 1.20 | 1.22 | 1.20 | 1.21 | 1.17 | 1.13 | 1.05 | 1.00 | 1.05 | 1.09 | 1.13 | 1.04 | 1.12 |
| 1924..... | .99 | .97 | .98 | .99 | 1.02 | 1.11 | 1.30 | 1.40 | 1.43 | 1.59 | 1.60 | 1.81 | 1.25 |
| 1925..... | 1.84 | 1.89 | 1.81 | 1.63 | 1.75 | 1.68 | 1.62 | 1.68 | 1.53 | 1.50 | 1.60 | 1.86 | 1.70 |
| Av. 1921-1925..... | 1.37 | 1.38 | 1.39 | 1.32 | 1.35 | 1.33 | 1.34 | 1.34 | 1.33 | 1.32 | 1.32 | 1.36 | 1.31 |

Division of Statistical and Historical Research. Prices and monthly exchange rates from International Yearbook of Agricultural Statistics, 1922, supplemented by Review of the River Plate. Exchange after July, 1921, from Federal Reserve Bulletin.

¹ Barletta is a semihard wheat. ² No. 1 Rosario wheat. ³ Description "Pan." ⁴ New crop.

TABLE 35.—Wheat, white: Spot price per bushel of 60 pounds at Karachi, India, 1912-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1912..... | \$0.90 | \$0.94 | \$0.94 | \$0.95 | \$0.95 | \$0.89 | \$0.88 | \$0.89 | \$0.88 | \$0.89 | \$0.89 | \$0.89 | \$0.91 |
| 1913..... | .92 | .97 | .97 | .93 | .92 | .90 | .90 | .87 | .87 | .86 | .88 | .88 | .91 |
| 1914..... | .91 | .93 | .91 | .92 | .94 | .91 | .90 | .95 | 1.06 | 1.09 | 1.22 | 1.28 | 1.00 |
| 1915..... | 1.27 | 1.43 | 1.22 | 1.21 | 1.07 | 1.02 | 1.62 | 1.06 | 1.12 | 1.10 | 1.00 | 1.07 | 1.14 |
| 1916..... | 1.09 | 1.03 | .97 | .89 | .88 | .86 | .95 | 1.05 | 1.03 | 1.04 | 1.10 | 1.15 | 1.00 |
| 1917..... | 1.19 | 1.14 | 1.13 | 1.12 | 1.04 | 1.05 | 1.08 | 1.07 | 1.14 | 1.13 | 1.22 | 1.26 | 1.13 |
| 1918..... | 1.22 | 1.23 | 1.24 | 1.24 | 1.25 | 1.23 | 1.26 | 1.31 | 1.41 | 1.57 | 1.61 | 1.63 | 1.35 |
| 1919..... | 1.62 | 1.82 | 1.91 | 1.78 | 2.07 | 2.01 | 2.06 | 2.16 | 2.14 | 1.93 | 2.04 | 2.16 | 1.99 |
| 1920..... | 2.12 | 2.09 | 1.91 | 1.90 | 1.74 | 1.62 | 1.49 | 1.35 | 1.34 | 1.36 | 1.32 | 1.22 | 1.62 |
| Av. 1914-1920..... | 1.37 | 1.38 | 1.33 | 1.29 | 1.28 | 1.24 | 1.25 | 1.28 | 1.32 | 1.32 | 1.37 | 1.39 | 1.33 |
| 1921..... | 1.28 | 1.20 | 1.26 | 1.26 | 1.33 | 1.31 | 1.29 | 1.52 | 1.86 | 1.73 | 1.57 | 1.60 | 1.44 |
| 1922..... | 1.50 | (*) | (*) | (*) | 1.36 | 1.36 | 1.25 | 1.22 | 1.11 | .89 | .91 | 1.17 | ----- |
| 1923..... | 1.20 | 1.12 | 1.12 | 1.17 | 1.13 | 1.07 | 1.03 | .91 | .96 | .97 | .99 | 1.01 | 1.06 |
| 1924..... | .98 | .98 | .99 | .99 | 1.04 | 1.05 | 1.19 | 1.30 | 1.35 | 1.46 | 1.47 | 1.49 | 1.19 |
| 1925..... | 1.57 | 1.76 | 1.80 | 1.62 | 1.65 | 1.64 | 1.49 | 1.52 | 1.47 | 1.46 | 1.62 | 1.77 | 1.61 |
| Av. 1921-1925..... | 1.31 | ----- | ----- | ----- | 1.30 | 1.29 | 1.25 | 1.29 | 1.35 | 1.30 | 1.31 | 1.41 | ----- |

Division of Statistical and Historical Research. Compiled from Indian Trade Journal. Converted at par of \$0.3244 per rupee to 1919, and current exchange rate as given by Federal Reserve Bulletin 1919 to date.

¹ First week of month, from Review of the Trade of India.

² Not quoted.

TABLE 36.—Daily milling capacity, flour output, wheat ground, and wheat production, by States

| State | Daily capacity ¹ | | Output ² | | Wheat ground ³ | | Wheat production ⁴ | |
|--------------------------|-----------------------------|--------------|---------------------|---------------|---------------------------|---------------|-------------------------------|---------------|
| | Jan. 1, 1920 | Jan. 1, 1923 | 1921 | 1923 | 1921 | 1923 | 1921 | 1923 |
| | Barrels | Barrels | 1,000 barrels | 1,000 barrels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| Alabama..... | 1, 235 | 600 | 3 | 1 | 16 | 7 | 210 | 150 |
| Arizona..... | 925 | 825 | 132 | 152 | 619 | 717 | 840 | 1,092 |
| Arkansas..... | 7, 235 | 7, 200 | 180 | 104 | 887 | 503 | 958 | 770 |
| California..... | 17, 825 | 16, 475 | 1, 974 | 2, 509 | 9, 582 | 12, 801 | 8, 356 | 16, 157 |
| Colorado..... | 11, 975 | 12, 300 | 1, 481 | 1, 516 | 6, 645 | 6, 717 | 23, 239 | 18, 272 |
| Delaware..... | 1, 975 | 1, 700 | 90 | 59 | 455 | 310 | 1, 300 | 1, 908 |
| Georgia..... | 5, 575 | 5, 550 | 542 | 617 | 2, 468 | 2, 895 | 1, 449 | 1, 739 |
| Idaho..... | 9, 625 | 9, 850 | 787 | 904 | 3, 676 | 4, 101 | 26, 952 | 30, 115 |
| Illinois..... | 55, 250 | 49, 300 | 5, 215 | 5, 514 | 23, 992 | 26, 100 | 46, 822 | 62, 506 |
| Indiana..... | 48, 650 | 46, 200 | 3, 254 | 3, 297 | 15, 749 | 15, 808 | 24, 192 | 34, 248 |
| Iowa..... | 22, 750 | 22, 650 | 912 | 1, 241 | 4, 898 | 5, 960 | 9, 944 | 13, 558 |
| Kansas..... | 85, 800 | 96, 300 | 17, 337 | 15, 862 | 82, 390 | 73, 068 | 128, 695 | 83, 804 |
| Kentucky..... | 28, 725 | 26, 550 | 2, 033 | 2, 348 | 9, 490 | 11, 050 | 6, 340 | 7, 688 |
| Maryland..... | 12, 025 | 11, 975 | 936 | 1, 046 | 4, 453 | 5, 112 | 8, 260 | 11, 520 |
| Michigan..... | 36, 775 | 30, 925 | 2, 122 | 2, 129 | 10, 119 | 10, 474 | 14, 840 | 16, 576 |
| Minnesota..... | 178, 825 | 182, 875 | 23, 733 | 23, 685 | 111, 620 | 111, 956 | 22, 938 | 23, 385 |
| Missouri..... | 91, 275 | 99, 600 | 6, 270 | 7, 456 | 28, 945 | 34, 338 | 34, 952 | 26, 790 |
| Montana..... | 13, 875 | 13, 850 | 1, 276 | 1, 938 | 5, 634 | 8, 598 | 33, 430 | 47, 708 |
| Nebraska..... | 25, 850 | 26, 275 | 2, 342 | 2, 676 | 11, 151 | 12, 809 | 59, 875 | 31, 388 |
| Nevada..... | 725 | 900 | 17 | 15 | 83 | 82 | 493 | 507 |
| New Jersey..... | 2, 925 | 2, 925 | 145 | 126 | 727 | 661 | 1, 539 | 1, 480 |
| New Mexico..... | 1, 625 | 1, 175 | 72 | 41 | 357 | 209 | 3, 068 | 1, 300 |
| New York..... | 60, 900 | 59, 875 | 8, 394 | 8, 959 | 37, 880 | 41, 147 | 9, 137 | 8, 159 |
| North Carolina..... | 12, 425 | 15, 100 | 1, 341 | 1, 296 | 6, 580 | 6, 056 | 4, 500 | 6, 038 |
| North Dakota..... | 17, 375 | 17, 425 | 1, 994 | 2, 661 | 9, 427 | 12, 641 | 80, 750 | 71, 410 |
| Ohio..... | 64, 875 | 60, 150 | 3, 844 | 4, 320 | 18, 514 | 20, 400 | 30, 185 | 42, 770 |
| Oklahoma..... | 20, 850 | 22, 250 | 2, 781 | 2, 350 | 12, 705 | 10, 922 | 47, 325 | 37, 950 |
| Oregon..... | 26, 100 | 28, 400 | 2, 528 | 3, 031 | 11, 538 | 14, 238 | 25, 364 | 26, 807 |
| Pennsylvania..... | 37, 825 | 38, 950 | 3, 007 | 2, 317 | 14, 801 | 11, 506 | 23, 850 | 24, 338 |
| South Carolina..... | 1, 125 | 1, 000 | 62 | 55 | 313 | 262 | 1, 298 | 1, 925 |
| South Dakota..... | 9, 865 | 6, 500 | 354 | 335 | 1, 764 | 1, 612 | 25, 980 | 27, 515 |
| Tennessee..... | 31, 850 | 30, 625 | 2, 233 | 2, 431 | 10, 794 | 11, 560 | 4, 500 | 4, 519 |
| Texas..... | 33, 950 | 36, 625 | 4, 009 | 4, 021 | 18, 541 | 18, 740 | 20, 810 | 16, 370 |
| Utah..... | 9, 425 | 12, 075 | 742 | 768 | 3, 478 | 3, 588 | 6, 299 | 6, 566 |
| Virginia..... | 21, 700 | 24, 025 | 1, 761 | 1, 707 | 8, 373 | 8, 306 | 8, 301 | 11, 145 |
| Washington..... | 36, 475 | 36, 800 | 4, 470 | 4, 819 | 21, 021 | 23, 167 | 58, 245 | 61, 215 |
| West Virginia..... | 10, 000 | 10, 725 | 376 | 280 | 1, 678 | 1, 378 | 3, 125 | 2, 964 |
| Wisconsin..... | 26, 100 | 27, 850 | 1, 792 | 1, 576 | 7, 968 | 7, 123 | 2, 812 | 1, 970 |
| Wyoming..... | 2, 800 | 2, 575 | 217 | 151 | 1, 003 | 696 | 3, 316 | 2, 785 |
| Other..... | 200 | 1, 150 | 178 | 121 | 880 | 694 | 397 | 274 |
| Total United States..... | 1, 084, 965 | 1, 098, 100 | 110, 846 | 114, 439 | 521, 234 | 538, 312 | 814, 905 | 797, 381 |

Division of Statistical and Historical Research.

¹ Miller's Almanack, 1923, page 192. Does not include a few minor States.² Census of Manufactures, 1921 and 1923. Flour-Mill Products and Bread and Other Bakery Products. Includes merchant mills only. Calendar years.³ Division of Crop and Livestock Estimates. Department of Agriculture Yearbooks, 1922 and 1924.

TABLE 37.—Wheat: Average price per bushel of 60 pounds at Port Adelaide, Australia, 1912-1924

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1912 | \$0.88 | \$0.87 | \$0.88 | \$0.96 | \$0.96 | \$0.98 | \$0.96 | \$0.96 | \$0.99 | \$1.00 | \$0.96 | \$0.86 | \$0.94 |
| 1913 | .85 | .86 | .86 | .89 | .88 | .87 | .86 | .87 | .86 | .84 | .84 | .84 | .86 |
| 1914 | .86 | .87 | .90 | .90 | .92 | .93 | .93 | 1.00 | 1.12 | 1.14 | 1.21 | 1.40 | 1.02 |
| 1915 | 1.48 | 1.65 | 1.74 | 1.76 | 1.80 | 1.81 | 1.82 | 1.79 | 1.78 | 1.41 | 1.05 | 1.23 | 1.61 |
| 1916 ¹ | 1.13 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| 1917 ¹ | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| 1918 ¹ | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| 1919 ¹ | 1.14 | 1.19 | 1.18 | 1.16 | 1.16 | 1.15 | 1.11 | 1.07 | 1.05 | 1.15 | 1.12 | 1.13 | 1.13 |
| 1920 ¹ | 1.19 | 1.29 | 1.45 | 1.50 | 1.48 | 1.51 | 1.48 | 1.39 | 1.35 | 1.33 | 1.31 | 1.34 | 1.38 |
| Av. 1914-1920 | 1.15 | 1.20 | 1.24 | 1.25 | 1.25 | 1.26 | 1.25 | 1.24 | 1.25 | 1.21 | 1.16 | 1.22 | 1.22 |
| 1921 ¹ | 1.69 | 1.74 | 1.76 | 1.77 | 1.79 | 1.70 | 1.63 | 1.64 | 1.68 | 1.74 | 1.79 | 1.87 | 1.73 |
| 1922 | .99 | 1.07 | 1.18 | 1.15 | 1.27 | 1.20 | 1.19 | 1.15 | 1.14 | 1.15 | 1.15 | 1.17 | 1.15 |
| 1923 | 1.18 | 1.14 | 1.12 | 1.18 | 1.17 | 1.12 | 1.04 | .98 | 1.01 | 1.01 | .98 | .94 | 1.07 |
| 1924 | .91 | .93 | .93 | .95 | .99 | 1.00 | 1.14 | 1.28 | 1.26 | 1.34 | 1.40 | 1.46 | 1.13 |

Division of Statistical and Historical Research. Compiled from Statistical Register of South Australia, 1920-21 to 1923-24.

¹The prices from 1916-1921 are those fixed for home consumption, the average prices on the whole transaction of the Wheat Harvest Board during each year being: 1916, \$1.13; 1917, \$1.14; 1918, \$1.14; 1919, \$1.31; 1920, \$1.70; and 1921, \$1.52.

²These prices for old wheat; new wheat price; November, \$0.93; December, \$1.02.

TABLE 38.—Wheat ground and wheat-milling products, by months

| Year and month | Mills reporting | Wheat ground | Production | | Daily (24-hour) capacity in wheat flour | Percentage of total capacity operated |
|----------------|-----------------|--------------|-------------|-------------------|---|---------------------------------------|
| | | | Wheat flour | Wheat-grain offal | | |
| 1924 | Number | Bushels | Barrels | Pounds | Barrels | Per cent |
| July | 1,066 | 39,271,674 | 8,465,048 | 696,531,960 | 646,379 | 50.4 |
| August | 1,069 | 45,433,530 | 9,842,327 | 799,698,076 | 651,172 | 58.1 |
| September | 1,060 | 47,857,224 | 10,459,277 | 823,390,494 | 650,167 | 61.3 |
| October | 1,069 | 51,862,915 | 11,370,583 | 977,351,222 | 651,379 | 64.7 |
| November | 1,050 | 41,981,793 | 9,180,668 | 719,163,559 | 650,638 | 58.8 |
| December | 1,052 | 40,427,953 | 8,854,928 | 695,925,368 | 650,691 | 52.3 |
| 1925 | | | | | | |
| January | 1,050 | 45,009,962 | 9,852,531 | 762,488,589 | 658,660 | 57.5 |
| February | 1,056 | 37,720,108 | 8,248,124 | 648,196,645 | 650,904 | 52.8 |
| March | 1,067 | 33,547,957 | 7,346,597 | 576,955,340 | 652,147 | 43.3 |
| April | 1,058 | 31,065,514 | 6,790,942 | 536,262,688 | 649,478 | 40.2 |
| May | 1,048 | 31,874,430 | 6,941,623 | 553,749,523 | 647,003 | 42.9 |
| June | 1,057 | 35,525,909 | 7,744,712 | 621,141,095 | 645,500 | 46.1 |
| Total | | 481,578,960 | 105,093,360 | 8,410,934,489 | | |

COMPARATIVE STATEMENT FOR 941 IDENTICAL MILLS WHICH REPORTED EACH MONTH¹

| Year and month | Wheat ground | Production | | Average pounds of wheat per barrel of flour | Average pounds of offal per bushel of wheat | Daily (24-hour) capacity in wheat flour | Percentage of total capacity operated |
|----------------|----------------|----------------|-------------------|---|---|---|---------------------------------------|
| | | Wheat flour | Wheat-grain offal | | | | |
| 1924 | <i>Bushels</i> | <i>Barrels</i> | <i>Pounds</i> | <i>Number</i> | <i>Number</i> | <i>Barrels</i> | <i>Per cent</i> |
| July | 38,571,559 | 8,314,767 | 684,162,700 | 278.3 | 17.7 | 609,280 | 52.5 |
| August | 44,204,305 | 9,585,857 | 777,397,777 | 276.7 | 17.6 | 607,828 | 60.7 |
| September | 46,585,228 | 10,183,742 | 801,327,408 | 274.5 | 17.2 | 617,075 | 66.0 |
| October | 50,423,166 | 11,059,184 | 952,044,525 | 273.5 | 18.9 | 617,387 | 66.3 |
| November | 41,147,714 | 8,995,742 | 704,971,768 | 274.4 | 17.1 | 618,651 | 60.6 |
| December | 39,544,732 | 8,666,165 | 679,909,693 | 273.8 | 17.2 | 619,004 | 53.8 |
| 1925 | | | | | | | |
| January | 43,747,469 | 9,573,020 | 740,866,377 | 274.2 | 16.9 | 618,778 | 59.5 |
| February | 36,434,067 | 7,967,840 | 625,319,492 | 274.4 | 17.2 | 610,352 | 54.4 |
| March | 32,524,457 | 7,128,970 | 558,976,956 | 273.9 | 17.2 | 611,085 | 44.8 |
| April | 30,302,688 | 6,616,172 | 522,525,124 | 274.8 | 17.2 | 612,061 | 41.5 |
| May | 30,789,017 | 6,708,740 | 534,295,902 | 275.6 | 17.4 | 610,004 | 44.0 |
| June | 34,362,491 | 7,460,940 | 600,341,885 | 275.2 | 17.5 | 606,466 | 47.3 |
| Total | 468,637,028 | 102,281,089 | 8,182,139,702 | | | | |

Division of Statistical and Historical Research. Compiled from Bureau of Census monthly reports on wheat-milling products.

¹These mills produced approximately 86 per cent of the total wheat flour reported in 1925.

WHEAT FLOUR

TABLE 39.—Flour, wheat: Average wholesale price per barrel at markets named, 1909-1925

MINNEAPOLIS—SPRING PATENTS¹

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909..... | \$6.21 | \$5.89 | \$5.14 | \$5.29 | \$5.22 | \$5.48 | \$5.58 | \$5.45 | \$5.52 | \$5.38 | \$5.42 | \$5.33 | \$5.49 |
| 1910..... | 6.26 | 5.79 | 5.75 | 5.21 | 5.06 | 5.01 | 5.28 | 4.91 | 4.75 | 4.64 | 4.80 | 4.81 | 5.19 |
| 1911..... | 4.88 | 4.98 | 4.98 | 5.25 | 5.05 | 5.05 | 5.00 | 5.10 | 5.10 | 5.10 | 5.43 | 5.60 | 5.12 |
| 1912..... | 5.43 | 5.24 | 4.68 | 4.63 | 4.59 | 4.13 | 4.26 | 4.43 | 4.43 | 4.43 | 4.48 | 4.61 | 4.61 |
| 1913..... | 4.66 | 4.57 | 4.45 | 4.33 | 4.18 | 4.15 | 4.26 | 4.52 | 4.54 | 4.51 | 4.51 | 4.51 | 4.43 |
| Av. 1909-1913..... | 5.48 | 5.27 | 5.00 | 4.94 | 4.81 | 4.76 | 4.88 | 4.88 | 4.87 | 4.81 | 4.94 | 4.98 | 4.97 |
| 1914..... | 4.62 | 5.78 | 6.02 | 5.58 | 5.79 | 6.01 | 6.86 | 7.54 | 7.16 | 7.61 | 7.41 | 6.78 | 6.43 |
| 1915..... | 6.78 | 6.42 | 5.13 | 5.23 | 5.28 | 5.98 | 6.23 | 6.13 | 5.70 | 5.98 | 5.79 | 5.29 | 5.52 |
| 1916..... | 5.68 | 7.69 | 8.26 | 9.08 | 9.56 | 8.60 | 9.06 | 8.45 | 9.44 | 11.33 | 14.09 | 13.08 | 9.52 |
| 1917..... | 12.86 | 13.22 | 11.15 | 10.94 | 10.24 | 10.07 | 9.85 | 10.05 | 9.85 | 9.90 | 9.42 | 9.89 | 10.82 |
| 1918..... | 12.45 | 10.33 | 10.49 | 10.44 | 10.41 | 10.44 | 11.42 | 10.69 | 11.22 | 12.69 | 12.52 | 12.00 | 10.93 |
| 1919..... | 12.13 | 12.13 | 11.54 | 12.03 | 13.20 | 14.49 | 14.97 | 13.73 | 13.41 | 14.69 | 15.49 | 14.64 | 13.54 |
| 1920..... | 14.12 | 13.33 | 13.02 | 11.46 | 9.74 | 9.28 | 9.94 | 9.36 | 9.10 | 8.30 | 9.04 | 9.40 | 10.51 |
| Av. 1914-1920..... | 9.52 | 9.87 | 9.37 | 9.24 | 9.17 | 9.27 | 9.61 | 9.42 | 9.42 | 9.97 | 10.54 | 10.15 | 9.93 |
| 1921..... | 9.27 | 8.34 | 8.62 | 7.67 | 7.39 | 7.26 | 7.33 | 8.17 | 8.27 | 8.46 | 8.32 | 7.71 | 8.07 |
| 1922..... | 7.95 | 7.22 | 6.68 | 6.76 | 6.88 | 6.86 | 6.71 | 6.72 | 6.72 | 7.00 | 6.80 | 6.35 | 6.89 |
| 1923..... | 6.21 | 6.37 | 6.45 | 6.43 | 6.21 | 6.30 | 6.44 | 6.51 | 6.49 | 6.50 | 6.83 | 7.12 | 6.49 |
| 1924..... | 7.72 | 7.60 | 7.52 | 8.19 | 8.22 | 9.03 | 9.80 | 10.02 | 9.34 | 8.54 | 9.12 | 8.86 | 8.07 |
| 1925..... | 8.78 | 9.40 | 8.52 | 8.52 | 8.81 | 9.52 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

ST. LOUIS—SOFT WINTER PATENTS¹

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909..... | \$5.80 | \$4.92 | \$5.14 | \$5.75 | \$5.68 | \$5.82 | \$5.77 | \$5.80 | \$5.75 | \$5.40 | \$5.29 | \$5.11 | \$5.52 |
| 1910..... | 5.20 | 4.85 | 4.78 | 4.68 | 4.58 | 4.86 | 4.64 | 4.62 | 4.52 | 4.38 | 4.39 | 4.36 | 4.65 |
| 1911..... | 4.17 | 4.25 | 4.40 | 4.69 | 4.68 | 4.62 | 4.74 | 4.70 | 4.72 | 5.07 | 5.54 | 5.43 | 4.75 |
| 1912..... | 5.26 | 4.49 | 4.54 | 4.70 | 4.67 | 4.70 | 4.84 | 4.86 | 4.68 | 4.59 | 4.52 | 4.45 | 4.69 |
| 1913..... | 4.12 | 3.88 | 3.98 | 3.85 | 4.08 | 4.14 | 4.20 | 4.11 | 4.02 | 3.85 | 3.92 | 3.74 | 4.00 |
| Av. 1909-1913..... | 4.91 | 4.45 | 4.56 | 4.75 | 4.74 | 4.77 | 4.88 | 4.82 | 4.74 | 4.66 | 4.73 | 4.62 | 4.72 |
| 1914..... | 3.47 | 4.16 | 5.04 | 4.86 | 4.91 | 5.03 | 6.18 | 6.08 | 6.57 | 6.65 | 6.66 | 5.96 | 5.61 |
| 1915..... | 5.56 | 4.87 | 4.83 | 5.08 | 5.18 | 5.39 | 5.69 | 5.79 | 5.24 | 5.32 | 5.20 | 4.91 | 5.25 |
| 1916..... | 5.24 | 6.85 | 7.31 | 7.84 | 8.72 | 8.31 | 8.67 | 8.44 | 8.83 | 11.29 | 13.91 | 12.59 | 9.00 |
| 1917..... | 10.64 | 10.78 | 10.39 | 10.33 | 10.26 | 10.28 | 10.47 | 10.74 | 11.40 | 11.39 | 10.94 | 10.72 | 10.59 |
| 1918..... | 10.26 | 10.25 | 10.25 | 10.25 | 10.25 | 10.25 | 11.22 | 11.05 | 11.40 | 11.45 | 11.41 | 10.28 | 10.68 |
| 1919..... | 10.50 | 10.13 | 9.90 | 9.95 | 10.12 | 11.31 | 12.08 | 11.49 | 11.59 | 12.34 | 13.93 | 13.18 | 11.40 |
| 1920..... | 11.96 | 11.99 | 12.09 | 11.38 | 10.13 | 9.44 | 9.73 | 9.71 | 8.78 | 7.10 | 7.81 | 7.98 | 9.84 |
| Av. 1914-1920..... | 8.26 | 8.43 | 8.54 | 8.53 | 8.51 | 8.57 | 9.13 | 9.26 | 9.01 | 9.36 | 9.98 | 9.31 | 8.91 |
| 1921..... | 6.61 | 6.63 | 6.94 | 6.60 | 6.25 | 6.25 | 5.99 | 6.09 | 7.05 | 6.79 | 7.07 | 6.48 | 6.61 |
| 1922..... | 5.94 | 5.75 | 5.85 | 6.20 | 6.50 | 6.62 | 6.50 | 6.02 | 6.50 | 6.66 | 6.53 | 6.03 | 6.32 |
| 1923..... | 5.59 | 5.71 | 5.39 | 5.71 | 5.75 | 5.75 | 5.93 | 5.94 | 5.95 | 5.93 | 5.89 | 5.08 | 5.66 |
| 1924..... | 6.00 | 7.24 | 7.06 | 7.86 | 8.26 | 8.94 | 10.02 | 10.50 | 9.66 | 8.56 | 9.06 | 9.02 | 8.56 |
| 1925..... | 8.51 | 8.86 | 8.80 | 8.86 | 8.73 | 9.07 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

CHICAGO—WINTER PATENTS¹

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909..... | \$4.08 | \$5.07 | \$4.72 | \$5.29 | \$5.41 | \$5.46 | \$5.46 | \$5.42 | \$5.48 | \$5.27 | \$5.05 | \$4.75 | \$5.28 |
| 1910..... | 4.92 | 4.87 | 4.72 | 4.57 | 4.40 | 4.41 | 4.53 | 4.31 | 4.00 | 4.06 | 4.20 | 4.16 | 4.44 |
| 1911..... | 4.08 | 4.12 | 4.32 | 4.64 | 4.61 | 4.85 | 4.40 | 4.58 | 4.58 | 4.76 | 5.21 | 5.17 | 4.61 |
| 1912..... | 4.86 | 4.62 | 4.69 | 4.52 | 4.56 | 4.50 | 4.62 | 4.67 | 4.50 | 4.48 | 4.48 | 4.41 | 4.58 |
| 1913..... | 4.25 | 4.12 | 4.16 | 4.21 | 4.21 | 4.22 | 4.25 | 4.25 | 4.25 | 4.22 | 4.21 | 4.24 | 4.22 |
| Av. 1909-1913..... | 4.84 | 4.64 | 4.62 | 4.64 | 4.64 | 4.69 | 4.66 | 4.65 | 4.58 | 4.56 | 4.63 | 4.55 | 4.63 |
| 1914..... | 3.80 | 4.54 | 5.36 | 5.16 | 5.23 | 6.22 | 6.28 | 7.42 | 7.04 | 7.18 | 7.19 | 5.69 | 5.84 |
| 1915..... | 5.16 | 5.24 | 5.19 | 5.28 | 5.23 | 5.30 | 5.92 | 6.11 | 5.38 | 5.78 | 5.54 | 5.37 | 5.46 |
| 1916..... | 5.23 | 6.55 | 7.30 | 7.78 | 8.82 | 8.20 | 9.09 | 8.44 | 9.10 | 11.20 | 14.91 | 13.80 | 9.20 |
| 1917..... | 11.77 | 12.25 | 11.74 | 10.68 | 10.38 | 10.44 | 9.92 | 10.45 | 11.00 | 10.95 | 10.82 | 10.88 | 10.94 |
| 1918..... | 10.83 | 10.68 | 10.20 | 10.08 | 9.98 | 10.22 | 10.55 | 10.42 | 10.36 | 11.44 | 12.99 | 11.82 | 10.77 |
| 1919..... | 11.02 | 10.54 | 10.80 | 11.35 | 11.51 | 13.00 | 13.68 | 12.88 | 12.08 | 12.30 | 13.68 | 13.42 | 12.22 |
| 1920..... | 12.08 | 11.79 | 12.22 | 11.06 | 10.40 | 8.78 | 10.19 | 9.26 | 9.05 | 7.91 | 7.84 | 8.78 | 10.20 |
| Av. 1914-1920..... | 8.69 | 8.80 | 8.92 | 8.76 | 8.79 | 8.76 | 9.26 | 9.28 | 9.16 | 9.53 | 10.42 | 9.96 | 9.21 |
| 1921..... | 7.12 | 7.66 | 7.01 | 6.96 | 6.61 | 6.44 | 6.07 | 6.97 | 6.81 | 6.98 | 7.54 | 7.11 | 6.87 |
| 1922..... | 6.76 | 6.89 | 6.24 | 6.45 | 6.44 | 6.67 | 6.39 | 6.26 | 6.20 | 6.19 | 6.04 | 5.80 | 6.30 |
| 1923..... | 5.31 | 5.82 | 5.75 | 6.30 | 6.30 | 6.30 | 6.39 | 6.39 | 6.41 | 6.28 | 5.52 | 5.84 | 5.48 |
| 1924..... | 6.23 | 6.32 | 6.45 | 7.20 | 7.37 | 8.10 | 9.91 | 8.95 | 8.22 | 7.46 | 8.09 | 8.15 | 7.02 |
| 1925..... | 7.77 | 8.07 | 7.65 | 7.72 | 7.90 | 8.65 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

¹ Compiled from the Minneapolis Daily Market Record.² Compiled from St. Louis Annual Statements of Trade and Commerce and St. Louis Market Reporter.³ Compiled from Chicago Board of Trade and Daily Trade Bulletin.

TABLE 30.—Flour, wheat: Average wholesale price per barrel at markets named, 1908-1925—Continued

CHICAGO—SPRING PATENTS *

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909 | \$6.17 | \$5.81 | \$6.08 | \$5.92 | \$6.13 | \$6.45 | \$6.41 | \$6.35 | \$6.46 | \$6.28 | \$6.27 | \$6.18 | \$6.21 |
| 1910 | 6.76 | 6.65 | 6.37 | 6.31 | 6.18 | 6.28 | 6.42 | 6.05 | 5.56 | 5.59 | 5.52 | 5.44 | 6.06 |
| 1911 | 5.53 | 5.83 | 5.89 | 6.12 | 5.95 | 5.80 | 5.82 | 5.80 | 5.90 | 6.88 | 6.38 | 6.40 | 5.94 |
| 1912 | 6.10 | 5.79 | 5.65 | 5.36 | 5.14 | 4.84 | 4.40 | 4.66 | 4.64 | 4.71 | 4.88 | 4.81 | 5.10 |
| 1913 | 4.89 | 4.80 | 4.73 | 4.62 | 4.58 | 4.65 | 4.68 | 4.80 | 4.66 | 4.71 | 4.74 | 4.72 | 4.73 |
| Av. 1909-1913 | 5.89 | 5.78 | 5.74 | 5.67 | 5.60 | 5.60 | 5.59 | 5.54 | 5.46 | 5.39 | 5.58 | 5.51 | 5.61 |
| 1914 | 4.58 | 5.62 | 6.18 | 5.71 | 5.79 | 5.90 | 6.97 | 7.62 | 7.41 | 7.62 | 7.85 | 6.62 | 6.49 |
| 1915 | 6.66 | 6.76 | 5.40 | 5.60 | 5.69 | 5.84 | 6.51 | 6.74 | 5.87 | 6.16 | 6.11 | 5.99 | 6.11 |
| 1916 | 5.96 | 7.63 | 8.15 | 9.84 | 9.79 | 9.02 | 9.54 | 9.01 | 9.75 | 12.02 | 15.34 | 17.46 | 10.29 |
| 1917 | 12.53 | 13.03 | 11.46 | 10.89 | 10.55 | 10.45 | 10.68 | 10.75 | 11.25 | 11.50 | 11.15 | 10.88 | 11.21 |
| 1918 | 10.65 | 11.00 | 10.62 | 10.40 | 9.58 | 10.50 | 10.42 | 10.28 | 10.20 | 11.45 | 13.10 | 11.25 | 10.79 |
| 1919 | 11.62 | 12.25 | 11.40 | 11.52 | 13.00 | 13.95 | 13.88 | 14.42 | 13.18 | 13.75 | 15.40 | 14.59 | 13.24 |
| 1920 | 13.35 | 13.10 | 12.42 | 11.75 | 10.75 | 8.32 | 10.00 | 8.82 | 8.76 | 8.48 | 8.42 | 9.60 | 10.31 |
| Av. 1914-1920 | 9.34 | 9.91 | 9.38 | 9.39 | 9.31 | 9.14 | 9.63 | 9.66 | 9.49 | 10.14 | 11.05 | 10.90 | 9.78 |
| 1921 | 8.82 | 9.00 | 8.10 | 7.75 | 7.38 | 7.32 | 6.78 | 7.84 | 7.55 | 7.60 | 8.00 | 7.65 | 7.92 |
| 1922 | 7.73 | 7.25 | 6.99 | 6.86 | 6.78 | 7.00 | 6.85 | 6.08 | 6.68 | 6.64 | 6.69 | 6.22 | 6.86 |
| 1923 | 5.80 | 5.97 | 6.15 | 6.18 | 5.99 | 5.95 | 5.98 | 6.39 | 6.25 | 6.12 | 6.23 | 6.63 | 6.14 |
| 1924 | 7.08 | 7.09 | 6.97 | 7.75 | 7.83 | 8.50 | 9.48 | 9.60 | 8.94 | 8.10 | 8.49 | 8.44 | 8.19 |
| 1925 | 8.26 | 8.49 | 7.84 | 8.08 | 8.23 | 8.72 | | | | | | | |

NEW YORK—WINTER PATENTS *

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909 | \$6.52 | \$6.28 | \$5.43 | \$5.77 | \$5.78 | \$5.74 | \$5.96 | \$5.95 | \$5.96 | \$5.82 | \$5.74 | \$5.40 | \$5.88 |
| 1910 | 5.44 | 5.30 | 5.07 | 4.92 | 4.81 | 4.88 | 5.02 | 4.92 | 4.78 | 4.63 | 4.67 | 4.65 | 4.93 |
| 1911 | 4.68 | 4.67 | 4.71 | 4.90 | 4.90 | 4.90 | 4.96 | 5.06 | 5.08 | 5.32 | 6.09 | 6.00 | 5.10 |
| 1912 | 5.79 | 5.28 | 5.34 | 5.33 | 5.33 | 5.33 | 5.56 | 5.75 | 5.44 | 5.50 | 5.59 | 5.54 | 5.47 |
| 1913 | 5.58 | 5.42 | 4.89 | 4.91 | 4.90 | 4.98 | 4.92 | 4.97 | 5.00 | 4.88 | 5.00 | 4.98 | 5.03 |
| Av. 1909-1913 | 5.60 | 5.40 | 5.09 | 5.17 | 5.14 | 5.15 | 5.28 | 5.33 | 5.25 | 5.23 | 5.38 | 5.31 | 5.28 |
| 1914 | 4.90 | 5.22 | 5.81 | 5.80 | 5.89 | 5.86 | 6.79 | 7.88 | 7.56 | 7.39 | 7.55 | 6.64 | 6.47 |
| 1915 | 6.48 | 6.03 | 5.68 | 5.89 | 5.96 | 6.20 | 6.78 | 6.69 | 6.28 | 6.24 | 6.39 | 6.43 | 6.17 |
| 1916 | 5.63 | 7.34 | 7.86 | 8.30 | 8.90 | 8.60 | 9.09 | 8.87 | 9.53 | 11.41 | 14.57 | 12.98 | 9.42 |
| 1917 | 11.72 | 11.12 | 10.94 | 10.64 | 10.51 | 10.45 | 10.44 | 10.43 | 10.91 | 11.09 | 10.98 | 10.98 | 10.94 |
| 1918 | 11.35 | 10.71 | 10.40 | 10.28 | 10.25 | 10.53 | 10.48 | 10.25 | 10.55 | 11.40 | 11.38 | 11.19 | 10.73 |
| 1919 | 11.11 | 10.53 | 10.52 | 10.22 | 10.18 | 10.68 | 10.99 | 10.98 | 10.91 | 11.47 | 12.90 | 13.67 | 11.13 |
| 1920 | 12.46 | 11.20 | 11.22 | 10.14 | 9.38 | 8.82 | 8.87 | 8.36 | 8.15 | 7.09 | 7.09 | 7.59 | 9.17 |
| Av. 1914-1920 | 9.09 | 8.96 | 8.92 | 8.75 | 8.70 | 8.73 | 9.05 | 9.06 | 9.13 | 9.42 | 10.05 | 9.76 | 9.13 |
| 1921 | 6.50 | 6.21 | 6.32 | 6.03 | 5.73 | 5.68 | 6.00 | 6.06 | 6.99 | 6.57 | 6.32 | 5.93 | 6.25 |
| 1922 | 7.10 | 6.49 | 6.87 | 6.76 | 6.98 | 6.79 | 6.67 | 6.63 | 6.56 | 6.72 | 6.45 | 6.34 | 6.67 |
| 1923 | 5.69 | 5.93 | 6.31 | 6.23 | 6.20 | 6.18 | 6.19 | 6.16 | 6.26 | 6.25 | 6.47 | 6.81 | 6.23 |
| 1924 | 7.24 | 7.17 | 7.17 | 7.97 | 8.26 | 8.87 | 9.79 | 9.72 | 9.39 | 8.64 | 9.22 | 9.11 | 8.55 |
| 1925 | 8.78 | 9.26 | 8.81 | 8.74 | 9.04 | 9.69 | | | | | | | |

NEW YORK—SPRING PATENTS *

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909 | \$6.45 | \$6.31 | \$5.62 | \$5.51 | \$5.56 | \$5.63 | \$5.80 | \$5.76 | \$5.82 | \$5.66 | \$5.62 | \$5.42 | \$5.76 |
| 1910 | 6.06 | 5.78 | 5.71 | 5.52 | 5.33 | 5.40 | 5.46 | 5.26 | 5.02 | 5.02 | 5.23 | 5.45 | 5.41 |
| 1911 | 5.13 | 5.36 | 5.44 | 5.42 | 5.45 | 5.22 | 5.42 | 5.43 | 5.40 | 5.42 | 5.86 | 5.73 | 5.45 |
| 1912 | 5.51 | 5.37 | 5.11 | 4.87 | 4.80 | 4.60 | 4.66 | 4.70 | 4.80 | 4.66 | 4.89 | 4.95 | 4.91 |
| 1913 | 4.98 | 4.98 | 4.75 | 4.50 | 4.52 | 4.56 | 4.61 | 4.76 | 4.98 | 4.96 | 4.72 | 4.79 | 4.73 |
| Av. 1909-1913 | 5.62 | 5.56 | 5.33 | 5.16 | 5.13 | 5.08 | 5.19 | 5.18 | 5.20 | 5.11 | 5.27 | 5.20 | 5.25 |
| 1914 | 4.50 | 5.78 | 6.09 | 5.78 | 5.83 | 6.02 | 7.03 | 7.78 | 7.41 | 7.63 | 7.79 | 6.50 | 6.52 |
| 1915 | 6.82 | 6.91 | 6.44 | 5.58 | 5.62 | 6.16 | 6.60 | 6.64 | 5.99 | 6.3* | 6.27 | 5.78 | 6.26 |
| 1916 | 6.90 | 7.80 | 8.36 | 8.94 | 9.69 | 8.99 | 9.39 | 9.06 | 9.90 | 11.66 | 14.99 | 13.68 | 9.83 |
| 1917 | 12.32 | 12.46 | 11.69 | 11.31 | 10.93 | 10.86 | 10.83 | 10.63 | 10.94 | 11.00 | 10.98 | 10.98 | 11.23 |
| 1918 | 11.41 | 11.26 | 11.67 | 10.92 | 10.82 | 10.90 | 10.64 | 10.69 | 11.27 | 12.09 | 12.51 | 11.92 | 11.29 |
| 1919 | 12.12 | 12.35 | 11.73 | 12.30 | 13.11 | 14.25 | 14.49 | 13.25 | 13.67 | 13.88 | 14.83 | 14.30 | 13.29 |
| 1920 | 13.03 | 13.06 | 12.82 | 11.34 | 9.77 | 9.12 | 9.58 | 8.98 | 8.82 | 8.12 | 8.61 | 9.07 | 10.27 |
| Av. 1914-1920 | 9.61 | 9.95 | 9.74 | 9.44 | 9.40 | 9.46 | 9.79 | 9.86 | 9.61 | 10.10 | 10.85 | 10.31 | 9.82 |
| 1921 | 9.03 | 8.43 | 8.31 | 7.50 | 6.97 | 6.94 | 6.85 | 6.05 | 7.95 | 7.95 | 8.88 | 7.63 | 7.82 |
| 1922 | 7.89 | 7.06 | 6.64 | 6.86 | 6.96 | 6.96 | 6.89 | 6.89 | 6.99 | 6.79 | 6.68 | 6.37 | 6.93 |
| 1923 | 6.07 | 6.38 | 6.40 | 6.35 | 6.17 | 6.25 | 6.23 | 6.50 | 6.30 | 6.28 | 6.46 | 6.84 | 6.36 |
| 1924 | 7.62 | 7.43 | 7.28 | 7.96 | 8.08 | 8.91 | 9.63 | 9.82 | 9.66 | 8.26 | 8.78 | 8.72 | 8.43 |
| 1925 | 8.54 | 8.86 | 8.84 | 8.26 | 8.62 | 9.18 | | | | | | | |

* Compiled from Chicago Board of Trade and Daily Trade Bulletin.

* Compiled from New York Journal of Commerce.

TABLE 39.—*Flour, wheat: Average wholesale price per barrel at markets named, 1909-1925—Continued*

KANSAS CITY—HARD WINTER PATENTS *

| Year beginning July 1 | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909..... | \$3.42 | \$4.72 | \$4.68 | \$4.88 | \$4.68 | \$4.77 | \$4.78 | \$4.78 | \$4.83 | \$4.84 | \$4.84 | \$4.60 | \$4.82 |
| 1910..... | 4.85 | 4.70 | 4.70 | 4.54 | 4.46 | 4.46 | 4.52 | 4.30 | 4.20 | 4.05 | 4.26 | 4.18 | 4.44 |
| 1911..... | 4.06 | 4.19 | 4.30 | 4.65 | 4.60 | 4.54 | 4.80 | 4.72 | 4.69 | 4.79 | 4.90 | 4.90 | 4.60 |
| 1912..... | 4.50 | 4.10 | 4.10 | 4.09 | 3.90 | 3.86 | 3.92 | 3.94 | 3.88 | 3.99 | 4.02 | 4.15 | 4.03 |
| 1913..... | 4.10 | 4.07 | 4.19 | 4.01 | 3.95 | 3.95 | 3.95 | 3.95 | 3.98 | 4.00 | 4.00 | 3.96 | 4.01 |
| Av. 1909-1913..... | 4.59 | 4.36 | 4.39 | 4.42 | 4.32 | 4.32 | 4.39 | 4.34 | 4.32 | 4.33 | 4.40 | 4.36 | 4.38 |
| 1914..... | 3.58 | 4.23 | 5.37 | 5.08 | 4.98 | 5.19 | 6.24 | 7.02 | 6.78 | 6.80 | 6.68 | 5.81 | 5.65 |
| 1915..... | 5.58 | 5.38 | 4.91 | 4.90 | 4.98 | 5.18 | 5.75 | 5.74 | 5.12 | 5.20 | 5.08 | 4.81 | 5.22 |
| 1916..... | 5.14 | 6.90 | 7.40 | 8.08 | 9.07 | 8.02 | 8.82 | 8.38 | 9.30 | 11.91 | 14.44 | 12.84 | 9.19 |
| 1917..... | 11.95 | 12.41 | 10.74 | 10.50 | 10.31 | 10.02 | 10.10 | 10.25 | 10.31 | 10.31 | 10.38 | 10.38 | 10.64 |
| 1918..... | 10.59 | 10.27 | 10.15 | 10.14 | 10.25 | 9.93 | 9.83 | 10.06 | 10.49 | 11.94 | 12.90 | 12.01 | 10.72 |
| 1919..... | 11.11 | 10.70 | 10.98 | 11.56 | 12.02 | 13.52 | 14.08 | 12.64 | 12.26 | 13.09 | 14.23 | 13.37 | 12.46 |
| 1920..... | 12.98 | 12.25 | 11.88 | 10.69 | 9.15 | 8.81 | 9.06 | 8.65 | 8.60 | 7.54 | 8.16 | 7.88 | 9.64 |
| Av. 1914-1920..... | 8.70 | 8.88 | 8.78 | 8.71 | 8.68 | 8.67 | 9.13 | 8.96 | 8.98 | 9.54 | 10.28 | 9.59 | 9.08 |
| 1921..... | 7.15 | 6.61 | 7.08 | 6.57 | 6.05 | 6.15 | 6.13 | 6.85 | 7.14 | 7.28 | 7.44 | 6.81 | 6.77 |
| 1922..... | 6.71 | 6.02 | 6.00 | 6.14 | 6.38 | 6.40 | 6.20 | 6.20 | 6.20 | 6.33 | 6.21 | 5.72 | 6.21 |
| 1923..... | 5.39 | 5.59 | 5.66 | 5.88 | 5.68 | 5.68 | 5.87 | 5.94 | 5.96 | 5.88 | 6.09 | 6.31 | 5.83 |
| 1924..... | 6.97 | 7.08 | 7.09 | 7.87 | 8.20 | 8.87 | 9.75 | 9.72 | 9.15 | 8.30 | 8.82 | 8.82 | 8.39 |
| 1925..... | 8.34 | 8.67 | 8.40 | 8.34 | 8.09 | 9.19 | | | | | | | |

Division of Statistical and Historical Research.

* Compiled from Northwestern Miller, Kansas City Daily Price Current, and Kansas City Grain Market Review.

TABLE 40.—*Flour, wheat: Retail price per pound in cities listed and average for the United States, 1913-1925*

NEW YORK

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Average |
|--------------------|---------|---------|---------|---------|--------|---------|---------|---------|----------|---------|---------|---------|---------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1913..... | 3.3 | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.3 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| 1914..... | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.6 | 3.8 | 3.7 | 3.6 | 3.7 | 3.4 |
| 1915..... | 4.0 | 4.6 | 4.5 | 4.6 | 4.7 | 4.4 | 4.3 | 4.3 | 4.0 | 3.7 | 3.6 | 3.7 | 4.2 |
| 1916..... | 4.0 | 4.1 | 3.9 | 3.9 | 3.9 | 3.9 | 3.8 | 4.6 | 5.0 | 5.3 | 5.8 | 5.5 | 4.5 |
| 1917..... | 5.6 | 5.7 | 5.7 | 6.9 | 9.2 | 8.3 | 7.6 | 7.9 | 7.9 | 7.8 | 7.7 | 7.6 | 7.3 |
| 1918..... | 7.0 | 7.1 | 7.8 | 7.0 | 7.1 | 7.2 | 7.2 | 7.4 | 7.3 | 7.3 | 7.1 | 6.9 | 7.2 |
| 1919..... | 6.8 | 6.8 | 7.0 | 7.3 | 7.8 | 7.8 | 7.8 | 7.8 | 7.7 | 7.5 | 7.7 | 8.1 | 7.5 |
| 1920..... | 8.5 | 8.8 | 8.6 | 8.7 | 9.3 | 9.7 | 9.8 | 9.5 | 9.0 | 8.3 | 7.3 | 6.6 | 8.7 |
| Av. 1914-1920..... | 5.6 | 5.8 | 5.8 | 5.9 | 6.5 | 6.4 | 6.2 | 6.4 | 6.4 | 6.2 | 6.1 | 6.0 | 6.1 |
| 1921..... | 6.7 | 6.4 | 6.4 | 6.0 | 5.6 | 6.0 | 6.1 | 6.1 | 5.8 | 5.5 | 5.0 | 5.0 | 5.9 |
| 1922..... | 5.0 | 5.1 | 5.4 | 5.4 | 5.4 | 5.5 | 5.4 | 5.4 | 5.0 | 5.0 | 4.9 | 4.9 | 5.2 |
| 1923..... | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.7 | 4.5 | 4.6 | 4.5 | 4.7 | 4.8 |
| 1924..... | 4.7 | 4.7 | 4.7 | 4.7 | 4.8 | 4.8 | 5.0 | 5.1 | 5.4 | 5.4 | 5.5 | 5.6 | 5.0 |
| 1925..... | 6.0 | 6.7 | 6.6 | 6.1 | 6.1 | 6.2 | 6.2 | 6.3 | 6.2 | 6.1 | 6.0 | 6.1 | 6.2 |

CHICAGO

| | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1913..... | 2.8 | 2.8 | 2.7 | 2.7 | 2.8 | 2.8 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.8 |
| 1914..... | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 3.3 | 3.4 | 3.4 | 3.4 | 3.4 | 3.1 |
| 1915..... | 3.6 | 3.9 | 4.0 | 4.2 | 4.4 | 4.0 | 3.8 | 3.8 | 3.5 | 3.4 | 3.3 | 3.4 | 3.8 |
| 1916..... | 3.5 | 3.7 | 3.6 | 3.5 | 3.5 | 3.5 | 3.5 | 3.9 | 4.5 | 4.9 | 5.2 | 5.1 | 4.0 |
| 1917..... | 5.1 | 5.1 | 5.3 | 6.4 | 8.2 | 7.8 | 7.0 | 7.2 | 6.9 | 6.6 | 6.4 | 6.1 | 6.5 |
| 1918..... | 6.1 | 6.3 | 6.4 | 6.2 | 6.4 | 6.3 | 6.5 | 6.5 | 6.5 | 6.4 | 6.3 | 6.3 | 6.4 |
| 1919..... | 6.1 | 6.2 | 6.4 | 6.8 | 7.4 | 7.2 | 7.2 | 7.2 | 7.1 | 7.1 | 7.3 | 7.7 | 7.0 |
| 1920..... | 7.9 | 7.8 | 7.7 | 8.0 | 8.7 | 8.5 | 8.3 | 7.8 | 7.6 | 7.0 | 6.2 | 5.5 | 7.6 |
| Av. 1914-1920..... | 5.0 | 5.1 | 5.2 | 5.4 | 5.9 | 5.7 | 5.6 | 5.7 | 5.6 | 5.5 | 5.4 | 5.4 | 5.5 |
| 1921..... | 5.8 | 5.5 | 5.6 | 5.3 | 5.2 | 4.8 | 5.3 | 5.4 | 5.1 | 4.9 | 4.5 | 4.4 | 5.2 |
| 1922..... | 4.4 | 4.7 | 4.9 | 4.9 | 4.9 | 4.8 | 4.8 | 4.7 | 4.3 | 4.2 | 4.2 | 4.3 | 4.6 |
| 1923..... | 4.2 | 4.2 | 4.1 | 4.1 | 4.1 | 4.2 | 4.0 | 4.0 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| 1924..... | 4.0 | 4.1 | 4.1 | 4.1 | 4.1 | 4.2 | 4.4 | 4.6 | 4.7 | 4.8 | 4.9 | 5.1 | 4.6 |
| 1925..... | 5.7 | 5.9 | 5.8 | 5.5 | 5.4 | 5.5 | 5.5 | 5.5 | 5.6 | 5.4 | 5.4 | 5.9 | 5.6 |

TABLE 41.—Bread: Average retail price per pound (baked weight) 1913-1925—Continued

CHICAGO

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Average |
|--------------------|------------|------------|------------|------------|-----------|------------|------------|------------|-------------|------------|------------|------------|---------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1913..... | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
| 1914..... | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.2 | 6.2 | 6.2 | 6.3 | 6.1 |
| 1915..... | 6.4 | 7.2 | 7.2 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.6 |
| 1916..... | 6.5 | 6.5 | 6.5 | 6.5 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 7.3 | 7.9 | 8.0 | 6.8 |
| 1917..... | 8.1 | 8.2 | 8.2 | 8.6 | 9.6 | 10.5 | 10.5 | 10.5 | 10.5 | 10.5 | 10.1 | 9.0 | 9.5 |
| 1918..... | 9.2 | 9.6 | 10.1 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.1 |
| 1919..... | 16.2 | 10.2 | 10.2 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.7 | 10.6 | 10.7 | 10.2 |
| 1920..... | 10.6 | 11.6 | 11.6 | 11.6 | 12.3 | 12.4 | 12.4 | 12.4 | 12.4 | 12.4 | 12.4 | 11.5 | 12.0 |
| Av. 1914-1920..... | 8.2 | 8.5 | 8.6 | 8.5 | 8.8 | 8.9 | 8.9 | 8.9 | 8.9 | 9.1 | 9.1 | 8.9 | 8.8 |
| 1921..... | 11.3 | 11.3 | 11.3 | 11.2 | 9.9 | 9.9 | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 10.3 |
| 1922..... | 9.9 | 8.9 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.6 |
| 1923..... | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.8 | 9.7 | 9.7 |
| 1924..... | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.9 | 9.9 | 9.9 | 9.0 | 9.8 |
| 1925..... | 10.1 | 10.1 | 10.1 | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 | 9.9 | 9.8 | 9.8 | 9.9 | 9.9 |

MINNEAPOLIS

| | | | | | | | | | | | | | |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1913..... | 5.7 | 5.7 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 |
| 1914..... | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.9 | 6.0 | 6.0 | 5.7 |
| 1915..... | 6.1 | 6.4 | 6.4 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.3 | 6.3 | 6.3 | 6.4 |
| 1916..... | 6.3 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.5 | 6.5 | 7.4 | 7.4 | 7.5 | 7.9 | 6.8 |
| 1917..... | 8.0 | 8.0 | 8.0 | 8.0 | 9.3 | 10.5 | 10.5 | 10.6 | 10.5 | 10.4 | 10.5 | 9.7 | 9.5 |
| 1918..... | 8.8 | 8.8 | 9.1 | 9.1 | 9.0 | 9.0 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.9 |
| 1919..... | 9.2 | 9.2 | 9.2 | 9.2 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.8 | 9.4 |
| 1920..... | 10.6 | 10.5 | 10.4 | 10.4 | 10.4 | 11.1 | 11.1 | 11.1 | 11.1 | 11.1 | 10.3 | 10.3 | 10.7 |
| Av. 1914-1920..... | 7.8 | 7.8 | 7.9 | 7.9 | 8.1 | 8.4 | 8.4 | 8.4 | 8.5 | 8.5 | 8.4 | 8.4 | 8.2 |
| 1921..... | 10.3 | 10.3 | 10.3 | 10.3 | 9.6 | 9.6 | 9.6 | 9.6 | 8.6 | 8.6 | 8.4 | 8.4 | 9.5 |
| 1922..... | 8.4 | 8.4 | 8.4 | 8.8 | 8.9 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 8.8 |
| 1923..... | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
| 1924..... | 9.0 | 9.0 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 | 9.0 | 8.9 |
| 1925..... | 9.0 | 10.0 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.0 | 9.9 | 9.9 | 10.0 |

UNITED STATES (AVERAGE OF LEADING CITIES)

| | | | | | | | | | | | | | |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1913..... | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 |
| 1914..... | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.3 | 6.4 | 6.4 | 6.4 | 6.5 | 6.3 |
| 1915..... | 6.8 | 7.1 | 7.1 | 7.1 | 7.2 | 7.2 | 7.1 | 7.1 | 7.0 | 7.0 | 6.9 | 6.9 | 7.0 |
| 1916..... | 6.9 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.1 | 7.7 | 8.1 | 8.4 | 7.8 | 7.3 |
| 1917..... | 7.9 | 8.0 | 8.1 | 8.4 | 9.5 | 9.6 | 9.9 | 10.2 | 9.9 | 9.9 | 9.9 | 9.3 | 9.2 |
| 1918..... | 9.4 | 9.5 | 9.6 | 9.8 | 9.9 | 10.0 | 10.0 | 9.9 | 9.9 | 9.8 | 9.8 | 9.8 | 9.8 |
| 1919..... | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 9.9 | 10.0 | 10.1 | 10.1 | 10.1 | 10.2 | 10.2 | 10.0 |
| 1920..... | 10.9 | 11.1 | 11.2 | 11.2 | 11.5 | 11.8 | 11.9 | 11.9 | 11.9 | 11.8 | 11.6 | 10.8 | 11.5 |
| Av. 1914-1920..... | 8.3 | 8.4 | 8.4 | 8.5 | 8.7 | 8.8 | 8.9 | 8.9 | 9.0 | 9.0 | 9.0 | 8.8 | 8.7 |
| 1921..... | 10.8 | 10.6 | 10.5 | 10.3 | 9.9 | 9.8 | 9.7 | 9.7 | 9.6 | 9.5 | 9.3 | 9.1 | 9.9 |
| 1922..... | 8.8 | 8.6 | 8.7 | 8.7 | 8.8 | 8.8 | 8.8 | 8.7 | 8.7 | 8.7 | 8.7 | 8.6 | 8.7 |
| 1923..... | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.8 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 |
| 1924..... | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.8 | 8.8 | 8.8 | 8.9 | 8.9 | 8.8 |
| 1925..... | 9.2 | 9.5 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

BRAN

TABLE 42.—*Bran, pure: Average price per ton in 100-pound sacks at Minneapolis, July, 1900–December, 1925*

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1900..... | 20.50 | 20.08 | 18.95 | 19.06 | 19.02 | 20.49 | 22.68 | 22.09 | 20.86 | 18.42 | 17.93 | 16.40 | 19.70 |
| 1910..... | 19.62 | 19.89 | 18.54 | 17.99 | 19.23 | 21.17 | 21.73 | 21.25 | 20.82 | 21.43 | 21.48 | 19.62 | 20.23 |
| 1911..... | 20.08 | 20.96 | 21.42 | 21.43 | 22.05 | 22.96 | 23.96 | 25.25 | 25.13 | 24.23 | 23.32 | 20.22 | 22.60 |
| 1912..... | 20.82 | 19.25 | 19.13 | 19.01 | 18.48 | 18.51 | 19.53 | 18.03 | 17.21 | 16.25 | 16.58 | 16.94 | 18.31 |
| 1913..... | 16.40 | 20.75 | 21.64 | 19.06 | 20.10 | 20.22 | 21.59 | 22.03 | 23.71 | 23.34 | 22.08 | 20.23 | 21.04 |
| A. v. 1900–1913..... | 19.48 | 20.19 | 19.92 | 19.47 | 19.78 | 20.68 | 21.89 | 21.85 | 21.54 | 20.73 | 20.28 | 18.66 | 20.37 |
| 1914..... | 18.36 | 22.21 | 21.71 | 19.69 | 20.89 | 21.54 | 22.31 | 22.69 | 21.17 | 22.45 | 19.86 | 19.62 | 21.04 |
| 1915..... | 20.42 | 20.06 | 18.18 | 18.19 | 19.96 | 18.41 | 18.78 | 20.08 | 18.53 | 18.62 | 18.99 | 18.32 | 19.04 |
| 1916..... | 17.67 | 20.00 | 21.95 | 24.46 | 27.07 | 25.93 | 28.75 | 28.64 | 34.17 | 38.57 | 34.20 | 26.65 | 27.34 |
| 1917..... | 32.29 | 31.80 | 30.26 | 30.64 | 33.30 | 38.62 | 32.50 | 32.50 | 32.85 | 33.04 | 31.09 | 30.70 | 32.47 |
| 1918..... | 26.06 | 29.31 | 29.06 | 28.46 | 27.80 | 32.94 | 47.26 | 42.83 | 38.09 | 39.56 | 37.88 | 34.36 | 34.46 |
| 1919..... | 37.26 | 41.99 | 37.66 | 30.89 | 37.97 | 41.58 | 41.98 | 42.67 | 46.70 | 50.25 | 53.18 | 50.74 | 43.24 |
| 1920..... | 47.83 | 42.09 | 39.03 | 30.62 | 31.81 | 28.20 | 27.05 | 22.63 | 22.73 | 17.39 | 16.02 | 15.52 | 28.46 |
| A. v. 1914–1920..... | 28.55 | 29.64 | 28.26 | 26.99 | 28.49 | 29.60 | 31.23 | 30.29 | 30.61 | 31.41 | 30.28 | 27.99 | 29.44 |
| 1921..... | 14.83 | 15.49 | 14.53 | 13.60 | 19.75 | 21.75 | 22.16 | 25.41 | 24.58 | 23.05 | 21.77 | 16.05 | 19.42 |
| 1922..... | 15.90 | 14.77 | 17.62 | 22.48 | 28.37 | 24.89 | 26.67 | 27.96 | 28.72 | 28.41 | 27.30 | 21.18 | 23.27 |
| 1923..... | 20.35 | 24.89 | 28.50 | 28.54 | 26.34 | 25.28 | 25.56 | 24.40 | 23.37 | 21.64 | 18.59 | 21.04 | 23.96 |
| 1924..... | 22.07 | 24.20 | 23.62 | 25.23 | 20.14 | 30.94 | 30.52 | 25.14 | 23.99 | 23.94 | 27.33 | 26.85 | 26.91 |
| 1925..... | 24.05 | 24.64 | 23.61 | 23.56 | 26.31 | 26.74 | | | | | | | |

Division of Statistical and Historical Research. Compiled from the Minneapolis Daily Market Record

TABLE 43.—*Bran: Price per ton paid by farmers, United States, 1910–1925*

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 26.20 | 27.00 | 27.03 | 26.58 | 26.10 | 25.37 | 25.23 | 25.19 | 24.95 | 24.56 | 24.45 | 21.69 |
| 1911..... | 24.92 | 25.27 | 24.94 | 25.48 | 25.93 | 25.87 | 25.80 | 25.92 | 26.09 | 26.52 | 26.72 | 25.99 |
| 1912..... | 27.39 | 28.62 | 29.16 | 20.78 | 30.18 | 29.35 | 28.41 | 27.41 | 26.82 | 26.58 | 25.66 | 25.16 |
| 1913..... | 25.24 | 25.32 | 24.96 | 24.69 | 24.59 | 24.67 | 24.05 | 25.10 | 26.59 | 26.52 | 26.47 | 26.43 |
| 1914..... | 26.53 | 26.91 | 27.58 | 28.50 | 28.08 | 27.75 | 26.36 | 27.24 | 27.86 | 26.71 | 26.40 | 26.72 |
| 1915..... | 27.91 | 28.96 | 28.23 | 28.28 | 28.41 | 27.68 | 27.47 | 27.22 | 26.47 | 25.81 | 25.42 | 25.53 |
| 1916..... | 25.93 | 26.23 | 26.05 | 25.97 | 25.97 | 26.13 | 25.81 | 26.53 | 27.50 | 28.48 | 31.54 | 32.49 |
| 1917..... | 32.76 | 34.87 | 38.33 | 42.07 | 44.19 | 40.88 | 46.40 | 43.15 | 39.46 | 39.23 | 39.42 | 42.53 |
| 1918..... | 41.32 | 42.07 | 42.62 | 42.82 | 42.41 | 42.30 | 40.69 | 39.63 | 39.54 | 39.39 | 39.22 | 38.95 |
| 1919..... | 49.78 | 49.95 | 47.93 | 46.24 | 48.66 | 47.54 | 47.14 | 49.28 | 49.58 | 47.70 | 46.32 | 43.79 |
| 1920..... | 50.28 | 51.13 | 51.95 | 55.26 | 58.69 | 59.53 | 59.91 | 59.62 | 55.05 | 48.43 | 44.69 | 41.61 |
| 1921..... | 39.74 | 36.77 | 35.18 | 32.15 | 29.71 | 29.35 | 26.83 | 26.25 | 25.31 | 24.22 | 23.69 | 26.10 |
| 1922..... | 28.08 | 29.90 | 32.00 | 31.94 | 31.81 | 30.22 | 28.20 | 27.24 | 26.24 | 26.25 | 20.78 | 31.53 |
| 1923..... | 32.53 | 33.88 | 35.48 | 35.86 | 38.44 | 35.32 | 33.27 | 31.31 | 32.60 | 34.84 | 35.19 | 34.67 |
| 1924..... | 34.67 | 34.40 | 34.02 | 33.41 | 32.87 | 31.59 | 31.61 | 32.81 | 33.02 | 33.40 | 34.02 | 34.97 |
| 1925..... | 37.38 | 37.60 | 35.70 | 34.75 | 35.45 | 36.36 | 35.93 | 35.55 | 35.10 | 34.20 | 33.95 | 35.29 |

Division of Crop and Livestock Estimates. As reported monthly by country dealers.

MIDDLINGS

TABLE 44.—*Middlings, flour: Average price per ton in 100-pound sacks at Minneapolis, July, 1909–December, 1925*

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1909..... | 25.22 | 25.78 | 23.59 | 23.50 | 23.15 | 23.58 | 24.92 | 24.98 | 24.10 | 23.00 | 22.82 | 21.96 | 23.88 |
| 1910..... | 23.90 | 24.56 | 23.74 | 23.15 | 23.00 | 23.56 | 23.41 | 23.54 | 22.82 | 23.05 | 23.25 | 23.25 | 23.44 |
| 1911..... | 24.55 | 26.19 | 26.73 | 26.04 | 26.25 | 26.25 | 26.13 | 27.25 | 26.79 | 26.50 | 26.48 | 26.23 | 26.28 |
| 1912..... | 27.38 | 27.00 | 26.71 | 25.62 | 23.55 | 22.30 | 22.50 | 22.36 | 21.78 | 20.67 | 19.72 | 20.96 | 23.38 |
| 1913..... | 20.83 | 23.29 | 25.49 | 24.93 | 24.26 | 22.99 | 23.55 | 24.50 | 24.99 | 24.96 | 25.04 | 24.75 | 24.13 |
| Av. 1909–1913..... | 24.38 | 25.36 | 25.25 | 24.65 | 24.04 | 23.74 | 24.10 | 24.53 | 24.10 | 23.64 | 23.46 | 23.43 | 24.22 |
| 1914..... | 24.86 | 27.54 | 27.23 | 26.06 | 26.78 | 27.58 | 28.94 | 27.86 | 26.17 | 26.64 | 27.33 | 27.48 | 27.04 |
| 1915..... | 29.57 | 29.93 | 25.71 | 23.21 | 22.48 | 22.89 | 23.26 | 25.94 | 24.76 | 24.00 | 24.04 | 23.56 | 24.95 |
| 1916..... | 23.22 | 26.79 | 28.76 | 31.94 | 34.99 | 34.23 | 35.75 | 34.24 | 38.35 | 42.29 | 41.70 | 42.74 | 34.58 |
| 1917..... | 49.00 | 50.38 | 44.89 | 45.79 | 46.02 | 45.35 | 41.50 | 41.50 | 41.53 | 41.43 | 37.08 | 32.86 | 43.11 |
| 1918..... | 27.35 | 30.66 | 30.44 | 29.90 | 29.32 | 37.82 | 53.30 | 46.08 | 43.46 | 45.38 | 50.71 | 49.70 | 39.51 |
| 1919..... | 53.22 | 58.33 | 57.72 | 52.68 | 49.72 | 50.81 | 51.57 | 53.32 | 54.31 | 57.72 | 61.47 | 61.06 | 55.16 |
| 1920..... | 62.70 | 60.68 | 56.20 | 40.58 | 38.52 | 30.71 | 27.20 | 24.82 | 25.66 | 21.49 | 19.64 | 20.00 | 35.68 |
| Av. 1914–1920..... | 38.56 | 40.62 | 38.71 | 35.74 | 35.40 | 35.63 | 37.36 | 36.25 | 36.32 | 36.99 | 37.42 | 36.77 | 37.15 |
| 1921..... | 20.13 | 21.06 | 21.16 | 20.62 | 22.00 | 23.38 | 23.25 | 26.58 | 28.26 | 26.29 | 25.76 | 23.21 | 23.48 |
| 1922..... | 23.58 | 22.82 | 22.40 | 25.45 | 25.92 | 26.61 | 28.24 | 29.43 | 30.30 | 30.56 | 31.38 | 29.90 | 27.22 |
| 1923..... | 28.94 | 29.09 | 30.07 | 30.37 | 27.85 | 26.86 | 27.60 | 27.20 | 25.79 | 24.88 | 23.15 | 24.47 | 27.19 |
| 1924..... | 26.58 | 29.56 | 29.99 | 31.60 | 31.83 | 34.84 | 36.57 | 31.33 | 28.84 | 29.19 | 33.24 | 33.50 | 31.59 |
| 1925..... | 31.60 | 31.70 | 29.98 | 27.81 | 28.64 | 27.82 | | | | | | | |

Division of Statistical and Historical Research. Compiled from the Minneapolis Daily Market Record.

TABLE 45.—*Wheat futures: Volume of trading in seven grain-futures markets, by calendar years, 1921–1924*

[Thousand bushels—1. e., 000 omitted]

| Market | 1921 | | 1922 | | 1923 | | 1924 | |
|--------------------------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|
| | Volume | Per cent of total | Volume | Per cent of total | Volume | Per cent of total | Volume | Per cent of total |
| Chicago Board of Trade..... | 12, 273, 650 | 86.83 | 11, 072, 545 | 87.18 | 8, 572, 111 | 85.08 | 9, 597, 315 | 85.51 |
| Chicago Open Board of Trade..... | 237, 780 | 1.68 | 366, 559 | 2.89 | 328, 452 | 3.26 | 330, 125 | 2.94 |
| Minneapolis Chamber of Commerce..... | 788, 446 | 5.58 | 503, 956 | 3.97 | 544, 600 | 5.40 | 642, 607 | 5.73 |
| Kansas City Board of Trade..... | 527, 560 | 3.73 | 393, 181 | 3.10 | 347, 169 | 3.44 | 371, 676 | 3.31 |
| Duluth Board of Trade..... | 175, 062 | 1.24 | 198, 264 | 1.56 | 184, 400 | 1.83 | 174, 805 | 1.56 |
| St. Louis Merchants Exchange..... | 126, 857 | .90 | 139, 471 | 1.10 | 83, 187 | .83 | 91, 119 | .81 |
| Milwaukee Chamber of Commerce..... | 10, 213 | .07 | 25, 791 | .20 | 22, 365 | .22 | 15, 324 | .14 |
| Total..... | 14, 139, 558 | 100.00 | 12, 699, 767 | 100.00 | 10, 082, 284 | 100.00 | 11, 222, 971 | 100.00 |

Grain Futures Administration.

TABLE 46.—Wheat futures: Volume of trading in the principal futures, by months, Chicago Board of Trade, July 1, 1924, to June 30, 1925

[Thousand bushels—i. e., 000 omitted]

| Month | July wheat | September wheat | December wheat | May wheat | Other wheat futures | All futures |
|----------------|------------|-----------------|----------------|-----------|---------------------|-------------|
| 1924 | | | | | | |
| July..... | 26,539 | 761,652 | 351,556 | 44,275 | ----- | 1,194,022 |
| August..... | 2,471 | 394,962 | 383,867 | 153,970 | ----- | 1,135,270 |
| September..... | 6,032 | 40,000 | 633,923 | 210,877 | ----- | 891,432 |
| October..... | 41,767 | ----- | 792,252 | 518,324 | 153 | 1,352,496 |
| November..... | 41,660 | ----- | 337,389 | 739,418 | ----- | 1,118,467 |
| December..... | 116,219 | ----- | 51,540 | 1,167,314 | 15 | 1,335,088 |
| 1925 | | | | | | |
| January..... | 220,261 | 41,004 | ----- | 1,420,310 | 1,242 | 1,700,817 |
| February..... | 275,881 | 55,146 | ----- | 1,250,557 | ----- | 1,581,584 |
| March..... | 500,089 | 108,181 | ----- | 1,443,625 | ----- | 2,051,895 |
| April..... | 506,520 | 116,486 | 103 | 688,765 | ----- | 1,311,874 |
| May..... | 877,955 | 348,446 | 33,466 | 67,383 | 35 | 1,347,285 |
| June..... | 519,595 | 805,183 | 251,712 | ----- | 300 | 1,576,890 |
| Total..... | 3,144,589 | 2,671,060 | 3,035,808 | 7,733,818 | 1,835 | 16,587,110 |

Grain Futures Administration.

RYE

TABLE 47.—Rye: Acreage, production, value, exports, etc., United States, 1909-1925

| Year | Acreage harvested | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Chicago cash price per bushel No. 2 ² | | | | Domestic exports including rye flour, fiscal year beginning July 1 ³ |
|-------------------------|-------------------|------------------------|---------------|---|-------------------|-----------------------------|--|-------|---------------|-------|---|
| | | | | | | | December | | Following May | | |
| | | | | | | | Low | High | Low | High | |
| | 1,000 acres | Bush. of 56 lbs. | 1,000 bushels | Cents | 1,000 dollars | Dollars | Cts. | Cts. | Cts. | Cts. | Bushels |
| 1909..... | 2,196 | 16.1 | 35,406 | 72.2 | 25,548 | 11.63 | 72 | 80 | 74 | 80 | 242,262 |
| 1910..... | 2,185 | 16.0 | 34,897 | 71.5 | 24,953 | 11.42 | 80 | 82 | 90 | 113 | 40,123 |
| 1911..... | 2,127 | 15.6 | 33,119 | 83.2 | 27,557 | 12.96 | 91 | 94 | 90 | 95½ | 31,384 |
| 1912..... | 2,117 | 16.8 | 35,664 | 66.3 | 23,636 | 11.16 | 58 | 64 | 60 | 64 | 1,854,738 |
| 1913..... | 2,557 | 16.2 | 41,381 | 63.4 | 26,220 | 10.25 | 61 | 65 | 62 | 67 | 2,272,492 |
| Av. 1909-1913..... | 2,236 | 16.1 | 36,093 | 70.9 | 25,583 | 11.44 | 72.4 | 77.0 | 75.2 | 83.9 | 888,200 |
| 1914..... | 2,541 | 16.8 | 42,779 | 86.5 | 37,018 | 14.57 | 107½ | 112½ | 115 | 122 | 13,026,778 |
| 1915..... | 3,120 | 17.3 | 54,050 | 83.4 | 45,683 | 14.41 | 94½ | 98½ | 96½ | 99½ | 15,250,151 |
| 1916..... | 3,213 | 15.2 | 48,862 | 122.1 | 59,676 | 18.57 | 130 | 151 | 200 | 240 | 13,703,499 |
| 1917..... | 4,317 | 14.6 | 62,933 | 160.0 | 104,447 | 24.19 | 179 | 185 | 180 | 230 | 17,186,417 |
| 1918..... | 6,391 | 14.2 | 91,041 | 151.6 | 138,038 | 21.60 | 154 | 164 | 145½ | 173 | 36,467,450 |
| 1919..... | 6,307 | 12.0 | 75,483 | 133.2 | 100,573 | 15.95 | 150 | 182 | 198 | 229 | 41,530,961 |
| 1920..... | 4,409 | 13.7 | 60,490 | 126.8 | 76,693 | 17.39 | 144 | 167 | 135½ | 167 | 47,337,466 |
| Av. 1914-1920..... | 4,330 | 14.4 | 62,234 | 128.9 | 80,218 | 18.53 | 137.0 | 151.4 | 152.9 | 184.4 | 26,357,532 |
| 1921..... | 4,528 | 13.6 | 61,675 | 69.7 | 43,014 | 9.50 | 84 | 90 | 97½ | 111 | 29,943,852 |
| 1922..... | 6,672 | 15.5 | 103,362 | 68.5 | 70,841 | 10.62 | 83½ | 92½ | 73 | 83 | 61,662,968 |
| 1923..... | 5,171 | 12.2 | 63,077 | 65.0 | 40,971 | 7.92 | 69½ | 72½ | 65½ | 69½ | 19,901,719 |
| 1924..... | 4,019 | 15.9 | 64,038 | 106.6 | 68,260 | 16.98 | 131½ | 151½ | 112½ | 127½ | 50,242,278 |
| 1925 ⁴ | 4,068 | 11.9 | 48,696 | 78.1 | 38,026 | 9.30 | 93½ | 111½ | | | |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

¹ Based on farm price Dec. 1.

² Chicago Daily Trade Bulletin.

³ Commerce and Navigation of the U. S. 1909-1918 and the June issues of Monthly Summaries of Foreign Commerce, 1919-1925.

⁴ Preliminary.

TABLE 48.—Rye: Yield per acre, by States, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909- 1913 | • 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|-------------|-------|-------|-------|-------|-------|----------------------|-----------|-------|-------|-------|-------|-------|-------|----------------------|------|------|------|------|------|----------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| Mass..... | 16.2 | 17.0 | 16.0 | 18.5 | 18.5 | 17.2 | 19.0 | 20.0 | 18.5 | 19.0 | 20.0 | 23.0 | 18.0 | 19.6 | 15.0 | 19.0 | 18.0 | 20.0 | 21.0 | 18.0 |
| Conn..... | 18.7 | 20.0 | 18.5 | 17.5 | 19.3 | 18.8 | 19.0 | 21.5 | 19.6 | 20.5 | 22.0 | 20.0 | 18.0 | 20.1 | 19.0 | 20.0 | 18.0 | 18.0 | 19.0 | 18.8 |
| N. Y..... | 17.0 | 18.3 | 16.0 | 16.5 | 17.2 | 17.1 | 17.7 | 18.7 | 18.0 | 19.0 | 16.5 | 16.0 | 17.5 | 17.6 | 15.5 | 16.0 | 16.3 | 17.0 | 16.5 | 16.3 |
| N. J..... | 16.3 | 18.0 | 16.4 | 17.5 | 18.0 | 17.2 | 18.5 | 20.0 | 19.0 | 18.5 | 18.5 | 16.0 | 17.5 | 18.3 | 17.5 | 19.0 | 17.8 | 17.5 | 18.0 | 18.0 |
| Pa..... | 15.3 | 17.0 | 15.1 | 17.5 | 17.5 | 16.5 | 18.0 | 18.0 | 17.0 | 17.0 | 17.0 | 16.0 | 16.0 | 17.0 | 16.0 | 17.0 | 17.0 | 16.0 | 17.0 | 16.6 |
| Ohio..... | 17.2 | 16.5 | 15.5 | 15.5 | 16.5 | 16.2 | 17.0 | 17.5 | 14.5 | 18.0 | 17.0 | 16.0 | 14.4 | 16.3 | 13.0 | 14.2 | 15.5 | 16.0 | 15.0 | 14.7 |
| Ind..... | 16.5 | 15.8 | 13.7 | 14.5 | 15.2 | 15.1 | 16.3 | 16.0 | 14.0 | 15.0 | 16.5 | 14.0 | 14.0 | 15.1 | 13.0 | 12.0 | 14.0 | 13.5 | 11.4 | 12.8 |
| Ill..... | 17.8 | 17.4 | 16.8 | 16.0 | 16.5 | 16.9 | 16.0 | 18.5 | 18.5 | 17.5 | 19.0 | 16.5 | 18.6 | 16.9 | 17.0 | 16.0 | 15.0 | 14.5 | 13.8 | 15.3 |
| Mich..... | 15.5 | 15.3 | 14.6 | 13.3 | 14.3 | 14.6 | 16.0 | 15.5 | 14.3 | 14.0 | 14.3 | 13.3 | 14.7 | 14.6 | 13.0 | 12.8 | 14.0 | 14.5 | 12.5 | 13.4 |
| Wis..... | 16.3 | 16.0 | 17.0 | 18.3 | 17.5 | 17.0 | 16.5 | 18.5 | 16.2 | 18.5 | 17.6 | 15.8 | 16.0 | 17.0 | 13.6 | 14.6 | 14.8 | 17.0 | 14.8 | 15.0 |
| Minn..... | 19.0 | 17.0 | 18.7 | 23.0 | 19.0 | 19.3 | 18.8 | 19.5 | 15.0 | 18.5 | 20.0 | 15.0 | 17.0 | 17.7 | 17.5 | 10.0 | 13.5 | 22.0 | 14.5 | 17.3 |
| Iowa..... | 17.8 | 18.5 | 18.0 | 19.6 | 18.2 | 18.3 | 19.0 | 18.5 | 17.0 | 18.0 | 19.0 | 15.9 | 17.0 | 17.8 | 16.1 | 19.7 | 17.6 | 18.0 | 16.4 | 17.6 |
| Mo..... | 15.0 | 15.0 | 14.1 | 14.8 | 15.0 | 14.8 | 14.0 | 13.5 | 11.0 | 14.7 | 14.0 | 12.0 | 12.0 | 13.0 | 11.2 | 12.0 | 12.5 | 13.5 | 12.0 | 12.2 |
| N. Dak..... | 18.4 | 8.5 | 16.0 | 18.0 | 14.4 | 15.2 | 17.1 | 15.0 | 13.3 | 9.5 | 10.5 | 8.0 | 10.2 | 11.9 | 9.1 | 10.6 | 1.7 | 15.6 | 16.0 | 12.1 |
| S. Dak..... | 17.5 | 17.0 | 10.0 | 10.5 | 13.2 | 15.4 | 17.0 | 19.5 | 18.0 | 16.0 | 18.0 | 13.0 | 13.5 | 16.4 | 10.0 | 18.0 | 11.5 | 14.0 | 9.5 | 12.3 |
| Nebr..... | 16.5 | 16.0 | 13.0 | 16.0 | 14.5 | 15.2 | 16.0 | 17.5 | 16.0 | 15.6 | 12.9 | 16.3 | 14.1 | 15.5 | 12.7 | 11.2 | 12.0 | 14.5 | 12.3 | 12.5 |
| Kans..... | 14.2 | 14.0 | 11.0 | 15.9 | 14.0 | 13.8 | 20.0 | 16.0 | 14.5 | 14.0 | 14.3 | 11.0 | 13.0 | 14.7 | 11.3 | 11.1 | 8.5 | 14.2 | 8.9 | 10.8 |
| Del..... | 14.0 | 15.5 | 15.0 | 14.0 | 14.0 | 14.5 | 17.5 | 15.5 | 15.0 | 16.0 | 14.5 | 13.0 | 15.0 | 15.2 | 11.0 | 14.1 | 13.4 | 13.5 | 15.0 | 13.6 |
| Md..... | 14.1 | 16.1 | 14.5 | 15.5 | 14.4 | 14.9 | 17.0 | 16.5 | 15.5 | 16.0 | 15.0 | 14.0 | 15.4 | 16.6 | 14.0 | 15.2 | 15.8 | 15.0 | 19.0 | 15.8 |
| Va..... | 12.3 | 12.5 | 11.5 | 12.5 | 12.3 | 12.4 | 13.0 | 14.5 | 12.5 | 15.0 | 12.0 | 11.5 | 12.0 | 12.9 | 11.0 | 11.5 | 12.0 | 11.5 | 12.0 | 11.6 |
| W. Va..... | 13.5 | 12.9 | 11.0 | 13.0 | 13.5 | 12.8 | 14.5 | 14.0 | 16.0 | 13.5 | 13.7 | 13.0 | 11.0 | 13.7 | 12.0 | 12.0 | 10.0 | 11.2 | 13.0 | 11.6 |
| N. C..... | 9.4 | 10.0 | 10.0 | 9.3 | 10.3 | 9.8 | 10.0 | 11.5 | 9.7 | 10.0 | 9.0 | 8.9 | 9.5 | 9.8 | 7.0 | 8.0 | 10.4 | 9.0 | 11.5 | 9.2 |
| S. C..... | 9.8 | 10.0 | 10.0 | 9.5 | 10.5 | 10.0 | 11.5 | 10.0 | 9.8 | 10.0 | 11.2 | 10.0 | 11.0 | 10.9 | 10.0 | 10.0 | 10.5 | 11.0 | 10.5 | 10.4 |
| Ga..... | 9.0 | 10.4 | 9.5 | 9.2 | 9.5 | 9.5 | 9.3 | 9.2 | 9.5 | 8.3 | 8.8 | 8.9 | 10.0 | 9.1 | 9.0 | 9.5 | 9.0 | 9.2 | 9.3 | 9.2 |
| Ky..... | 12.7 | 13.0 | 12.0 | 13.0 | 12.4 | 12.6 | 13.7 | 12.0 | 11.2 | 12.5 | 13.6 | 12.0 | 12.0 | 12.4 | 10.0 | 11.5 | 11.7 | 11.0 | 13.0 | 11.4 |
| Tenn..... | 10.7 | 11.0 | 11.9 | 11.5 | 12.0 | 11.4 | 13.0 | 10.5 | 10.0 | 9.8 | 10.0 | 8.0 | 9.0 | 10.0 | 8.0 | 9.0 | 10.0 | 11.0 | 11.0 | 9.8 |
| Ala..... | 11.3 | 12.0 | 10.0 | 11.5 | 11.0 | 11.2 | 13.0 | 10.0 | 13.0 | 9.5 | 11.0 | 9.5 | 10.9 | 11.0 | 12.0 | 5.0 | 12.0 | 11.0 | 8.0 | 9.6 |
| Ark..... | 10.5 | 12.0 | 10.0 | 10.5 | 11.5 | 10.9 | 10.5 | 10.5 | 10.0 | 13.5 | 10.5 | 9.5 | 10.0 | 10.0 | 9.0 | 12.0 | 9.0 | 11.0 | 11.0 | 10.4 |
| Okl..... | 13.5 | 13.7 | 9.5 | 12.0 | 9.5 | 11.6 | 14.0 | 13.5 | 10.0 | 10.0 | 11.0 | 14.0 | 15.0 | 12.8 | 12.0 | 10.0 | 12.0 | 14.0 | 12.0 | 12.0 |
| Tex..... | 11.2 | 11.5 | 10.0 | 16.6 | 15.0 | 12.9 | 14.8 | 17.0 | 10.0 | 10.0 | 5.4 | 17.0 | 16.0 | 12.9 | 12.0 | 9.0 | 12.0 | 16.0 | 4.0 | 10.6 |
| Mont..... | 29.0 | 20.0 | 23.0 | 23.5 | 21.0 | 23.3 | 21.0 | 22.5 | 20.5 | 12.7 | 12.0 | 3.0 | 8.0 | 14.2 | 11.2 | 14.0 | 11.0 | 14.0 | 12.5 | 12.5 |
| Idaho..... | 21.5 | 20.0 | 22.5 | 22.0 | 22.0 | 21.6 | 20.0 | 20.0 | 17.0 | 15.5 | 15.0 | 14.0 | 14.0 | 16.5 | 18.0 | 15.0 | 19.0 | 10.0 | 20.0 | 16.4 |
| Wyo..... | 26.0 | 18.5 | 20.0 | 19.0 | 19.0 | 20.5 | 17.0 | 20.0 | 15.5 | 14.0 | 18.0 | 9.0 | 18.0 | 15.9 | 21.0 | 14.0 | 13.0 | 10.0 | 12.0 | 14.0 |
| Colo..... | 22.0 | 14.0 | 12.0 | 19.5 | 17.0 | 16.9 | 17.5 | 17.5 | 14.0 | 16.0 | 7.0 | 8.8 | 11.8 | 13.2 | 11.5 | 9.0 | 12.0 | 9.0 | 10.0 | 10.3 |
| N. Mex..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 14.0 | 4.8 | 12.0 | 16.0 | 4.0 | 10.2 |
| Utah..... | 22.0 | 18.5 | 15.5 | 15.0 | 17.0 | 17.6 | 17.5 | 16.5 | 12.0 | 8.0 | 13.0 | 7.0 | 8.3 | 11.6 | 9.3 | 10.0 | 11.4 | 9.0 | 11.0 | 10.1 |
| Wash..... | 21.0 | 20.5 | 22.0 | 20.0 | 21.0 | 20.9 | 19.7 | 18.2 | 14.5 | 12.7 | 10.0 | 12.0 | 9.5 | 13.8 | 14.0 | 16.9 | 16.7 | 7.9 | 11.0 | 11.7 |
| Oreg..... | 17.0 | 15.1 | 19.5 | 16.0 | 17.5 | 17.0 | 16.0 | 18.0 | 17.0 | 12.7 | 11.0 | 8.4 | 12.0 | 13.6 | 14.2 | 12.0 | 16.0 | 10.0 | 14.0 | 13.0 |
| U. S..... | 16.1 | 16.0 | 15.0 | 16.8 | 16.2 | 16.1 | 16.8 | 17.3 | 15.2 | 14.6 | 14.2 | 12.0 | 13.7 | 14.8 | 13.6 | 15.5 | 12.2 | 15.9 | 11.9 | 13.8 |

Division of Crop and Livestock Estimates.

TABLE 40.—*Rye: Acreage and yield per acre in specified countries, average 1909–1913, annual 1922–1925*

| Country | Acreage | | | | | Yield per acre | | | | |
|--|--------------------------------|----------------------|----------------------|--------------------|--------------------|--------------------------------|---------------|---------------|---------------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | Preliminary 1925 | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | Preliminary 1925 |
| NORTHERN HEMISPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| Canada..... | 1,000 acres 117 | 1,800 acres 2,105 | 1,600 acres 1,448 | 1,000 acres 891 | 1,000 acres 852 | Bush. 17.9 | Bush. 15.4 | Bush. 16.0 | Bush. 15.4 | Bush. 16.1 |
| United States..... | 2,236 | 0,672 | 5,171 | 4,090 | 4,088 | 16.1 | 15.5 | 12.2 | 15.9 | 11.9 |
| Total North America..... | 2,353 | 8,777 | 6,619 | 4,910 | 4,940 | | | | | |
| EUROPE | | | | | | | | | | |
| Norway..... | 37 | 30 | 27 | 25 | 25 | 26.3 | 28.7 | 27.5 | 25.5 | 30.6 |
| Sweden..... | 977 | 872 | 869 | 654 | 870 | 24.7 | 25.4 | 26.9 | 16.9 | 33.8 |
| Denmark..... | 636 | 547 | 574 | 466 | 526 | | 26.1 | 26.4 | 22.4 | 26.2 |
| Netherlands..... | 557 | 500 | 519 | 489 | 496 | 29.5 | 34.3 | 28.1 | 32.3 | 31.0 |
| Belgium..... | 672 | 531 | 573 | 560 | 570 | 35.2 | 34.6 | 36.3 | 36.9 | 36.7 |
| Luxemburg..... | 26 | 20 | 20 | 16 | 17 | 25.0 | 12.5 | 13.6 | 19.0 | 22.1 |
| France..... | 3,066 | 2,195 | 2,215 | 2,196 | 2,175 | 17.0 | 17.5 | 16.5 | 18.3 | 20.6 |
| Spain..... | 1,988 | 1,757 | 1,901 | 1,820 | 1,840 | 13.9 | 14.9 | 15.6 | 14.4 | 16.2 |
| Portugal..... | 271 | 500 | 560 | 474 | | | 8.1 | 9.5 | 10.6 | |
| Italy..... | 346 | 320 | 315 | 310 | 311 | 18.3 | 17.4 | 20.6 | 19.7 | 21.6 |
| Switzerland..... | 60 | 48 | 48 | 48 | 47 | 29.7 | 31.0 | 34.3 | 29.9 | 34.9 |
| Germany..... | 12,783 | 10,236 | 10,760 | 10,525 | 11,635 | 29.0 | 20.1 | 24.4 | 21.4 | 27.3 |
| Austria..... | 1,110 | 834 | 922 | 928 | 942 | 21.4 | 16.3 | 17.2 | 17.4 | 20.0 |
| Czechoslovakia..... | 2,605 | 2,174 | 2,123 | 2,070 | 2,093 | 24.4 | 23.5 | 25.1 | 21.6 | 25.5 |
| Hungary..... | 1,608 | 1,663 | 1,620 | 1,643 | 1,691 | 19.5 | 15.1 | 19.3 | 13.5 | 18.5 |
| Yugoslavia..... | 732 | 487 | 462 | 483 | 492 | 12.3 | 9.3 | 12.8 | 11.5 | 17.1 |
| Greece..... | 76 | | 70 | | | 14.9 | | 17.8 | | |
| Bulgaria..... | 542 | 442 | 425 | 414 | 453 | 13.9 | 16.9 | 16.1 | 10.7 | 19.6 |
| Rumania..... | 1,286 | 659 | 668 | 671 | 668 | 16.1 | 14.0 | 14.4 | 8.9 | 12.1 |
| Poland..... | 12,127 | 11,225 | 11,477 | 10,915 | 12,125 | 18.1 | 17.6 | 20.5 | 13.2 | 21.2 |
| Lithuania..... | 1,740 | 1,369 | 1,442 | 1,328 | 1,339 | 13.9 | 17.7 | 16.6 | 13.8 | 19.5 |
| Latvia..... | 888 | 584 | 659 | 658 | 669 | 14.7 | 11.7 | 16.6 | 11.9 | 18.8 |
| Estonia..... | 496 | 392 | 406 | 394 | 387 | 16.7 | 14.8 | 16.3 | 13.8 | 18.1 |
| Finland..... | 599 | 586 | 579 | 564 | 568 | 17.8 | 18.0 | 16.2 | 30.0 | 29.7 |
| Russia, including Russia in Asia..... | 61,913 | 45,259 | 62,591 | 65,533 | 66,761 | 12.0 | 10.6 | 11.7 | 10.4 | 12.3 |
| Total European countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 44,820 | 37,471 | 38,534 | 37,177 | 39,935 | 21.7 | 18.9 | 21.2 | 17.3 | 23.3 |
| Including Russia..... | 106,742 | 82,730 | 101,125 | 102,710 | 106,696 | 16.1 | 14.4 | 15.4 | 12.9 | 16.4 |
| Total Northern Hemisphere countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 47,182 | 46,248 | 45,161 | 42,687 | 44,875 | | | | | |
| Including Russia..... | 109,096 | 91,507 | 107,744 | 107,620 | 111,686 | | | | | |
| SOUTHERN HEMISPHERE | | | | | | | | | | |
| Argentina..... | 85 | 366 | 404 | 385 | 501 | 19.3 | 9.6 | 9.6 | 3.8 | 8.6 |
| Chile..... | 5 | 4 | 5 | 3 | 3 | 22.2 | 15.5 | 15.6 | 12.7 | |
| Australia..... | 9 | | | | | 12.7 | | | | |
| New Zealand..... | 14 | 1 | | | | 28.5 | 18.0 | | | |
| Total Southern Hemisphere countries reporting all years shown: | 90 | 370 | 409 | 388 | 504 | | | | | |
| Total all countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 47,272 | 46,618 | 45,570 | 42,475 | 45,379 | | | | | |
| Including Russia..... | 109,185 | 91,877 | 108,183 | 108,098 | 112,140 | | | | | |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Acreage figures are for crops harvested during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Where changes in boundary have occurred averages are estimates for territory within present boundaries.

² Three-year average.

³ Four-year average.

⁴ Excluding Turkistan and Transcaucasia.

⁵ One year only.

TABLE 50.—*Rye: Production in specified countries, average 1909–1913, annual 1922–1925*

[Thousand bushels—1. e. 000 omitted]

| Country | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 prelimi- nary |
|---|-----------------------------------|-----------------------|-----------------------|-------------|--------------------------|
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| Canada..... | 2, 064 | 32, 373 | 23, 232 | 13, 751 | 13, 688 |
| United States..... | 36, 053 | 103, 362 | 63, 077 | 64, 038 | 48, 096 |
| Total North America..... | 38, 187 | 135, 735 | 86, 309 | 77, 789 | 62, 384 |
| EUROPE | | | | | |
| Norway..... | 973 | 862 | 742 | 637 | 766 |
| Sweden..... | 24, 100 | 22, 132 | 23, 366 | 11, 052 | 29, 377 |
| Denmark..... | 19, 104 | 14, 284 | 15, 157 | 10, 433 | 13, 779 |
| Netherlands..... | 16, 422 | 17, 140 | 14, 571 | 15, 707 | 15, 387 |
| Belgium..... | 23, 644 | 18, 384 | 20, 787 | 20, 671 | 20, 895 |
| Luxemburg..... | 651 | 250 | 392 | 304 | 375 |
| France..... | 52, 501 | 38, 412 | 36, 517 | 40, 241 | 44, 706 |
| Spain..... | 27, 636 | 26, 252 | 28, 075 | 26, 281 | 29, 880 |
| Portugal..... | ² 2, 300 | 5, 412 | 5, 222 | 5, 027 | ..... |
| Italy..... | 6, 317 | 5, 563 | 6, 434 | 6, 114 | 6, 704 |
| Switzerland..... | 1, 783 | 1, 488 | 1, 646 | 1, 433 | 1, 642 |
| Germany..... | 368, 337 | 206, 033 | 263, 037 | 225, 573 | 317, 418 |
| Austria..... | 23, 785 | 13, 589 | 15, 856 | 16, 189 | 24, 334 |
| Czechoslovakia..... | 63, 538 | 51, 097 | 53, 338 | 44, 735 | 53, 366 |
| Hungary..... | 31, 377 | 25, 147 | 31, 274 | 22, 103 | 31, 271 |
| Yugoslavia..... | 9, 004 | 4, 523 | 5, 906 | 5, 541 | 8, 425 |
| Greece..... | 1, 129 | ..... | 1, 246 | 1, 020 | 966 |
| Bulgaria..... | 7, 539 | 7, 453 | 6, 862 | 4, 414 | 8, 889 |
| Rumania..... | ³ 20, 644 | 9, 206 | 9, 607 | 5, 963 | 8, 093 |
| Poland..... | 218, 943 | 197, 372 | 234, 727 | 143, 884 | 257, 543 |
| Lithuania..... | 24, 283 | 24, 249 | 23, 800 | 18, 295 | 26, 101 |
| Latvia..... | 13, 061 | 6, 945 | 10, 770 | 7, 849 | 12, 405 |
| Estonia..... | 8, 129 | 5, 797 | 6, 550 | 5, 451 | 7, 020 |
| Finland..... | 10, 490 | 10, 530 | 9, 417 | 11, 260 | 11, 752 |
| Russia, including Russia in Asia..... | 743, 519 | ⁴ 480, 625 | ⁴ 734, 337 | 679, 068 | ⁵ 820, 040 |
| Total European countries reporting all years shown: | | | | | |
| Excluding Russia..... | ⁶ 973, 390 | 707, 708 | 820, 197 | 645, 240 | 931, 354 |
| Including Russia..... | 1, 716, 909 | 1, 188, 333 | 1, 554, 634 | 1, 324, 308 | 1, 751, 394 |
| Total Northern Hemisphere countries reporting all years shown: | | | | | |
| Excluding Russia..... | 1, 011, 577 | 844, 083 | 906, 506 | 723, 029 | 993, 738 |
| Including Russia..... | 1, 755, 066 | 1, 324, 068 | 1, 640, 843 | 1, 402, 067 | 1, 813, 778 |
| SOUTHERN HEMISPHERE | | | | | |
| Argentina..... | 640 | 3, 526 | 3, 897 | 1, 457 | 4, 330 |
| Chile..... | 111 | 62 | 78 | 38 | ..... |
| Australia..... | 114 | ..... | ..... | ..... | ..... |
| New Zealand..... | ⁷ 114 | 18 | 8 | 37 | ..... |
| Total Southern Hemisphere countries reporting all years shown..... | 640 | 3, 526 | 3, 897 | 1, 457 | 4, 330 |
| Total Northern and Southern Hemisphere countries reporting all years shown: | | | | | |
| Excluding Russia..... | 1, 012, 217 | 847, 609 | 910, 403 | 724, 486 | 998, 068 |
| Including Russia..... | 1, 755, 736 | 1, 327, 594 | 1, 644, 740 | 1, 403, 554 | 1, 813, 108 |
| Estimated world total ⁸ — | | | | | |
| Excluding Russia..... | ⁹ 1, 033, 101 | 846, 264 | 929, 524 | 743, 847 | 1, 016, 894 |
| Including Russia..... | 1, 776, 620 | 1, 326, 889 | 1, 863, 080 | 1, 422, 415 | 1, 836, 994 |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Production as reported is for the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Where changes in boundary have occurred averages are estimates of production within present boundaries.

² Estimated on basis of acreage and average yield of 8.9 bushels per acre.

³ Four-year average.

⁴ Excluding Turkestan and Transcaucasia.

⁵ The estimate for the five-year period 1909–1913 given in this table is somewhat larger than the figure obtained by averaging those five years in Table 52. This is because in the detailed table estimates for warring countries are for postwar boundaries, whereas in Table 52 they are for pre-war territory. As a result, in excluding Russia, which lost territory in the war, a smaller area is excluded in the detailed table than in Table 52.

⁶ Excluding Transcaucasia.

⁷ One year only.

⁸ Excludes a few minor producing countries which do not enter into world trade or for which no statistics are available.

TABLE 51.—*Rye: Acreage, production, and total form value, by States, 1924 and 1925*

| State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | | State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|-------------|--------------------|-------------------|----------------------------------|-------------------|---|-------------------|-------------|--------------------|-------------------|----------------------------------|-------------------|---|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| Mass..... | 3 | 3 | 60 | 63 | 87 | 88 | W. Va..... | 10 | 10 | 112 | 130 | 144 | 156 |
| Conn..... | 4 | 4 | 72 | 76 | 101 | 99 | N. C..... | 71 | 71 | 639 | 816 | 952 | 1,281 |
| N. Y..... | 40 | 37 | 680 | 610 | 768 | 610 | S. C..... | 7 | 7 | 77 | 74 | 146 | 155 |
| N. J..... | 47 | 44 | 822 | 792 | 929 | 737 | Ga..... | 20 | 20 | 184 | 186 | 337 | 335 |
| Pa..... | 120 | 108 | 1,920 | 1,836 | 2,170 | 1,928 | Ky..... | 16 | 17 | 176 | 221 | 224 | 276 |
| Ohio..... | 60 | 66 | 960 | 990 | 1,066 | 871 | Tenn..... | 18 | 20 | 198 | 229 | 273 | 286 |
| Ind..... | 161 | 153 | 2,174 | 1,744 | 2,304 | 1,482 | Ala..... | 1 | 1 | 11 | 8 | 17 | 13 |
| Ill..... | 100 | 90 | 1,450 | 1,242 | 1,552 | 1,118 | Ark..... | 1 | 1 | 11 | 11 | 14 | 14 |
| Mich..... | 240 | 216 | 3,480 | 2,700 | 3,689 | 2,106 | Okla..... | 37 | 33 | 518 | 396 | 523 | 456 |
| Wis..... | 332 | 256 | 5,644 | 3,789 | 6,152 | 2,880 | Tex..... | 17 | 14 | 272 | 56 | 302 | 67 |
| Minn..... | 640 | 500 | 14,080 | 7,250 | 15,206 | 5,148 | Mont..... | 80 | 112 | 1,120 | 1,400 | 1,019 | 1,036 |
| Iowa..... | 39 | 35 | 702 | 574 | 716 | 459 | Idaho..... | 3 | 3 | 30 | 60 | 37 | 48 |
| Mo..... | 20 | 25 | 270 | 300 | 284 | 360 | Wyo..... | 44 | 47 | 440 | 564 | 387 | 361 |
| N. Dak..... | 1,257 | 1,571 | 19,609 | 15,710 | 20,393 | 10,212 | Colo..... | 74 | 85 | 666 | 850 | 566 | 570 |
| S. Dak..... | 236 | 201 | 3,304 | 1,910 | 3,370 | 1,280 | N. Mex..... | 2 | 1 | 32 | 4 | 32 | 4 |
| Nebr..... | 189 | 205 | 2,740 | 2,522 | 2,658 | 1,791 | Utah..... | 9 | 5 | 81 | 55 | 87 | 55 |
| Kans..... | 40 | 43 | 568 | 383 | 557 | 375 | Wash..... | 10 | 15 | 79 | 165 | 105 | 206 |
| Del..... | 5 | 5 | 68 | 75 | 85 | 90 | Oreg..... | 15 | 10 | 150 | 140 | 204 | 154 |
| Md..... | 15 | 18 | 225 | 342 | 274 | 390 | U. S..... | 4,019 | 4,068 | 64,038 | 48,696 | 68,260 | 38,026 |
| Va..... | 36 | 36 | 414 | 432 | 530 | 549 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 52.—*Rye: World production, 1909-1925*

[Thousand bushels—i. e., 000 omitted]

| Year | Production in countries reporting all years | Estimates of world production, excluding Russia; preliminary | Total Europe, excluding Russia; preliminary | Three selected countries | | |
|------------------------|---|--|---|--------------------------|----------------------|--------|
| | | | | Russia ¹ | Germany | France |
| 1909..... | 670,609 | 872,000 | 821,000 | 903,622 | 446,746 | 55,689 |
| 1910..... | 611,699 | 818,000 | 768,000 | 875,135 | 413,802 | 43,883 |
| 1911..... | 628,384 | 828,000 | 779,000 | 768,650 | 427,796 | 46,749 |
| 1912..... | 647,162 | 862,000 | 810,000 | 1,050,837 | 456,588 | 48,746 |
| 1913..... | 690,162 | 893,000 | 834,000 | 1,011,316 | 481,169 | 50,055 |
| 1914..... | 606,913 | 765,000 | 707,000 | ² 869,657 | 410,478 | 43,884 |
| 1915..... | 543,968 | 691,000 | 630,000 | ² 909,943 | 360,310 | 33,148 |
| 1916..... | 522,040 | 663,000 | 598,000 | ----- | 351,826 | 33,351 |
| 1917..... | 438,500 | 548,000 | 466,000 | ----- | ² 275,696 | 25,669 |
| 1918..... | 473,551 | 590,000 | 476,000 | ----- | ² 262,832 | 30,100 |
| 1919..... | 444,907 | 666,000 | 586,000 | ----- | ² 240,161 | 30,577 |
| 1920..... | 392,804 | 619,000 | 533,000 | ² 317,081 | ² 194,255 | 34,492 |
| 1921..... | 488,435 | 808,000 | 759,000 | ² 345,423 | ² 267,626 | 44,392 |
| 1922..... | 456,529 | 846,000 | 713,000 | ² 480,625 | ² 206,093 | 38,412 |
| 1923..... | 473,992 | 930,000 | 826,000 | ² 734,337 | ² 263,037 | 36,517 |
| 1924..... | 425,346 | 743,000 | 650,000 | ² 679,068 | ² 225,673 | 40,241 |
| 1925, preliminary..... | 531,950 | 1,017,000 | 937,000 | ² 820,040 | ² 317,418 | 44,766 |

Division of Statistical and Historical Research. For each year is shown the production during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Includes all Russian territory reporting for years named.

² Excludes Poland.

³ New boundaries, and therefore not comparable with earlier years.

TABLE 53.—Rye: Monthly marketings by farmers, as reported by about 3,500 mills and elevators, United States, 1917-1924

| Year beginning July | Percentage of year's receipts | | | | | | | | | | | |
|---------------------|-------------------------------|------|-------|------|------|------|------|------|------|------|-----|------|
| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| 1917..... | 2.8 | 14.8 | 20.5 | 17.1 | 11.3 | 7.6 | 5.8 | 6.4 | 7.6 | 3.4 | 1.7 | 1.0 |
| 1918..... | 5.6 | 11.3 | 14.9 | 14.5 | 12.2 | 9.5 | 8.4 | 4.9 | 6.3 | 4.8 | 2.4 | 4.2 |
| 1919..... | 8.2 | 15.0 | 13.3 | 12.4 | 7.8 | 9.1 | 8.5 | 4.7 | 6.2 | 6.4 | 4.3 | 4.1 |
| 1920..... | 7.3 | 20.7 | 18.1 | 12.2 | 8.8 | 7.0 | 6.6 | 4.7 | 4.3 | 3.7 | 3.3 | 3.3 |
| 1921..... | 13.9 | 20.8 | 17.6 | 10.6 | 6.3 | 5.9 | 4.7 | 4.8 | 4.9 | 4.0 | 4.2 | 2.5 |
| 1922..... | 10.7 | 20.5 | 14.8 | 12.3 | 10.2 | 8.7 | 7.1 | 3.1 | 4.0 | 3.1 | 2.2 | 1.9 |
| 1923..... | 5.3 | 18.8 | 19.2 | 14.2 | 9.4 | 5.1 | 4.4 | 4.8 | 4.9 | 3.1 | 3.0 | 4.3 |
| 1924..... | 3.9 | 16.9 | 25.4 | 23.5 | 10.7 | 7.0 | 6.0 | 1.1 | 1.1 | 1.1 | 1.2 | .8 |

Division of Crop and Livestock Estimates.

TABLE 54.—Rye: Receipts at markets named, 1909-1924

[Thousand bushels—1. c., 000 omitted]

| Year beginning July | Minneapolis | Duluth | Chicago | Milwaukee | Omaha | Fort William and Port Arthur ¹ |
|------------------------|-------------|--------|---------|-----------|-------|---|
| 1909..... | 2,444 | 902 | 1,362 | 965 | | |
| 1910..... | 1,518 | 134 | 1,121 | 1,031 | | |
| 1911..... | 2,453 | 759 | 2,077 | 2,582 | | |
| 1912..... | 5,943 | 2,341 | 3,299 | 2,336 | | |
| 1913..... | 5,538 | 1,357 | 3,206 | 2,636 | | |
| Average 1909-1913..... | 3,579 | 1,099 | 2,213 | 1,950 | | |
| 1914..... | 5,737 | 4,323 | 3,274 | 3,608 | | |
| 1915..... | 6,774 | 4,216 | 5,651 | 3,872 | | |
| 1916..... | 7,118 | 2,812 | 5,459 | 3,050 | 1,048 | |
| 1917..... | 11,923 | 3,482 | 3,766 | 2,947 | 1,121 | 212 |
| 1918..... | 16,467 | 16,115 | 8,467 | 4,472 | 1,782 | 970 |
| 1919..... | 9,325 | 17,027 | 6,119 | 4,094 | 1,630 | 1,172 |
| 1920..... | 5,428 | 14,631 | 4,132 | 3,607 | 1,409 | 2,832 |
| Average 1914-1920..... | 8,967 | 8,944 | 5,267 | 3,664 | | |
| 1921..... | 4,754 | 17,446 | 4,235 | 2,282 | 2,049 | 5,297 |
| 1922..... | 15,111 | 42,619 | 7,585 | 3,241 | 1,916 | 11,552 |
| 1923..... | 13,336 | 16,922 | 2,952 | 1,449 | 736 | 6,847 |
| 1924..... | 8,447 | 38,818 | 12,586 | 4,455 | 983 | 5,265 |
| 1924 | | | | | | |
| July..... | 427 | 1,994 | 2,210 | 129 | | |
| August..... | 1,257 | 1,527 | 1,304 | 168 | | |
| September..... | 1,577 | 11,228 | 648 | 350 | 165 | 1,576 |
| October..... | 2,586 | 12,409 | 1,135 | 887 | 339 | 1,302 |
| November..... | 715 | 5,165 | 2,386 | 343 | 167 | 806 |
| December..... | 431 | 2,084 | 864 | 263 | 76 | 368 |
| 1925 | | | | | | |
| January..... | 476 | 880 | 378 | 211 | 81 | 124 |
| February..... | 208 | 727 | 209 | 160 | 60 | 124 |
| March..... | 267 | 282 | 98 | 68 | 29 | 154 |
| April..... | 190 | 591 | 611 | 40 | 18 | 197 |
| May..... | 180 | 1,609 | 2,663 | 72 | 28 | 228 |
| June..... | 303 | 412 | 50 | 1,764 | 20 | 78 |
| July..... | 115 | 183 | 21 | 22 | 18 | 135 |
| August..... | 979 | 420 | 98 | 73 | | 179 |
| September..... | 2,312 | 3,566 | 319 | 61 | 77 | 1,478 |
| October..... | 851 | 1,564 | 727 | 37 | 57 | 628 |
| November..... | 762 | 1,073 | 631 | 38 | 46 | 603 |
| December..... | 926 | 823 | 90 | 88 | 182 | 616 |

Division of Statistical and Historical Research. Compiled from Minneapolis Daily Market Record, Chicago Daily Trade Bulletin, Grain Dealers Journal, and Canadian Statistics.

¹ Crop year begins in September.

TABLE 55.—*Rye: Classification of cars graded by licensed inspectors, all inspection points*

| Year beginning July | Total of each grade, annual inspections, 1923-1924 | | | | | | | | | | |
|----------------------|--|--------|-------|-------|--------|--------|-----------|--------|-----|-----|--------|
| | Receipts | | | | | | Shipments | | | | |
| | 1 | 2 | 3 | 4 | Sample | Total | 1 | 2 | 3 | 4 | Sample |
| 1923-24 ¹ | | | | | | | | | | | |
| Cars..... | 14,384 | 13,832 | 3,872 | 1,061 | 473 | 33,332 | 22,068 | 8,481 | 122 | 89 | 26 |
| Per cent..... | 43.2 | 40.6 | 11.6 | 3.2 | 1.4 | 100 | 71.7 | 27.5 | .4 | .3 | .1 |
| 1924-25 | | | | | | | | | | | |
| Cars..... | 27,977 | 24,251 | 8,841 | 2,957 | 876 | 64,962 | 31,838 | 38,210 | 606 | 131 | 60 |
| Per cent..... | 43.1 | 37.4 | 13.6 | 4.6 | 1.3 | 100.0 | 44.9 | 53.8 | 1.0 | .2 | .1 |

Grain Division.

¹ First complete year of inspection.TABLE 56.—*Rye, including flour: International trade, average 1910-1914, annual 1923-1925*

[Thousand bushels—i. e., 600 omitted]

| Country | Year ended June 30 | | | | | | | |
|-------------------------------|-----------------------|-----------------------|----------------------|--------------------|----------------------|-----------------------|----------------------|----------------------|
| | Average 1910-1914 | | 1923 | | 1924 | | 1925 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria..... | (1 ²) | | (1 ²) | 1 ⁹ | | 1 ²⁰ | (1 ²) | 1 ⁴⁸ |
| Argentina..... | (1 ¹) | 1,925 | | 1,640 | | 3,092 | | 1,693 |
| Bulgaria..... | | 68 | | 530 | | 120 | | 34 |
| Canada..... | 65 | 88 | 26 | 9,138 | 21 | 8,566 | 28 | 5,875 |
| Hungary..... | 140 | 14,159 | 1 ² | 1 ²⁰ | (1 ²) | 3,658 | 1 ⁴ | 3,677 |
| Poland..... | | | 1 ⁷ | 1 ¹ | 1 ² | 2,482 | 1 ² | 2,210 |
| Rumania..... | 1 ¹ 26 | 1 ¹ 2,992 | | 1 ²²⁵ | | 1 ¹ 2,202 | | 1 ¹ 413 |
| Russia..... | 1 ¹ 5,381 | 1 ¹ 33,079 | | | | 1 ¹ 25,577 | | 1 ¹ 1,020 |
| Spain..... | | 33 | (1 ¹) | | | 2 | | (1 ²) |
| United States..... | | 888 | | 51,663 | | 10,002 | | 50,242 |
| Yugoslavia..... | | | | 1 ¹ | | 1 ¹⁴ | | 1 ²⁴⁶ |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | 1 ¹ 469 | 1 ² | 1 ¹ 1,000 | 1 ⁸ | 5,892 | 1 ³⁸ | 4,180 | 1 ¹ 15 |
| Belgium..... | 5,755 | 830 | 231 | 1,177 | 1,554 | 244 | 1,117 | 847 |
| Czechoslovakia..... | | | 1 ⁴⁰ | 1 ³⁰⁴ | 4,827 | 1 ¹ 7,760 | 8,730 | 1 ¹ 128 |
| Denmark..... | 1 ¹ 8,753 | 1 ¹ 268 | 5,410 | 420 | 10,231 | 510 | 7,002 | 532 |
| Estonia..... | | | | | 1 ¹ 443 | | 1 ¹ 483 | |
| Finland..... | | | 5,021 | 8 | 10,563 | 10 | 6,310 | 13 |
| France..... | 3,310 | 26 | 614 | 599 | 2,776 | 1,068 | 1,306 | 479 |
| Germany..... | 16,226 | 43,956 | 42,765 | 651 | 24,940 | 63 | 22,087 | 5,413 |
| Greece..... | | | 1 ¹ 633 | | 1 ¹ 11 | | 1 ¹ 3 | |
| Italy..... | 654 | 2 | 227 | 3 | 230 | 247 | 24 | 357 |
| Latvia..... | | | 1 ¹ 870 | 1 ¹ 92 | 1 ¹ 2,181 | 1 ¹ | 1 ¹ 1,978 | 1 ¹ 123 |
| Netherlands..... | 1 ¹ 20,557 | 1 ¹ 17,889 | 3,179 | 1,266 | 9,432 | 2,978 | 6,376 | 2,913 |
| Norway..... | 1 ¹ 10,644 | 1 ¹ 51 | 7,063 | | 8,097 | | 7,502 | |
| Portugal..... | 1 ¹ 174 | (1 ¹) | | | | | | |
| Sweden..... | 1 ¹ 3,940 | 1 ¹ 69 | 819 | 438 | 4,651 | 157 | 4,815 | 26 |
| Switzerland..... | 1 ¹ 728 | 1 ¹ | 2 | (1 ¹) | 1 ¹ 14 | (1 ¹) | 35 | 1 |
| United Kingdom..... | 1 ¹ 2,120 | 1 ¹ 7 | 1 ¹ 892 | 1 ¹ 304 | 1 ¹ 1,508 | 1 ¹ 240 | | |
| Total 28 countries..... | 88,948 | 117,390 | 70,360 | 68,507 | 88,373 | 71,977 | 72,957 | 77,203 |

Division of Statistical and Historical Research. Official sources except where otherwise noted.

¹ Year ended July 31 as compiled by the International Institute of Agriculture.² Less than 500 bushels.³ International Institute of Agriculture.⁴ Average of calendar years 1908-1913.⁵ Eight months.⁶ Ten months ended May 31, International Institute of Agriculture.⁷ Eleven months.⁸ Average for the seasons 1911-12 to 1923-14.⁹ Six months.¹⁰ Commercial sources.¹¹ Rye figure from International Institute of Agriculture¹² Season 1913-14.¹³ Year ended December 31.

TABLE 57.—*Rye: Estimated price per bushel, received by producers, United States, 1909-1925*

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted av. |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1909..... | 80.1 | 75.4 | 72.6 | 73.2 | 72.7 | 73.3 | 75.4 | 76.3 | 76.6 | 75.8 | 74.8 | 74.7 | 74.5 |
| 1910..... | 74.5 | 74.2 | 73.4 | 72.2 | 71.6 | 72.4 | 73.2 | 72.5 | 73.6 | 75.6 | 76.8 | 77.4 | 73.4 |
| 1911..... | 70.2 | 76.2 | 78.3 | 81.4 | 83.2 | 83.0 | 83.0 | 84.2 | 84.6 | 84.8 | 85.4 | 84.8 | 81.0 |
| 1912..... | 80.8 | 74.4 | 70.4 | 69.4 | 67.6 | 65.0 | 66.4 | 66.0 | 63.0 | 62.6 | 63.2 | 63.6 | 69.0 |
| 1913..... | 62.0 | 61.8 | 63.9 | 64.0 | 63.3 | 63.0 | 62.1 | 61.8 | 62.4 | 63.0 | 63.0 | 63.8 | 63.0 |
| Av. 1909-1913..... | 74.7 | 72.4 | 71.7 | 72.0 | 71.7 | 71.3 | 72.1 | 72.2 | 72.0 | 72.4 | 72.8 | 72.9 | 72.2 |
| 1914..... | 62.0 | 68.2 | 77.2 | 79.6 | 83.3 | 88.4 | 98.4 | 103.0 | 102.9 | 101.2 | 100.0 | 98.9 | 83.4 |
| 1915..... | 91.4 | 87.2 | 83.6 | 83.7 | 84.6 | 84.4 | 86.8 | 87.0 | 84.6 | 83.6 | 83.8 | 83.6 | 85.3 |
| 1916..... | 83.4 | 91.6 | 101.9 | 106.7 | 118.7 | 120.3 | 121.0 | 124.8 | 130.8 | 149.8 | 178.6 | 180.0 | 114.6 |
| 1917..... | 177.6 | 170.0 | 165.8 | 169.3 | 167.4 | 168.2 | 172.6 | 187.9 | 218.0 | 228.1 | 204.4 | 178.8 | 176.5 |
| 1918..... | 166.9 | 161.0 | 156.6 | 153.3 | 152.1 | 151.2 | 145.6 | 136.3 | 139.0 | 150.6 | 149.6 | 141.2 | 152.7 |
| 1919..... | 144.2 | 144.0 | 137.0 | 132.8 | 131.5 | 142.8 | 153.4 | 149.8 | 150.6 | 160.6 | 183.5 | 186.4 | 144.6 |
| 1920..... | 173.8 | 168.8 | 165.6 | 152.2 | 134.4 | 125.8 | 128.1 | 128.8 | 122.4 | 112.0 | 108.8 | 108.0 | 145.0 |
| Av. 1914-1920..... | 129.2 | 127.3 | 126.8 | 125.8 | 124.6 | 125.9 | 129.0 | 131.1 | 135.5 | 142.1 | 143.4 | 139.1 | 128.9 |
| 1921..... | 101.0 | 94.0 | 89.2 | 81.6 | 72.2 | 69.6 | 70.0 | 77.0 | 83.8 | 85.9 | 87.8 | 82.8 | 83.0 |
| 1922..... | 74.0 | 66.9 | 63.2 | 65.2 | 68.2 | 70.7 | 71.7 | 71.0 | 70.1 | 70.8 | 69.2 | 62.2 | 67.8 |
| 1923..... | 56.3 | 55.3 | 57.2 | 58.8 | 62.1 | 63.9 | 63.5 | 64.5 | 62.8 | 60.4 | 60.1 | 61.6 | 59.8 |
| 1924..... | 68.8 | 79.8 | 80.1 | 105.7 | 108.6 | 112.7 | 126.2 | 132.2 | 125.1 | 100.9 | 103.0 | 101.8 | 100.1 |
| 1925..... | 92.3 | 92.8 | 81.9 | 74.1 | 73.4 | 86.8 | | | | | | | |

Division of Crop and Livestock Estimates. Mean of prices reported on 1st of month and 1st of succeeding month, July, 1909-December, 1923.

TABLE 58.—*Rye: Estimated price per bushel, received by producers, December 1, average 1909-1913, annual 1914-1925*

| State | Av. 1909-1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914-1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921-1925 |
|---------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|---------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| Massachusetts..... | 98 | 101 | 102 | 127 | 200 | 227 | 175 | 195 | 161 | 175 | 140 | 135 | 145 | 140 | 147 |
| Connecticut..... | 91 | 98 | 102 | 125 | 210 | 205 | 200 | 174 | 159 | 150 | 150 | 125 | 140 | 130 | 139 |
| New York..... | 79 | 89 | 93 | 128 | 184 | 172 | 150 | 158 | 139 | 99 | 97 | 91 | 113 | 100 | 100 |
| New Jersey..... | 80 | 82 | 92 | 117 | 175 | 173 | 160 | 170 | 138 | 102 | 85 | 94 | 113 | 93 | 97 |
| Pennsylvania..... | 77 | 83 | 84 | 109 | 170 | 165 | 167 | 140 | 130 | 95 | 87 | 91 | 113 | 105 | 98 |
| Ohio..... | 75 | 81 | 83 | 120 | 161 | 150 | 145 | 135 | 125 | 84 | 83 | 78 | 111 | 88 | 89 |
| Indiana..... | 70 | 85 | 82 | 119 | 160 | 152 | 140 | 130 | 124 | 73 | 79 | 73 | 106 | 85 | 83 |
| Illinois..... | 72 | 85 | 83 | 122 | 165 | 160 | 130 | 130 | 124 | 80 | 75 | 75 | 107 | 90 | 85 |
| Michigan..... | 70 | 91 | 85 | 130 | 165 | 150 | 128 | 130 | 126 | 70 | 76 | 62 | 106 | 78 | 78 |
| Wisconsin..... | 68 | 91 | 87 | 132 | 169 | 160 | 133 | 130 | 127 | 71 | 72 | 65 | 109 | 76 | 79 |
| Minnesota..... | 60 | 89 | 81 | 127 | 167 | 150 | 130 | 122 | 124 | 62 | 68 | 53 | 108 | 71 | 72 |
| Iowa..... | 65 | 77 | 80 | 115 | 155 | 147 | 132 | 117 | 118 | 73 | 66 | 60 | 102 | 80 | 78 |
| Missouri..... | 79 | 87 | 86 | 123 | 165 | 163 | 150 | 125 | 128 | 86 | 93 | 88 | 105 | 120 | 98 |
| North Dakota..... | 58 | 84 | 79 | 125 | 164 | 145 | 121 | 119 | 120 | 58 | 60 | 48 | 104 | 65 | 67 |
| South Dakota..... | 60 | 78 | 76 | 118 | 155 | 141 | 125 | 109 | 115 | 58 | 58 | 49 | 102 | 67 | 67 |
| Nebraska..... | 62 | 74 | 73 | 116 | 155 | 135 | 115 | 103 | 110 | 60 | 65 | 56 | 97 | 71 | 70 |
| Kansas..... | 74 | 80 | 76 | 110 | 167 | 170 | 141 | 100 | 121 | 68 | 70 | 75 | 98 | 86 | 82 |
| Delaware..... | 80 | 92 | 99 | 123 | 178 | 171 | 160 | 136 | 137 | 100 | 105 | 96 | 125 | 120 | 109 |
| Maryland..... | 79 | 86 | 88 | 110 | 168 | 170 | 163 | 156 | 134 | 92 | 110 | 97 | 122 | 114 | 107 |
| Virginia..... | 84 | 90 | 93 | 107 | 175 | 175 | 170 | 155 | 138 | 95 | 90 | 107 | 128 | 127 | 109 |
| West Virginia..... | 88 | 90 | 93 | 119 | 169 | 180 | 165 | 160 | 139 | 95 | 95 | 103 | 129 | 120 | 108 |
| North Carolina..... | 101 | 105 | 105 | 130 | 200 | 198 | 210 | 190 | 163 | 125 | 120 | 135 | 149 | 167 | 137 |
| South Carolina..... | 145 | 150 | 151 | 185 | 285 | 265 | 295 | 300 | 237 | 250 | 180 | 173 | 190 | 210 | 201 |
| Georgia..... | 142 | 150 | 160 | 270 | 210 | 272 | 210 | 202 | 175 | 135 | 190 | 183 | 190 | 173 | 180 |
| Kentucky..... | 88 | 95 | 94 | 129 | 175 | 161 | 175 | 150 | 140 | 112 | 110 | 103 | 127 | 125 | 115 |
| Tennessee..... | 97 | 98 | 103 | 135 | 195 | 192 | 200 | 190 | 159 | 135 | 119 | 116 | 138 | 130 | 128 |
| Alabama..... | 131 | 110 | 135 | 175 | 268 | 261 | 260 | 250 | 260 | 160 | 153 | 160 | 156 | 158 | 157 |
| Arkansas..... | 99 | 105 | 100 | 115 | 150 | 210 | 220 | 157 | 130 | 100 | 120 | 131 | 130 | 122 | 122 |
| Oklahoma..... | 90 | 95 | 77 | 125 | 170 | 187 | 150 | 100 | 129 | 66 | 80 | 90 | 101 | 110 | 89 |
| Texas..... | 109 | 99 | 103 | 120 | 196 | 235 | 167 | 150 | 153 | 100 | 125 | 98 | 111 | 120 | 111 |
| Montana..... | 66 | 70 | 65 | 96 | 165 | 144 | 185 | 108 | 119 | 53 | 54 | 51 | 91 | 74 | 66 |
| Idaho..... | 64 | 67 | 68 | 95 | 135 | 155 | 175 | 100 | 115 | 70 | 67 | 68 | 122 | 80 | 81 |
| Wyoming..... | 78 | 81 | 90 | 108 | 155 | 152 | 180 | 115 | 126 | 58 | 52 | 66 | 88 | 64 | 66 |
| Colorado..... | 66 | 66 | 70 | 105 | 146 | 140 | 130 | 105 | 109 | 60 | 66 | 56 | 85 | 67 | 67 |
| New Mexico..... | | | | | | | | | | 70 | 100 | 90 | 100 | 100 | 92 |
| Utah..... | 67 | 60 | 65 | 100 | 160 | 180 | 200 | 150 | 131 | 70 | 60 | 90 | 107 | 100 | 85 |
| Washington..... | 78 | 85 | 75 | 111 | 175 | 200 | 185 | 160 | 142 | 65 | 75 | 75 | 123 | 125 | 98 |
| Oregon..... | 87 | 100 | 90 | 115 | 170 | 205 | 190 | 125 | 142 | 68 | 85 | 93 | 136 | 110 | 98 |
| United States..... | 85.9 | 86.5 | 83.4 | 122.1 | 166.0 | 151.6 | 133.2 | 126.8 | 124.2 | 69.7 | 68.5 | 65.0 | 106.6 | 78.1 | 77.6 |

Division of Crop and Livestock Estimates.

TABLE 59.—Rye, No. 2: Weighted average price per bushel, 1909–1925

CHICAGO

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Weighted average ¹ |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$0.79 | \$0.71 | \$0.72 | \$0.73 | \$0.74 | \$0.77 | \$0.81 | \$0.81 | \$0.79 | \$0.79 | \$0.77 | \$0.76 | \$0.76 |
| 1910..... | .77 | .75 | .74 | .76 | .79 | .81 | .84 | .82 | .89 | .95 | 1.02 | .90 | .84 |
| 1911..... | .84 | .85 | .91 | .97 | .95 | .93 | .94 | .92 | .91 | .94 | .93 | .83 | .91 |
| 1912..... | .74 | .72 | .69 | .69 | .64 | .61 | .64 | .62 | .60 | .62 | .62 | .62 | .65 |
| 1913..... | .63 | .66 | .67 | .65 | .64 | .63 | .61 | .62 | .61 | .62 | .65 | .63 | .64 |
| Av. 1909-1913.... | .75 | .74 | .75 | .76 | .75 | .75 | .77 | .76 | .76 | .78 | .80 | .75 | .76 |
| 1914..... | .64 | .84 | .95 | .92 | 1.02 | 1.10 | 1.19 | 1.23 | 1.17 | 1.17 | 1.19 | 1.17 | 1.05 |
| 1915..... | 1.08 | 1.00 | .96 | 1.01 | .99 | .97 | 1.01 | .97 | .93 | .96 | .98 | .98 | .99 |
| 1916..... | .96 | 1.13 | 1.20 | 1.33 | 1.47 | 1.41 | 1.43 | 1.46 | 1.61 | 1.87 | 2.20 | 2.40 | 1.84 |
| 1917..... | 2.27 | 1.90 | 1.88 | 1.84 | 1.78 | 1.82 | 2.01 | 2.39 | 2.84 | 2.64 | 2.20 | 1.80 | 2.11 |
| 1918..... | 1.73 | 1.67 | 1.63 | 1.63 | 1.68 | 1.59 | 1.61 | 1.38 | 1.61 | 1.73 | 1.59 | 1.46 | 1.61 |
| 1919..... | 1.55 | 1.54 | 1.40 | 1.38 | 1.42 | 1.66 | 1.76 | 1.56 | 1.72 | 1.99 | 2.13 | 2.27 | 1.70 |
| 1920..... | 2.04 | 1.60 | 1.99 | 1.69 | 1.59 | 1.61 | 1.63 | 1.47 | 1.46 | 1.35 | 1.47 | 1.32 | 1.62 |
| Av. 1914-1920.... | 1.47 | 1.43 | 1.43 | 1.40 | 1.42 | 1.45 | 1.52 | 1.49 | 1.62 | 1.67 | 1.68 | 1.63 | 1.52 |
| 1921..... | 1.27 | 1.07 | 1.04 | .86 | .79 | .86 | .81 | .97 | 1.02 | 1.04 | 1.06 | .90 | .97 |
| 1922..... | .82 | .73 | .72 | .78 | .87 | .88 | .87 | .86 | .83 | .86 | .78 | .70 | .81 |
| 1923..... | .65 | .67 | .70 | .72 | .71 | .70 | .73 | .72 | .69 | .66 | .67 | .76 | .70 |
| 1924..... | .84 | .93 | 1.03 | 1.26 | 1.31 | 1.41 | 1.57 | 1.67 | 1.28 | 1.12 | 1.19 | 1.13 | 1.25 |
| 1925..... | .97 | 1.05 | .90 | .83 | .88 | 1.03 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

MINNEAPOLIS

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Weighted average ¹ |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$0.76 | \$0.67 | \$0.66 | \$0.68 | \$0.69 | \$0.72 | \$0.77 | \$0.76 | \$0.74 | \$0.73 | \$0.71 | \$0.69 | \$0.70 |
| 1910..... | .73 | .73 | .71 | .72 | .74 | .77 | .79 | .78 | .84 | .88 | 1.01 | .87 | .77 |
| 1911..... | .79 | .80 | .85 | .92 | .88 | .87 | .90 | .88 | .89 | .89 | .87 | .79 | .86 |
| 1912..... | .69 | .64 | .62 | .63 | .58 | .58 | .58 | .57 | .55 | .57 | .57 | .56 | .60 |
| 1913..... | .57 | .61 | .61 | .56 | .54 | .55 | .55 | .56 | .56 | .57 | .60 | .59 | .58 |
| Av. 1909-1913.... | .71 | .69 | .69 | .70 | .69 | .69 | .72 | .71 | .72 | .73 | .75 | .70 | .70 |
| 1914..... | .58 | .80 | .89 | .87 | 1.01 | 1.06 | 1.15 | 1.24 | 1.12 | 1.11 | 1.16 | 1.12 | .98 |
| 1915..... | 1.02 | .97 | .90 | .96 | .93 | .92 | .96 | .95 | .89 | .93 | .94 | .94 | .94 |
| 1916..... | .93 | 1.15 | 1.20 | 1.26 | 1.44 | 1.38 | 1.42 | 1.42 | 1.58 | 1.80 | 2.26 | 2.37 | 1.35 |
| 1917..... | 2.20 | 1.75 | 1.84 | 1.81 | 1.77 | 1.83 | 1.93 | 2.24 | 2.91 | 2.74 | 2.30 | 1.85 | 1.93 |
| 1918..... | 1.84 | 1.68 | 1.60 | 1.58 | 1.62 | 1.67 | 1.54 | 1.34 | 1.54 | 1.71 | 1.55 | 1.45 | 1.58 |
| 1919..... | 1.84 | 1.48 | 1.39 | 1.36 | 1.38 | 1.66 | 1.73 | 1.53 | 1.70 | 1.95 | 2.08 | 2.14 | 1.60 |
| 1920..... | 2.09 | 1.92 | 1.85 | 1.66 | 1.48 | 1.49 | 1.58 | 1.44 | 1.42 | 1.28 | 1.37 | 1.26 | 1.61 |
| Av. 1914-1920.... | 1.46 | 1.39 | 1.38 | 1.36 | 1.38 | 1.42 | 1.47 | 1.45 | 1.59 | 1.65 | 1.67 | 1.59 | 1.43 |
| 1921..... | 1.15 | 1.00 | .99 | .80 | .72 | .78 | .75 | .95 | .97 | .97 | 1.02 | .86 | .92 |
| 1922..... | .76 | .69 | .66 | .71 | .81 | .83 | .82 | .80 | .76 | .81 | .76 | .64 | .75 |
| 1923..... | .61 | .62 | .66 | .66 | .64 | .65 | .67 | .66 | .63 | .61 | .63 | .70 | .65 |
| 1924..... | .83 | .86 | .95 | 1.21 | 1.23 | 1.33 | 1.54 | 1.54 | 1.30 | 1.06 | 1.14 | 1.11 | 1.14 |
| 1925..... | .95 | 1.00 | .83 | .77 | .81 | .98 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from Chicago Daily Trade Bulletin and Minneapolis Daily Market Record.

¹ Average of daily prices weighted by carlot sales.

CORN

TABLE 60.—Corn: Acreage, production, value, exports, etc., United States, 1909–1925

| Year | Acreage | Average yield per acre | Production | Price per bushel received by producers, Dec.1 | Farm value Dec. 1 | Value per acre ¹ | Chicago cash price per bushel, No. 2 mixed ² | | | | Domestic exports, including corn meal, fiscal year beginning July 1 ³ | Imports, fiscal year beginning July 1 ³ | Per cent of crop exported |
|-------------------------|-------------|------------------------|---------------|---|-------------------|-----------------------------|---|-------|---------------|-------|--|--|---------------------------|
| | | | | | | | December | | Following May | | | | |
| | | | | | | | Low | High | Low | High | | | |
| | 1,000 acres | Bu. of 56 lbs. shelled | 1,000 bushels | Cents | 1,000 dollars | Dollars | Cts. | Cts. | Cts. | Cts. | Bushels | Bushels | P. ct. |
| 1909..... | 88,388 | 28.1 | 2,572,336 | 58.6 | 1,567,195 | 15.32 | 62½ | 66 | 56 | 63 | 28,128,496 | ..... | 1.5 |
| 1910..... | 104,036 | 27.7 | 2,880,260 | 48.0 | 1,384,817 | 13.31 | 45½ | 50 | 52½ | 55½ | 65,614,622 | ..... | 2.3 |
| 1911..... | 106,825 | 23.9 | 2,531,488 | 61.8 | 1,565,258 | 14.79 | 68 | 70 | 76½ | 82½ | 41,797,291 | 53,425 | 1.7 |
| 1912..... | 107,083 | 29.3 | 3,124,746 | 48.1 | 1,320,454 | 14.20 | 47½ | 54 | 55½ | 60 | 56,780,148 | 968,062 | 1.6 |
| 1913..... | 105,820 | 23.1 | 2,446,888 | 69.1 | 1,692,092 | 15.99 | 64 | 73½ | 67 | 72½ | 10,728,819 | 12,367,369 | .4 |
| Average 1909–1913..... | 104,229 | 26.0 | 2,712,364 | 56.6 | 1,533,961 | 14.72 | 57.6 | 62.7 | 61.4 | 66.6 | 41,409,255 | 2,664,771 | 1.5 |
| 1914..... | 103,435 | 25.8 | 2,672,804 | 64.4 | 1,722,070 | 16.65 | 62½ | 68½ | 50½ | 54 | 50,698,303 | 9,897,939 | 1.3 |
| 1915..... | 103,197 | 28.2 | 2,994,798 | 57.5 | 1,722,690 | 16.22 | 69½ | 75 | 69 | 78½ | 39,896,928 | 5,208,497 | 2.6 |
| 1916..... | 105,260 | 24.4 | 2,566,927 | 88.9 | 2,280,729 | 21.66 | 88 | 98 | 152 | 174 | 66,733,294 | 2,267,299 | 1.6 |
| 1917..... | 116,730 | 26.3 | 3,065,223 | 127.9 | 3,920,228 | 33.58 | 160 | 190 | 150 | 170 | 49,073,263 | 3,190,420 | .9 |
| 1918..... | 104,467 | 24.0 | 2,502,665 | 136.5 | 3,416,240 | 32.70 | 135 | 155 | 160½ | 185 | 23,018,622 | 3,311,211 | .6 |
| 1919..... | 97,170 | 28.9 | 2,811,302 | 134.5 | 3,780,597 | 38.91 | 142 | 160 | 189 | 217 | 16,728,746 | 10,229,249 | 2.2 |
| 1920..... | 101,699 | 31.5 | 3,208,584 | 67.0 | 2,190,332 | 21.14 | 76½ | 86 | 59 | 66 | 70,905,781 | 5,743,384 | 5.9 |
| Average 1914–1920..... | 104,969 | 27.0 | 2,831,758 | 95.8 | 2,713,268 | 25.84 | 108.9 | 118.6 | 118.6 | 135.2 | 45,289,120 | 5,693,428 | 1.6 |
| 1921..... | 103,740 | 29.6 | 3,068,509 | 42.3 | 1,267,213 | 12.50 | 46½ | 51½ | 50½ | 65 | 179,490,442 | 124,561 | 5.9 |
| 1922..... | 102,846 | 28.3 | 2,906,260 | 65.8 | 1,910,775 | 18.58 | 69½ | 77½ | 78 | 87½ | 66,506,221 | 137,520 | 2.3 |
| 1923..... | 104,324 | 23.3 | 2,433,557 | 72.6 | 2,217,229 | 21.23 | 69½ | 87 | 76½ | 81 | 23,135,200 | 227,704 | .8 |
| 1924..... | 101,076 | 22.9 | 2,312,745 | 98.2 | 2,270,564 | 22.46 | 113 | 135½ | 107½ | 121½ | 9,799,136 | 4,617,319 | .4 |
| 1925 ⁴ | 101,631 | 28.5 | 2,900,581 | 67.4 | 1,956,326 | 19.25 | 77 | 85 | ..... | ..... | ..... | ..... | ..... |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

¹Based upon farm price Dec. 1.²Chicago Daily Trade Bulletin. Contract to 1915.³Compiled from Commerce and Navigation of U. S. 1909–1918, and June issues of Monthly Summaries of Foreign Commerce, 1919–1925.⁴Preliminary.

TABLE 61.—Corn: Percentage reduction from full yield per acre from stated causes as reported by crop correspondents, 1909–1924

| Year | Adverse weather conditions | | | | | | | | | | Plant diseases | Insect pests | Animal pests | Defective seed | Other and unknown causes | Total |
|-----------|----------------------------|--------------------|------------|-----------------|------------|------------|------------|----------------|----------------|------------|----------------|--------------|--------------|----------------|--------------------------|-------------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | | |
| 1909..... | P. ct. 13.0 | P. ct. 7.3 | P. ct. 1.5 | P. ct. 1.0 | P. ct. 0.5 | P. ct. 1.6 | P. ct. 0.7 | P. ct. 0.2 | P. ct. 25.8 | P. ct. 0.2 | P. ct. 2.3 | P. ct. 0.4 | P. ct. 0.3 | P. ct. 0.6 | P. ct. 0.6 | P. ct. 29.6 |
| 1910..... | 13.9 | 3.0 | 1.8 | .9 | .4 | 1.6 | .5 | .2 | 21.3 | .2 | 2.4 | .4 | 1.2 | .5 | .5 | 26.0 |
| 1911..... | 23.4 | 1.6 | (1) | .4 | .2 | 3.4 | .1 | .5 | 29.6 | .2 | 2.3 | .2 | 1.4 | 1.0 | .3 | 33.8 |
| 1912..... | 8.7 | 4.6 | .9 | 1.7 | .5 | 1.0 | .3 | .4 | 18.1 | .3 | 4.8 | .3 | 2.3 | .5 | .3 | 26.3 |
| 1913..... | 27.1 | 1.2 | .4 | 1.0 | .3 | 3.1 | .4 | .2 | 33.7 | .1 | 3.7 | .2 | .4 | .8 | .3 | 38.9 |
| 1914..... | 20.8 | 1.3 | .4 | .4 | .5 | 2.1 | .4 | .2 | 28.1 | .1 | 3.6 | .1 | .2 | .5 | .5 | 30.6 |
| 1915..... | 3.0 | 11.9 | 2.1 | 6.9 | .6 | .2 | 1.1 | .7 | 26.5 | .3 | 2.1 | .1 | .2 | .7 | .2 | 34.7 |
| 1916..... | 18.5 | 5.8 | 1.7 | 1.7 | .4 | 1.7 | 1.1 | .4 | 31.3 | .3 | 2.0 | .1 | .6 | .4 | .3 | 39.8 |
| 1917..... | 12.1 | 2.9 | .6 | 13.5 | .6 | 1.2 | .3 | .4 | 31.6 | .2 | 1.4 | .1 | .2 | .3 | .3 | 35.9 |
| 1918..... | 22.1 | .9 | .5 | 2.0 | .4 | 6.3 | .3 | .3 | 32.8 | .3 | 2.6 | .1 | 1.5 | .4 | .4 | 37.7 |
| 1919..... | 10.8 | 7.3 | 1.4 | .1 | .3 | 1.0 | .4 | .1 | 21.4 | .3 | 3.1 | .1 | .2 | .3 | .3 | 25.4 |
| 1920..... | 8.4 | 3.3 | .6 | .7 | .5 | .3 | .4 | .1 | 11.3 | .3 | 3.7 | .1 | .3 | .2 | .2 | 15.9 |
| 1921..... | 10.6 | 1.1 | .3 | .2 | .4 | .9 | .6 | ..... | 14.1 | .6 | 3.5 | ..... | .1 | .2 | .1 | 18.7 |
| 1922..... | 14.2 | 2.3 | .8 | .2 | .9 | 1.0 | .2 | ..... | 19.3 | .3 | 3.0 | .1 | .2 | .1 | .2 | 23.0 |
| 1923..... | 9.9 | 4.2 | .7 | .7 | .6 | .7 | 1.1 | ..... | 19.9 | .6 | 2.4 | .1 | .1 | .3 | .3 | 23.4 |
| 1924..... | 11.2 | 10.7 | 1.3 | 9.7 | 1.4 | .5 | .8 | .1 | 35.4 | .4 | 2.8 | .2 | .8 | .3 | .3 | 39.7 |

Division of Crop and Livestock Estimates.

¹Less than 0.05 per cent.

TABLE 62.—*Corn: Acreage, production, and total farm value, by States, 1924 and 1925*

| | Thousands of acres | | Production thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|---------------------|--------------------|-------------------|---------------------------------|-------------------|---|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| Maine..... | 12 | 13 | 516 | 585 | 702 | 655 |
| New Hampshire..... | 14 | 15 | 672 | 750 | 900 | 790 |
| Vermont..... | 83 | 85 | 3,901 | 4,080 | 4,603 | 4,080 |
| Massachusetts..... | 41 | 42 | 1,845 | 2,100 | 2,380 | 2,310 |
| Rhode Island..... | 8 | 9 | 320 | 405 | 448 | 486 |
| Connecticut..... | 55 | 57 | 2,365 | 2,850 | 2,888 | 3,135 |
| New York..... | 677 | 691 | 23,018 | 24,876 | 26,961 | 24,130 |
| New Jersey..... | 195 | 206 | 6,680 | 10,712 | 7,691 | 7,820 |
| Pennsylvania..... | 1,316 | 1,421 | 48,084 | 72,471 | 56,080 | 57,977 |
| Ohio..... | 2,432 | 3,707 | 89,232 | 177,936 | 92,801 | 101,424 |
| Indiana..... | 4,450 | 4,628 | 113,920 | 201,318 | 107,065 | 110,725 |
| Illinois..... | 8,946 | 9,240 | 295,218 | 388,090 | 280,457 | 225,086 |
| Michigan..... | 1,610 | 1,642 | 45,885 | 65,680 | 48,638 | 49,200 |
| Wisconsin..... | 2,185 | 2,141 | 56,819 | 99,556 | 69,650 | 71,680 |
| Minnesota..... | 4,586 | 4,357 | 123,822 | 156,852 | 106,249 | 87,837 |
| Iowa..... | 10,912 | 11,130 | 305,536 | 478,590 | 284,148 | 268,010 |
| Missouri..... | 6,500 | 6,823 | 156,000 | 261,336 | 149,700 | 138,923 |
| North Dakota..... | 1,320 | 1,056 | 26,440 | 24,816 | 20,064 | 13,640 |
| South Dakota..... | 4,814 | 4,766 | 102,536 | 85,406 | 82,030 | 50,043 |
| Nebraska..... | 8,716 | 9,100 | 191,752 | 236,600 | 174,494 | 144,326 |
| Kansas..... | 6,021 | 6,623 | 130,656 | 104,643 | 113,671 | 69,064 |
| Delaware..... | 140 | 145 | 3,780 | 5,305 | 4,234 | 3,487 |
| Maryland..... | 537 | 568 | 16,647 | 25,560 | 18,478 | 17,392 |
| Virginia..... | 1,499 | 1,639 | 31,479 | 36,058 | 39,664 | 36,419 |
| West Virginia..... | 460 | 506 | 11,960 | 18,499 | 14,830 | 18,469 |
| North Carolina..... | 2,317 | 2,271 | 41,706 | 42,014 | 51,715 | 46,215 |
| South Carolina..... | 1,650 | 1,584 | 19,800 | 19,493 | 24,354 | 21,431 |
| Georgia..... | 3,073 | 3,895 | 45,712 | 41,676 | 51,197 | 41,676 |
| Florida..... | 600 | 580 | 8,100 | 8,700 | 9,072 | 8,700 |
| Kentucky..... | 3,048 | 3,200 | 76,200 | 84,800 | 77,724 | 68,688 |
| Tennessee..... | 3,100 | 3,162 | 66,650 | 63,240 | 71,982 | 56,294 |
| Alabama..... | 2,900 | 2,797 | 30,250 | 37,760 | 44,225 | 37,760 |
| Mississippi..... | 2,240 | 1,977 | 26,880 | 35,566 | 33,869 | 33,451 |
| Arkansas..... | 2,090 | 2,006 | 33,440 | 28,084 | 35,781 | 27,241 |
| Louisiana..... | 1,250 | 1,225 | 14,376 | 22,050 | 16,531 | 20,727 |
| Oklahoma..... | 2,862 | 2,558 | 54,378 | 10,185 | 48,396 | 17,266 |
| Texas..... | 3,943 | 3,154 | 63,088 | 26,809 | 69,397 | 29,490 |
| Montana..... | 420 | 399 | 7,560 | 6,584 | 7,484 | 6,255 |
| Idaho..... | 66 | 78 | 2,026 | 3,198 | 2,289 | 2,398 |
| Wyoming..... | 190 | 191 | 2,100 | 4,398 | 2,030 | 3,075 |
| Colorado..... | 1,450 | 1,494 | 14,500 | 22,410 | 12,760 | 15,687 |
| New Mexico..... | 226 | 175 | 3,960 | 3,150 | 4,356 | 3,150 |
| Arizona..... | 31 | 39 | 682 | 730 | 852 | 1,014 |
| Utah..... | 15 | 18 | 300 | 419 | 435 | 419 |
| Nevada..... | 2 | 2 | 45 | 50 | 54 | 60 |
| Washington..... | 43 | 58 | 1,280 | 2,030 | 1,445 | 1,928 |
| Oregon..... | 59 | 71 | 1,800 | 2,059 | 2,178 | 2,203 |
| California..... | 86 | 85 | 2,907 | 3,026 | 4,012 | 3,671 |
| United States..... | 101,076 | 101,631 | 2,312,745 | 2,906,581 | 2,270,664 | 1,956,326 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 63.—Corn: Yield per acre, by States, 1909–1925.

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|--------------|------|------|-------|------|------|----------------------|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|----------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| Me..... | 38.0 | 46.0 | 44.0 | 40.0 | 38.0 | 41.2 | 46.0 | 41.0 | 43.0 | 37.0 | 45.0 | 55.0 | 45.0 | 44.6 | 50.0 | 41.0 | 38.0 | 43.0 | 45.0 | 43.4 |
| N. H..... | 35.1 | 46.0 | 45.0 | 46.0 | 37.0 | 41.8 | 46.0 | 45.0 | 46.0 | 40.0 | 45.0 | 46.0 | 45.0 | 44.6 | 53.0 | 42.0 | 42.0 | 47.0 | 48.0 | 47.2 |
| Vt..... | 37.0 | 43.0 | 41.0 | 40.0 | 37.0 | 39.0 | 47.0 | 44.0 | 43.0 | 45.0 | 52.0 | 52.0 | 40.0 | 46.8 | 48.0 | 40.0 | 43.0 | 45.0 | 50.0 | 45.2 |
| Mass..... | 33.0 | 45.0 | 44.0 | 45.0 | 40.0 | 42.6 | 47.0 | 47.0 | 42.0 | 45.0 | 52.0 | 52.0 | 40.0 | 41.0 | 46.0 | 40.0 | 38.0 | 40.0 | 45.0 | 41.8 |
| R. I..... | 33.2 | 40.0 | 45.0 | 41.0 | 36.5 | 39.2 | 42.0 | 43.0 | 31.0 | 42.0 | 44.0 | 45.0 | 40.0 | 41.0 | 46.0 | 40.0 | 38.0 | 40.0 | 45.0 | 41.8 |
| Conn..... | 41.0 | 53.2 | 248.5 | 50.0 | 38.5 | 46.2 | 46.0 | 50.0 | 43.0 | 50.0 | 50.0 | 50.0 | 40.0 | 47.0 | 62.0 | 45.0 | 41.0 | 43.0 | 50.0 | 46.2 |
| N. Y..... | 36.0 | 38.3 | 3.38 | 53.8 | 6.28 | 36.0 | 41.0 | 40.0 | 30.0 | 31.0 | 36.0 | 43.0 | 40.0 | 37.3 | 40.0 | 35.5 | 32.4 | 34.0 | 36.0 | 36.8 |
| N. J..... | 32.7 | 36.0 | 3.36 | 38.8 | 0.39 | 36.6 | 38.5 | 38.0 | 40.0 | 42.0 | 41.0 | 40.0 | 44.0 | 40.5 | 47.0 | 42.0 | 40.0 | 34.0 | 52.0 | 43.0 |
| Pa..... | 32.0 | 41.0 | 44.5 | 42.5 | 39.0 | 39.8 | 42.5 | 38.5 | 39.0 | 39.0 | 40.0 | 47.0 | 45.0 | 41.6 | 48.0 | 44.0 | 40.0 | 36.5 | 51.0 | 43.9 |
| Ohio..... | 39.5 | 36.5 | 38.0 | 42.8 | 37.5 | 39.0 | 39.1 | 41.5 | 31.5 | 36.0 | 36.0 | 43.0 | 43.4 | 38.9 | 41.0 | 39.0 | 41.0 | 26.0 | 48.0 | 39.0 |
| Ind..... | 40.0 | 39.3 | 3.36 | 40.0 | 3.36 | 38.3 | 33.0 | 38.0 | 34.0 | 36.0 | 33.0 | 37.0 | 40.5 | 35.9 | 36.0 | 37.0 | 38.5 | 25.5 | 64.5 | 36.1 |
| Ill..... | 35.9 | 39.1 | 1.33 | 40.0 | 0.27 | 35.0 | 29.0 | 36.0 | 29.5 | 38.0 | 35.5 | 36.0 | 34.6 | 34.1 | 34.0 | 35.5 | 53.7 | 53.0 | 42.0 | 36.4 |
| Mich..... | 35.4 | 32.4 | 3.33 | 35.4 | 0.33 | 33.7 | 36.0 | 32.0 | 27.5 | 21.5 | 30.0 | 37.0 | 39.0 | 31.9 | 39.0 | 35.5 | 34.5 | 28.5 | 50.0 | 35.5 |
| Wis..... | 33.0 | 33.2 | 3.36 | 33.5 | 7.40 | 35.6 | 40.5 | 23.0 | 36.0 | 23.0 | 40.0 | 24.5 | 43.2 | 35.7 | 46.5 | 24.4 | 53.7 | 26.0 | 46.5 | 40.0 |
| Minn..... | 34.8 | 32.7 | 7.33 | 73.4 | 5.40 | 35.1 | 35.0 | 23.0 | 33.5 | 30.0 | 40.0 | 40.0 | 37.5 | 34.1 | 41.0 | 33.0 | 36.0 | 27.0 | 36.0 | 34.6 |
| Iowa..... | 31.5 | 33.6 | 3.31 | 0.43 | 0.34 | 35.2 | 38.0 | 30.0 | 36.5 | 37.0 | 36.0 | 41.6 | 46.0 | 37.9 | 42.0 | 45.0 | 40.0 | 5.28 | 0.43 | 39.7 |
| Mo..... | 26.4 | 33.3 | 0.26 | 0.32 | 0.17 | 27.0 | 22.0 | 29.5 | 19.5 | 35.0 | 20.0 | 27.0 | 32.0 | 26.4 | 30.0 | 28.5 | 30.0 | 24.0 | 29.5 | 28.4 |
| N. Dak..... | 31.0 | 14.0 | 25.0 | 26.7 | 28.8 | 25.1 | 28.0 | 14.0 | 26.5 | 9.0 | 19.0 | 33.0 | 24.0 | 21.9 | 28.0 | 27.5 | 53.5 | 50.0 | 23.5 | 26.5 |
| S. Dak..... | 31.7 | 25.0 | 22.0 | 30.6 | 23.5 | 27.0 | 26.0 | 29.0 | 28.5 | 28.0 | 34.0 | 28.5 | 53.0 | 29.1 | 32.0 | 28.5 | 34.5 | 21.3 | 17.5 | 26.8 |
| Nebr..... | 24.8 | 25.8 | 8.21 | 0.24 | 0.15 | 22.1 | 24.5 | 30.0 | 26.0 | 27.0 | 17.7 | 26.2 | 33.8 | 26.5 | 28.0 | 25.0 | 33.0 | 22.0 | 26.0 | 26.8 |
| Kans..... | 19.9 | 19.0 | 14.5 | 23.0 | 3.2 | 15.9 | 18.5 | 31.0 | 10.0 | 13.0 | 7.1 | 15.2 | 26.5 | 17.3 | 22.2 | 19.3 | 21.7 | 21.7 | 15.8 | 20.1 |
| Del..... | 31.0 | 31.8 | 3.34 | 0.34 | 0.31 | 32.5 | 36.0 | 31.5 | 34.0 | 34.0 | 31.0 | 30.0 | 37.5 | 33.4 | 37.0 | 29.4 | 53.1 | 27.0 | 37.0 | 32.7 |
| Md..... | 31.4 | 33.3 | 5.36 | 5.36 | 5.33 | 34.2 | 37.0 | 35.0 | 39.0 | 39.0 | 35.0 | 41.0 | 38.5 | 37.6 | 39.0 | 40.0 | 39.8 | 31.0 | 44.5 | 38.9 |
| Va..... | 23.2 | 25.5 | 24.0 | 24.0 | 20.0 | 24.5 | 20.5 | 23.5 | 28.0 | 27.0 | 28.0 | 28.0 | 30.0 | 27.1 | 25.0 | 28.0 | 28.0 | 21.0 | 22.0 | 26.0 |
| W. Va..... | 31.4 | 26.0 | 25.7 | 7.33 | 8.31 | 29.6 | 31.0 | 31.5 | 30.5 | 30.0 | 31.0 | 34.0 | 34.0 | 31.7 | 34.0 | 34.0 | 34.0 | 26.0 | 36.5 | 32.9 |
| N. C..... | 16.8 | 18.6 | 18.4 | 18.2 | 19.5 | 18.3 | 20.3 | 21.0 | 18.5 | 20.0 | 21.0 | 19.0 | 22.5 | 20.3 | 19.3 | 20.0 | 22.5 | 18.0 | 18.5 | 19.7 |
| S. C..... | 16.7 | 18.5 | 18.2 | 17.9 | 19.5 | 18.2 | 18.5 | 16.5 | 15.5 | 19.0 | 17.0 | 16.0 | 19.0 | 17.4 | 16.0 | 14.5 | 16.5 | 12.0 | 12.3 | 14.3 |
| Georgia..... | 13.9 | 14.5 | 16.0 | 13.8 | 15.5 | 14.7 | 14.0 | 15.0 | 15.5 | 16.0 | 15.0 | 14.5 | 15.0 | 15.0 | 15.0 | 12.0 | 12.2 | 11.5 | 10.5 | 12.3 |
| Fla..... | 12.6 | 13.0 | 14.6 | 13.0 | 15.0 | 13.6 | 16.0 | 15.0 | 15.0 | 15.0 | 16.0 | 15.5 | 13.5 | 15.1 | 14.0 | 14.0 | 12.5 | 13.5 | 15.0 | 13.8 |
| Ky..... | 29.0 | 29.0 | 26.0 | 30.4 | 20.5 | 27.0 | 25.0 | 30.0 | 28.0 | 31.5 | 26.0 | 24.0 | 30.5 | 27.9 | 25.6 | 28.0 | 28.5 | 26.0 | 26.5 | 26.7 |
| Tenn..... | 22.0 | 25.9 | 26.8 | 26.5 | 20.5 | 24.3 | 24.0 | 27.0 | 26.0 | 29.0 | 24.0 | 21.4 | 28.0 | 25.6 | 25.8 | 23.0 | 24.5 | 21.5 | 20.0 | 23.0 |
| Ala..... | 13.5 | 18.0 | 18.0 | 17.2 | 17.3 | 16.8 | 17.0 | 17.0 | 12.5 | 16.0 | 14.0 | 14.5 | 15.7 | 15.3 | 14.5 | 14.0 | 14.0 | 12.5 | 13.5 | 13.7 |
| Miss..... | 14.5 | 20.5 | 19.0 | 18.3 | 19.0 | 18.5 | 18.5 | 19.0 | 14.0 | 20.0 | 17.0 | 15.0 | 16.0 | 17.1 | 18.0 | 17.5 | 14.5 | 12.0 | 14.0 | 16.0 |
| Ark..... | 18.0 | 24.0 | 20.0 | 20.4 | 19.0 | 20.4 | 17.5 | 23.0 | 17.7 | 24.0 | 13.0 | 18.0 | 23.4 | 19.5 | 22.0 | 19.5 | 15.5 | 16.0 | 14.0 | 17.4 |
| La..... | 23.0 | 23.6 | 18.5 | 18.0 | 22.0 | 21.0 | 19.5 | 20.5 | 21.0 | 18.0 | 16.0 | 17.5 | 19.2 | 18.8 | 19.5 | 17.0 | 16.5 | 11.5 | 18.0 | 16.3 |
| Okla..... | 17.0 | 16.0 | 6.5 | 18.7 | 11.0 | 13.8 | 12.5 | 29.5 | 13.5 | 8.5 | 7.5 | 24.0 | 28.0 | 17.6 | 25.0 | 18.0 | 11.5 | 19.0 | 7.5 | 16.2 |
| Tex..... | 15.0 | 20.6 | 9.5 | 21.0 | 24.0 | 18.0 | 19.5 | 23.5 | 19.0 | 11.0 | 10.0 | 30.0 | 26.0 | 19.9 | 25.2 | 20.0 | 18.5 | 16.0 | 8.5 | 17.6 |
| Mont..... | 35.0 | 23.0 | 26.5 | 25.5 | 53.1 | 28.3 | 28.0 | 28.0 | 25.0 | 12.6 | 21.0 | 4.0 | 12.1 | 18.7 | 20.0 | 24.3 | 26.0 | 18.0 | 16.5 | 21.0 |
| Idaho..... | 30.6 | 32.0 | 30.0 | 32.8 | 32.0 | 31.5 | 31.0 | 35.0 | 35.0 | 31.0 | 40.0 | 32.0 | 36.0 | 34.3 | 35.0 | 38.0 | 42.0 | 30.0 | 74.0 | 37.3 |
| Wyo..... | 28.0 | 10.0 | 15.0 | 23.0 | 29.0 | 21.0 | 25.0 | 25.0 | 22.0 | 20.0 | 25.0 | 16.0 | 24.0 | 22.4 | 22.0 | 24.0 | 27.0 | 12.0 | 23.0 | 21.6 |
| Colo..... | 24.2 | 10.9 | 14.0 | 20.8 | 15.0 | 18.8 | 23.0 | 24.0 | 15.5 | 20.0 | 17.5 | 15.0 | 20.5 | 19.4 | 14.5 | 16.0 | 25.0 | 10.0 | 15.0 | 16.1 |
| N. Mex..... | 31.3 | 23.0 | 24.7 | 22.4 | 18.5 | 24.0 | 28.0 | 26.0 | 21.0 | 20.0 | 25.0 | 21.6 | 21.7 | 23.3 | 22.0 | 13.0 | 16.4 | 18.0 | 18.0 | 17.6 |
| Ariz..... | 31.2 | 32.5 | 53.3 | 0.33 | 0.28 | 31.7 | 32.0 | 30.0 | 35.0 | 27.0 | 28.0 | 29.0 | 22.0 | 29.0 | 29.0 | 30.0 | 30.0 | 22.0 | 20.0 | 26.2 |
| Utah..... | 31.4 | 30.3 | 33.5 | 0.30 | 0.34 | 32.1 | 35.0 | 34.0 | 33.0 | 25.0 | 28.0 | 19.0 | 22.1 | 28.0 | 24.6 | 24.4 | 29.0 | 22.0 | 23.5 | 23.4 |
| Nev..... | 30.0 | 30.0 | 5.30 | 0.34 | 0.0 | 31.1 | 30.0 | 35.0 | 34.0 | 30.0 | 32.0 | 26.9 | 32.0 | 32.3 | 29.1 | 1.21 | 1.23 | 3.22 | 4.25 | 24.2 |
| Wash..... | 27.8 | 28.0 | 28.5 | 27.3 | 28.0 | 27.9 | 27.0 | 27.0 | 37.0 | 37.0 | 38.0 | 36.0 | 36.0 | 34.0 | 40.0 | 40.1 | 37.0 | 30.0 | 35.0 | 36.6 |
| Oreg..... | 30.7 | 25.5 | 28.5 | 31.5 | 28.5 | 28.9 | 30.0 | 35.0 | 33.5 | 30.0 | 31.0 | 29.5 | 53.1 | 31.0 | 30.0 | 33.0 | 33.5 | 30.0 | 52.0 | 31.5 |
| Calif..... | 34.8 | 37.5 | 53.6 | 0.37 | 0.33 | 35.7 | 36.0 | 41.0 | 32.0 | 32.0 | 35.0 | 32.0 | 33.0 | 34.4 | 35.0 | 36.0 | 33.0 | 33.8 | 35.1 | 35.0 |
| U. S..... | 26.1 | 27.7 | 23.9 | 29.2 | 23.1 | 26.0 | 25.8 | 28.2 | 24.4 | 26.3 | 24.0 | 28.9 | 31.5 | 27.0 | 29.0 | 28.3 | 29.3 | 22.9 | 26.5 | 27.7 |

Division of Crop and Livestock Estimates.

TABLE 64.—*Corn: Monthly marketings by farmers, as reported by about 3,500 mills and elevators, United States, 1917-1924*

| Year beginning July | Percentage of year's receipts | | | | | | | | | | | | |
|------------------------|-------------------------------|------|-------|------|------|------|------|------|------|------|-----|------|--------|
| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Season |
| 1917..... | 5.3 | 4.0 | 3.4 | 3.8 | 8.8 | 12.2 | 14.2 | 16.1 | 13.7 | 7.1 | 5.6 | 5.8 | 100.0 |
| 1918..... | 0.7 | 6.9 | 8.4 | 6.7 | 7.3 | 12.0 | 15.0 | 7.2 | 7.5 | 8.2 | 8.0 | 6.1 | 100.0 |
| 1919..... | 4.5 | 5.6 | 4.9 | 5.6 | 9.2 | 15.0 | 12.9 | 9.5 | 8.7 | 5.9 | 7.6 | 10.6 | 100.0 |
| 1920..... | 5.4 | 5.6 | 6.9 | 5.3 | 7.1 | 11.3 | 14.3 | 11.7 | 8.9 | 5.6 | 8.5 | 9.4 | 100.0 |
| 1921..... | 4.9 | 7.3 | 8.6 | 6.7 | 6.6 | 12.4 | 13.8 | 12.4 | 7.5 | 4.7 | 7.6 | 7.5 | 100.0 |
| 1922..... | 0.8 | 7.5 | 9.1 | 8.2 | 8.7 | 13.6 | 10.7 | 11.0 | 6.6 | 5.3 | 6.1 | 6.4 | 100.0 |
| 1923..... | 6.8 | 7.2 | 6.1 | 5.6 | 10.4 | 12.3 | 12.9 | 13.3 | 7.4 | 6.1 | 5.9 | 6.0 | 100.0 |
| 1924..... | 6.6 | 0.2 | 6.5 | 7.0 | 11.1 | 13.0 | 13.6 | 9.5 | 8.1 | 6.3 | 7.8 | 4.3 | 100.0 |

Division of Crop and Livestock Estimates.

TABLE 65.—*Corn: Acreage and yield per acre in specified countries, average 1909-1913, annual 1922-1925*

| Country | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
|---|--------------------------------|-------------|-------------|-------------|------------------|--------------------------------|---------|---------|---------|------------------|
| NORTHERN HEMISPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Bushels | Bushels | Bushels | Bushels | Bushels |
| Canada..... | 309 | 318 | 318 | 295 | 239 | 56.0 | 43.4 | 42.8 | 40.7 | 44.2 |
| United States..... | 104,229 | 102,846 | 104,324 | 101,076 | 101,631 | 26.0 | 28.3 | 29.3 | 22.9 | 28.5 |
| Mexico..... | 6,093 | 7,058 | 7,930 | 8,072 | 5,271 | 13.5 | 9.7 | 12.8 | 13.2 | 13.1 |
| Guatemala..... | | 455 | 457 | 388 | | | 11.9 | 17.2 | | |
| Total North American countries reporting all years shown..... | 110,631 | 110,222 | 112,572 | 109,443 | 107,141 | | | | | |
| EUROPE | | | | | | | | | | |
| France..... | 1,160 | 790 | 845 | 846 | 818 | 19.4 | 16.0 | 15.0 | 21.3 | 24.8 |
| Spain..... | 1,134 | 1,159 | 1,166 | 1,162 | 1,170 | 23.4 | 23.2 | 20.5 | 22.2 | 24.1 |
| Portugal..... | | 843 | 752 | | | | 13.8 | 13.6 | | |
| Italy..... | 4,090 | 3,857 | 3,790 | 3,806 | 3,830 | 25.1 | 19.9 | 23.5 | 27.8 | 27.8 |
| Switzerland..... | 3 | 4 | 4 | 4 | 4 | 37.7 | 46.2 | 41.2 | 44.2 | 45.0 |
| Austria..... | 190 | 148 | 144 | 147 | 139 | 23.8 | 23.5 | 24.0 | 25.3 | 34.0 |
| Czechoslovakia..... | 376 | 392 | 398 | 389 | 387 | 22.3 | 25.2 | 26.7 | 26.3 | 27.8 |
| Hungary..... | 2,192 | 2,445 | 2,459 | 2,459 | 2,581 | 27.7 | 19.9 | 20.0 | 30.1 | 35.8 |
| Yugoslavia..... | 4,786 | 4,722 | 4,452 | 4,856 | 5,222 | 23.4 | 19.0 | 19.0 | 30.8 | |
| Greece..... | 454 | | | | | 21.7 | | | | |
| Bulgaria..... | 1,492 | 1,313 | 1,364 | 1,465 | 1,531 | 17.6 | 11.8 | 19.7 | 18.6 | 18.4 |
| Rumania..... | 9,644 | 8,411 | 8,413 | 8,949 | 9,713 | 20.0 | 14.2 | 18.0 | 17.4 | 18.1 |
| Poland..... | 164 | 183 | 189 | 190 | 193 | 17.2 | 15.2 | 20.3 | 21.9 | 17.9 |
| Russia, including Russia in Asia..... | 3,246 | 5,408 | 4,171 | 5,037 | 7,774 | 16.1 | 15.0 | 20.5 | 18.7 | 22.7 |
| Total European countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 25,231 | 23,424 | 23,224 | 24,273 | 25,588 | 21.9 | 16.9 | 19.8 | 21.9 | 23.1 |
| Including Russia..... | 28,477 | 28,832 | 27,395 | 29,310 | 33,362 | 21.1 | 16.5 | 19.9 | 21.2 | 23.0 |
| NORTH AFRICA | | | | | | | | | | |
| Morocco..... | | 355 | 462 | 493 | 510 | | 8.9 | 8.0 | 8.0 | 6.6 |
| Algeria..... | 34 | 20 | 20 | 24 | 21 | 17.6 | 10.8 | 5.2 | 10.0 | 15.3 |
| Tunis..... | 43 | 16 | 44 | 41 | 45 | 5.3 | 1.9 | 5.4 | 5.0 | 4.1 |
| Egypt..... | 1,705 | 2,035 | 1,865 | 1,878 | | 37.7 | 32.6 | 35.1 | 36.0 | |

¹ Where changes in boundaries have occurred as a result of the World War estimates have been adjusted to correspond with the area within the post-war boundaries.² One year only.³ Four-year average.⁴ Includes some sorghum.

TABLE 65.—*Corn: Acreage and yield per acre in specified countries, average 1909-1913, annual 1922-1925—Continued*

| Country | Average 1909- 1913 | 1922 | 1923 | 1924 | 1925 | Average 1909- 1913 | 1922 | 1923 | 1924 | 1925 |
|---|--------------------------|---------|---------|---------|---------|--------------------------|-------|-------|-------|-------|
| NORTHERN HEMISPHERE—Continued | | | | | | | | | | |
| ASIA | | | | | | | | | | |
| India..... | * 5,888 | 6,290 | 5,916 | 5,824 | ..... | 14.0 | 15.6 | 12.9 | 15.0 | ..... |
| Japan..... | 193 | 140 | 136 | ..... | ..... | 25.5 | 24.7 | 24.8 | ..... | ..... |
| China..... | 168 | 227 | 232 | 229 | ..... | 14.3 | 12.8 | 12.1 | 10.4 | ..... |
| Philippines..... | * 812 | 1,350 | 1,378 | 1,317 | ..... | 9.2 | 10.8 | 13.0 | 18.6 | ..... |
| Total Northern Hemisphere reporting all years shown: | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Excluding Russia..... | 136,289 | 130,072 | 136,322 | 134,274 | 133,305 | ..... | ..... | ..... | ..... | ..... |
| Including Russia..... | 139,535 | 135,480 | 140,493 | 139,311 | 141,070 | ..... | ..... | ..... | ..... | ..... |
| Estimated Northern Hemisphere total: | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Excluding Russia..... | 146,800 | 145,906 | 147,590 | 144,306 | 144,500 | ..... | ..... | ..... | ..... | ..... |
| Including Russia..... | 150,046 | 151,308 | 151,671 | 150,337 | 152,274 | ..... | ..... | ..... | ..... | ..... |
| SOUTHERN HEMISPHERE | | | | | | | | | | |
| Brazil..... | ..... | 7,556 | 8,461 | 6,178 | 6,301 | ..... | 26.8 | 18.6 | 26.2 | ..... |
| Chile..... | 56 | 70 | 68 | 58 | ..... | 26.0 | 24.0 | 20.5 | 20.7 | ..... |
| Uruguay..... | 589 | 569 | 480 | 460 | ..... | 10.4 | 11.4 | 9.6 | 11.4 | ..... |
| Argentina..... | 8,710 | 7,851 | 8,464 | 9,162 | 10,527 | 22.0 | 22.4 | 32.7 | 20.3 | ..... |
| Union of South Africa..... | * 2,290 | 4,608 | ..... | ..... | ..... | 13.5 | 15.3 | ..... | ..... | ..... |
| Southern Rhodesia..... | 161 | 221 | 232 | 240 | ..... | 11.4 | 24.3 | 16.6 | 17.8 | ..... |
| Java and Madura..... | ..... | 3,887 | 4,028 | 4,356 | 3,988 | ..... | 12.6 | 15.1 | 15.3 | 15.3 |
| Australia..... | 353 | 313 | 316 | ..... | ..... | 28.5 | 23.6 | 26.7 | ..... | ..... |
| New Zealand..... | * 5 | 10 | 8 | 9 | ..... | 53.0 | 50.6 | 50.8 | 47.3 | ..... |
| Total Southern Hemisphere countries reporting all years shown through 1924..... | 9,521 | 8,721 | 9,232 | 9,965 | ..... | ..... | ..... | ..... | ..... | ..... |
| Estimated Southern Hemisphere total..... | 21,808 | 25,065 | 26,637 | 25,415 | ..... | ..... | ..... | ..... | ..... | ..... |
| Estimated world total ¹: | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Excluding Russia..... | 168,600 | 170,960 | 174,200 | 170,700 | ..... | ..... | ..... | ..... | ..... | ..... |
| Including Russia..... | 171,846 | 170,308 | 178,371 | 175,737 | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture unless otherwise stated.
Average given is for crops harvested during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Where changes in boundaries have occurred as a result of the World War estimates have been adjusted to correspond with the area within the post-war boundaries.

* One year only.

* Four-year average.

* Two-year average.

* Excludes a few minor producing countries which do not enter into world trade and for which no production statistics are available.

TABLE 66.—*Corn: Production in specified countries, average 1909-1913, annual 1922-1925*

[Thousand bushels—1. e., 000 omitted]

| Country | Average 1909-1913 | 1922 | 1923 | 1924 | 1925, preliminary |
|---|----------------------|-----------|-----------|-----------|----------------------|
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| Canada..... | 17,287 | 13,788 | 13,608 | 11,908 | 10,564 |
| United States..... | 2,712,344 | 2,906,690 | 2,952,557 | 2,332,745 | 2,902,551 |
| Mexico..... | 133,363 | 68,290 | 108,320 | 104,344 | 65,510 |
| Guatemala..... | * 245 | 5,412 | 7,874 | ..... | ..... |
| Total North American countries reporting all years shown..... | 2,863,023 | 2,988,078 | 3,168,485 | 2,431,088 | 2,980,064 |

¹ Where changes in boundaries have occurred as a result of the World War estimates have been adjusted to correspond with the area within the post-war boundaries.

* Two-year average.

TABLE 66.—*Corn: Production in specified countries, average 1909-1913, annual 1922-1925—Continued*

| Country | Average 1909-1913 | 1922 | 1923 | 1924 | 1925, preliminary |
|---|----------------------|-----------|-----------|-----------|----------------------|
| NORTHERN HEMISPHERE—Continued | | | | | |
| EUROPE | | | | | |
| France..... | 22,467 | 12,675 | 12,673 | 18,027 | 20,328 |
| Spain..... | 26,548 | 26,832 | 28,924 | 25,804 | 28,210 |
| Portugal..... | (11,560) | 11,665 | 10,219 | 11,212 | 11,727 |
| Italy..... | 102,676 | 70,830 | 80,204 | 106,679 | 106,295 |
| Switzerland..... | 113 | 185 | 185 | 177 | 180 |
| Austria..... | 4,830 | 3,477 | 3,450 | 3,719 | 4,720 |
| Czechoslovakia..... | 8,308 | 6,584 | 10,620 | 10,239 | 10,779 |
| Hungary..... | 60,813 | 48,725 | 49,247 | 74,122 | 92,470 |
| Yugoslavia..... | 111,897 | 80,796 | 84,781 | 149,399 | ----- |
| Greece..... | 10,860 | ----- | 8,330 | 7,106 | ----- |
| Bulgaria..... | 28,277 | 15,479 | 26,866 | 27,264 | 28,148 |
| Rumania..... | 108,209 | 119,829 | 151,403 | 155,401 | 175,463 |
| Poland..... | 2,822 | 2,776 | 3,831 | 4,161 | 3,464 |
| Russia including Russia in Asia..... | 52,185 | 81,188 | 85,564 | 94,300 | 176,461 |
| Total European countries reporting all years shown: | ----- | ----- | ----- | ----- | ----- |
| Excluding Russia..... | 1 459,353 | 328,357 | 381,602 | 435,865 | 481,794 |
| Including Russia..... | 511,538 | 409,545 | 467,196 | 530,165 | 658,245 |
| AFRICA | | | | | |
| Morocco..... | (3,500) | 3,168 | 3,712 | 3,929 | 3,380 |
| Algeria..... | 596 | 215 | 304 | 241 | 322 |
| Tunis..... | 1 228 | 31 | 236 | 205 | 195 |
| Egypt..... | 1 64,273 | 66,400 | 65,449 | 67,572 | ----- |
| ASIA | | | | | |
| India..... | 1 82,620 | 98,320 | 76,088 | 87,120 | ----- |
| Japan..... | 3,391 | 3,456 | 3,367 | (3,400) | ----- |
| Chosen..... | 2,236 | 2,802 | 2,806 | 2,375 | ----- |
| Philippines..... | 1 7,461 | 14,651 | 17,876 | 17,879 | ----- |
| Total Northern Hemisphere report- ing all years shown: | ----- | ----- | ----- | ----- | ----- |
| Excluding Russia..... | 3,326,702 | 3,319,849 | 3,584,329 | 2,871,328 | 3,465,744 |
| Including Russia..... | 3,378,887 | 3,401,637 | 3,639,933 | 2,965,628 | 3,642,205 |
| Estimated Northern Hemisphere total: | ----- | ----- | ----- | ----- | ----- |
| Excluding Russia..... | 3,615,000 | 3,508,000 | 3,821,000 | 3,213,000 | 3,747,000 |
| Including Russia..... | 3,667,000 | 3,589,000 | 3,907,000 | 3,307,000 | 3,923,000 |
| SOUTHERN HEMISPHERE | | | | | |
| Brazil..... | ----- | 202,212 | 157,026 | 161,734 | ----- |
| Chile..... | 1,455 | 1,677 | 1,392 | 1,203 | ----- |
| Uruguay..... | 6,120 | 6,499 | 4,600 | 1 5,670 | ----- |
| Argentina..... | 191,698 | 176,103 | 276,756 | 186,296 | ----- |
| Union of South Africa..... | 1 33,517 | 70,584 | 39,285 | 73,214 | ----- |
| Southern Rhodesia..... | 1,834 | 5,376 | 3,857 | 4,286 | ----- |
| Java and Madura..... | ----- | 49,115 | 69,914 | 68,760 | 61,147 |
| Australia..... | 10,037 | 7,388 | 8,115 | (8,000) | ----- |
| New Zealand..... | 1 263 | 506 | 406 | 426 | ----- |
| Total Southern Hemisphere coun- tries reporting all years shown through 1924..... | 234,889 | 260,745 | 326,296 | 271,097 | ----- |
| Estimated Southern Hemisphere total..... | 430,000 | 519,000 | 552,000 | 508,000 | ----- |
| Estimated world total: 1 | ----- | ----- | ----- | ----- | ----- |
| Excluding Russia..... | 1 4,045,000 | 4,028,000 | 4,373,000 | 3,721,000 | ----- |
| Including Russia..... | 4,097,000 | 4,109,000 | 4,459,000 | 3,815,000 | ----- |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Production as reported is for the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

1 Two year average.

1 One year only.

1 Four-year average.

1 The estimate for the five-year period 1909-1913 given in this table is somewhat larger than the figure obtained by averaging those five years in Table 67. This is because in the detailed table estimates for warring countries are for postwar boundaries, whereas in Table 67 they are for pre-war territory. As a result, in excluding Russia, which lost territory in the war a smaller area is excluded in the detailed table than in Table 67.

1 Includes some sorghum.

1 Excludes China and a few minor producing countries which do not enter into world trade and for which no production statistics are available.

TABLE 67.—Corn: World production, 1909-1925

[Thousand bushels—1. e., 000 omitted]

| Year | Production in countries reporting all years | Preliminary estimate of world production excluding Russia | Preliminary estimate of total Europe excluding Russia | Four selected countries | | | |
|-------------------------|---|---|---|-------------------------|---------|---------|-----------|
| | | | | United States | Italy | Rumania | Argentina |
| 1909..... | 2,740,791 | 3,785,000 | 499,000 | 2,572,336 | 99,289 | 70,138 | 175,187 |
| 1910..... | 3,056,089 | 3,987,000 | 564,000 | 2,886,260 | 101,722 | 103,665 | 27,676 |
| 1911..... | 2,683,121 | 3,836,000 | 501,000 | 2,531,488 | 93,518 | 110,712 | 285,849 |
| 1912..... | 3,287,886 | 4,379,000 | 547,000 | 3,124,746 | 98,668 | 103,921 | 196,642 |
| 1913..... | 2,616,156 | 3,808,000 | 576,000 | 2,446,988 | 108,388 | 114,063 | 263,135 |
| 1914..... | 2,844,850 | 4,107,000 | 562,000 | 2,672,804 | 104,967 | 102,552 | 325,178 |
| 1915..... | 3,174,515 | 4,220,000 | 520,000 | 2,904,793 | 121,824 | 86,412 | 161,133 |
| 1916..... | 2,699,694 | 3,617,000 | 389,000 | 2,566,927 | 81,547 | ----- | 58,839 |
| 1917..... | 3,197,869 | 4,175,000 | 351,000 | 3,065,233 | 82,771 | ----- | 170,660 |
| 1918..... | 2,615,641 | 3,598,000 | 299,000 | 2,502,665 | 76,590 | 81,318 | 224,239 |
| 1919..... | 2,635,030 | 3,073,000 | 454,000 | 2,811,302 | 85,846 | 141,352 | 258,686 |
| 1920..... | 3,343,224 | 4,544,000 | 520,000 | 3,208,584 | 89,208 | 182,031 | 230,420 |
| 1921..... | 3,198,858 | 4,178,000 | 394,000 | 3,068,560 | 92,325 | 110,638 | 176,171 |
| 1922..... | 3,026,049 | 4,028,000 | 426,000 | 2,906,020 | 76,830 | 119,829 | 176,103 |
| 1923..... | 3,183,112 | 4,373,000 | 475,000 | 3,053,557 | 89,204 | 151,403 | 276,756 |
| 1924..... | 2,466,215 | 3,721,000 | 592,000 | 2,312,745 | 105,679 | 155,461 | 186,298 |
| 1925 ¹ | 3,060,456 | ----- | 579,000 | 2,900,581 | 106,295 | 175,463 | ----- |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture.

For each year is shown the production during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ New boundaries, and therefore not comparable with earlier years.

² Preliminary.

TABLE 68.—Corn: Farm stocks, supplies, and shipments, United States, 1909-1925

| Year begin- ning Nov. 1 | Old stocks on farms Nov. 1 ¹ | Crop | | | | Total supplies | Stocks on farms Mar. 1 following ¹ | Shipped out of county where grown ¹ |
|----------------------------|---|-------------|----------------------|---|-------------|-------------------|---|---|
| | | Quantity | Quality ² | Proportion merchantable ¹ | | | | |
| | | | | Per cent | Per cent | | | |
| | 1,000 bush. | 1,000 bush. | Per cent | Per cent | 1,000 bush. | 1,000 bush. | 1,000 bush. | 1,000 bush. |
| 1900..... | 77,403 | 2,572,336 | 84.2 | 82.7 | 2,126,965 | 2,649,739 | 980,848 | 620,057 |
| 1910..... | 113,919 | 2,886,260 | 87.2 | 86.4 | 2,492,763 | 3,000,179 | 1,165,378 | 661,777 |
| 1911..... | 123,824 | 2,531,488 | 80.6 | 80.1 | 2,027,922 | 2,655,312 | 884,059 | 517,706 |
| 1912..... | 64,764 | 3,124,746 | 85.5 | 85.0 | 2,654,907 | 3,189,510 | 1,290,642 | 680,831 |
| 1913..... | 137,972 | 2,446,988 | 82.2 | 80.1 | 1,961,058 | 2,584,960 | 866,352 | 422,059 |
| 1914..... | 80,046 | 2,672,804 | 85.1 | 84.5 | 2,259,755 | 2,752,850 | 910,804 | 408,285 |
| 1915..... | 96,009 | 2,994,793 | 77.2 | 71.1 | 2,127,965 | 3,060,802 | 1,116,559 | 560,824 |
| 1916..... | 87,908 | 2,566,927 | 83.8 | 83.9 | 2,154,487 | 2,654,835 | 782,303 | 450,589 |
| 1917..... | 34,448 | 3,065,233 | 75.2 | 60.0 | 1,837,728 | 3,069,681 | 1,253,290 | 678,027 |
| 1918..... | 114,678 | 2,502,665 | 85.6 | 82.4 | 2,062,041 | 2,617,343 | 855,269 | 362,580 |
| 1919..... | 69,835 | 2,811,302 | 89.1 | 87.1 | 2,448,204 | 2,881,137 | 1,045,575 | 470,328 |
| 1920..... | 139,083 | 3,208,584 | 89.6 | 86.9 | 2,789,720 | 3,347,667 | 1,564,832 | 706,481 |
| 1921..... | 285,769 | 3,068,569 | 84.0 | 87.5 | 2,684,634 | 3,354,338 | 1,305,559 | 567,863 |
| 1922..... | 177,287 | 2,906,020 | 85.0 | 88.2 | 2,567,044 | 3,063,307 | 1,063,306 | 518,779 |
| 1923..... | 83,586 | 3,053,557 | 79.4 | 80.8 | 2,467,763 | 3,137,413 | 1,153,847 | 600,745 |
| 1924..... | 102,429 | 2,312,745 | 63.2 | 66.0 | 1,527,209 | 2,415,174 | 759,471 | 418,506 |
| 1925 ¹ | 58,381 | 2,900,581 | 83.6 | 78.7 | 2,283,741 | 2,958,962 | 1,318,793 | 572,901 |

Division of Crop and Livestock Estimates.

¹ Based on reported percentage of entire crop on farms, proportion merchantable, and per cent shipped out of county where grown.

² 1909-10 to 1920-21, quality reported as per cent of a high medium grade; 1921-1925, per cent of merchantable quality.

³ Preliminary.

TABLE 69.—*Corn: Receipts and shipments, 11 primary markets, 1909-1925*

[Thousand bushels—i. e., 000 omitted]

| Year beginning Nov. 1 | Chicago | | Milwaukee | | Minneapolis | | Duluth | | St. Louis | | Toledo | |
|--------------------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|
| | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments |
| 1909..... | 88,428 | 66,011 | 6,635 | 5,893 | 6,564 | 5,047 | 883 | 943 | 22,913 | 16,383 | 4,001 | 1,840 |
| 1910..... | 113,808 | 92,652 | 7,896 | 7,626 | 8,948 | 5,370 | 1,697 | 1,697 | 23,766 | 15,422 | 6,236 | 3,200 |
| 1911..... | 108,431 | 73,940 | 9,410 | 6,506 | 5,423 | 3,264 | 12 | 12 | 25,176 | 15,492 | 4,121 | 2,037 |
| 1912..... | 131,792 | 94,311 | 11,613 | 7,887 | 6,258 | 4,374 | 492 | 492 | 22,762 | 12,257 | 2,996 | 1,885 |
| 1913..... | 84,838 | 57,528 | 15,804 | 10,727 | 10,710 | 8,776 | 878 | 302 | 16,961 | 10,119 | 4,560 | 2,314 |
| Av. 1909-1913. | 105,459 | 76,888 | 10,251 | 7,728 | 7,581 | 5,366 | 792 | 701 | 22,316 | 13,935 | 4,383 | 2,273 |
| 1914..... | 116,348 | 80,256 | 19,609 | 16,985 | 14,699 | 11,997 | 3,036 | 3,036 | 18,625 | 10,206 | 4,582 | 2,594 |
| 1915..... | 101,325 | 62,148 | 9,887 | 6,943 | 5,601 | 3,927 | (1) | (1) | 17,974 | 8,678 | 4,656 | 1,422 |
| 1916..... | 78,723 | 40,497 | 12,755 | 8,681 | 9,550 | 7,779 | 32 | 6 | 21,312 | 13,191 | 2,882 | 1,190 |
| 1917..... | 98,786 | 34,540 | 12,374 | 7,006 | 16,715 | 9,636 | 177 | 170 | 25,354 | 16,130 | 2,009 | 1,160 |
| 1918..... | 61,366 | 32,019 | 6,784 | 3,697 | 6,621 | 4,778 | 6 | (1) | 19,219 | 11,956 | 1,127 | 549 |
| 1919..... | 87,641 | 37,236 | 14,652 | 7,079 | 9,192 | 6,384 | 5 | (1) | 27,505 | 15,975 | 2,122 | 1,298 |
| 1920..... | 167,241 | 113,374 | 27,455 | 21,823 | 12,066 | 8,483 | 4,834 | 3,777 | 25,924 | 17,044 | 3,194 | 1,349 |
| Av. 1914-1920. | 101,633 | 57,163 | 14,788 | 10,316 | 10,643 | 7,568 | ----- | ----- | 22,286 | 13,311 | 3,025 | 1,366 |
| 1921..... | 186,815 | 115,700 | 25,630 | 22,168 | 15,920 | 12,048 | 14,111 | 14,034 | 23,809 | 22,713 | 8,994 | 1,795 |
| 1922..... | 115,960 | 65,890 | 15,280 | 11,748 | 7,581 | 4,828 | 688 | 639 | 29,856 | 20,243 | 3,149 | 1,118 |
| 1923..... | 101,108 | 48,440 | 17,083 | 11,697 | 18,436 | 13,711 | 9,570 | 8,886 | 39,215 | 24,016 | 4,090 | 1,445 |
| 1924..... | 80,696 | 40,696 | 7,180 | 5,077 | 14,310 | 12,330 | 795 | 1,086 | 23,116 | 14,524 | 2,972 | 1,660 |
| 1924 | | | | | | | | | | | | |
| November..... | 6,847 | 2,364 | 199 | 206 | 382 | 530 | 7 | 235 | 1,411 | 690 | 242 | 93 |
| December..... | 12,023 | 2,878 | 439 | 128 | 1,340 | 888 | 13 | 6 | 2,731 | 1,324 | 455 | 239 |
| 1925 | | | | | | | | | | | | |
| January..... | 12,470 | 3,207 | 1,250 | 305 | 4,022 | 2,917 | 6 | ----- | 3,352 | 1,253 | 536 | 194 |
| February..... | 6,484 | 2,541 | 1,321 | 474 | 3,246 | 2,787 | 26 | ----- | 1,521 | 1,197 | 313 | 243 |
| March..... | 8,307 | 2,621 | 1,209 | 511 | 2,268 | 2,274 | 148 | ----- | 2,365 | 2,171 | 421 | 248 |
| April..... | 3,963 | 4,567 | 352 | 1,117 | 229 | 542 | 181 | 292 | 1,402 | 1,282 | 108 | 136 |
| May..... | 3,615 | 2,535 | 255 | 633 | 375 | 476 | 40 | 130 | 2,009 | 1,166 | 159 | 122 |
| June..... | 6,331 | 4,673 | 676 | 450 | 629 | 494 | 265 | 176 | 2,687 | 1,782 | 198 | 74 |
| July..... | 2,917 | 4,105 | 247 | 357 | 690 | 675 | 10 | 24 | 1,006 | 1,011 | 120 | 91 |
| August..... | 7,784 | 3,969 | 426 | 179 | 500 | 298 | 10 | 41 | 1,894 | 843 | 201 | 77 |
| September..... | 5,887 | 3,430 | 489 | 843 | 276 | 228 | 42 | 84 | 1,311 | 969 | 122 | 91 |
| October..... | 4,568 | 3,806 | 227 | 366 | 353 | 221 | 48 | 148 | 1,426 | 836 | 97 | 52 |
| November..... | 7,224 | 2,732 | 409 | 117 | 743 | 396 | 27 | ----- | 2,619 | 725 | 293 | 76 |
| December..... | 13,903 | 3,145 | 1,163 | 310 | 725 | 459 | 39 | 42 | 3,677 | 2,462 | 828 | 333 |

TABLE 69.—*Corn: Receipts and shipments, 11 primary markets, 1909-1925—Con.*

| Year beginning Nov. 1 | Detroit | | Kansas City | | Peoria | | Omaha | | Indianapolis | | Total | |
|--------------------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|
| | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments |
| 1909..... | 2,477 | 1,412 | 15,102 | 12,873 | 15,357 | 11,009 | (1) | (1) | (1) | (1) | 162,290 | 121,411 |
| 1910..... | 3,880 | 1,930 | 16,026 | 13,395 | 16,477 | 11,141 | (1) | (1) | (1) | (1) | 198,713 | 152,522 |
| 1911..... | 2,857 | 1,888 | 19,646 | 14,971 | 19,041 | 14,292 | 20,817 | 15,404 | 13,687 | 1,947 | 228,621 | 149,753 |
| 1912..... | 2,757 | 1,615 | 16,992 | 10,614 | 17,923 | 11,202 | 22,618 | 17,732 | 15,974 | 3,637 | 252,177 | 166,006 |
| 1913..... | 2,835 | 1,636 | 27,494 | 19,192 | 14,723 | 6,651 | 37,108 | 33,040 | 14,118 | 5,183 | 230,029 | 155,528 |
| Av. 1909-1913. | 2,957 | 1,696 | 19,052 | 14,209 | 16,710 | 10,859 | ----- | ----- | ----- | ----- | 214,366 | 149,044 |
| 1914..... | 4,058 | 3,021 | 16,396 | 11,914 | 16,736 | 6,831 | 24,599 | 23,117 | 15,067 | 6,498 | 253,776 | 176,455 |
| 1915..... | 4,726 | 3,139 | 25,837 | 22,459 | 35,948 | 13,722 | 21,496 | 15,948 | 22,730 | 11,073 | 250,300 | 149,459 |
| 1916..... | 3,192 | 2,425 | 12,743 | 8,469 | 81,533 | 11,870 | 29,820 | 25,179 | 24,421 | 14,801 | 226,963 | 134,088 |
| 1917..... | 4,361 | 717 | 31,366 | 24,481 | 36,176 | 17,062 | 46,159 | 36,535 | 20,583 | 9,208 | 294,660 | 156,463 |
| 1918..... | 1,633 | 626 | 16,146 | 10,344 | 18,511 | 10,830 | 21,805 | 21,197 | 15,903 | 7,130 | 169,123 | 102,822 |
| 1919..... | 1,671 | 481 | 11,218 | 5,034 | 24,449 | 17,690 | 23,227 | 18,604 | 19,991 | 7,170 | 219,763 | 116,921 |
| 1920..... | 1,663 | 261 | 14,137 | 9,742 | 16,061 | 9,823 | 20,012 | 17,356 | 17,505 | 6,353 | 310,122 | 209,385 |
| Av. 1914-1920. | 3,043 | 1,524 | 18,263 | 13,206 | 25,349 | 12,500 | 26,731 | 22,537 | 19,469 | 8,890 | 246,387 | 140,370 |
| 1921..... | 2,454 | 903 | 16,063 | 10,242 | 24,116 | 18,295 | 29,583 | 26,047 | 21,665 | 7,053 | 374,160 | 250,998 |
| 1922..... | 1,957 | 289 | 15,490 | 7,239 | 21,157 | 16,278 | 22,730 | 20,266 | 18,317 | 6,161 | 252,124 | 154,699 |
| 1923..... | 1,683 | 253 | 21,136 | 13,605 | 17,730 | 10,873 | 27,495 | 27,107 | 17,536 | 5,881 | 275,082 | 165,677 |
| 1924..... | 410 | 42 | 21,448 | 14,575 | 20,961 | 11,715 | 13,138 | 11,866 | 17,199 | 6,396 | 202,226 | 119,967 |
| 1924 | | | | | | | | | | | | |
| November..... | 19 | 5 | 1,740 | 411 | 1,369 | 678 | 502 | 430 | 1,940 | 558 | 14,158 | 6,200 |
| December..... | 58 | 3 | 4,747 | 533 | 1,949 | 1,132 | 1,459 | 543 | 2,178 | 777 | 27,392 | 8,451 |
| 1925 | | | | | | | | | | | | |
| January..... | 57 | 4 | 2,845 | 622 | 3,106 | 1,668 | 3,051 | 1,182 | 2,741 | 967 | 33,436 | 12,319 |
| February..... | 38 | 6 | 2,585 | 638 | 1,716 | 1,091 | 1,162 | 1,635 | 1,205 | 501 | 19,616 | 11,103 |
| March..... | 43 | 4 | 2,421 | 2,619 | 2,171 | 1,227 | 1,611 | 1,228 | 1,543 | 515 | 22,597 | 12,418 |
| April..... | 20 | 2 | 725 | 2,756 | 948 | 689 | 395 | 1,525 | 749 | 368 | 9,072 | 13,276 |
| May..... | 13 | 16 | 1,070 | 1,710 | 1,481 | 750 | 969 | 1,226 | 1,144 | 338 | 11,130 | 9,102 |
| June..... | 20 | 2 | 1,645 | 2,107 | 1,589 | 924 | 815 | 1,222 | 1,374 | 684 | 16,229 | 12,597 |
| July..... | 24 | ----- | 891 | 1,754 | 1,947 | 593 | 542 | 628 | 1,068 | 539 | 8,864 | 9,777 |
| August..... | 42 | ----- | 1,408 | 871 | 1,878 | 1,119 | 760 | 704 | 1,471 | 543 | 16,364 | 8,644 |
| September..... | 38 | ----- | 698 | 915 | 1,687 | 882 | 865 | 842 | 842 | 283 | 12,257 | 8,017 |
| October..... | 38 | ----- | 673 | 639 | 1,720 | 962 | 1,017 | 711 | 944 | 323 | 11,110 | 8,063 |
| November..... | 14 | ----- | 778 | 366 | 2,140 | 1,291 | 1,438 | 992 | 2,842 | 539 | 18,027 | 7,136 |
| December..... | 93 | ----- | 2,512 | 191 | 2,806 | 2,070 | 2,352 | 1,374 | 5,066 | 833 | 31,052 | 11,219 |

Division of Statistical and Historical Research. Compiled from the Chicago Daily Trade Bulletin and the Chicago Board of Trade Annual Reports.

No report.

TABLE 70.—*Corn: Visible supply in United States, first of month, 1909-1925*

[Thousand bushels—i. e., 000 omitted]

| Year beginning Nov. 1 | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. |
|--------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| 1909..... | 2,653 | 3,289 | 8,465 | 9,764 | 13,480 | 13,778 | 10,608 | 5,940 | 5,146 | 3,770 | 2,750 | 5,011 |
| 1910..... | 3,510 | 1,545 | 5,099 | 9,145 | 11,794 | 11,166 | 7,047 | 4,685 | 7,483 | 7,100 | 6,724 | 6,339 |
| 1911..... | 1,703 | 2,054 | 5,140 | 6,900 | 14,257 | 15,914 | 7,490 | 5,099 | 8,204 | 2,451 | 1,823 | 3,101 |
| 1912..... | 2,689 | 1,525 | 5,879 | 9,717 | 17,918 | 21,494 | 7,270 | 2,549 | 11,479 | 6,380 | 2,612 | 7,308 |
| 1913..... | 6,206 | 2,026 | 12,126 | 16,506 | 18,374 | 18,812 | 9,380 | 4,409 | 11,589 | 3,203 | 3,923 | 5,461 |
| Av. 1909-1913. | 3,352 | 2,088 | 7,342 | 10,406 | 15,165 | 16,233 | 8,358 | 4,656 | 7,960 | 4,583 | 3,566 | 5,444 |
| 1914..... | 3,114 | 3,382 | 19,703 | 34,156 | 41,238 | 32,877 | 20,203 | 12,795 | 5,225 | 2,806 | 2,882 | 3,443 |
| 1915..... | 3,288 | 4,387 | 5,919 | 14,773 | 24,605 | 27,697 | 21,004 | 14,505 | 6,870 | 5,167 | 3,330 | 5,093 |
| 1916..... | 2,861 | 2,677 | 6,838 | 10,671 | 12,981 | 11,874 | 7,173 | 2,629 | 3,779 | 2,841 | 2,371 | 1,163 |
| 1917..... | 1,277 | 1,932 | 3,155 | 4,623 | 8,939 | 16,016 | 16,111 | 13,038 | 11,487 | 9,496 | 5,252 | 5,593 |
| 1918..... | 4,733 | 2,216 | 2,415 | 5,549 | 4,483 | 2,514 | 4,245 | 2,000 | 4,068 | 2,461 | 956 | 2,153 |
| 1919..... | 1,484 | 1,477 | 2,921 | 3,875 | 4,951 | 5,669 | 5,035 | 2,740 | 4,364 | 6,152 | 2,567 | 7,587 |
| 1920..... | 10,085 | 4,597 | 5,409 | 14,297 | 22,333 | 32,596 | 23,018 | 15,103 | 24,304 | 14,584 | 11,500 | 11,765 |
| Av. 1914-1920. | 2,763 | 2,953 | 6,909 | 12,521 | 17,099 | 18,949 | 13,837 | 9,059 | 8,509 | 6,140 | 4,048 | 5,245 |
| 1921..... | 15,891 | 15,518 | 23,279 | 30,773 | 44,792 | 46,889 | 35,564 | 27,046 | 20,337 | 19,609 | 7,314 | 12,206 |
| 1922..... | 8,806 | 11,072 | 16,760 | 21,658 | 27,529 | 28,742 | 22,339 | 6,724 | 3,366 | 2,373 | 1,587 | 2,062 |
| 1923..... | 809 | 2,690 | 8,799 | 9,379 | 18,896 | 26,074 | 17,978 | 12,288 | 8,279 | 4,987 | 5,070 | 7,154 |
| 1924..... | 8,097 | 7,563 | 18,573 | 27,571 | 32,292 | 32,727 | 23,379 | 17,140 | 12,094 | 6,088 | 6,524 | 5,470 |
| 1925..... | 1,796 | 2,461 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research.
Compiled from the Chicago Daily Trade Bulletin. Reported on Saturday nearest the first of each month.

TABLE 71.—Corn: Classification of cars graded by licensed inspectors, all inspection points

| Year beginning November | Total of all classes and subclasses under each grade, annual inspections, 1917-1924, by cars | | | | | | | | | | | | | |
|---|--|---------|---------|--------|--------|--------|---------|-----------|---------|---------|--------|--------|--------|--------|
| | Receipts | | | | | | | Shipments | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | Sample | Total | 1 | 2 | 3 | 4 | 5 | 6 |
| | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars |
| 1917 | 2,281 | 18,714 | 58,562 | 56,240 | 45,610 | 44,621 | 98,844 | 324,872 | 510 | 11,589 | 54,975 | 16,141 | 13,037 | 16,141 |
| 1918 | 12,661 | 34,727 | 40,572 | 41,491 | 28,832 | 16,061 | 19,638 | 194,282 | 2,339 | 28,868 | 30,532 | 15,965 | 5,670 | 5,616 |
| 1919 | 28,517 | 47,961 | 56,647 | 56,647 | 27,313 | 9,188 | 13,058 | 221,458 | 5,995 | 39,323 | 30,781 | 4,908 | 2,351 | 7,425 |
| 1920 | 68,350 | 88,875 | 64,237 | 63,081 | 9,430 | 8,738 | 324,077 | 34,785 | 141,453 | 49,905 | 10,774 | 1,774 | 2,449 | 3,172 |
| 1921 | 30,970 | 197,254 | 115,207 | 42,880 | 21,983 | 15,979 | 4,951 | 428,204 | 9,554 | 226,539 | 48,587 | 7,267 | 5,321 | 4,902 |
| 1922 | 21,860 | 141,563 | 98,932 | 24,261 | 4,270 | 3,626 | 3,711 | 297,843 | 3,388 | 131,026 | 88,408 | 2,767 | 666 | 1,436 |
| 1923 | 3,038 | 50,578 | 111,890 | 69,352 | 35,901 | 15,404 | 10,741 | 305,913 | 978 | 59,619 | 70,358 | 15,055 | 3,138 | 2,185 |
| 1924 | 7,883 | 80,883 | 86,542 | 34,431 | 31,370 | 17,262 | 12,345 | 240,706 | 2,568 | 64,534 | 43,718 | 9,065 | 4,294 | 3,303 |
| Total inspections by grade and class Nov. 1, 1924, to Oct. 31, 1925 | | | | | | | | | | | | | | |
| Class: | 2,799 | 19,881 | 9,696 | 5,933 | 4,112 | 1,924 | 1,430 | 45,594 | 1,778 | 20,717 | 4,745 | 1,121 | 211 | 137 |
| White | 3,759 | 39,383 | 29,857 | 22,121 | 20,651 | 9,990 | 6,131 | 131,891 | 589 | 28,187 | 29,731 | 6,619 | 2,594 | 1,864 |
| Yellow | 1,355 | 21,619 | 16,990 | 6,457 | 6,607 | 5,429 | 4,794 | 68,251 | 201 | 14,630 | 9,222 | 2,325 | 1,559 | 1,952 |
| Mixed | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | |
| | 28,935 | | | | | | | | 187 | | | | | 176 |
| | 99,691 | | | | | | | | 1,264 | | | | | 747 |
| | 21,808 | | | | | | | | 2,029 | | | | | 2,029 |

| Year beginning November | Total of all classes and subclasses under each grade, annual inspections, 1917-1924, by percentage | | | | | | | | | | | | | |
|--|--|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|
| | Receipts | | | | | | | Shipments | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | Sample | Total | 1 | 2 | 3 | 4 | 5 | 6 |
| | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent |
| 1917 | 0.7 | 6.8 | 18.0 | 17.3 | 14.1 | 12.7 | 30.4 | 100 | 0.3 | 7.2 | 34.3 | 10.8 | 8.2 | 10.1 |
| 1918 | 6.6 | 17.9 | 21.0 | 21.4 | 14.8 | 8.3 | 10.1 | 100 | 2.2 | 27.7 | 37.3 | 15.1 | 5.4 | 5.3 |
| 1919 | 12.9 | 21.7 | 17.5 | 25.6 | 12.3 | 4.1 | 5.9 | 100 | 5.8 | 38.5 | 30.1 | 15.1 | 4.8 | 2.3 |
| 1920 | 21.2 | 27.4 | 19.8 | 19.6 | 6.6 | 2.9 | 2.7 | 100 | 14.3 | 57.9 | 22.0 | 4.4 | 1.7 | 1.6 |
| 1921 | 7.2 | 45.0 | 26.8 | 10.0 | 6.1 | 3.7 | 1.2 | 100 | 8.2 | 74.7 | 16.0 | 2.3 | 1.7 | 1.0 |
| 1922 | 7.2 | 47.6 | 33.2 | 8.2 | 1.4 | 1.2 | 1.3 | 100 | 1.9 | 73.7 | 21.6 | 1.6 | 1.4 | 1.5 |
| 1923 | 1.0 | 36.6 | 36.6 | 22.7 | 11.7 | 6.0 | 8.5 | 100 | 0.6 | 36.7 | 43.8 | 9.3 | 1.9 | 1.4 |
| 1924 | 3.3 | 33.6 | 23.5 | 14.3 | 13.0 | 7.2 | 6.1 | 100 | 2.0 | 49.5 | 33.5 | 6.9 | 3.3 | 2.5 |
| Total inspections by grade and class, Nov. 1, 1924, to Oct. 31, 1925 | | | | | | | | | | | | | | |
| Class: | 6.1 | 43.6 | 21.3 | 12.9 | 9.0 | 4.0 | 3.1 | 100 | 6.1 | 71.6 | 16.4 | 2.9 | 0.7 | 0.6 |
| White | 2.8 | 29.9 | 22.6 | 16.3 | 15.7 | 7.5 | 4.6 | 100 | 0.8 | 41.9 | 42.7 | 8.1 | 3.6 | 1.1 |
| Yellow | 2.1 | 34.2 | 26.9 | 10.2 | 10.4 | 8.6 | 7.6 | 100 | 0.6 | 46.0 | 26.0 | 7.3 | 4.9 | 5.8 |
| Mixed | | | | | | | | | | | | | | 6.4 |
| Total | | | | | | | | | | | | | | |
| | 100 | | | | | | | | 0.7 | | | | | 0.6 |
| | 100 | | | | | | | | 3.6 | | | | | 1.1 |
| | 100 | | | | | | | | 5.8 | | | | | 6.4 |

Grain Division

TABLE 72.—*Corn, including meal: International trade, average 1910-1914, annual 1923-1925*

[Thousand bushels—i. e., 000 omitted]

| Country | Year ended June 30 | | | | | | | |
|--------------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Average 1910-1914 | | 1923 | | 1924 | | 1925 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | ¹ 2 | ¹ 115,740 | ..... | ¹ 122,875 | ..... | ¹ 128,313 | ..... | ¹ 158,626 |
| Bulgaria..... | ¹ 44 | ¹ 9,234 | (¹) | ¹ 2,215 | ..... | ¹ 4,183 | ..... | ¹ 8,311 |
| China ¹ | ¹ 38 | ¹ 148 | 69 | 487 | 17 | 852 | 89 | 545 |
| French Indo-China ¹..... | ..... | ..... | ..... | ..... | ..... | ¹ 1,313 | ..... | ¹ 1,578 |
| Hungary..... | ..... | ..... | ¹ 235 | ..... | ..... | ¹ 187 | ..... | ¹ 3,201 |
| Rumania ¹ | ¹ 364 | ¹ 46,998 | ..... | ¹ 9,421 | ..... | ¹ 38,942 | ..... | ¹ 11,060 |
| Russia..... | ¹ 299 | ¹ 28,354 | ¹ 3,168 | ..... | ..... | ¹ 5,246 | ..... | ..... |
| Union of South Africa..... | ¹ 143 | ¹ 3,952 | 2 | ¹ 7,111 | ¹ 8 | ¹ 21,100 | 23 | ¹ 6,992 |
| United States..... | ¹ 4,441 | ¹ 41,409 | 138 | ¹ 96,696 | 228 | ¹ 23,135 | ¹ 4,617 | ¹ 9,791 |
| Yugoslavia ¹..... | ..... | ..... | ..... | ¹ 451 | ..... | ¹ 2,793 | ..... | ¹ 37,713 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | ..... | ..... | ¹ 3,546 | ¹ 5 | ¹ 2,969 | ..... | ¹ 5,500 | ..... |
| Austria-Hungary..... | ¹ 15,455 | ¹ 263 | ..... | ..... | ..... | ..... | ..... | ..... |
| Belgium..... | 25,818 | 8,238 | ¹ 15,992 | 406 | ¹ 16,460 | 503 | ¹ 19,199 | 537 |
| Canada..... | 10,678 | 27 | ¹ 10,364 | 186 | ¹ 9,249 | 63 | ¹ 7,735 | 33 |
| Czechoslovakia..... | ..... | ..... | ¹ 2,417 | ¹ 21 | ¹ 4,010 | ..... | ¹ 11,893 | ..... |
| Cuba..... | ¹ 2,860 | (¹) | ¹ 3,273 | ..... | ..... | ..... | ..... | ..... |
| Denmark..... | ¹ 11,777 | (¹) | ¹ 15,005 | ..... | ¹ 12,554 | ..... | ¹ 20,740 | ..... |
| Egypt..... | ¹ 504 | ¹ 63 | 637 | 47 | 75 | 158 | 109 | 65 |
| Estonia..... | ..... | ..... | ..... | ..... | ..... | ..... | 26 | ..... |
| Finland..... | ¹ 260 | ..... | ¹ 136 | ..... | ¹ 200 | ..... | ¹ 101 | ..... |
| France..... | 19,793 | 88 | ¹ 21,986 | 161 | ¹ 21,629 | 79 | ¹ 21,255 | 99 |
| Germany..... | 82,056 | 2 | ¹ 26,822 | 2 | ¹ 5,811 | 14 | ¹ 22,268 | 187 |
| Greece..... | ..... | ..... | ¹ 822 | ..... | ¹ 650 | ..... | ¹ 911 | ..... |
| Irish Free State..... | ..... | ..... | ..... | ..... | ..... | ..... | ¹ 15,227 | ¹ 125 |
| Italy..... | ¹ 14,820 | ¹ 265 | ¹ 20,584 | ¹ 29 | ¹ 10,334 | ¹ 636 | ¹ 6,446 | ¹ 708 |
| Japan..... | ..... | ..... | ..... | ..... | ¹ 457 | ..... | ¹ 198 | ..... |
| Latvia..... | ..... | ..... | ..... | ..... | 0 | ..... | ¹ 25 | ..... |
| Mexico..... | ¹ 1,120 | ¹ 117 | ¹ 3,536 | ¹ 5 | ¹ 118 | ¹ 65 | ¹ 642 | ¹ 28 |
| Netherlands..... | ¹ 30,377 | ¹ 8,641 | ¹ 30,915 | ¹ 298 | ¹ 29,354 | ¹ 181 | ¹ 33,367 | ¹ 175 |
| Norway..... | ¹ 1,292 | ..... | ¹ 3,316 | ..... | ¹ 3,606 | ..... | ¹ 3,235 | ..... |
| Poland ¹..... | ..... | ..... | ¹ 680 | ¹ 20 | ¹ 109 | ¹ 1 | ¹ 291 | ¹ 99 |
| Portugal..... | ¹ 1,833 | ¹ 11 | ..... | ..... | ¹ 1,955 | ..... | ¹ 1,942 | ..... |
| Spain..... | ¹ 2,023 | ¹ 49 | ¹ 16,466 | ¹ 1 | ¹ 11,245 | (¹) | ¹ 8,186 | ..... |
| Sweden..... | ¹ 1,656 | ¹ 26 | ¹ 1,899 | ..... | ¹ 3,089 | ..... | ¹ 4,040 | ..... |
| Switzerland..... | ¹ 3,984 | ¹ 1 | ¹ 4,995 | (¹) | ¹ 4,306 | ¹ 1 | ¹ 6,343 | (¹) |
| Tunis..... | ¹ 442 | ¹ 8 | ¹ 296 | ¹ 11 | ¹ 41 | ..... | ¹ 980 | ..... |
| United Kingdom..... | ¹ 80,441 | ¹ 115 | ¹ 72,590 | ¹ 580 | ¹ 63,466 | ¹ 3,107 | ¹ 71,131 | ¹ 3,049 |
| Uruguay ¹ | 5 | ¹ 201 | ¹ 81 | ¹ 124 | ..... | ¹ 232 | ..... | ..... |
| Total 38 countries..... | 262,534 | 263,849 | 250,971 | 241,022 | 201,889 | 231,104 | 266,519 | 243,021 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. Malcana or malzena is included with "Corn and corn meal."

¹ Year ended Dec. 31.² Year ended July 31, from International Institute of Agriculture.³ Less than 500 bushels.⁴ Four-year average.⁵ International Institute of Agriculture.⁶ Three-year average.⁷ Six months.⁸ Commercial source.⁹ Ten months.¹⁰ Eight months.¹¹ One year only.

TABLE 73.—Corn: Estimated price per bushel, received by producers, December 1, average 1909-1913, annual 1914-1925

| State | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------------------|----------------------|------|------|------|-------|-------|-------|------|----------------------|------|------|------|------|------|----------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| Maine..... | 81 | 88 | 85 | 119 | 228 | 167 | 195 | 128 | 144 | 77 | 100 | 112 | 136 | 112 | 107 |
| New Hampshire..... | 77 | 82 | 76 | 115 | 217 | 150 | 170 | 145 | 136 | 75 | 75 | 111 | 134 | 100 | 99 |
| Vermont..... | 74 | 81 | 84 | 110 | 213 | 170 | 175 | 126 | 137 | 76 | 91 | 110 | 118 | 100 | 99 |
| Massachusetts..... | 79 | 85 | 80 | 120 | 215 | 170 | 172 | 125 | 138 | 77 | 94 | 115 | 129 | 110 | 105 |
| Rhode Island..... | 92 | 98 | 100 | 138 | 236 | 180 | 186 | 180 | 190 | 110 | 120 | 115 | 140 | 120 | 121 |
| Connecticut..... | 78 | 89 | 85 | 120 | 215 | 171 | 180 | 140 | 143 | 90 | 96 | 107 | 120 | 110 | 105 |
| New York..... | 73 | 83 | 78 | 110 | 198 | 175 | 165 | 116 | 132 | 67 | 83 | 100 | 117 | 97 | 93 |
| New Jersey..... | 69 | 76 | 75 | 100 | 170 | 150 | 153 | 85 | 116 | 53 | 70 | 95 | 116 | 73 | 81 |
| Pennsylvania..... | 66 | 73 | 70 | 97 | 133 | 155 | 147 | 100 | 114 | 55 | 72 | 91 | 118 | 80 | 83 |
| Ohio..... | 64 | 61 | 56 | 90 | 136 | 130 | 121 | 68 | 95 | 41 | 66 | 74 | 104 | 87 | 68 |
| Indiana..... | 49 | 58 | 51 | 84 | 125 | 119 | 125 | 59 | 80 | 27 | 56 | 62 | 94 | 55 | 61 |
| Illinois..... | 50 | 61 | 54 | 84 | 110 | 120 | 130 | 59 | 88 | 38 | 60 | 65 | 95 | 58 | 63 |
| Michigan..... | 61 | 67 | 68 | 95 | 182 | 130 | 138 | 82 | 109 | 48 | 67 | 78 | 106 | 75 | 75 |
| Wisconsin..... | 57 | 65 | 68 | 92 | 163 | 130 | 125 | 77 | 103 | 46 | 63 | 80 | 105 | 72 | 73 |
| Minnesota..... | 47 | 52 | 62 | 80 | 110 | 111 | 120 | 51 | 84 | 31 | 56 | 61 | 85 | 56 | 58 |
| Iowa..... | 47 | 55 | 51 | 80 | 108 | 122 | 120 | 47 | 83 | 30 | 56 | 62 | 93 | 56 | 59 |
| Missouri..... | 57 | 68 | 57 | 90 | 114 | 143 | 138 | 64 | 96 | 40 | 68 | 74 | 96 | 69 | 69 |
| North Dakota..... | 54 | 58 | 67 | 84 | 151 | 130 | 140 | 72 | 100 | 34 | 53 | 54 | 76 | 55 | 54 |
| South Dakota..... | 47 | 50 | 49 | 77 | 120 | 110 | 119 | 42 | 81 | 26 | 50 | 52 | 80 | 60 | 63 |
| Nebraska..... | 49 | 53 | 47 | 78 | 120 | 128 | 122 | 41 | 84 | 27 | 58 | 53 | 91 | 61 | 58 |
| Kansas..... | 56 | 63 | 51 | 90 | 125 | 149 | 140 | 44 | 95 | 31 | 61 | 64 | 87 | 66 | 62 |
| Delaware..... | 56 | 62 | 62 | 89 | 140 | 135 | 145 | 75 | 101 | 45 | 70 | 81 | 112 | 65 | 75 |
| Maryland..... | 61 | 68 | 61 | 89 | 140 | 135 | 140 | 81 | 102 | 49 | 68 | 82 | 111 | 70 | 76 |
| Virginia..... | 72 | 81 | 71 | 93 | 153 | 160 | 169 | 100 | 118 | 69 | 79 | 94 | 125 | 101 | 94 |
| West Virginia..... | 73 | 83 | 74 | 101 | 170 | 180 | 164 | 116 | 127 | 75 | 84 | 99 | 124 | 100 | 96 |
| North Carolina..... | 83 | 86 | 77 | 110 | 170 | 177 | 185 | 113 | 131 | 78 | 89 | 102 | 124 | 110 | 101 |
| South Carolina..... | 89 | 92 | 87 | 113 | 192 | 195 | 197 | 116 | 142 | 74 | 87 | 105 | 123 | 110 | 100 |
| Georgia..... | 85 | 85 | 78 | 100 | 160 | 165 | 160 | 105 | 122 | 83 | 86 | 107 | 112 | 100 | 92 |
| Florida..... | 82 | 80 | 73 | 90 | 140 | 138 | 140 | 100 | 109 | 53 | 87 | 100 | 112 | 100 | 90 |
| Kentucky..... | 62 | 64 | 56 | 87 | 121 | 146 | 155 | 82 | 102 | 55 | 69 | 85 | 102 | 81 | 78 |
| Tennessee..... | 65 | 68 | 58 | 94 | 120 | 145 | 157 | 87 | 104 | 52 | 79 | 94 | 108 | 89 | 84 |
| Alabama..... | 80 | 80 | 69 | 102 | 125 | 148 | 159 | 98 | 112 | 62 | 90 | 108 | 122 | 100 | 96 |
| Mississippi..... | 73 | 73 | 65 | 98 | 138 | 151 | 160 | 102 | 112 | 56 | 85 | 107 | 126 | 94 | 94 |
| Arkansas..... | 69 | 80 | 64 | 98 | 140 | 180 | 164 | 97 | 118 | 57 | 85 | 101 | 107 | 97 | 89 |
| Louisiana..... | 68 | 75 | 64 | 94 | 146 | 161 | 150 | 85 | 111 | 65 | 83 | 105 | 115 | 94 | 92 |
| Oklahoma..... | 58 | 64 | 46 | 93 | 147 | 164 | 127 | 54 | 90 | 32 | 70 | 87 | 80 | 90 | 74 |
| Texas..... | 73 | 74 | 58 | 104 | 167 | 176 | 118 | 84 | 112 | 54 | 83 | 100 | 110 | 110 | 91 |
| Montana..... | 82 | 76 | 69 | 93 | 175 | 135 | 165 | 80 | 113 | 67 | 83 | 65 | 99 | 95 | 76 |
| Idaho..... | 74 | 72 | 65 | 100 | 155 | 183 | 165 | 100 | 120 | 60 | 79 | 77 | 113 | 75 | 79 |
| Wyoming..... | 73 | 70 | 67 | 90 | 175 | 140 | 165 | 56 | 106 | 50 | 60 | 70 | 94 | 70 | 69 |
| Colorado..... | 66 | 60 | 55 | 90 | 125 | 135 | 142 | 70 | 97 | 31 | 66 | 65 | 88 | 70 | 64 |
| New Mexico..... | 83 | 80 | 73 | 113 | 188 | 180 | 151 | 110 | 128 | 90 | 82 | 95 | 110 | 100 | 95 |
| Arizona..... | 103 | 120 | 115 | 140 | 190 | 210 | 200 | 170 | 164 | 106 | 115 | 120 | 125 | 130 | 118 |
| Utah..... | 79 | 75 | 80 | 115 | 170 | 181 | 180 | 150 | 182 | 76 | 85 | 95 | 145 | 100 | 100 |
| Nevada..... | 99 | 110 | 93 | 125 | 150 | 210 | 140 | 160 | 141 | 120 | 106 | 125 | 121 | 120 | 118 |
| Washington..... | 79 | 78 | 77 | 100 | 162 | 170 | 185 | 125 | 127 | 86 | 105 | 95 | 112 | 95 | 99 |
| Oregon..... | 77 | 82 | 82 | 95 | 150 | 155 | 155 | 130 | 121 | 84 | 91 | 90 | 121 | 107 | 99 |
| California..... | 87 | 87 | 88 | 124 | 185 | 193 | 179 | 120 | 139 | 77 | 100 | 108 | 138 | 118 | 108 |
| United States..... | 57.2 | 64.4 | 57.5 | 88.9 | 127.9 | 135.5 | 134.5 | 67.0 | 96.7 | 42.3 | 65.5 | 72.6 | 98.2 | 67.4 | 60.8 |

Division of Crop and Livestock Estimates.

TABLE 74.—*Corn: Estimated price per bushel, received by producers, United States, 1909-1925*

| Year beginning November | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Weighted av. |
|----------------------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1909..... | 60.0 | 60.1 | 63.8 | 65.6 | 65.7 | 64.5 | 64.4 | 65.7 | 60.7 | 66.8 | 63.7 | 56.8 | 63.7 |
| 1910..... | 50.3 | 48.1 | 48.6 | 49.0 | 49.3 | 50.8 | 53.4 | 57.6 | 62.9 | 65.8 | 65.8 | 65.2 | 53.6 |
| 1911..... | 63.2 | 62.0 | 63.4 | 65.6 | 68.8 | 75.2 | 81.0 | 81.8 | 80.2 | 78.4 | 73.9 | 64.2 | 69.6 |
| 1912..... | 53.6 | 48.8 | 49.8 | 51.4 | 53.0 | 55.2 | 58.7 | 61.9 | 64.3 | 70.4 | 75.4 | 73.0 | 57.0 |
| 1913..... | 69.9 | 69.4 | 69.0 | 68.7 | 69.9 | 71.4 | 73.6 | 75.2 | 76.2 | 79.2 | 79.8 | 74.4 | 71.9 |
| <i>A v. 1909-1913.....</i> | <i>59.4</i> | <i>57.7</i> | <i>58.9</i> | <i>60.1</i> | <i>61.3</i> | <i>63.4</i> | <i>66.2</i> | <i>68.4</i> | <i>70.0</i> | <i>72.1</i> | <i>71.7</i> | <i>66.7</i> | <i>63.2</i> |
| 1914..... | 67.5 | 65.3 | 69.5 | 74.0 | 78.1 | 76.4 | 77.8 | 77.8 | 78.3 | 78.1 | 73.9 | 66.2 | 72.7 |
| 1915..... | 59.7 | 59.8 | 64.4 | 67.4 | 69.2 | 71.3 | 73.2 | 74.8 | 77.4 | 81.5 | 83.0 | 83.6 | 70.1 |
| 1916..... | 87.0 | 89.4 | 92.9 | 98.4 | 107.2 | 132.0 | 155.4 | 162.4 | 180.6 | 186.0 | 175.3 | 160.6 | 124.2 |
| 1917..... | 137.0 | 131.4 | 135.8 | 146.6 | 154.0 | 154.6 | 154.1 | 153.1 | 156.7 | 162.7 | 162.6 | 149.9 | 147.6 |
| 1918..... | 138.4 | 140.6 | 141.4 | 137.6 | 143.4 | 156.1 | 166.9 | 173.8 | 183.8 | 188.3 | 169.6 | 143.6 | 152.1 |
| 1919..... | 134.0 | 137.4 | 143.6 | 147.6 | 153.6 | 164.1 | 177.4 | 185.4 | 174.6 | 159.7 | 138.5 | 104.3 | 150.1 |
| 1920..... | 77.2 | 66.8 | 64.6 | 63.4 | 63.8 | 61.2 | 61.0 | 62.4 | 62.0 | 59.0 | 53.6 | 46.0 | 62.6 |
| <i>A v. 1914-1920.....</i> | <i>100.1</i> | <i>98.7</i> | <i>101.9</i> | <i>105.0</i> | <i>109.5</i> | <i>116.5</i> | <i>123.7</i> | <i>127.1</i> | <i>130.5</i> | <i>130.8</i> | <i>122.4</i> | <i>107.7</i> | <i>111.3</i> |
| 1921..... | 41.7 | 42.8 | 44.6 | 50.3 | 55.8 | 58.3 | 60.6 | 61.9 | 63.3 | 63.6 | 62.2 | 62.2 | 53.4 |
| 1922..... | 64.3 | 67.6 | 70.2 | 72.5 | 75.3 | 79.6 | 84.0 | 85.8 | 87.0 | 87.0 | 86.2 | 84.8 | 78.6 |
| 1923..... | 78.3 | 72.2 | 73.6 | 76.5 | 77.2 | 78.2 | 78.6 | 80.8 | 98.3 | 107.4 | 109.7 | 108.9 | 83.1 |
| 1924..... | 90.6 | 105.6 | 112.0 | 114.5 | 112.1 | 103.8 | 107.5 | 111.0 | 104.4 | 106.5 | 98.8 | 83.0 | 106.8 |
| 1925..... | 74.6 | 70.7 | | | | | | | | | | | |

Division of Crop and Livestock Estimates. Mean of prices reported on 1st of month and 1st of succeeding month, November, 1909-December, 1923.

TABLE 75.—*Corn, No. 3, yellow: Weighted average price per bushel of reported cash sales, Chicago, 1909-1925*

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted av. ¹ |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------|
| 1909..... | \$0.59 | \$0.59 | \$0.64 | \$0.63 | \$0.61 | \$0.57 | \$0.60 | \$0.59 | \$0.62 | \$0.64 | \$0.58 | \$0.60 | \$0.59 |
| 1910..... | .49 | .45 | .45 | .45 | .45 | .50 | .54 | .55 | .63 | .65 | .67 | .73 | .53 |
| 1911..... | .68 | .61 | .62 | .64 | .68 | .78 | .79 | .75 | .68 | .79 | .74 | .65 | .71 |
| 1912..... | .52 | .46 | .46 | .48 | .49 | .55 | .57 | .60 | .62 | .74 | .75 | .70 | .53 |
| 1913..... | .72 | .66 | .62 | .62 | .64 | .67 | .70 | .72 | .71 | .82 | .79 | .73 | .70 |
| <i>A v., 1909-1913.....</i> | <i>.60</i> | <i>.55</i> | <i>.56</i> | <i>.56</i> | <i>.57</i> | <i>.61</i> | <i>.64</i> | <i>.64</i> | <i>.65</i> | <i>.73</i> | <i>.71</i> | <i>.66</i> | <i>.61</i> |
| 1914..... | .67 | .64 | .71 | .74 | .72 | .75 | .77 | .74 | .78 | .81 | .74 | .65 | .70 |
| 1915..... | .63 | .69 | .74 | .74 | .73 | .76 | .75 | .74 | .81 | .85 | .86 | .96 | .79 |
| 1916..... | .98 | .92 | .98 | 1.00 | 1.09 | 1.40 | 1.59 | 1.70 | 1.99 | 2.06 | 2.10 | 2.03 | 1.11 |
| 1917..... | 2.21 | 1.77 | 1.77 | 1.81 | 1.70 | 1.65 | 1.60 | 1.62 | 1.70 | 1.72 | 1.68 | 1.41 | 1.63 |
| 1918..... | 1.33 | 1.45 | 1.43 | 1.27 | 1.63 | 1.62 | 1.74 | 1.78 | 1.92 | 1.96 | 1.65 | 1.41 | 1.62 |
| 1919..... | 1.46 | 1.47 | 1.51 | 1.46 | 1.58 | 1.69 | 2.02 | 1.89 | 1.98 | 1.58 | 1.31 | .91 | 1.59 |
| 1920..... | .77 | .74 | .65 | .63 | .62 | .57 | .60 | .63 | .60 | .56 | .53 | .45 | .62 |
| <i>A v., 1914-1920.....</i> | <i>1.15</i> | <i>1.10</i> | <i>1.11</i> | <i>1.09</i> | <i>1.14</i> | <i>1.21</i> | <i>1.30</i> | <i>1.30</i> | <i>1.34</i> | <i>1.36</i> | <i>1.24</i> | <i>1.12</i> | <i>1.15</i> |
| 1921..... | .47 | .47 | .48 | .55 | .57 | .58 | .62 | .61 | .64 | .62 | .64 | .69 | .55 |
| 1922..... | .71 | .73 | .70 | .72 | .73 | .79 | .82 | .84 | .88 | .88 | .89 | 1.04 | .73 |
| 1923..... | .82 | .71 | .76 | .78 | .77 | .77 | .82 | .82 | 1.09 | 1.17 | 1.14 | 1.10 | .88 |
| 1924..... | 1.11 | 1.20 | 1.24 | 1.22 | 1.17 | 1.05 | 1.15 | 1.13 | 1.08 | 1.02 | .91 | .82 | 1.06 |
| 1925..... | .83 | .76 | | | | | | | | | | | |

Division of Statistical and Historical Research. Compiled from Chicago Daily Trade Bulletin.

¹ Average of daily prices weighted by car-lot sales.

TABLE 76.—Corn, No. 3, yellow: Weighted average price per bushel of reported cash sales, Kansas City, 1909-1925

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted av. ¹ |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------------|
| 1909..... | \$0.59 | \$0.62 | \$0.65 | \$0.61 | \$0.59 | \$0.55 | \$0.62 | \$0.60 | \$0.62 | \$0.62 | \$0.55 | \$0.49 | \$0.59 |
| 1910..... | .47 | .43 | .44 | .42 | .44 | .47 | .52 | .55 | .67 | .62 | .66 | .71 | .49 |
| 1911..... | .67 | .62 | .66 | .65 | .71 | .81 | .80 | .75 | .75 | .76 | .71 | .64 | .69 |
| 1912..... | .45 | .45 | .47 | .47 | .50 | .56 | .58 | .59 | .62 | .75 | .75 | .72 | .55 |
| 1913..... | .72 | .66 | .65 | .63 | .66 | .69 | .73 | .71 | .70 | .81 | .78 | .70 | .67 |
| A v. 1909-1913..... | .58 | .56 | .57 | .56 | .58 | .62 | .65 | .64 | .67 | .71 | .69 | .65 | .60 |
| 1914..... | .64 | .65 | .73 | .73 | .71 | .75 | .75 | .74 | .76 | .76 | .70 | .59 | .72 |
| 1915..... | .62 | .67 | .70 | .71 | .68 | .72 | .72 | .72 | .78 | .82 | .84 | .91 | .69 |
| 1916..... | .95 | .89 | .95 | .99 | 1.16 | 1.41 | 1.58 | 1.68 | 2.01 | 1.78 | 1.96 | 1.91 | 1.06 |
| 1917..... | 2.02 | 1.66 | 1.65 | 1.74 | 1.66 | 1.59 | 1.61 | 1.54 | 1.63 | 1.76 | 1.66 | 1.45 | 1.63 |
| 1918..... | 1.47 | 1.52 | 1.42 | 1.34 | 1.43 | 1.66 | 1.74 | 1.79 | 1.92 | 1.93 | 1.64 | 1.42 | 1.56 |
| 1919..... | 1.51 | 1.51 | 1.49 | 1.45 | 1.56 | 1.71 | 1.91 | 1.82 | 1.58 | 1.57 | 1.28 | .88 | 1.60 |
| 1920..... | .67 | .69 | .60 | .58 | .57 | .52 | .56 | .56 | .51 | .46 | .49 | .38 | .59 |
| A v. 1914-1920..... | 1.13 | 1.08 | 1.08 | 1.08 | 1.12 | 1.19 | 1.27 | 1.26 | 1.31 | 1.20 | 1.22 | 1.08 | 1.12 |
| 1921..... | .43 | .42 | .45 | .53 | .54 | .57 | .59 | .59 | .60 | .58 | .59 | .64 | .54 |
| 1922..... | .73 | .71 | .70 | .71 | .73 | .82 | .85 | .85 | .84 | .83 | .86 | .95 | .74 |
| 1923..... | .78 | .67 | .73 | .73 | .72 | .76 | .75 | .86 | 1.04 | 1.09 | 1.10 | 1.06 | .78 |
| 1924..... | 1.07 | 1.15 | 1.21 | 1.15 | 1.11 | 1.01 | 1.10 | 1.08 | 1.08 | 1.02 | .91 | .82 | 1.12 |
| 1925..... | .75 | .74 | | | | | | | | | | | |

Division of Statistical and Historical Research. Compiled from the Kansas City Daily Price Current.

¹ Average of daily prices weighted by car-lot sales.

TABLE 77.—Corn, No. 3, yellow: Weighted average price per bushel of reported cash sales, St. Louis, 1909-1925

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average ¹ |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$0.58 | \$0.61 | \$0.65 | \$0.63 | \$0.60 | \$0.58 | \$0.62 | \$0.59 | \$0.63 | \$0.62 | \$0.55 | \$0.49 | \$0.61 |
| 1910..... | .47 | .44 | .45 | .44 | .45 | .48 | .53 | .55 | .65 | .63 | .66 | .72 | .48 |
| 1911..... | .65 | .61 | .60 | .64 | .70 | .80 | .79 | .74 | .74 | .76 | .73 | .64 | .70 |
| 1912..... | .48 | .46 | .48 | .48 | .50 | .57 | .58 | .60 | .64 | .73 | .75 | .71 | .52 |
| 1913..... | .73 | .67 | .63 | .62 | .66 | .68 | .71 | .71 | .73 | .83 | .79 | .72 | .68 |
| A v. 1909-1913..... | .58 | .56 | .56 | .56 | .58 | .62 | .65 | .64 | .68 | .71 | .70 | .66 | .60 |
| 1914..... | .60 | .66 | .72 | .74 | .72 | .76 | .77 | .74 | .78 | .78 | .74 | .64 | .72 |
| 1915..... | .64 | .68 | .75 | .76 | .78 | .75 | .74 | .74 | .81 | .86 | .86 | .93 | .76 |
| 1916..... | .96 | .91 | .98 | .99 | 1.12 | 1.45 | 1.63 | 1.67 | 1.94 | 1.75 | 2.04 | 1.91 | 1.11 |
| 1917..... | 2.00 | 1.75 | 1.76 | 1.82 | 1.68 | 1.66 | 1.62 | 1.60 | 1.69 | 1.75 | 1.63 | 1.45 | 1.67 |
| 1918..... | 1.40 | 1.50 | 1.44 | 1.33 | 1.54 | 1.62 | 1.74 | 1.78 | 1.99 | 1.93 | 1.52 | 1.42 | 1.59 |
| 1919..... | 1.49 | 1.49 | 1.51 | 1.48 | 1.60 | 1.73 | 2.00 | 1.87 | 1.62 | 1.57 | 1.30 | .92 | 1.64 |
| 1920..... | .79 | .74 | .64 | .63 | .62 | .57 | .62 | .61 | .59 | .54 | .62 | .46 | .60 |
| A v. 1914-1920..... | 1.13 | 1.10 | 1.11 | 1.11 | 1.14 | 1.22 | 1.30 | 1.29 | 1.35 | 1.31 | 1.23 | 1.10 | 1.15 |
| 1921..... | .47 | .48 | .48 | .54 | .58 | .57 | .61 | .60 | .65 | .61 | .63 | .69 | .57 |
| 1922..... | .71 | .72 | .70 | .73 | .74 | .80 | .84 | .86 | .86 | .92 | .90 | 1.00 | .75 |
| 1923..... | .82 | .71 | .77 | .78 | .78 | .79 | .78 | .86 | 1.09 | 1.19 | 1.15 | 1.10 | .87 |
| 1924..... | 1.12 | 1.20 | 1.24 | 1.30 | 1.13 | 1.04 | 1.14 | 1.12 | 1.09 | 1.04 | .88 | .82 | 1.18 |
| 1925..... | .79 | .75 | | | | | | | | | | | |

Division of Statistical and Historical Research. Compiled from the St. Louis Daily Market Reporter.

¹ Average of daily prices weighted by car-lot sales.

TABLE 78.—Corn, all classes and grades combined: Weighted average price per bushel of reported cash sales at markets named, 1918–1925

CHICAGO

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average, ¹ |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cents. |
| 1918..... | 118.6 | 138.6 | 131.4 | 122.0 | 144.2 | 160.1 | 174.0 | 173.7 | 191.8 | 193.2 | 156.6 | 140.0 | 150.4 |
| 1919..... | 143.8 | 141.6 | 144.9 | 139.5 | 155.1 | 150.7 | 197.4 | 183.3 | 155.3 | 154.9 | 132.2 | 95.9 | 144.1 |
| 1920..... | 78.8 | 72.5 | 62.1 | 59.9 | 60.7 | 54.5 | 61.2 | 59.1 | 59.4 | 56.3 | 53.2 | 46.2 | 56.6 |
| 1921..... | 46.7 | 47.1 | 47.3 | 54.0 | 57.1 | 58.2 | 61.4 | 60.0 | 63.7 | 62.0 | 63.0 | 69.0 | 56.9 |
| 1922..... | 71.1 | 72.1 | 70.1 | 72.5 | 72.8 | 79.3 | 81.8 | 84.0 | 87.1 | 88.2 | 88.8 | 102.4 | 78.1 |
| 1923..... | 76.1 | 69.8 | 74.4 | 75.2 | 74.4 | 76.4 | 78.7 | 82.6 | 109.1 | 117.2 | 114.9 | 110.0 | 86.0 |
| 1924..... | 109.3 | 115.3 | 113.1 | 110.8 | 103.8 | 99.1 | 113.4 | 111.6 | 106.1 | 101.8 | 89.4 | 80.9 | 106.7 |
| 1925..... | 70.3 | 67.8 | | | | | | | | | | | |

ST. LOUIS

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average, ¹ |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cents. |
| 1918..... | 126.5 | 139.7 | 134.5 | 126.1 | 143.5 | 160.2 | 174.8 | 179.1 | 163.0 | 194.8 | 185.8 | 141.9 | 151.5 |
| 1919..... | 146.4 | 144.5 | 147.4 | 142.5 | 155.3 | 171.8 | 194.9 | 188.8 | 160.6 | 158.1 | 120.3 | 93.5 | 155.4 |
| 1920..... | 82.1 | 71.9 | 62.1 | 61.2 | 60.7 | 56.2 | 59.9 | 60.5 | 60.7 | 54.3 | 51.6 | 45.4 | 57.5 |
| 1921..... | 46.0 | 47.8 | 47.5 | 54.7 | 57.7 | 57.9 | 61.3 | 60.0 | 64.0 | 61.4 | 62.5 | 69.9 | 57.6 |
| 1922..... | 71.4 | 72.6 | 71.0 | 73.5 | 74.3 | 80.1 | 84.2 | 85.1 | 87.4 | 87.0 | 89.9 | 101.5 | 79.6 |
| 1923..... | 76.9 | 69.4 | 74.6 | 75.8 | 75.5 | 77.5 | 77.3 | 85.7 | 107.8 | 113.8 | 114.4 | 109.4 | 86.7 |
| 1924..... | 108.6 | 117.7 | 119.9 | 117.0 | 111.9 | 103.5 | 114.1 | 111.5 | 108.7 | 103.9 | 80.6 | 81.3 | 109.5 |
| 1925..... | 72.6 | 70.3 | | | | | | | | | | | |

OMAHA

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average, ¹ |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cents. |
| 1918..... | 131.6 | 142.8 | 136.0 | 123.6 | 142.4 | 159.3 | 167.6 | 170.7 | 186.1 | 184.0 | 152.2 | 136.1 | 151.2 |
| 1919..... | 139.3 | 135.6 | 135.9 | 131.9 | 146.3 | 161.7 | 181.4 | 175.5 | 149.3 | 150.3 | 118.2 | 81.4 | 147.6 |
| 1920..... | 70.7 | 60.7 | 54.7 | 52.2 | 53.1 | 47.6 | 52.6 | 53.6 | 50.3 | 45.3 | 42.5 | 36.2 | 50.0 |
| 1921..... | 39.4 | 39.2 | 40.8 | 49.5 | 51.2 | 51.9 | 54.2 | 54.4 | 57.1 | 53.7 | 55.8 | 64.0 | 50.9 |
| 1922..... | 68.4 | 66.8 | 63.8 | 67.5 | 68.9 | 77.2 | 80.1 | 80.5 | 80.0 | 79.6 | 82.8 | 94.3 | 73.3 |
| 1923..... | 68.8 | 62.6 | 68.1 | 68.3 | 67.5 | 69.8 | 70.5 | 79.8 | 101.3 | 107.0 | 100.8 | 102.8 | 76.0 |
| 1924..... | 104.8 | 114.4 | 115.9 | 110.1 | 106.1 | 96.6 | 108.2 | 106.0 | 103.7 | 98.1 | 88.2 | 78.9 | 106.9 |
| 1925..... | 71.8 | 66.7 | | | | | | | | | | | |

KANSAS CITY

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average, ¹ |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cents. |
| 1918..... | 139.5 | 148.8 | 136.5 | 127.9 | 147.9 | 165.1 | 172.6 | 178.7 | 189.5 | 189.0 | 155.2 | 141.7 | 152.0 |
| 1919..... | 138.3 | 141.0 | 142.1 | 136.5 | 149.1 | 166.9 | 185.1 | 171.1 | 149.5 | 146.2 | 126.8 | 96.1 | 147.5 |
| 1920..... | 67.1 | 63.3 | 58.5 | 57.1 | 56.8 | 51.1 | 57.0 | 55.5 | 52.4 | 45.6 | 45.3 | 39.0 | 53.8 |
| 1921..... | 41.8 | 42.1 | 43.7 | 52.9 | 54.0 | 55.0 | 57.4 | 57.0 | 56.0 | 55.2 | 58.9 | 68.9 | 53.2 |
| 1922..... | 72.5 | 70.5 | 69.8 | 71.4 | 72.7 | 81.9 | 84.0 | 84.2 | 83.0 | 81.5 | 88.6 | 95.3 | 77.7 |
| 1923..... | 73.9 | 65.1 | 71.4 | 71.5 | 70.5 | 73.8 | 73.6 | 84.9 | 102.3 | 107.4 | 108.9 | 104.8 | 77.9 |
| 1924..... | 105.2 | 114.2 | 119.5 | 114.0 | 110.3 | 98.3 | 108.6 | 103.2 | 103.6 | 99.6 | 87.4 | 82.8 | 106.0 |
| 1925..... | 74.5 | 72.6 | | | | | | | | | | | |

MINNEAPOLIS

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average, ¹ |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cents. |
| 1918..... | 130.9 | 136.6 | 128.1 | 115.8 | 131.2 | 155.8 | 162.5 | 160.0 | 176.7 | 184.0 | 152.6 | 138.1 | 140.8 |
| 1919..... | 140.6 | 134.5 | 135.5 | 132.3 | 146.3 | 161.1 | 179.4 | 172.3 | 143.2 | 129.0 | 123.1 | 89.5 | 141.2 |
| 1920..... | 67.0 | 60.4 | 53.6 | 50.6 | 52.1 | 47.4 | 51.2 | 51.8 | 51.3 | 50.7 | 47.0 | 40.3 | 50.5 |
| 1921..... | 41.4 | 39.9 | 41.2 | 50.3 | 50.5 | 51.4 | 54.9 | 54.5 | 58.1 | 56.6 | 58.2 | 65.3 | 50.1 |
| 1922..... | 68.9 | 65.3 | 63.3 | 65.8 | 66.7 | 72.6 | 77.9 | 76.3 | 79.1 | 81.9 | 82.9 | 90.4 | 71.7 |
| 1923..... | 72.3 | 64.9 | 69.9 | 72.6 | 71.1 | 71.7 | 70.9 | 79.1 | 102.7 | 112.1 | 111.1 | 106.4 | 75.7 |
| 1924..... | 104.8 | 106.4 | 103.7 | 98.8 | 91.3 | 90.2 | 105.6 | 104.9 | 102.7 | 99.0 | 85.7 | 79.5 | 99.8 |
| 1925..... | 71.4 | 63.7 | | | | | | | | | | | |

CINCINNATI

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average, ¹ |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cents. |
| 1918..... | 130.9 | 136.6 | 128.1 | 115.8 | 131.2 | 155.8 | 162.5 | 160.0 | 176.7 | 184.0 | 152.6 | 138.1 | 140.8 |
| 1919..... | 140.6 | 134.5 | 135.5 | 132.3 | 146.3 | 161.1 | 179.4 | 172.3 | 143.2 | 129.0 | 123.1 | 89.5 | 141.2 |
| 1920..... | 67.0 | 60.4 | 53.6 | 50.6 | 52.1 | 47.4 | 51.2 | 51.8 | 51.3 | 50.7 | 47.0 | 40.3 | 50.5 |
| 1921..... | 41.4 | 39.9 | 41.2 | 50.3 | 50.5 | 51.4 | 54.9 | 54.5 | 58.1 | 56.6 | 58.2 | 65.3 | 50.1 |
| 1922..... | 68.9 | 65.3 | 63.3 | 65.8 | 66.7 | 72.6 | 77.9 | 76.3 | 79.1 | 81.9 | 82.9 | 90.4 | 71.7 |
| 1923..... | 72.3 | 64.9 | 69.9 | 72.6 | 71.1 | 71.7 | 70.9 | 79.1 | 102.7 | 112.1 | 111.1 | 106.4 | 75.7 |
| 1924..... | 104.8 | 106.4 | 103.7 | 98.8 | 91.3 | 90.2 | 105.6 | 104.9 | 102.7 | 99.0 | 85.7 | 79.5 | 99.8 |
| 1925..... | 71.4 | 63.7 | | | | | | | | | | | |

¹ No reports until January, 1920.² Average of daily prices weighted by car lot sales.

TABLE 78.—Corn, all classes and grades combined: Weighted average price per bushel of reported cash sales at markets named, 1918-1925—Continued

SIX MARKETS COMBINED:

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cents. |
| 1918..... | 122.5 | 140.4 | 133.0 | 123.0 | 143.1 | 160.6 | 172.2 | 173.9 | 189.9 | 191.5 | 166.1 | 139.9 | 150.3 |
| 1919..... | 143.2 | 140.4 | 143.2 | 137.9 | 153.1 | 163.8 | 191.7 | 181.0 | 154.8 | 153.2 | 130.1 | 94.3 | 146.5 |
| 1920..... | 76.5 | 68.6 | 60.8 | 58.1 | 58.8 | 52.9 | 58.9 | 48.3 | 57.5 | 54.0 | 51.9 | 45.2 | 55.5 |
| 1921..... | 45.6 | 45.7 | 46.0 | 53.3 | 55.4 | 56.5 | 59.6 | 59.3 | 62.1 | 60.1 | 62.3 | 69.4 | 55.7 |
| 1922..... | 70.8 | 71.6 | 69.2 | 71.6 | 72.4 | 79.0 | 82.1 | 83.1 | 85.6 | 86.4 | 88.3 | 100.3 | 77.4 |
| 1923..... | 74.9 | 67.5 | 72.8 | 73.7 | 72.7 | 74.7 | 75.4 | 82.7 | 106.6 | 114.4 | 113.7 | 109.2 | 83.0 |
| 1924..... | 108.3 | 114.4 | 112.9 | 108.6 | 103.5 | 99.0 | 111.9 | 109.7 | 105.3 | 101.8 | 89.1 | 80.8 | 106.0 |
| 1925..... | 71.0 | 68.3 | | | | | | | | | | | |

Division of Statistical and Historical Research. Compiled from Chicago Daily Trade Bulletin, St. Louis Daily Market Reporter, Omaha Daily Price Current, Kansas City Grain Market Review, Minneapolis Daily Market Record, Cincinnati Daily Trade Bulletin. These prices are comparable with farm prices.

* From November, 1918, through December, 1919, inclusive, Cincinnati is not included.

TABLE 79.—Corn, American mixed: Average spot price per bushel of 56 pounds at Liverpool, 1912-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1912..... | \$0.92 | \$0.95 | \$0.94 | \$0.95 | \$0.95 | \$0.95 | \$0.93 | \$0.99 | \$0.99 | \$0.99 | \$0.91 | \$0.86 |
| 1913..... | .82 | .82 | .81 | .82 | .82 | .82 | .82 | .90 | .95 | .89 | .90 | .91 |
| 1914..... | .91 | .91 | .91 | .91 | .91 | .92 | .93 | 1.13 | 1.11 | 1.04 | 1.00 | .96 |
| 1915..... | 1.04 | 1.11 | 1.10 | 1.09 | 1.13 | 1.08 | 1.10 | 1.18 | 1.16 | 1.16 | (1) | 1.23 |
| 1916..... | 1.40 | 1.47 | 1.43 | 1.43 | 1.47 | 1.28 | 1.37 | 1.44 | 1.41 | 1.48 | 1.71 | 1.83 |
| 1917..... | 1.95 | 2.00 | 2.05 | 1.98 | 2.08 | 2.05 | 2.05 | 2.05 | 2.05 | 2.05 | 2.05 | 2.05 |
| 1918..... | 2.16 | 2.16 | 2.16 | 2.16 | 2.16 | 2.16 | 2.24 | 2.52 | 2.52 | 2.52 | 2.53 | 2.53 |
| 1919..... | 2.11 | 2.11 | 1.65 | 1.63 | 1.63 | 1.61 | 1.56 | (1) | (1) | (1) | (1) | (1) |
| 1920..... | (1) | 1.93 | 2.14 | 2.16 | 2.04 | 2.06 | (1) | (1) | (1) | 1.63 | 1.58 | 1.38 |
| 1921..... | 1.49 | 1.15 | 1.13 | 1.01 | .95 | .97 | .98 | .92 | .85 | .71 | .78 | .85 |
| 1922..... | .81 | .90 | .85 | .83 | .84 | .84 | .98 | .92 | .90 | 1.00 | 1.00 | 1.00 |
| 1923..... | .99 | 1.00 | 1.00 | 1.06 | 1.07 | 1.09 | .95 | 1.16 | 1.16 | (1) | (1) | (1) |
| 1924..... | 1.06 | 1.15 | 1.13 | 1.06 | 1.08 | 1.00 | 1.12 | 1.13 | (1) | (1) | (1) | (1) |
| 1925..... | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | 1.19 | 1.16 | (1) |

Division of Statistical and Historical Research. Compiled from Broomhall's Corn Trade News. For rate of exchange used in conversion from shillings see Table 747, p. 1426.

* No quotations.

* Quotation for Aug. 6 only.

TABLE 80.—Corn: Spot price per bushel of 56 pounds at Buenos Aires, 1912-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1912..... | (1) | (1) | (1) | \$0.58 | \$0.53 | \$0.52 | \$0.51 | \$0.52 | \$0.50 | \$0.51 | \$0.52 | \$0.53 | \$0.52 |
| 1913..... | \$0.54 | \$0.54 | \$0.54 | .56 | .55 | .55 | .55 | .55 | .62 | .59 | .58 | .58 | .56 |
| 1914..... | .55 | .56 | .56 | .54 | .59 | .55 | .57 | 1.05 | .55 | .49 | .53 | .54 | .55 |
| 1915..... | .54 | .51 | .56 | .57 | .54 | .51 | .49 | .51 | .51 | .54 | .52 | .52 | .53 |
| 1916..... | .56 | .60 | .56 | .51 | .45 | .45 | .45 | .51 | .55 | .70 | 1.03 | .93 | .61 |
| 1917..... | 1.07 | 1.07 | .99 | 1.08 | 1.27 | 1.46 | 1.43 | 1.27 | .87 | .85 | .95 | .88 | 1.10 |
| 1918..... | .79 | .79 | .74 | .59 | .53 | .57 | .64 | .68 | .65 | .63 | .68 | .63 | .66 |
| 1919..... | .57 | .52 | .47 | .55 | .55 | .55 | .96 | 1.07 | .91 | .79 | .74 | .71 | .70 |
| 1920..... | .70 | .71 | .83 | 1.08 | 1.18 | 1.10 | .96 | .90 | .93 | .88 | .77 | .63 | .89 |
| Av. 1914-1920..... | .68 | .69 | .67 | .69 | .72 | .74 | .79 | .78 | .71 | .69 | .74 | .72 | .72 |
| 1921..... | .88 | .91 | .91 | .78 | .61 | .63 | .65 | .66 | .65 | .58 | .61 | .63 | .71 |
| 1922..... | .63 | .73 | .79 | .77 | .75 | .71 | .78 | .78 | .76 | .74 | .70 | .74 | .74 |
| 1923..... | .80 | .82 | .81 | .80 | .77 | .75 | .73 | .69 | .74 | .78 | .81 | .79 | .77 |
| 1924..... | .78 | .82 | .77 | .67 | .65 | .57 | .68 | .85 | .98 | 1.05 | 1.06 | 1.07 | .88 |
| 1925..... | 1.12 | 1.08 | .96 | .91 | 1.00 | .92 | .98 | .96 | .91 | .82 | .84 | .86 | .94 |
| Av. 1921-1925..... | .84 | .87 | .85 | .79 | .76 | .72 | .75 | .79 | .80 | .79 | .80 | .82 | .80 |

Division of Statistical and Historical Research. Compiled from International Yearbook of Agricultural Statistics 1912-1921. Subsequently Review of the River Plata. Average of weekly quotations. For rate of exchange used in conversion from shillings see Table 747, p. 1426.

* No quotations.

* Interpolation, no quotation.

TABLE 81.—Corn, yellow, La Plata: Spot price per bushel of 56 pounds at Liverpool, 1912-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|------------------|------------------|------------------|------------------|------------------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1912..... | (¹) | (¹) | (¹) | (¹) | \$0.97 | \$0.87 | \$0.71 | \$0.75 | \$0.78 | \$0.72 | \$0.68 | \$0.67 | \$0.77 |
| 1913..... | \$0.71 | \$0.75 | \$0.76 | \$0.74 | .72 | .69 | .67 | .67 | .70 | .66 | .63 | .67 | .70 |
| 1914..... | .65 | .66 | .68 | .68 | .74 | .76 | .78 | .97 | .93 | .83 | .78 | .83 | .77 |
| 1915..... | .98 | 1.06 | 1.02 | 1.06 | 1.11 | .97 | .92 | .90 | .85 | .94 | 1.06 | 1.19 | 1.00 |
| 1916..... | 1.40 | 1.44 | 1.42 | 1.43 | 1.47 | 1.35 | 1.45 | 1.54 | 1.39 | 1.45 | 1.09 | 1.81 | 1.49 |
| 1917..... | 1.89 | 1.92 | 2.00 | 2.16 | (²) | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.11 |
| 1918..... | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.42 | 2.61 | 2.61 | 2.61 | 2.61 | 2.61 | 2.40 |
| 1919..... | 2.04 | 2.04 | 1.75 | 1.74 | 1.74 | 1.72 | 1.65 | 1.68 | 1.69 | 1.68 | 1.65 | 1.62 | 1.74 |
| 1920..... | 1.49 | 1.77 | 1.96 | 1.97 | 1.81 | 1.67 | 1.53 | 1.43 | 1.60 | 1.49 | 1.45 | 1.25 | 1.59 |
| Av. 1914-1920..... | 1.53 | 1.59 | 1.58 | 1.61 | ----- | 1.55 | 1.56 | 1.61 | 1.61 | 1.60 | 1.59 | 1.63 | 1.59 |
| 1921..... | 1.28 | 1.22 | 1.30 | 1.28 | 1.18 | 1.09 | 1.05 | .93 | .83 | .72 | .78 | .88 | 1.04 |
| 1922..... | .92 | 1.08 | 1.08 | 1.03 | 1.06 | 1.01 | 1.10 | 1.10 | 1.09 | 1.06 | .96 | 1.00 | 1.04 |
| 1923..... | .99 | 1.04 | 1.05 | 1.09 | 1.14 | 1.10 | 1.02 | .94 | .96 | .97 | .96 | 1.02 | 1.02 |
| 1924..... | 1.03 | 1.15 | 1.11 | 1.07 | 1.12 | 1.00 | .94 | 1.04 | 1.14 | 1.24 | 1.21 | 1.22 | 1.11 |
| 1925..... | 1.31 | 1.29 | 1.14 | 1.11 | 1.30 | 1.28 | 1.27 | 1.35 | 1.20 | 1.03 | 1.07 | 1.10 | 1.20 |
| Av. 1921-1925..... | 1.11 | 1.16 | 1.14 | 1.12 | 1.16 | 1.10 | 1.08 | 1.08 | 1.05 | 1.01 | 1.00 | 1.04 | 1.08 |

Division of Statistical and Historical Research. Compiled from International Yearbook of Agricultural Statistics, 1912-1921. Subsequently Broomhall's Corn Trade News.

For rate of exchange used in conversion from shillings, see Table 747, p. 1425.

¹ Not quoted. ² Trading in maize controlled Jan. 5, 1917. ³ Afloat price. ⁴ Nominal.

TABLE 82.—Corn oil: Top price per pound (loose basis) at Chicago, 1909-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1909..... | Cents 4.50 | Cents 4.75 | Cents 4.75 | Cents 4.50 | Cents 4.38 | Cents 4.38 | Cents 4.25 | Cents 4.25 | Cents 4.62 | Cents 5.12 | Cents 5.75 | Cents 6.00 | Cents 4.77 |
| 1910..... | 6.05 | 6.00 | 5.95 | 6.40 | 6.50 | 6.25 | 5.70 | 6.45 | 6.75 | 6.60 | 6.25 | 6.20 | 6.26 |
| 1911..... | 6.40 | 6.25 | 5.95 | 5.35 | 5.35 | 5.25 | 5.35 | 5.35 | 5.85 | 5.55 | 5.35 | 5.20 | 5.60 |
| 1912..... | 5.10 | 4.80 | 4.80 | 5.20 | 5.50 | 5.30 | 5.40 | 5.35 | 5.30 | 5.20 | 4.90 | 5.05 | 5.16 |
| 1913..... | 4.80 | 5.05 | 4.90 | 4.85 | 4.95 | 5.20 | 5.75 | 5.65 | 5.60 | 5.75 | 5.85 | 6.05 | 5.37 |
| Av. 1909-1913..... | 5.37 | 5.37 | 5.27 | 5.26 | 5.34 | 5.28 | 5.29 | 5.41 | 5.62 | 5.64 | 5.62 | 5.70 | 5.43 |
| 1914..... | 5.90 | 5.80 | 5.80 | 5.80 | 5.70 | 5.70 | 5.70 | 5.60 | 5.30 | 4.80 | 4.90 | 4.95 | 5.50 |
| 1915..... | 5.30 | 5.50 | 5.55 | 5.55 | 5.65 | 5.65 | 5.10 | 5.00 | 5.20 | 7.00 | 7.00 | 7.10 | 5.80 |
| 1916..... | 8.10 | 8.50 | 9.75 | 9.50 | 9.50 | 9.00 | 7.75 | 8.00 | 9.88 | 11.50 | 11.50 | 11.25 | 9.48 |
| 1917..... | 10.75 | 11.50 | 12.25 | 15.00 | 15.00 | 14.25 | 12.75 | 13.75 | 15.00 | 18.00 | 18.00 | 18.00 | 14.52 |
| 1918..... | 17.75 | 17.50 | 17.25 | 16.88 | 16.50 | 16.00 | 16.50 | 16.25 | 16.25 | 16.00 | 16.00 | 16.25 | 16.61 |
| 1919..... | 16.50 | 12.50 | 16.50 | 18.00 | 19.50 | 21.50 | 23.50 | 22.00 | 17.00 | 17.50 | 19.00 | 18.50 | 18.50 |
| 1920..... | 19.00 | 16.50 | 16.50 | 15.75 | 16.00 | 16.00 | 15.25 | 9.00 | 10.50 | 10.50 | 9.50 | 7.00 | 13.46 |
| Av. 1914-1920..... | 11.90 | 11.11 | 11.94 | 12.35 | 12.41 | 12.59 | 12.36 | 11.37 | 11.23 | 12.19 | 12.27 | 11.86 | 11.97 |
| 1921..... | 7.00 | 6.50 | 6.25 | 6.00 | 5.75 | 5.75 | 6.50 | 7.25 | 8.25 | 8.25 | 7.75 | 7.00 | 6.85 |
| 1922..... | 7.00 | 9.00 | 10.25 | 10.00 | 10.00 | 10.00 | 9.12 | 8.50 | 8.25 | 7.75 | 8.50 | 9.50 | 8.99 |
| 1923..... | 10.25 | 10.25 | 10.75 | 10.75 | 10.25 | 9.75 | 8.00 | 9.00 | 10.25 | 9.75 | 10.25 | 10.00 | 9.94 |
| 1924..... | 10.12 | 9.62 | 9.25 | 9.12 | 9.12 | 9.25 | 11.50 | 12.25 | 11.50 | 10.12 | 10.25 | 10.75 | 10.24 |
| 1925..... | 10.62 | 10.00 | 10.75 | 10.75 | 10.60 | 9.75 | 10.50 | 11.00 | 10.25 | 10.25 | 9.88 | 9.62 | 10.32 |
| Av. 1921-1925..... | 9.00 | 9.07 | 9.45 | 9.32 | 9.12 | 8.90 | 9.12 | 9.00 | 9.70 | 9.22 | 9.38 | 9.37 | 9.27 |

Division of Statistical and Historical Research. Compiled from annual reports of the Chicago Board of Trade.

TABLE 83.—*Corn futures: Volume of trading in six markets, by calendar years, 1921-1924*

[Thousand bushels—i. e., 000 omitted]

| Market | 1921 | | 1922 | | 1923 | | 1924 | |
|--------------------------------------|------------------|-------------------|-----------|-------------------|-----------|-------------------|------------------|-------------------|
| | Volume | Per cent of total | Volume | Per cent of total | Volume | Per cent of total | Volume | Per cent of total |
| Chicago Board of Trade..... | 5,830,304 | 91.78 | 4,506,683 | 93.16 | 4,286,837 | 92.21 | 5,759,327 | 92.66 |
| Chicago Open Board of Trade..... | 212,181 | 3.34 | 84,742 | 1.75 | 111,838 | 2.41 | 152,028 | 2.44 |
| Minneapolis Chamber of Commerce..... | (¹) | ----- | 7,941 | .17 | 473 | .01 | (¹) | ----- |
| Kansas City Board of Trade..... | 168,538 | 2.65 | 168,447 | 3.48 | 176,105 | 3.79 | 232,430 | 3.74 |
| St. Louis Merchants Exchange..... | 122,301 | 1.93 | 46,592 | .96 | 54,152 | 1.16 | 52,589 | .85 |
| Milwaukee Chamber of Commerce..... | 19,060 | .30 | 23,201 | .48 | 19,650 | .42 | 19,326 | .31 |
| Total..... | 6,352,384 | 100.00 | 4,837,606 | 100.00 | 4,649,055 | 100.00 | 6,215,700 | 100.00 |

Grain Futures Administration.

¹ No trading.

TABLE 84.—*Corn futures: Volume of trading in the principal futures, by months, Chicago Board of Trade, July 1, 1924, to June 30, 1925*

[Thousand bushels—i. e., 000 omitted]

| Month | December corn | May corn | July corn | September corn | Other corn futures | All futures |
|----------------|---------------|-----------|-----------|----------------|--------------------|-------------|
| 1924 | | | | | | |
| July..... | 306,874 | 47,528 | 24,525 | 150,199 | 5 | 531,131 |
| August..... | 384,354 | 226,656 | 2,289 | 78,558 | 1,053 | 692,910 |
| September..... | 353,941 | 262,159 | 6,848 | 24,612 | 3,269 | 650,829 |
| October..... | 276,990 | 327,287 | 26,425 | ----- | 1,823 | 632,525 |
| November..... | 125,355 | 337,030 | 53,603 | ----- | 15 | 516,003 |
| December..... | 44,670 | 494,807 | 111,229 | 534 | 15 | 651,265 |
| 1925 | | | | | | |
| January..... | ----- | 489,344 | 133,640 | 37,993 | 70 | 661,047 |
| February..... | 5 | 415,112 | 146,920 | 61,780 | ----- | 623,717 |
| March..... | 165 | 379,878 | 261,654 | 113,600 | ----- | 755,197 |
| April..... | 907 | 152,790 | 520,674 | 147,742 | ----- | 822,113 |
| May..... | 34,363 | 18,560 | 298,694 | 124,862 | ----- | 477,479 |
| June..... | 151,466 | 26 | 115,075 | 262,265 | 110 | 528,942 |
| Total..... | 1,681,090 | 3,152,177 | 1,501,376 | 1,002,145 | 6,360 | 7,343,148 |

Grain Futures Administration.

OATS

TABLE 85.—Oats: Acreage, production, value, exports, etc., United States, 1909-1925

| Year | Acreage harvested | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Chicago, cash price per bushel, No. 2 white ² | | | | | Domestic exports, including oatmeal, fiscal year beginning July 1 | Imports, fiscal year beginning July 1 ³ |
|-------------------------|--------------------|-------------------------|----------------------|---|----------------------|-----------------------------|--|-------------|---------------|-------------|----------------|---|--|
| | | | | | | | December | | Following May | | | | |
| | | | | | | | Low | High | Low | High | High | | |
| | <i>1,000 acres</i> | <i>Bush. of 55 lbs.</i> | <i>1,000 bushels</i> | <i>Cen's</i> | <i>1,000 dollars</i> | <i>Dollars</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Bushels</i> | <i>Bushels</i> | |
| 1909..... | 55,159 | 30.4 | 1,068,289 | 40.6 | 433,869 | 12.34 | 40 | 45 | 36 | 43 | 2,548,726 | 1,084,511 | |
| 1910..... | 37,548 | 31.6 | 1,186,341 | 34.4 | 408,288 | 10.88 | 81 | 32 | 31 | 36 | 3,845,850 | 107,318 | |
| 1911..... | 37,763 | 24.4 | 922,298 | 45.0 | 414,663 | 10.98 | 46 | 47 | 50 | 58 | 2,677,749 | 2,622,357 | |
| 1912..... | 37,917 | 37.4 | 1,418,337 | 31.9 | 452,469 | 11.93 | 31 | 31 | 35 | 43 | 36,455,474 | 723,809 | |
| 1913..... | 38,399 | 29.2 | 1,121,768 | 39.2 | 439,596 | 11.45 | 37 | 40 | 37 | 42 | 2,748,743 | 22,273,624 | |
| Av. 1909-1913..... | 37,357 | 30.6 | 1,143,407 | 37.6 | 429,797 | 11.51 | 37.2 | 39.4 | 38.2 | 44.6 | 9,655,308 | 5,352,342 | |
| 1914..... | 38,442 | 29.7 | 1,141,060 | 43.8 | 499,431 | 12.99 | 46 | 49 | 50 | 56 | 100,600,272 | 630,722 | |
| 1915..... | 40,996 | 37.8 | 1,549,030 | 36.1 | 559,506 | 13.65 | 40 | 44 | 39 | 49 | 98,960,481 | 665,314 | |
| 1916..... | 41,527 | 30.1 | 1,251,837 | 52.4 | 655,928 | 15.80 | 46 | 54 | 59 | 74 | 95,106,098 | 761,644 | |
| 1917..... | 43,563 | 36.6 | 1,602,740 | 66.6 | 1,061,474 | 24.37 | 70 | 80 | 72 | 79 | 125,090,811 | 2,591,077 | |
| 1918..... | 44,349 | 34.7 | 1,538,124 | 70.9 | 1,090,322 | 24.59 | 68 | 74 | 67 | 74 | 109,004,734 | 551,355 | |
| 1919..... | 40,359 | 29.3 | 1,184,030 | 70.4 | 833,922 | 20.66 | 78 | 89 | 100 | 117 | 43,435,994 | 6,043,834 | |
| 1920..... | 42,491 | 35.2 | 1,496,281 | 46.0 | 688,311 | 16.20 | 47 | 52 | 36 | 43 | 9,391,096 | 3,795,638 | |
| Av. 1914-1920..... | 41,674 | 33.4 | 1,393,300 | 55.3 | 769,842 | 18.47 | 56.9 | 63.4 | 60.9 | 70.5 | 83,065,412 | 2,148,512 | |
| 1921..... | 45,495 | 23.7 | 1,078,341 | 30.2 | 325,954 | 7.16 | 34 | 42 | 37 | 45 | 21,236,742 | 1,733,282 | |
| 1922..... | 40,790 | 29.8 | 1,215,803 | 39.4 | 478,948 | 11.74 | 43 | 50 | 48 | 47 | 25,413,330 | 293,208 | |
| 1923..... | 40,981 | 31.9 | 1,306,883 | 41.4 | 541,137 | 13.20 | 43 | 49 | 47 | 50 | 8,796,771 | 4,244,047 | |
| 1924..... | 42,756 | 35.6 | 1,522,665 | 47.8 | 727,171 | 17.01 | 53 | 69 | 46 | 50 | 16,777,107 | 3,040,882 | |
| 1925 ⁴ | 45,160 | 33.3 | 1,501,909 | 38.1 | 571,768 | 12.66 | 40 | 45 | --- | --- | --- | --- | |

Division of Crop and Livestock Estimates. Figures in italics are census returns. Exports and imports from Commerce and Navigation of United States 1909-1918 and the June issue of Monthly Summaries of Foreign Commerce, 1919-1925.

¹ Based on Dec. 1 price.

² Chicago Daily Trade Bulletin. Quotations are for contract 1909-1915.

³ Oatmeal not included in 1909.

⁴ Preliminary.

TABLE 86.—Oats: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1909-1924

| Year | Adverse weather conditions | | | | | | | | | | Plant diseases | Insect pests | Animal pests | Destructive seed | Other and unknown causes | Total |
|-----------|----------------------------|--------------------|------------------|------------------------------|------------|------------|------------|----------------|----------------|------------|----------------|------------------|------------------|------------------|--------------------------|-------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze ¹ | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | | |
| 1909..... | P. ct. 7.9 | P. ct. 5.2 | P. ct. 0.6 | P. ct. 0.8 | P. ct. 1.1 | P. ct. 0.9 | P. ct. 0.8 | P. ct. 0.4 | P. ct. 17.7 | P. ct. 2.4 | P. ct. 0.5 | P. ct. 0.1 | P. ct. 0.4 | P. ct. 1.1 | P. ct. 22.2 | |
| 1910..... | 17.0 | .8 | 2 | .7 | .4 | 1.7 | .3 | .3 | 21.4 | .9 | .6 | .2 | .2 | .7 | 24.0 | |
| 1911..... | 27.6 | 1.0 | (²) | .5 | .3 | 5.1 | .1 | .8 | 35.4 | .8 | 1.5 | .1 | .2 | 1.5 | 39.5 | |
| 1912..... | 7.2 | 3.1 | .3 | .5 | 1.0 | 1.1 | .6 | .4 | 14.1 | 1.6 | .7 | .2 | .2 | .9 | 17.7 | |
| 1913..... | 22.7 | .7 | .2 | .2 | .6 | 1.8 | .2 | .8 | 27.2 | .5 | 1.1 | .1 | .2 | 1.2 | 30.3 | |
| 1914..... | 15.7 | 2.2 | .2 | .3 | .8 | 2.6 | .4 | .5 | 22.7 | 2.0 | 1.6 | .1 | .1 | 1.0 | 27.5 | |
| 1915..... | 1.4 | 8.5 | .9 | .4 | 1.0 | .1 | .8 | .1 | 13.2 | 2.1 | .3 | .1 | .1 | .5 | 16.3 | |
| 1916..... | 10.1 | 4.0 | .4 | .6 | .8 | 2.8 | .5 | .5 | 19.7 | 5.2 | 1.3 | (²) | .2 | .8 | 27.2 | |
| 1917..... | 11.8 | 1.2 | .2 | 2.7 | .8 | 1.0 | .3 | .2 | 18.2 | .8 | .4 | (²) | (²) | .4 | 19.8 | |
| 1918..... | 12.9 | .5 | .2 | 1.3 | .9 | 1.8 | .3 | .2 | 18.1 | 1.1 | .9 | .1 | (²) | .5 | 20.7 | |
| 1919..... | 11.5 | 5.7 | .4 | .4 | .7 | 2.8 | .4 | .4 | 22.3 | 4.8 | 2.2 | (²) | .1 | .5 | 29.9 | |
| 1920..... | 6.4 | 2.7 | .3 | .5 | .8 | .9 | .4 | .1 | 12.1 | 2.3 | 1.4 | .1 | .1 | .3 | 16.3 | |
| 1921..... | 18.3 | 2.3 | .2 | 2.7 | .8 | 5.9 | .6 | .2 | 31.0 | 5.2 | 2.1 | --- | .1 | .5 | 38.9 | |
| 1922..... | 14.6 | 3.8 | .3 | .5 | 1.1 | 1.4 | .3 | --- | 22.0 | 3.2 | 1.8 | .1 | .1 | .4 | 27.6 | |
| 1923..... | 10.1 | 2.7 | .2 | 1.5 | .9 | 1.5 | .5 | --- | 17.4 | 3.0 | 1.0 | .1 | .1 | .8 | 21.9 | |
| 1924..... | 5.5 | 2.5 | .5 | 1.2 | 1.2 | .3 | .6 | .1 | 12.9 | 1.4 | .6 | .1 | .1 | .2 | 15.8 | |

Division of Crop and Livestock Estimates.

¹ Includes winter kill of fall-sown oats in Southern States.

² Less than 0.06 per cent.

TABLE 87.—Oats: Acreage, production, and total farm value, by States, 1924 and 1925

| State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|---------------------|--------------------|-------------------|----------------------------------|-------------------|---|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| Maine..... | 121 | 137 | 4,598 | 6,165 | 2,999 | 3,391 |
| New Hampshire..... | 16 | 17 | 624 | 663 | 456 | 424 |
| Vermont..... | 76 | 81 | 2,838 | 3,240 | 1,993 | 1,912 |
| Massachusetts..... | 8 | 8 | 272 | 304 | 190 | 198 |
| Rhode Island..... | 2 | 2 | 60 | 66 | 45 | 43 |
| Connecticut..... | 13 | 14 | 377 | 462 | 264 | 282 |
| New York..... | 970 | 1,060 | 34,920 | 37,800 | 21,650 | 19,656 |
| New Jersey..... | 59 | 64 | 1,770 | 1,920 | 1,133 | 1,037 |
| Pennsylvania..... | 1,076 | 1,227 | 38,736 | 42,945 | 24,016 | 21,902 |
| Ohio..... | 1,665 | 2,081 | 68,265 | 86,362 | 35,498 | 33,681 |
| Indiana..... | 1,850 | 2,109 | 68,450 | 59,062 | 32,866 | 21,849 |
| Illinois..... | 4,374 | 4,724 | 170,596 | 151,168 | 80,175 | 52,909 |
| Michigan..... | 1,600 | 1,664 | 62,080 | 53,248 | 29,798 | 21,299 |
| Wisconsin..... | 2,690 | 2,803 | 103,600 | 126,246 | 49,728 | 47,973 |
| Minnesota..... | 4,639 | 4,814 | 199,047 | 202,188 | 85,590 | 62,678 |
| Iowa..... | 5,855 | 6,069 | 245,910 | 246,604 | 108,200 | 78,913 |
| Missouri..... | 1,630 | 1,981 | 40,760 | 49,166 | 20,782 | 21,633 |
| North Dakota..... | 2,841 | 2,415 | 63,753 | 65,205 | 33,751 | 17,608 |
| South Dakota..... | 2,889 | 2,947 | 106,893 | 100,196 | 42,787 | 28,056 |
| Nebraska..... | 2,456 | 2,699 | 68,768 | 73,963 | 29,570 | 26,623 |
| Kansas..... | 1,369 | 1,712 | 34,226 | 39,376 | 16,086 | 17,322 |
| Delaware..... | 4 | 4 | 120 | 100 | 79 | 65 |
| Maryland..... | 48 | 58 | 1,632 | 1,856 | 1,044 | 984 |
| Virginia..... | 226 | 271 | 5,311 | 5,826 | 3,824 | 4,078 |
| West Virginia..... | 166 | 196 | 3,960 | 5,292 | 2,891 | 3,281 |
| North Carolina..... | 253 | 258 | 4,644 | 4,902 | 3,901 | 3,726 |
| South Carolina..... | 560 | 378 | 7,020 | 7,182 | 6,809 | 6,464 |
| Georgia..... | 275 | 413 | 4,262 | 7,021 | 4,049 | 6,108 |
| Florida..... | 11 | 13 | 148 | 182 | 183 | 164 |
| Kentucky..... | 235 | 247 | 5,452 | 5,187 | 3,653 | 3,090 |
| Tennessee..... | 177 | 221 | 3,717 | 4,862 | 2,566 | 3,112 |
| Alabama..... | 126 | 131 | 1,875 | 2,227 | 1,631 | 1,737 |
| Mississippi..... | 75 | 85 | 1,200 | 1,615 | 1,020 | 1,260 |
| Arkansas..... | 275 | 261 | 4,950 | 4,176 | 3,168 | 2,422 |
| Louisiana..... | 25 | 30 | 500 | 630 | 415 | 504 |
| Oklahoma..... | 1,200 | 1,140 | 30,000 | 26,220 | 15,900 | 13,372 |
| Texas..... | 1,455 | 1,091 | 49,470 | 13,419 | 29,187 | 8,454 |
| Montana..... | 670 | 636 | 16,815 | 14,355 | 7,903 | 7,608 |
| Idaho..... | 156 | 170 | 5,580 | 8,330 | 3,236 | 3,582 |
| Wyoming..... | 125 | 134 | 8,750 | 4,690 | 2,175 | 2,167 |
| Colorado..... | 232 | 330 | 5,800 | 6,210 | 3,364 | 3,105 |
| New Mexico..... | 56 | 36 | 1,120 | 720 | 672 | 461 |
| Arizona..... | 10 | 12 | 280 | 360 | 227 | 270 |
| Utah..... | 62 | 68 | 2,052 | 3,196 | 1,436 | 1,982 |
| Nevada..... | 2 | 2 | 68 | 90 | 49 | 58 |
| Washington..... | 175 | 264 | 6,788 | 11,176 | 3,975 | 5,812 |
| Oregon..... | 260 | 320 | 7,840 | 16,560 | 4,782 | 8,396 |
| California..... | 86 | 151 | 1,789 | 5,194 | 1,566 | 3,168 |
| United States..... | 42,786 | 45,160 | 1,822,065 | 1,501,909 | 727,171 | 571,768 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 88.—Oats: Yield per acre, by States, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|-------------|------|------|-------|------|------|----------------------|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|----------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| Me..... | 37.0 | 42.4 | 38.3 | 53.4 | 64.0 | 38.5 | 41.0 | 40.0 | 36.0 | 39.0 | 40.0 | 34.0 | 41.8 | 37.4 | 35.0 | 38.0 | 37.0 | 38.0 | 45.0 | 38.6 |
| N. H..... | 31.5 | 42.8 | 33.3 | 39.0 | 35.0 | 36.4 | 38.0 | 38.0 | 37.0 | 38.0 | 38.0 | 33.0 | 39.0 | 37.0 | 35.0 | 38.0 | 37.0 | 39.0 | 39.0 | 37.7 |
| Vt..... | 32.2 | 41.1 | 53.5 | 43.0 | 39.0 | 38.1 | 42.5 | 43.0 | 32.0 | 36.0 | 41.0 | 29.5 | 35.0 | 37.0 | 33.0 | 33.0 | 33.0 | 33.0 | 40.0 | 36.0 |
| Mass..... | 31.0 | 35.5 | 35.5 | 33.4 | 35.0 | 34.1 | 37.0 | 36.0 | 32.0 | 37.0 | 40.0 | 33.0 | 34.0 | 35.6 | 31.0 | 34.0 | 35.0 | 34.0 | 38.0 | 34.4 |
| R. I..... | 26.0 | 35.0 | 29.0 | 28.6 | 26.0 | 28.7 | 27.5 | 33.0 | 27.0 | 31.0 | 42.0 | 30.0 | 28.0 | 31.2 | 28.0 | 31.0 | 32.0 | 30.0 | 33.0 | 30.8 |
| Conn..... | 27.5 | 36.8 | 35.1 | 30.7 | 28.0 | 31.6 | 29.0 | 32.5 | 30.0 | 33.0 | 38.0 | 29.5 | 30.0 | 31.7 | 30.0 | 28.0 | 29.0 | 29.0 | 33.0 | 29.8 |
| N. Y..... | 28.2 | 23.4 | 52.9 | 53.0 | 33.5 | 31.3 | 31.5 | 40.5 | 52.0 | 35.0 | 41.0 | 25.5 | 38.5 | 34.0 | 24.0 | 30.0 | 32.0 | 36.0 | 36.0 | 31.6 |
| N. J..... | 25.5 | 53.7 | 1.28 | 52.7 | 62.9 | 29.5 | 23.0 | 32.5 | 30.0 | 34.0 | 40.0 | 30.0 | 32.0 | 32.5 | 24.0 | 33.0 | 32.0 | 30.0 | 30.0 | 27.8 |
| Pa..... | 26.0 | 35.5 | 29.0 | 33.3 | 13.1 | 30.7 | 30.0 | 38.0 | 31.0 | 33.0 | 39.0 | 31.0 | 39.0 | 34.7 | 28.0 | 30.0 | 29.0 | 30.0 | 35.0 | 32.5 |
| Ohio..... | 32.5 | 37.2 | 23.2 | 14.4 | 30.2 | 35.2 | 30.5 | 41.0 | 28.0 | 44.0 | 44.0 | 33.0 | 44.2 | 37.8 | 23.0 | 27.0 | 34.5 | 41.0 | 41.5 | 33.4 |
| Ind..... | 30.5 | 53.5 | 4.28 | 74.0 | 1.21 | 31.2 | 28.5 | 40.0 | 30.0 | 42.0 | 42.0 | 32.0 | 41.0 | 36.5 | 24.0 | 21.0 | 28.0 | 37.0 | 28.0 | 27.6 |
| Ill..... | 36.6 | 38.0 | 28.5 | 43.3 | 23.8 | 34.1 | 29.3 | 45.0 | 33.5 | 52.0 | 44.0 | 30.0 | 39.5 | 39.8 | 26.5 | 28.5 | 33.5 | 33.0 | 32.0 | 32.2 |
| Mich..... | 30.5 | 53.4 | 0.28 | 63.4 | 9.30 | 31.6 | 33.0 | 42.0 | 30.0 | 36.0 | 40.0 | 25.0 | 39.6 | 35.2 | 18.0 | 23.4 | 33.2 | 38.8 | 8.32 | 31.0 |
| Wis..... | 35.0 | 29.4 | 29.0 | 33.7 | 33.6 | 33.7 | 27.0 | 46.5 | 53.7 | 0.44 | 44.6 | 6.33 | 44.8 | 39.0 | 24.0 | 34.1 | 23.6 | 34.0 | 40.8 | 38.1 |
| Minn..... | 33.0 | 28.7 | 22.2 | 8.41 | 7.37 | 32.8 | 28.0 | 43.0 | 26.5 | 37.0 | 41.0 | 28.0 | 37.5 | 34.4 | 24.0 | 35.5 | 37.0 | 43.0 | 42.0 | 36.3 |
| Iowa..... | 27.0 | 37.7 | 8.25 | 5.44 | 2.34 | 33.8 | 33.0 | 40.0 | 37.0 | 47.0 | 42.0 | 34.6 | 39.0 | 33.9 | 26.0 | 37.1 | 13.6 | 2.42 | 0.40 | 28.4 |
| Mo..... | 27.0 | 33.3 | 6.14 | 5.33 | 0.21 | 25.9 | 21.5 | 26.0 | 25.0 | 40.0 | 29.0 | 27.0 | 30.5 | 28.4 | 20.0 | 16.0 | 20.0 | 25.0 | 26.0 | 22.4 |
| N. Dak..... | 32.0 | 7.0 | 23.5 | 5.41 | 23.7 | 25.9 | 28.0 | 40.0 | 21.5 | 15.0 | 23.5 | 15.5 | 24.0 | 23.9 | 19.0 | 33.0 | 23.0 | 53.0 | 27.0 | 27.0 |
| S. Dak..... | 30.0 | 23.0 | 7.0 | 4.33 | 8.26 | 24.1 | 27.5 | 42.0 | 30.5 | 34.0 | 39.0 | 29.0 | 34.0 | 33.7 | 22.0 | 31.0 | 34.0 | 37.0 | 30.4 | 31.6 |
| Nebr..... | 25.0 | 28.0 | 13.0 | 2.4 | 26.5 | 23.6 | 32.0 | 32.0 | 33.5 | 53.0 | 22.2 | 23.2 | 34.6 | 32.4 | 27.1 | 23.0 | 33.0 | 23.0 | 27.0 | 27.8 |
| Kans..... | 28.2 | 33.3 | 3.15 | 0.32 | 0.19 | 25.6 | 33.5 | 26.5 | 23.5 | 53.1 | 0.22 | 0.28 | 1.30 | 27.0 | 20.0 | 5.18 | 5.26 | 1.25 | 0.23 | 22.6 |
| Del..... | 25.5 | 53.3 | 8.30 | 0.30 | 5.30 | 30.1 | 27.0 | 33.5 | 30.0 | 33.2 | 0.35 | 0.23 | 0.33 | 30.5 | 28.0 | 23.0 | 26.0 | 30.0 | 25.0 | 26.4 |
| Md..... | 25.4 | 30.0 | 0.27 | 0.30 | 0.28 | 28.1 | 27.0 | 34.0 | 29.5 | 53.1 | 0.33 | 0.28 | 0.32 | 30.7 | 27.0 | 0.30 | 0.29 | 8.34 | 0.32 | 30.6 |
| Va..... | 19.0 | 22.0 | 0.20 | 0.22 | 0.21 | 20.9 | 15.5 | 25.0 | 23.5 | 24.5 | 23.0 | 22.0 | 21.9 | 22.2 | 20.0 | 5.20 | 0.22 | 0.23 | 5.21 | 21.5 |
| W. Va..... | 22.0 | 25.2 | 2.22 | 0.28 | 0.24 | 24.2 | 20.0 | 20.0 | 23.0 | 27.0 | 0.27 | 0.21 | 0.27 | 24.9 | 22.0 | 23.0 | 23.0 | 24.0 | 27.0 | 24.0 |
| N. C..... | 18.5 | 18.2 | 16.5 | 18.6 | 19.5 | 17.9 | 17.5 | 23.0 | 17.5 | 16.0 | 17.0 | 16.7 | 22.0 | 18.5 | 18.0 | 21.0 | 22.0 | 18.0 | 19.0 | 19.6 |
| S. C..... | 21.0 | 21.0 | 20.1 | 4.21 | 6.23 | 21.5 | 20.0 | 19.0 | 18.0 | 16.0 | 22.0 | 23.0 | 24.0 | 20.1 | 24.0 | 24.0 | 24.0 | 19.5 | 19.0 | 22.1 |
| Ga..... | 19.0 | 18.2 | 21.1 | 5.20 | 8.22 | 20.3 | 20.0 | 19.5 | 19.5 | 16.0 | 20.0 | 20.0 | 21.0 | 19.4 | 21.0 | 18.0 | 18.0 | 15.5 | 17.0 | 17.9 |
| Fla..... | 17.0 | 16.2 | 13.5 | 17.2 | 18.0 | 16.4 | 18.0 | 30.0 | 15.0 | 14.0 | 18.0 | 15.0 | 17.0 | 16.7 | 13.0 | 13.0 | 12.0 | 13.5 | 14.0 | 13.1 |
| Ky..... | 22.3 | 25.0 | 18.4 | 26.9 | 19.8 | 22.5 | 21.0 | 26.0 | 21.0 | 20.0 | 24.0 | 22.5 | 23.5 | 23.4 | 19.0 | 18.0 | 21.0 | 23.0 | 22.1 | 20.5 |
| Tenn..... | 20.0 | 23.0 | 19.0 | 5.21 | 7.21 | 21.0 | 23.0 | 24.5 | 21.0 | 25.0 | 25.0 | 18.5 | 19.8 | 22.4 | 20.5 | 18.0 | 21.0 | 21.0 | 22.0 | 20.5 |
| Ala..... | 16.5 | 18.5 | 19.0 | 2.20 | 0.20 | 18.9 | 22.0 | 19.0 | 17.5 | 18.0 | 19.0 | 18.0 | 18.0 | 18.8 | 22.0 | 20.0 | 17.0 | 15.0 | 17.0 | 18.2 |
| Miss..... | 16.0 | 19.0 | 2.18 | 4.17 | 4.20 | 18.2 | 23.0 | 21.5 | 18.0 | 19.0 | 20.0 | 16.0 | 17.0 | 19.2 | 20.0 | 19.0 | 19.0 | 16.0 | 19.0 | 18.6 |
| Ark..... | 22.8 | 27.5 | 20.0 | 19.9 | 26.5 | 23.3 | 24.0 | 27.0 | 21.0 | 28.0 | 25.5 | 22.0 | 25.0 | 24.6 | 22.0 | 25.0 | 23.0 | 18.0 | 18.0 | 20.8 |
| La..... | 20.0 | 21.5 | 19.0 | 20.8 | 22.0 | 21.1 | 23.0 | 23.0 | 19.0 | 22.3 | 25.0 | 22.0 | 23.0 | 22.8 | 23.0 | 23.0 | 22.0 | 20.0 | 21.0 | 21.7 |
| Okl..... | 29.0 | 36.5 | 9.0 | 25.1 | 18.0 | 23.5 | 27.5 | 27.0 | 12.5 | 23.0 | 24.0 | 32.0 | 33.0 | 25.6 | 20.0 | 20.0 | 20.0 | 25.0 | 23.0 | 21.6 |
| Tex..... | 15.7 | 35.0 | 25.1 | 36.0 | 32.5 | 29.5 | 25.0 | 35.5 | 28.5 | 26.0 | 14.7 | 7.42 | 0.22 | 27.7 | 18.0 | 23.0 | 33.2 | 34.0 | 12.3 | 23.9 |
| Mont..... | 51.3 | 33.0 | 49.5 | 48.0 | 43.5 | 46.1 | 35.0 | 52.0 | 33.0 | 30.0 | 30.0 | 6.0 | 22.0 | 29.0 | 24.0 | 32.0 | 33.0 | 29.5 | 22.5 | 28.2 |
| Idaho..... | 44.5 | 53.8 | 54.4 | 48.9 | 46.5 | 44.5 | 44.0 | 47.0 | 43.0 | 33.0 | 40.0 | 30.0 | 38.0 | 40.0 | 43.0 | 33.0 | 44.0 | 36.0 | 49.0 | 42.4 |
| Wyo..... | 35.0 | 33.2 | 33.4 | 54.1 | 48.8 | 36.3 | 35.0 | 42.0 | 35.0 | 36.0 | 41.0 | 12.0 | 38.0 | 34.1 | 30.0 | 31.0 | 34.0 | 30.0 | 35.0 | 32.0 |
| Colo..... | 38.0 | 39.1 | 135.0 | 42.8 | 35.0 | 38.0 | 40.0 | 39.0 | 33.0 | 33.0 | 30.0 | 26.2 | 31.5 | 34.0 | 31.0 | 25.0 | 33.2 | 25.0 | 27.0 | 28.0 |
| N. Mex..... | 40.0 | 27.4 | 43.8 | 8.34 | 7.30 | 34.2 | 38.0 | 36.0 | 29.0 | 30.0 | 28.0 | 27.4 | 27.4 | 30.8 | 27.7 | 15.0 | 20.0 | 20.0 | 20.0 | 20.7 |
| Ariz..... | 37.0 | 44.0 | 1.42 | 0.44 | 7.43 | 41.4 | 42.0 | 37.0 | 37.5 | 40.0 | 40.0 | 35.0 | 27.0 | 36.9 | 35.0 | 31.0 | 30.0 | 28.0 | 30.0 | 30.8 |
| Utah..... | 46.1 | 43.0 | 44.7 | 4.46 | 4.46 | 45.2 | 50.0 | 47.0 | 43.5 | 44.0 | 45.0 | 27.9 | 33.8 | 41.6 | 36.0 | 43.0 | 37.7 | 33.1 | 47.0 | 38.7 |
| Nev..... | 40.0 | 44.4 | 7.45 | 0.40 | 0.43 | 42.5 | 52.0 | 45.0 | 43.0 | 40.0 | 38.0 | 26.3 | 37.2 | 40.1 | 37.7 | 37.7 | 23.5 | 4.34 | 0.45 | 37.9 |
| Wash..... | 49.0 | 42.8 | 51.7 | 7.48 | 2.47 | 47.8 | 47.0 | 50.0 | 52.0 | 38.5 | 27.0 | 40.0 | 46.6 | 43.0 | 50.0 | 39.0 | 2.57 | 0.38 | 5.44 | 45.7 |
| Oreg..... | 37.7 | 34.4 | 5.34 | 7.38 | 2.42 | 37.5 | 35.0 | 44.0 | 7.38 | 25.0 | 25.0 | 31.3 | 36.5 | 35.0 | 32.0 | 25.0 | 39.0 | 28.0 | 31.4 | 31.4 |
| Calif..... | 31.4 | 37.0 | 34.0 | 39.0 | 31.6 | 34.6 | 35.0 | 33.0 | 32.5 | 35.0 | 32.0 | 29.0 | 30.0 | 32.4 | 27.0 | 35.0 | 33.2 | 30.8 | 34.4 | 29.9 |
| U. S..... | 30.4 | 31.6 | 24.4 | 4.37 | 4.20 | 30.6 | 29.7 | 37.8 | 30.1 | 36.6 | 34.7 | 26.3 | 35.2 | 33.3 | 23.7 | 29.8 | 31.9 | 35.6 | 33.8 | 30.9 |

Division of Crop and Livestock Estimates.

TABLE 89.—Oats: Acreage and yield per acre in specified countries, average 1909–1913, annual 1922–1925

| Country | Acreage | | | | | Yield per acre | | | | |
|--|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------------|---------------|---------------|---------------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMISPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| Canada..... | 1,000 acres 9,697 | 1,000 acres 14,541 | 1,000 acres 14,389 | 1,000 acres 14,491 | 1,000 acres 14,672 | Bush. 36.6 | Bush. 33.8 | Bush. 39.2 | Bush. 28.0 | Bush. 35.0 |
| United States..... | 37,357 | 40,790 | 40,981 | 42,766 | 45,160 | 30.6 | 29.8 | 31.9 | 35.6 | 33.3 |
| Total North America..... | 46,954 | 55,331 | 55,369 | 57,247 | 59,832 | | | | | |
| EUROPE | | | | | | | | | | |
| United Kingdom: | | | | | | | | | | |
| England and Wales..... | 2,039 | 2,157 | 1,976 | 2,037 | 1,868 | 47.5 | 42.0 | 47.0 | 50.4 | 51.8 |
| Scotland..... | 952 | 988 | 968 | 956 | 926 | 46.8 | 47.5 | 46.5 | 49.5 | 50.7 |
| Ireland..... | 1,049 | 1,214 | 1,137 | 1,089 | ----- | 62.1 | 50.7 | 47.9 | 51.2 | ----- |
| Norway..... | 294 | 301 | 255 | 239 | 241 | 38.9 | 44.5 | 31.4 | 46.3 | 48.3 |
| Sweden..... | 1,961 | 1,798 | 1,775 | 1,911 | 1,904 | 43.9 | 42.9 | 40.8 | 38.9 | 46.8 |
| Denmark..... | 1,161 | 1,118 | 1,122 | 1,141 | 1,098 | 52.2 | 52.2 | 56.2 | 55.3 | 61.5 |
| Netherlands..... | 346 | 394 | 381 | 377 | 365 | 52.2 | 45.2 | 48.9 | 49.6 | 56.4 |
| Belgium..... | 688 | 717 | 654 | 654 | 652 | 65.8 | 49.9 | 72.0 | 67.6 | 53.5 |
| Luxemburg..... | 77 | 71 | 73 | 73 | 73 | 43.9 | 21.5 | 43.5 | 29.6 | 42.0 |
| France..... | 10,084 | 8,491 | 8,457 | 8,636 | 8,652 | 36.5 | 33.9 | 39.8 | 35.4 | 38.2 |
| Spain..... | 1,276 | 1,514 | 1,595 | 1,635 | 1,798 | 22.8 | 20.6 | 25.4 | 18.5 | 24.2 |
| Portugal..... | 1,276 | 626 | 626 | 604 | ----- | 9.3 | ----- | 15.4 | 9.7 | ----- |
| Italy..... | 1,276 | 1,214 | 1,223 | 1,106 | 1,202 | 29.4 | 25.1 | 32.6 | 30.1 | 39.5 |
| Switzerland..... | 81 | 51 | 51 | 50 | 49 | 59.1 | 48.4 | 60.0 | 53.9 | 54.9 |
| Germany..... | 9,529 | 7,912 | 8,265 | 8,709 | 8,531 | 55.3 | 35.0 | 50.9 | 44.7 | 45.1 |
| Austria..... | 883 | 704 | 802 | 763 | 783 | 32.9 | 26.0 | 32.2 | 29.9 | 42.7 |
| Czechoslovakia..... | 2,506 | 2,016 | 2,081 | 2,090 | 2,071 | 38.4 | 35.5 | 44.1 | 39.7 | 38.9 |
| Hungary..... | 849 | 811 | 809 | 708 | 728 | 33.5 | 27.8 | 33.9 | 22.2 | 32.3 |
| Yugoslavia..... | 1,358 | 966 | 928 | 871 | 856 | 24.7 | 18.9 | 23.1 | 23.9 | 26.6 |
| Greece..... | 140 | ----- | 180 | ----- | ----- | 29.1 | ----- | 33.1 | ----- | ----- |
| Bulgaria..... | 408 | 352 | 370 | 373 | 354 | 21.2 | 26.0 | 24.8 | 19.9 | 28.0 |
| Rumania..... | 2,119 | 3,295 | 3,324 | 3,056 | 2,928 | 28.2 | 27.9 | 18.9 | 13.7 | 18.0 |
| Poland..... | 6,666 | 5,879 | 6,215 | 6,388 | 6,375 | 29.4 | 29.4 | 39.0 | 26.0 | 35.8 |
| Lithuania..... | 961 | 769 | 817 | 803 | 853 | 23.8 | 37.6 | 27.9 | 23.1 | 23.0 |
| Latvia..... | 765 | 676 | 764 | 826 | 815 | 25.1 | 26.9 | 21.5 | 22.6 | 25.7 |
| Estonia..... | 394 | 399 | 378 | 410 | 369 | 24.9 | 25.2 | 21.0 | 23.6 | 26.4 |
| Finland..... | 999 | 1,061 | 1,066 | 1,049 | 1,063 | 20.4 | 35.0 | 24.7 | 32.3 | 34.4 |
| Russia, European..... | 35,514 | 15,810 | 22,285 | 25,294 | 24,573 | 23.0 | 19.7 | 20.1 | 16.7 | 24.1 |
| Total European countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 47,622 | 43,654 | 44,349 | 44,852 | 44,444 | 38.9 | 33.7 | 39.4 | 34.9 | 38.6 |
| Including Russia..... | 83,136 | 59,464 | 66,634 | 70,146 | 69,017 | 32.1 | 29.9 | 32.9 | 28.3 | 33.4 |
| NORTH AFRICA | | | | | | | | | | |
| Morocco..... | (25) | 28 | 29 | 49 | 56 | (20) | 6.4 | 14.3 | 22.2 | 28.3 |
| Algeria..... | 449 | 563 | 617 | 632 | 651 | 30.0 | 13.9 | 32.0 | 14.7 | 24.7 |
| Tunis..... | 133 | 126 | 123 | 112 | 119 | 27.4 | 7.7 | 22.4 | 14.2 | 26.3 |
| ASIA | | | | | | | | | | |
| Cyprus..... | ----- | 15 | 14 | 17 | ----- | ----- | 17.6 | 24.9 | 14.7 | ----- |
| Russia..... | 5,742 | 2,044 | 3,314 | 3,314 | 4,162 | 18.8 | 17.7 | 20.4 | 26.4 | 30.3 |
| Japanese Empire: | | | | | | | | | | |
| Japan..... | 110 | 277 | 266 | 274 | 265 | 44.8 | 33.1 | 41.2 | 36.3 | 40.5 |
| Chosen..... | 141 | 272 | ----- | 257 | ----- | 15.6 | 18.9 | ----- | 11.3 | ----- |
| Total Northern Hemisphere countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 95,293 | 99,889 | 100,753 | 103,156 | 105,367 | ----- | ----- | ----- | ----- | ----- |
| Including Russia..... | 136,549 | 117,743 | 126,352 | 132,089 | 134,102 | ----- | ----- | ----- | ----- | ----- |

¹ Where changes in boundary have occurred the averages are estimates for territory within present boundaries.

² One year only.

³ Four-year average.

⁴ Excludes Turkistan and Transcaucasia.

⁵ Three-year average.

TABLE 89.—*Oats: Acreage and yield per acre in specified countries, average 1909–1913, annual 1922–1925—Continued*

| Country | Acreage | | | | | Yield per acre | | | | |
|---|--------------------------------|-------------|-------------|-------------|------------------|--------------------------------|-------|-------|-------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| SOUTHERN HEMISPHERE | | | | | | | | | | |
| Chile..... | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Bush. | Bush. | Bush. | Bush. | Bush. |
| Uruguay..... | 78 | 81 | 79 | 81 | 92 | 10.5 | 11.5 | 18.0 | 23.0 | 58.4 |
| Argentina..... | 1 66 | 2 018 | 2 747 | 2 646 | 3 194 | 22.6 | 21.2 | 27.8 | 20.2 | 28.6 |
| Union of South Africa ² | 2 396 | 697 | | | | 11.9 | 8.2 | | | |
| Australia..... | 745 | 1 014 | 1 077 | | | 23.8 | 18.5 | 20.1 | | |
| New Zealand..... | 366 | 143 | 64 | 147 | | 49.1 | 40.7 | 38.4 | 48.5 | |
| Total Southern Hemisphere countries reporting all years shown..... | 2,540 | 2,786 | 2,946 | 2,865 | 3,495 | | | | | |
| Total Northern and Southern Hemisphere countries reporting all years shown..... | | | | | | | | | | |
| Excluding Russia..... | 97,833 | 102,675 | 103,699 | 106,021 | 108,862 | | | | | |
| Including Russia..... | 139,089 | 120,529 | 129,298 | 134,954 | 137,597 | | | | | |
| Estimated world total: ³ | | | | | | | | | | |
| Excluding Russia..... | 101,700 | 106,800 | 107,700 | 110,100 | 112,900 | | | | | |
| Including Russia..... | 143,000 | 124,700 | 133,300 | 139,000 | 141,700 | | | | | |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Estimates given are for crops harvested during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Where changes in boundary have occurred the averages are estimates for territory within present boundaries.

² One year only.

³ Four-year average.

⁴ Excludes native locations.

⁵ Excludes a few minor producing countries which do not enter into world trade or for which no estimates are available.

TABLE 90.—*Oats: Production in specified countries, average 1909–1913, annual 1922–1925*

[Thousand bushels—i. e., 000 omitted]

| Country | Average, 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
|----------------------------|---------------------------------|-----------|-----------|-----------|------------------|
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| Canada..... | 351,090 | 491,239 | 563,998 | 405,976 | 513,384 |
| United States..... | 1,143,407 | 1,215,808 | 1,806,883 | 1,522,065 | 1,501,909 |
| Total North America..... | 1,495,097 | 1,707,042 | 1,869,881 | 1,928,041 | 2,015,293 |
| EUROPE | | | | | |
| United Kingdom: | | | | | |
| England and Wales..... | 96,913 | 90,868 | 92,956 | 102,628 | 96,091 |
| Scotland..... | 44,507 | 46,917 | 44,977 | 47,365 | 40,917 |
| Ireland..... | 65,189 | 61,589 | 54,480 | 55,720 | 84,296 |
| Norway..... | 10,276 | 13,380 | 7,999 | 10,641 | 11,632 |
| Sweden..... | 86,060 | 77,154 | 72,493 | 74,392 | 84,296 |
| Denmark..... | 60,867 | 58,460 | 63,104 | 63,104 | 67,516 |
| Netherlands..... | 18,070 | 17,817 | 18,641 | 18,698 | 20,590 |
| Belgium..... | 43,964 | 35,788 | 47,056 | 44,206 | 34,909 |
| Luxemburg..... | 3,382 | 1,527 | 5,174 | 2,182 | 3,089 |
| France..... | 368,462 | 298,264 | 336,944 | 305,835 | 330,315 |
| Spain..... | 29,110 | 5,818 | 8,098 | 30,170 | 43,443 |
| Portugal..... | | 37,537 | 30,455 | 39,827 | 47,475 |
| Italy..... | 4,784 | 2,466 | 3,089 | 2,694 | 2,692 |
| Switzerland..... | | 527,178 | 276,619 | 420,731 | 384,740 |
| Germany..... | | | | | |

¹ Where changes in boundary have occurred averages are estimates for area within present boundaries.

TABLE 90.—Oats: Production in specified countries, average 1909-1913, annual 1922-1926—Continued

[Thousand bushels—1. e., 000 omitted]

| Country | Average, 1909-1913 | 1922 | 1923 | 1924 | 1925 pre- liminary |
|---|-----------------------|-----------|-----------|-----------|-----------------------|
| NORTHERN HEMISPHERE—Continued | | | | | |
| EUROPE—continued | | | | | |
| Austria..... | 29,030 | 18,217 | 25,861 | 22,843 | 33,400 |
| Czechoslovakia..... | 95,147 | 71,532 | 91,684 | 82,959 | 80,549 |
| Hungary..... | 28,464 | 22,533 | 27,458 | 15,713 | 23,520 |
| Yugoslavia..... | 33,516 | 18,272 | 21,476 | 20,795 | 25,862 |
| Greece..... | 4,075 | 5,500 | 5,964 | 4,062 | 5,500 |
| Bulgaria..... | 8,651 | 9,144 | 9,188 | 7,406 | 10,228 |
| Rumania..... | 59,776 | 92,073 | 62,665 | 42,013 | 52,635 |
| Poland..... | 195,825 | 172,621 | 242,671 | 166,171 | 228,350 |
| Lithuania..... | 22,910 | 28,942 | 22,776 | 18,584 | 19,635 |
| Latvia..... | 19,188 | 18,171 | 16,412 | 18,670 | 20,934 |
| Estonia..... | 9,795 | 10,057 | 7,942 | 9,677 | 9,475 |
| Finland..... | 20,391 | 37,174 | 26,304 | 33,912 | 36,195 |
| Russia, European..... | 817,231 | 311,073 | 448,746 | 421,561 | 592,293 |
| Total European countries reporting all years shown: | | | | | |
| Excluding Russia..... | 1,858,558 | 1,474,953 | 1,751,796 | 1,567,325 | 1,720,197 |
| Including Russia..... | 2,675,789 | 1,786,026 | 2,200,542 | 1,988,886 | 2,312,490 |
| NORTH AFRICA | | | | | |
| Morocco..... | (500) | 180 | 415 | 1,088 | 1,585 |
| Algeria..... | 13,489 | 7,799 | 19,724 | 9,138 | 16,111 |
| Tunis..... | 3,642 | 965 | 2,756 | 1,585 | 3,135 |
| ASIA | | | | | |
| Cyprus..... | 515 | 264 | 349 | 250 | 294 |
| Russia..... | 107,687 | 36,094 | 67,871 | 87,495 | 109,438 |
| Japanese Empire: | | | | | |
| Japan..... | 4,925 | 9,158 | 10,967 | 9,933 | 10,743 |
| Chosen..... | 2,202 | 5,136 | 4,421 | 2,914 | ..... |
| Total Northern Hemisphere countries reporting all years shown— | | | | | |
| Excluding Russia..... | 3,376,729 | 3,200,361 | 3,655,888 | 3,517,960 | 3,767,300 |
| Including Russia..... | 4,301,647 | 3,547,529 | 4,172,305 | 4,027,016 | 4,469,091 |
| SOUTHERN HEMISPHERE | | | | | |
| Chile..... | 3,333 | 2,822 | 3,061 | 3,383 | 5,374 |
| Uruguay..... | 1,285 | 999 | 2,156 | 3,108 | ..... |
| Argentina..... | 54,246 | 55,597 | 78,338 | 53,456 | 84,808 |
| Union of South Africa..... | 9,661 | 5,728 | ..... | ..... | ..... |
| Australia..... | 17,768 | 18,728 | 21,629 | 20,000 | ..... |
| New Zealand..... | 17,978 | 7,110 | 2,456 | 7,125 | ..... |
| Total Southern Hemisphere countries reporting all years shown..... | 57,679 | 58,419 | 80,299 | 56,839 | 90,182 |
| Total Northern and Southern Hemisphere countries reporting all years shown..... | | | | | |
| Excluding Russia..... | 3,434,308 | 3,258,780 | 3,736,187 | 3,574,799 | 3,857,542 |
| Including Russia..... | 4,359,226 | 3,605,947 | 4,252,504 | 4,083,855 | 4,559,273 |
| Estimated world total*— | | | | | |
| Excluding Russia..... | 3,555,000 | 3,364,000 | 3,835,000 | 3,675,000 | 3,950,000 |
| Including Russia..... | 4,480,000 | 3,711,000 | 4,382,000 | 4,184,000 | 4,661,000 |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture, except as otherwise stated. Production as reported is for the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

* One year only.

* Four-year average.

* The estimate for the five-year period 1909-1913 given in this table is somewhat larger than the figure obtained by averaging those five years in Table 91. This is because in the detailed table estimates for warring countries are for postwar boundaries, whereas in Table 91 they are for pre-war territory. As a result, in excluding Russia, which lost territory in the war, a smaller area is excluded in the detailed table than in Table 91.

* Excluding Turkestan and Transcaucasia.

* Excluding Transcaucasia.

* Three-year average.

* Excluding native locations which produced 299,644 bushels in 1917-18 and 67,270 bushels in 1920-21.

* Excludes a few minor producing countries which do not enter into world trade or for which no estimates are available.

TABLE 91.—Oats: World production, 1909–1925

[Thousand bushels—I. e., 000 omitted]

| Year | Production in countries reporting all years | Preliminary estimate of world production excluding Russia | Preliminary estimate of European totals excluding Russia | Three selected countries | | |
|-----------------------|---|---|--|--------------------------|----------------------|----------------------|
| | | | | Russia ¹ | Germany | France |
| 1909..... | 2,570,179 | 3,390,000 | 1,863,000 | 1,163,076 | 628,712 | 883,189 |
| 1910..... | 2,520,718 | 3,198,000 | 1,680,000 | 1,064,516 | 544,287 | 331,886 |
| 1911..... | 2,257,513 | 3,110,000 | 1,683,000 | 876,013 | 530,764 | 349,247 |
| 1912..... | 2,822,328 | 3,675,000 | 1,720,000 | 1,089,365 | 585,987 | 355,039 |
| 1913..... | 2,647,659 | 3,555,000 | 1,509,000 | 1,250,590 | 669,231 | 357,049 |
| 1914..... | 2,492,811 | 3,238,000 | 1,681,000 | ² 914,913 | 622,674 | 318,333 |
| 1915..... | 2,604,450 | 3,564,000 | 1,401,000 | ² 1,022,107 | 412,400 | 238,551 |
| 1916..... | 2,424,824 | 3,226,000 | 1,469,000 | ----- | 484,007 | 277,117 |
| 1917..... | 2,382,705 | 3,182,000 | 1,047,000 | ----- | ³ 249,964 | ² 220,336 |
| 1918..... | 2,382,177 | 3,177,000 | 1,117,000 | ----- | ³ 301,839 | ³ 180,553 |
| 1919..... | 2,006,599 | 3,030,000 | 1,318,000 | ----- | ³ 306,587 | ³ 179,823 |
| 1920..... | 2,437,471 | 3,606,000 | 1,478,000 | ³ 414,230 | 332,490 | 291,406 |
| 1921..... | 2,006,843 | 3,093,000 | 1,503,000 | ³ 306,691 | 344,812 | 244,455 |
| 1922..... | 2,107,646 | 3,364,000 | 1,542,000 | ³ 347,167 | 276,619 | 288,264 |
| 1923..... | 2,404,948 | 3,836,000 | 1,814,000 | 516,317 | 420,731 | 336,944 |
| 1924..... | 2,556,871 | 3,675,000 | 1,629,000 | 509,056 | 389,525 | 305,535 |
| 1925 preliminary..... | 2,594,716 | 3,959,000 | 1,720,000 | 701,731 | 384,740 | 330,315 |

Division of Statistical and Historical Research. For each year is shown the production during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Includes all Russian territory reporting for the years named.

² Excluding Poland.

³ New boundaries and therefore not comparable with earlier years.

TABLE 92.—Oats: Farm stocks, supplies and shipments, United States, 1909–1925

| Year beginning August | Old stocks on farms Aug. 1 ¹ | Crop. | | | Total supplies | Stocks on farms Mar. 1 following ¹ | Shipped out of country where grown ¹ |
|-------------------------|---|-------------|--------------------------------|----------------------|----------------|---|---|
| | | Quantity | Weight per bushel ² | Quality ³ | | | |
| | 1,000 bush. | 1,000 bush. | Pounds | Per cent | 1,000 bush. | 1,000 bush. | 1,000 bush. |
| 1909..... | 27,478 | 1,068,289 | 32.7 | 91.4 | 1,095,767 | 385,705 | 343,968 |
| 1910..... | 66,666 | 1,186,341 | 32.7 | 93.8 | 1,253,007 | 442,665 | 363,103 |
| 1911..... | 67,801 | 922,298 | 31.1 | 84.6 | 990,099 | 289,989 | 265,944 |
| 1912..... | 34,875 | 1,418,337 | 33.0 | 91.0 | 1,453,212 | 604,249 | 438,130 |
| 1913..... | 103,916 | 1,121,768 | 32.1 | 89.1 | 1,225,684 | 419,481 | 297,368 |
| 1914..... | 62,467 | 1,141,060 | 31.5 | 86.5 | 1,203,527 | 379,369 | 335,539 |
| 1915..... | 55,607 | 1,549,080 | 33.0 | 87.5 | 1,604,637 | 598,148 | 466,823 |
| 1916..... | 113,728 | 1,251,837 | 31.2 | 88.2 | 1,365,565 | 394,211 | 355,092 |
| 1917..... | 47,834 | 1,592,740 | 33.4 | 95.1 | 1,640,574 | 599,308 | 514,117 |
| 1918..... | 81,424 | 1,538,124 | 33.2 | 93.6 | 1,619,548 | 590,251 | 421,668 |
| 1919..... | 93,045 | 1,184,030 | 31.1 | 84.7 | 1,277,075 | 409,730 | 312,364 |
| 1920..... | 54,819 | 1,496,281 | 33.1 | 93.3 | 1,551,100 | 683,759 | 331,687 |
| 1921..... | 161,108 | 1,078,341 | 28.3 | 74.7 | 1,239,449 | 411,634 | 258,259 |
| 1922..... | 74,513 | 1,215,803 | 32.0 | 87.7 | 1,290,316 | 421,118 | 303,950 |
| 1923..... | 70,965 | 1,306,883 | 32.1 | 87.9 | 1,376,848 | 447,366 | 322,971 |
| 1924..... | 65,710 | 1,522,665 | 33.4 | 91.4 | 1,588,375 | 546,656 | 426,452 |
| 1925 ⁴ | 91,603 | 1,501,909 | 32.9 | 91.7 | 1,598,512 | 577,064 | 366,964 |

Division of Crop and Livestock Estimates.

¹ Based on percentage of crop as reported by crop reporters.

² Average weight per measured bushel as reported by crop reporters.

³ Per cent of a "high medium grade" as reported by crop reporters.

⁴ Preliminary.

TABLE 93.—Oats: Monthly marketings by farmers, as reported by about 3,500 mills and elevators, United States, 1917-1924

| Year beginning July | Percentage of year's receipts | | | | | | | | | | | | |
|------------------------|-------------------------------|------|-------|------|------|------|------|------|------|------|-----|------|--------|
| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Season |
| 1917..... | 4.7 | 16.4 | 13.5 | 11.1 | 7.7 | 7.8 | 8.3 | 8.9 | 7.1 | 6.5 | 4.0 | 4.9 | 100.0 |
| 1918..... | 8.0 | 19.6 | 11.9 | 9.9 | 7.2 | 6.7 | 6.7 | 4.5 | 5.5 | 6.3 | 7.0 | 6.7 | 100.0 |
| 1919..... | 14.4 | 18.4 | 10.1 | 9.2 | 5.8 | 8.3 | 8.2 | 6.6 | 4.9 | 4.3 | 5.2 | 4.6 | 100.0 |
| 1920..... | 8.3 | 18.7 | 13.8 | 9.5 | 5.5 | 5.8 | 6.6 | 6.6 | 6.0 | 4.6 | 6.8 | 7.8 | 100.0 |
| 1921..... | 15.1 | 16.5 | 11.8 | 7.9 | 5.3 | 6.1 | 7.3 | 6.9 | 5.6 | 4.3 | 7.2 | 6.0 | 100.0 |
| 1922..... | 8.9 | 15.7 | 11.9 | 10.1 | 7.8 | 8.6 | 7.4 | 7.1 | 6.5 | 4.7 | 5.4 | 5.9 | 100.0 |
| 1923..... | 7.0 | 17.7 | 14.1 | 11.5 | 6.8 | 7.6 | 7.7 | 7.9 | 5.2 | 4.8 | 4.8 | 4.9 | 100.0 |
| 1924..... | 14.0 | 20.7 | 17.8 | 11.5 | 5.6 | 4.8 | 4.7 | 3.5 | 3.9 | 3.9 | 5.0 | 4.6 | 100.0 |

Division of Crop and Livestock Estimates.

TABLE 94.—Oats: Receipts and shipments, 11 primary markets, 1909-1925

[Thousand bushels—i. e., 000 omitted]

| Year beginning August | Chicago | | Milwaukee | | Minneapolis | | Duluth | | St. Louis | | Toledo | |
|--------------------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|
| | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments | Re- ceipts | Ship- ments |
| 1900..... | 85,999 | 72,501 | 9,496 | 7,433 | 15,699 | 14,531 | 7,806 | 7,432 | 20,048 | 14,765 | 3,670 | 3,162 |
| 1910..... | 107,902 | 89,706 | 14,844 | 14,873 | 18,419 | 13,845 | 2,434 | 2,824 | 20,517 | 15,323 | 3,700 | 3,435 |
| 1911..... | 87,623 | 70,090 | 10,863 | 8,194 | 10,555 | 10,043 | 4,529 | 4,639 | 16,879 | 11,280 | 2,872 | 2,611 |
| 1912..... | 117,103 | 116,275 | 16,252 | 20,180 | 19,031 | 16,397 | 9,350 | 8,351 | 23,785 | 16,692 | 3,637 | 3,465 |
| 1913..... | 106,738 | 98,141 | 18,344 | 17,172 | 22,995 | 24,272 | 5,796 | 6,761 | 25,967 | 19,497 | 3,655 | 2,819 |
| Av. 1900-1913..... | 100,873 | 89,342 | 13,978 | 13,570 | 17,320 | 15,818 | 5,983 | 6,001 | 21,439 | 15,491 | 3,507 | 3,278 |
| 1914..... | 143,813 | 130,938 | 29,962 | 31,179 | 23,042 | 23,147 | 9,005 | 8,325 | 21,419 | 16,240 | 6,066 | 5,080 |
| 1915..... | 151,108 | 122,280 | 35,252 | 34,389 | 25,778 | 25,074 | 4,844 | 4,528 | 17,518 | 11,636 | 4,707 | 3,501 |
| 1916..... | 145,076 | 108,153 | 32,707 | 28,649 | 31,322 | 43,022 | 3,184 | 3,493 | 24,616 | 18,940 | 4,928 | 4,642 |
| 1917..... | 134,310 | 89,725 | 31,766 | 26,128 | 42,017 | 42,171 | 706 | 880 | 37,431 | 32,129 | 5,303 | 3,124 |
| 1918..... | 118,714 | 83,719 | 26,727 | 30,548 | 37,031 | 33,019 | 2,663 | 2,378 | 31,812 | 25,336 | 9,010 | 8,620 |
| 1919..... | 82,141 | 80,792 | 26,772 | 17,566 | 17,054 | 19,033 | 1,035 | 1,064 | 31,391 | 27,772 | 3,221 | 1,801 |
| 1920..... | 79,430 | 54,598 | 19,065 | 13,297 | 26,003 | 14,600 | 6,241 | 455 | 30,103 | 21,887 | 5,848 | 2,339 |
| Av. 1914-1920..... | 121,664 | 92,458 | 30,007 | 25,137 | 31,760 | 28,583 | 3,963 | 2,992 | 27,613 | 20,991 | 5,583 | 3,854 |
| 1921..... | 77,828 | 63,418 | 23,241 | 17,869 | 32,307 | 28,260 | 6,065 | 10,129 | 25,949 | 20,160 | 4,604 | 2,243 |
| 1922..... | 84,451 | 65,055 | 21,057 | 17,162 | 34,870 | 38,320 | 1,372 | 2,130 | 32,220 | 26,664 | 3,786 | 2,338 |
| 1923..... | 69,516 | 50,190 | 19,729 | 17,859 | 29,069 | 27,385 | 5,068 | 4,717 | 35,001 | 28,722 | 4,248 | 1,820 |
| 1924..... | 74,690 | 50,766 | 20,233 | 11,691 | 53,533 | 40,028 | 23,165 | 19,920 | 34,211 | 28,331 | 8,848 | 5,354 |
| 1924..... | | | | | | | | | | | | |
| August..... | 9,961 | 2,967 | 1,961 | 4,079 | 3,788 | 1,197 | 1,369 | 347 | 3,576 | 2,507 | 1,193 | 292 |
| September..... | 16,064 | 4,512 | 2,068 | 2,037 | 14,062 | 1,193 | 9,693 | 2,949 | 3,080 | 2,397 | 1,529 | 663 |
| October..... | 11,904 | 4,952 | 3,302 | 1,423 | 10,885 | 3,020 | 8,085 | 2,751 | 2,942 | 2,461 | 515 | 337 |
| November..... | 4,714 | 3,739 | 1,306 | 1,071 | 4,871 | 4,118 | 989 | 1,025 | 1,944 | 1,644 | 962 | 183 |
| December..... | 6,081 | 3,011 | 1,543 | 687 | 3,970 | 4,141 | 3,057 | 637 | 1,828 | 1,638 | 386 | 256 |
| 1925..... | | | | | | | | | | | | |
| January..... | 5,737 | 3,213 | 1,806 | 824 | 3,716 | 3,315 | 1,800 | 18 | 4,568 | 3,338 | 410 | 117 |
| February..... | 3,690 | 3,081 | 1,051 | 917 | 2,428 | 3,192 | 386 | ----- | 2,254 | 2,211 | 547 | 761 |
| March..... | 2,963 | 3,437 | 733 | 856 | 2,712 | 3,523 | 32 | 6 | 3,154 | 3,025 | 233 | 744 |
| April..... | 2,721 | 5,679 | 867 | 687 | 1,490 | 8,857 | 61 | 1,762 | 2,878 | 2,505 | 532 | 226 |
| May..... | 2,838 | 5,452 | 1,077 | 726 | 1,500 | 4,854 | 136 | 4,123 | 2,794 | 2,149 | 1,131 | 626 |
| June..... | 3,785 | 4,222 | 1,721 | 1,306 | 2,779 | 2,871 | 1,618 | 3,459 | 2,591 | 2,504 | 716 | 622 |
| July..... | 4,212 | 6,221 | 1,170 | 708 | 1,832 | 8,077 | 949 | 2,863 | 2,662 | 1,952 | 704 | 637 |
| 1926..... | | | | | | | | | | | | |
| August..... | 14,251 | 5,685 | 3,062 | 1,527 | 10,595 | 1,971 | 8,369 | 2,485 | 2,602 | 2,055 | 2,223 | 1,397 |
| September..... | 3,073 | 2,380 | 1,369 | 998 | 5,400 | 4,284 | 600 | 4,628 | 1,983 | 1,645 | 1,131 | 237 |
| October..... | 3,355 | 2,727 | 1,168 | 640 | 3,162 | 3,697 | 2,708 | 3,240 | 2,648 | 1,938 | 360 | 431 |
| November..... | 3,265 | 2,351 | 1,038 | 1,468 | 2,173 | 2,932 | 2,025 | 1,960 | 736 | 1,502 | 243 | 326 |
| December..... | 3,684 | 2,427 | 1,130 | 696 | 3,415 | 4,269 | 2,084 | 924 | 2,298 | 1,985 | 369 | 421 |

TABLE 94.—Oats: Receipts and shipments, 11 primary markets, 1909-1923—Con.

[Thousand bushels—i. e., 000 omitted]

| Year beginning August | Detroit | | Kansas City | | Peoria | | Omaha | | Indianapolis | | Total | |
|-----------------------|-----------|------------|-------------|------------|-----------|------------|-----------|------------|--------------|------------|-----------|------------|
| | Re-ceipts | Ship-ments | Re-ceipts | Ship-ments | Re-ceipts | Ship-ments | Re-ceipts | Ship-ments | Re-ceipts | Ship-ments | Re-ceipts | Ship-ments |
| 1909..... | 2,488 | 383 | 5,165 | 4,508 | 10,875 | 11,705 | (1) | (1) | (1) | (1) | 161,146 | 136,420 |
| 1910..... | 3,073 | 265 | 6,280 | 4,066 | 10,130 | 10,895 | (1) | (1) | (1) | (1) | 187,296 | 155,231 |
| 1911..... | 2,752 | 348 | 6,018 | 5,071 | 6,658 | 8,787 | 8,868 | 9,258 | 976 | 394 | 158,593 | 130,665 |
| 1912..... | 3,635 | 514 | 7,704 | 7,523 | 11,447 | 13,188 | 14,958 | 14,802 | 8,136 | 2,876 | 224,938 | 221,063 |
| 1913..... | 3,807 | 649 | 11,825 | 11,032 | 12,162 | 13,804 | 15,977 | 18,575 | 5,392 | 1,808 | 281,237 | 214,530 |
| Av. 1909-1913..... | 3,131 | 432 | 7,298 | 6,440 | 10,252 | 11,666 | ----- | ----- | ----- | ----- | 194,643 | 171,582 |
| 1914..... | 4,028 | 1,123 | 7,338 | 6,107 | 11,189 | 11,726 | 13,648 | 13,916 | 5,828 | 4,249 | 275,338 | 252,139 |
| 1915..... | 5,173 | 2,292 | 4,882 | 2,582 | 11,844 | 11,838 | 11,421 | 10,961 | 13,797 | 8,677 | 305,904 | 257,708 |
| 1916..... | 3,911 | 934 | 10,059 | 10,130 | 13,562 | 11,049 | 18,216 | 17,392 | 14,895 | 10,591 | 302,473 | 235,347 |
| 1917..... | 3,677 | 607 | 18,344 | 12,826 | 20,170 | 17,541 | 23,673 | 21,945 | 19,822 | 13,709 | 337,279 | 251,661 |
| 1918..... | 8,179 | 1,756 | 16,688 | 11,343 | 8,555 | 8,212 | 26,691 | 20,559 | 14,520 | 4,516 | 288,840 | 228,706 |
| 1919..... | 2,418 | 551 | 7,615 | 5,180 | 10,636 | 13,096 | 13,018 | 12,119 | 13,969 | 4,023 | 269,070 | 158,006 |
| 1920..... | 3,345 | 750 | 7,137 | 5,182 | 9,176 | 7,006 | 10,223 | 8,423 | 16,509 | 6,099 | 213,080 | 134,986 |
| Av. 1914-1920..... | 4,390 | 1,145 | 10,295 | 7,614 | 12,090 | 11,624 | 18,837 | 15,044 | 14,234 | 7,466 | 277,426 | 216,936 |
| 1921..... | 2,285 | 330 | 7,262 | 5,043 | 14,210 | 12,254 | 10,666 | 9,768 | 18,052 | 6,247 | 217,468 | 175,826 |
| 1922..... | 3,444 | 326 | 10,568 | 6,147 | 15,556 | 16,147 | 14,772 | 16,174 | 10,585 | 8,471 | 222,680 | 192,826 |
| 1923..... | 3,063 | 351 | 11,701 | 7,283 | 13,419 | 12,292 | 18,144 | 22,058 | 11,653 | 2,262 | 220,631 | 174,939 |
| 1924..... | 1,942 | 276 | 8,198 | 5,294 | 11,131 | 8,942 | 15,918 | 16,795 | 10,632 | 3,007 | 262,501 | 190,404 |
| 1924..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| August..... | 226 | 2 | 823 | 111 | 955 | 475 | 1,604 | 806 | 2,318 | 260 | 27,800 | 9,445 |
| September..... | 579 | 32 | 1,058 | 335 | 1,430 | 691 | 2,360 | 1,267 | 1,626 | 740 | 55,658 | 16,786 |
| October..... | 163 | 26 | 639 | 322 | 1,231 | 958 | 1,750 | 2,126 | 820 | 407 | 37,077 | 18,783 |
| November..... | 136 | 46 | 569 | 341 | 872 | 717 | 982 | 1,020 | 602 | 408 | 17,926 | 14,307 |
| December..... | 110 | 30 | 474 | 263 | 914 | 671 | 1,008 | 978 | 516 | 231 | 19,887 | 12,543 |
| 1925..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| January..... | 145 | 40 | 683 | 399 | 1,262 | 1,213 | 1,668 | 1,794 | 904 | 231 | 22,198 | 14,502 |
| February..... | 142 | 18 | 673 | 432 | 772 | 780 | 990 | 1,672 | 606 | 169 | 13,531 | 12,886 |
| March..... | 91 | 36 | 354 | 964 | 933 | 1,199 | 900 | 2,000 | 581 | 212 | 12,679 | 15,999 |
| April..... | 106 | 26 | 596 | 808 | 639 | 703 | 908 | 1,372 | 833 | 64 | 11,311 | 19,649 |
| May..... | 86 | 8 | 403 | 540 | 522 | 418 | 922 | 1,328 | 712 | 66 | 12,121 | 20,020 |
| June..... | 79 | 12 | 737 | 306 | 690 | 646 | 1,204 | 1,270 | 634 | 106 | 16,558 | 17,536 |
| July..... | 84 | ----- | 889 | 473 | 906 | 471 | 1,572 | 1,160 | 773 | 116 | 15,755 | 17,958 |
| August..... | 169 | ----- | 4,694 | 671 | 1,765 | 956 | 3,814 | 1,540 | 2,058 | 306 | 48,622 | 18,593 |
| September..... | 161 | ----- | 1,794 | 575 | 636 | 545 | 1,856 | 1,450 | 816 | 72 | 27,945 | 19,658 |
| October..... | 99 | ----- | 1,844 | 470 | 922 | 823 | 1,462 | 1,164 | 748 | 118 | 17,976 | 15,218 |
| November..... | 57 | ----- | 646 | 480 | 695 | 634 | 778 | 880 | 428 | 180 | 13,739 | 12,663 |
| December..... | 73 | 6 | 700 | 577 | 734 | 678 | 876 | 985 | 310 | 182 | 15,673 | 13,100 |

Division of Statistical and Historical Research. Compiled from the Chicago Daily Trade Bulletin and the annual reports of the Chicago Board of Trade.

¹ No report.

TABLE 95.—Oats: Visible supply in United States, 1st of month, 1909-1925

[Thousand bushels—i. e., 000 omitted]

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1909..... | 3,800 | 5,183 | 12,799 | 13,264 | 13,586 | 11,180 | 8,759 | 8,639 | 9,916 | 9,223 | 6,905 | 4,245 |
| 1910..... | 2,761 | 12,551 | 18,902 | 17,022 | 15,505 | 10,129 | 15,997 | 15,769 | 13,429 | 10,559 | 8,125 | 9,570 |
| 1911..... | 11,203 | 20,742 | 21,044 | 22,600 | 20,816 | 18,754 | 15,431 | 14,366 | 13,429 | 11,991 | 8,052 | 3,690 |
| 1912..... | 1,031 | 4,100 | 9,200 | 10,552 | 10,774 | 8,457 | 9,646 | 12,343 | 13,115 | 8,704 | 8,105 | 14,756 |
| 1913..... | 17,131 | 24,602 | 30,718 | 31,684 | 29,664 | 28,909 | 24,450 | 21,489 | 19,755 | 13,262 | 8,144 | 7,210 |
| Av. 1909-1913..... | 7,185 | 13,460 | 18,525 | 19,024 | 17,909 | 16,286 | 14,857 | 14,521 | 13,869 | 10,748 | 7,866 | 7,894 |
| 1914..... | 6,482 | 20,124 | 27,265 | 31,866 | 32,471 | 32,956 | 33,173 | 33,258 | 27,284 | 23,022 | 12,623 | 4,345 |
| 1915..... | 1,309 | 2,924 | 14,881 | 15,730 | 20,928 | 21,081 | 20,175 | 20,205 | 17,892 | 12,066 | 16,192 | 12,452 |
| 1916..... | 8,537 | 27,691 | 38,896 | 48,580 | 47,467 | 48,828 | 42,675 | 36,740 | 34,191 | 28,933 | 17,454 | 9,741 |
| 1917..... | 6,679 | 7,277 | 14,166 | 17,453 | 18,595 | 17,657 | 13,879 | 13,947 | 18,098 | 21,911 | 20,822 | 13,227 |
| 1918..... | 7,876 | 19,309 | 24,696 | 22,060 | 22,143 | 34,828 | 30,505 | 27,666 | 22,882 | 21,507 | 18,827 | 18,004 |
| 1919..... | 20,461 | 10,411 | 19,652 | 19,198 | 16,922 | 13,080 | 11,550 | 10,401 | 9,576 | 6,813 | 8,642 | 3,622 |
| 1920..... | 3,786 | 8,149 | 27,602 | 34,414 | 33,961 | 32,894 | 33,632 | 34,142 | 33,903 | 30,740 | 28,426 | 24,401 |
| Av. 1914-1920..... | 7,879 | 14,984 | 23,701 | 26,613 | 28,496 | 28,660 | 26,213 | 25,203 | 23,404 | 20,717 | 17,141 | 13,698 |
| 1921..... | 37,562 | 60,466 | 65,843 | 69,998 | 69,196 | 67,728 | 68,010 | 68,529 | 64,644 | 55,837 | 47,900 | 42,743 |
| 1922..... | 36,667 | 38,565 | 36,969 | 34,077 | 32,940 | 32,891 | 30,861 | 27,683 | 24,044 | 21,982 | 13,514 | 8,523 |
| 1923..... | 5,477 | 10,111 | 16,914 | 23,498 | 18,686 | 19,940 | 17,639 | 17,741 | 16,715 | 10,656 | 6,720 | 5,264 |
| 1924..... | 3,086 | 11,408 | 52,716 | 66,564 | 67,265 | 72,128 | 73,570 | 72,386 | 61,104 | 48,082 | 35,331 | 33,263 |
| 1925..... | 26,286 | 80,706 | 65,818 | 64,926 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from the Chicago Daily Trade Bulletin. Reported on the Saturday nearest the first of each month.

TABLE 96.—Oats: Classification of cars graded by licensed inspectors, all inspection points, 1919-1924.

| Year beginning August | Total of all classes and subclasses under each grade, annual inspections, by cars, 1919-1924 | | | | | | | | | | | | |
|--|--|---------|---------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|------|
| | Receipts | | | | | | Shipments | | | | | | |
| | 1 | 2 | 3 | 4 | Sample | Total | 1 | 2 | 3 | 4 | Sample | Total | |
| | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars |
| 1919..... | 5,062 | 82,094 | 96,030 | 15,887 | 2,589 | 173,221 | 3,167 | 41,094 | 62,704 | 4,100 | 692 | 111,817 | |
| 1920..... | 8,803 | 60,169 | 73,072 | 14,766 | 6,331 | 163,041 | 3,600 | 45,099 | 31,811 | 2,821 | 2,220 | 85,531 | |
| 1921..... | 2,519 | 31,643 | 105,103 | 31,774 | 6,664 | 177,703 | 2,384 | 49,117 | 72,955 | 4,305 | 1,675 | 130,436 | |
| 1922..... | 2,548 | 47,347 | 95,984 | 17,004 | 4,640 | 167,523 | 1,738 | 45,563 | 62,601 | 6,112 | 1,234 | 117,249 | |
| 1923..... | 2,724 | 41,530 | 90,759 | 22,643 | 11,307 | 168,963 | 1,263 | 34,056 | 49,152 | 6,650 | 2,620 | 93,750 | |
| 1924..... | 1,489 | 33,631 | 110,377 | 24,580 | 14,853 | 184,930 | 601 | 31,348 | 70,430 | 8,874 | 5,978 | 117,240 | |
| Total inspections by grade and class, Aug. 1, 1924, to July 31, 1925 | | | | | | | | | | | | | |
| Class: | | | | | | | | | | | | | |
| White..... | 814 | 23,280 | 108,500 | 23,585 | 13,537 | 175,696 | 421 | 29,689 | 69,971 | 8,747 | 5,739 | 114,567 | |
| Red..... | 411 | 3,460 | 1,513 | 792 | 379 | 6,555 | 145 | 1,508 | 439 | 112 | 5 | 2,204 | |
| Gray..... | 79 | 92 | 51 | 80 | 30 | 282 | 1 | 2 | 3 | 2 | ----- | 8 | |
| Black..... | 2 | 7 | 3 | 10 | 9 | 10 | ----- | ----- | ----- | ----- | ----- | 11 | |
| Mixed..... | 183 | 812 | 312 | 178 | 907 | 2,387 | 34 | 145 | 25 | 12 | 234 | 450 | |
| Total of all classes and subclasses under each grade, annual inspections, by percentage, 1919-1923 | | | | | | | | | | | | | |
| | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | Pr. ct. | |
| 1919..... | 3.3 | 30.0 | 55.4 | 9.2 | 2.1 | 100 | 2.8 | 36.8 | 56.1 | 3.7 | 0.6 | 100 | |
| 1920..... | 5.4 | 36.8 | 44.6 | 9.0 | 4.2 | 100 | 4.2 | 52.7 | 37.2 | 3.3 | 2.6 | 100 | |
| 1921..... | 1.4 | 17.8 | 59.1 | 17.9 | 3.8 | 100 | 1.8 | 37.7 | 55.9 | 3.3 | 1.3 | 100 | |
| 1922..... | 1.5 | 28.3 | 57.3 | 10.1 | 2.8 | 100 | 1.5 | 38.9 | 53.4 | 5.2 | 1.0 | 100 | |
| 1923..... | 1.6 | 24.6 | 53.7 | 13.4 | 6.7 | 100 | 1.4 | 36.3 | 52.4 | 7.1 | 2.8 | 100 | |
| 1924..... | 0.8 | 18.2 | 59.7 | 13.3 | 8.0 | 100 | .5 | 36.7 | 60.1 | 7.6 | 5.1 | 100 | |
| Total inspections by grade and class, Aug. 1, 1924, to July 31, 1925 | | | | | | | | | | | | | |
| Class: | | | | | | | | | | | | | |
| White..... | 0.5 | 16.6 | 61.8 | 13.4 | 7.7 | 100 | 0.4 | 25.9 | 61.1 | 7.6 | 5.0 | 100 | |
| Red..... | 6.3 | 52.8 | 23.0 | 12.1 | 5.8 | 100 | 6.6 | 68.2 | 19.9 | 5.1 | .2 | 100 | |
| Gray..... | 28.0 | 32.7 | 18.1 | 10.6 | 10.6 | 100 | 12.5 | 25.0 | 37.5 | 25.0 | ----- | 100 | |
| Black..... | 20.0 | 70.0 | 10.0 | ----- | ----- | 100 | ----- | 81.8 | 9.1 | 9.1 | ----- | 100 | |
| Mixed..... | 7.7 | 34.0 | 13.1 | 7.2 | 38.0 | 100 | 7.5 | 32.2 | 5.6 | 2.7 | 52.0 | 100 | |

Grain Division.

TABLE 97.—Oats: Estimated price per bushel, received by producers, United States, 1909-1925

| Year beginning August | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Weighted av. |
|-----------------------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|--------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1909..... | 46.2 | 41.6 | 41.0 | 40.6 | 41.5 | 43.9 | 45.5 | 45.8 | 44.4 | 43.2 | 42.0 | 41.9 | 43.0 |
| 1910..... | 40.0 | 37.3 | 36.6 | 34.6 | 33.8 | 33.2 | 33.0 | 32.6 | 32.8 | 34.0 | 36.1 | 38.8 | 35.7 |
| 1911..... | 40.3 | 41.4 | 43.2 | 44.4 | 45.0 | 46.3 | 48.6 | 50.9 | 54.0 | 55.6 | 53.9 | 48.4 | 46.2 |
| 1912..... | 39.0 | 34.3 | 33.6 | 32.6 | 32.0 | 32.3 | 32.8 | 33.1 | 33.6 | 35.1 | 36.8 | 37.6 | 34.5 |
| 1913..... | 38.4 | 39.4 | 38.8 | 38.6 | 39.2 | 39.2 | 39.1 | 39.2 | 39.5 | 39.8 | 39.4 | 37.8 | 39.0 |
| Av. 1909-1913..... | 40.9 | 38.8 | 38.4 | 38.2 | 38.3 | 39.0 | 39.8 | 40.3 | 40.9 | 41.5 | 41.8 | 40.9 | 39.6 |
| 1914..... | 39.5 | 42.8 | 43.1 | 43.4 | 44.4 | 47.6 | 51.1 | 52.8 | 53.4 | 52.4 | 49.0 | 46.0 | 45.9 |
| 1915..... | 42.0 | 36.5 | 34.7 | 35.5 | 37.6 | 41.8 | 43.6 | 42.4 | 42.3 | 42.4 | 41.2 | 40.2 | 39.4 |
| 1916..... | 41.6 | 43.8 | 46.8 | 50.7 | 51.9 | 53.8 | 56.0 | 59.2 | 66.2 | 70.4 | 69.4 | 71.3 | 53.8 |
| 1917..... | 87.7 | 62.0 | 62.0 | 64.2 | 70.2 | 76.3 | 82.4 | 87.6 | 87.4 | 82.0 | 77.2 | 74.6 | 72.1 |
| 1918..... | 71.6 | 70.6 | 69.6 | 69.6 | 70.8 | 67.6 | 63.4 | 64.2 | 68.4 | 71.0 | 71.0 | 73.1 | 69.4 |
| 1919..... | 73.5 | 70.0 | 68.6 | 69.6 | 74.3 | 80.4 | 83.6 | 87.6 | 94.5 | 100.6 | 103.7 | 93.2 | 79.9 |
| 1920..... | 76.0 | 65.4 | 57.6 | 59.2 | 45.8 | 43.7 | 41.8 | 40.6 | 38.0 | 37.4 | 36.8 | 34.7 | 51.0 |
| Av. 1914-1920..... | 58.8 | 55.9 | 54.6 | 54.8 | 55.4 | 58.7 | 60.3 | 62.1 | 64.3 | 65.2 | 64.0 | 61.9 | 61.6 |
| 1921..... | 52.0 | 30.6 | 30.1 | 29.7 | 30.6 | 31.9 | 34.7 | 36.6 | 37.2 | 38.2 | 37.8 | 36.2 | 33.0 |
| 1922..... | 53.6 | 35.4 | 36.4 | 33.8 | 32.8 | 41.6 | 42.4 | 43.6 | 45.3 | 46.3 | 43.7 | 40.2 | 39.1 |
| 1923..... | 37.6 | 38.0 | 39.4 | 40.8 | 42.6 | 43.4 | 45.4 | 46.2 | 46.5 | 46.3 | 46.8 | 49.4 | 42.4 |
| 1924..... | 40.1 | 47.1 | 48.9 | 47.4 | 50.6 | 54.0 | 53.4 | 49.7 | 44.7 | 45.4 | 48.3 | 45.3 | 48.7 |
| 1925..... | 40.7 | 38.1 | 37.2 | 37.6 | 39.1 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Crop and Livestock Estimates. Mean of prices reported on 1st of month and 1st of succeeding month, August, 1909-December, 1923.

TABLE 98.—*Oats, including oatmeal: International trade, average 1910-1914, annual 1925-1925*

[Thousand bushels—1. e., 000 omitted]

| Country | Year ended June 30— | | | | | | | |
|--------------------------------------|---------------------|-----------|-------------------|------------------|-------------------|----------|------------------|-----------|
| | Average 1910-1914 | | 1923 | | 1924 | | 1925 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 1 79 | 1 4, 102 | 590 | 561 | 277 | 7, 163 | 795 | 642 |
| Argentina..... | 1 55 | 1 42, 569 | | 25, 290 | | 36, 817 | | 48, 533 |
| Australia..... | 1 898 | 1 270 | 699 | 70 | 139 | 298 | | 1 274 |
| British India..... | 1 87 | 1 43 | | 67 | | 62 | | 50 |
| Bulgaria..... | | 173 | (⁹) | 487 | | 4 | | 10 |
| Canada..... | 84 | 15, 245 | 964 | 26, 115 | 186 | 35, 914 | 1, 069 | 42, 339 |
| Chile..... | 1 2 | 1 2, 409 | | 721 | | 1, 914 | | 3, 810 |
| Hungary..... | 1 1, 420 | 1 12, 416 | 1 12 | 1 1, 567 | 1 2 | 1 3, 571 | 1 274 | 1 519 |
| Rumania..... | 1 72 | 1 10, 493 | (1 ⁹) | 1 21, 075 | 2 | 4, 464 | 6 | 5, 433 |
| Russia..... | 1 206 | 70, 466 | | | | | | |
| Tunis..... | 1 2 | 1 2, 875 | 1 47 | 1 456 | (1 ⁹) | 1 2, 606 | 1 116 | 1 742 |
| United States..... | 5, 352 | 9, 655 | 293 | 25, 413 | 4, 244 | 8, 796 | 3, 041 | 16, 777 |
| Yugoslavia..... | | | | 1 15 | | 1 190 | | 1 470 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | 1 2, 295 | 1 114 | 1 4, 476 | 1 211 | 6, 048 | | 6, 683 | |
| Belgium..... | 8, 420 | 62 | 8, 960 | 238 | 6, 218 | 327 | 8, 285 | 113 |
| Ceylon..... | 1 90 | | | | 1 52 | | 1 52 | |
| Cuba..... | 1, 291 | | 1, 484 | 1, 699 | 1, 699 | | 1 883 | |
| Czechoslovakia..... | | | 815 | 70 | 2, 692 | 3, 236 | 2, 747 | 1, 432 |
| Denmark..... | 1 4, 687 | 1 152 | 969 | 326 | 2, 848 | 558 | 2, 621 | 488 |
| Egypt..... | | | (⁹) | (⁹) | 1 | | 2 | |
| Estonia..... | | | | | 1, 769 | | 242 | |
| Finland..... | 1 1, 150 | 1 356 | 500 | 421 | 5, 095 | 1 | 1, 297 | 15 |
| France..... | 29, 846 | 122 | 17, 541 | 1, 031 | 5, 341 | 3, 584 | 4, 068 | 960 |
| Germany..... | 37, 202 | 33, 575 | 7, 126 | 117 | 1, 356 | 5, 733 | 20, 076 | 7, 223 |
| Greece..... | | | 1 847 | | 1 212 | | 1 621 | |
| Irish Free State..... | | | | | | | 3, 351 | 10 2, 344 |
| Italy..... | 8, 158 | 65 | 12, 243 | 6 | 6, 240 | 22 | 8, 731 | 128 |
| Japan..... | 1 5 | 1 42 | 1 64 | | 1 1, 172 | | 1 258 | |
| Latvia..... | | | 1 189 | 1 1, 500 | 1 1, 495 | 1 98 | 1 604 | 1 402 |
| Netherlands..... | 1 38, 862 | 1 30, 771 | 5, 191 | 683 | 5, 971 | 604 | 5, 569 | 502 |
| Norway..... | 1 11 497 | 1 11 27 | 888 | 20 | 2, 677 | 4 | 1, 494 | 6 |
| Poland..... | | | 44 | 8 | 11 | 413 | 1 3, 592 | 1 9 |
| Sweden..... | 1 6, 468 | 1 1, 899 | 1, 437 | 1, 766 | 6, 878 | 521 | 3, 229 | 715 |
| Switzerland..... | 1 12, 464 | 1 13 | 10, 410 | 6 | 10, 036 | 7 | 9, 099 | 4 |
| Union of South Africa..... | 1 366 | 1 434 | 194 | 188 | 12 324 | 10 169 | 12 252 | 10 515 |
| United Kingdom..... | 68, 371 | 1 1, 591 | 36, 137 | 624 | 43, 137 | 1, 883 | 33, 760 | 10 1, 104 |
| Total 36 countries..... | 229, 429 | 240, 004 | 111, 870 | 109, 062 | 116, 120 | 118, 449 | 122, 717 | 136, 569 |

Division of Statistical and Historical Research. Official sources except as otherwise noted.

¹ Year ended July 1 as compiled by the International Institute of Agriculture.² Average of calendar years 1909-1913.³ International Institute of Agriculture.⁴ Average for the seasons 1911-12 to 1913-14.⁵ Less than 500 bushels.⁶ Eight months.⁷ Ten months ended May 31, International Institute of Agriculture.⁸ Eleven months, International Institute of Agriculture.⁹ Six months.¹⁰ Does not include oatmeal.¹¹ Season 1913-14.¹² Does not include oats.

TABLE 99.—Oats: Estimated price per bushel, received by producers, December 1, average 1909-1913, annual 1914-1926

| State | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------------------|----------------------|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|----------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| Maine..... | 53 | 57 | 45 | 67 | 85 | 90 | 92 | 85 | 74 | 55 | 47 | 56 | 65 | 55 | 56 |
| New Hampshire..... | 56 | 58 | 54 | 69 | 84 | 87 | 85 | 75 | 73 | 60 | 60 | 64 | 73 | 64 | 64 |
| Vermont..... | 52 | 55 | 53 | 65 | 85 | 90 | 90 | 75 | 73 | 59 | 56 | 63 | 69 | 59 | 61 |
| Massachusetts..... | 53 | 56 | 51 | 66 | 81 | 91 | 90 | 80 | 74 | 59 | 63 | 63 | 70 | 65 | 64 |
| Rhode Island..... | 51 | 58 | 50 | 68 | 75 | 90 | 95 | 80 | 74 | 60 | 60 | 60 | 75 | 65 | 64 |
| Connecticut..... | 51 | 55 | 55 | 69 | 79 | 90 | 88 | 75 | 73 | 60 | 65 | 62 | 70 | 61 | 64 |
| New York..... | 46 | 51 | 45 | 62 | 75 | 84 | 83 | 67 | 67 | 47 | 51 | 55 | 62 | 52 | 53 |
| New Jersey..... | 47 | 54 | 48 | 61 | 70 | 79 | 80 | 75 | 67 | 45 | 55 | 55 | 64 | 54 | 55 |
| Pennsylvania..... | 46 | 51 | 44 | 67 | 73 | 80 | 80 | 66 | 64 | 45 | 48 | 52 | 62 | 51 | 52 |
| Ohio..... | 39 | 45 | 36 | 53 | 64 | 70 | 72 | 50 | 56 | 38 | 45 | 45 | 52 | 39 | 42 |
| Indiana..... | 36 | 43 | 34 | 51 | 63 | 67 | 69 | 46 | 53 | 29 | 40 | 39 | 48 | 37 | 39 |
| Illinois..... | 36 | 44 | 35 | 51 | 65 | 67 | 70 | 43 | 54 | 29 | 39 | 39 | 47 | 35 | 38 |
| Michigan..... | 39 | 45 | 35 | 53 | 64 | 69 | 71 | 48 | 55 | 36 | 41 | 43 | 48 | 40 | 42 |
| Wisconsin..... | 37 | 43 | 36 | 51 | 66 | 67 | 70 | 49 | 55 | 33 | 39 | 43 | 48 | 38 | 40 |
| Minnesota..... | 33 | 40 | 32 | 47 | 63 | 63 | 64 | 36 | 49 | 23 | 32 | 34 | 43 | 31 | 33 |
| Iowa..... | 33 | 41 | 32 | 48 | 63 | 64 | 64 | 36 | 50 | 23 | 35 | 37 | 44 | 32 | 34 |
| Missouri..... | 40 | 44 | 38 | 53 | 61 | 70 | 71 | 49 | 55 | 30 | 44 | 45 | 51 | 44 | 43 |
| North Dakota..... | 33 | 37 | 27 | 44 | 62 | 61 | 67 | 35 | 48 | 21 | 26 | 28 | 36 | 27 | 28 |
| South Dakota..... | 33 | 38 | 28 | 46 | 61 | 59 | 63 | 33 | 47 | 20 | 32 | 31 | 40 | 28 | 30 |
| Nebraska..... | 35 | 40 | 31 | 47 | 61 | 65 | 65 | 37 | 49 | 21 | 34 | 34 | 43 | 36 | 34 |
| Kansas..... | 40 | 42 | 37 | 55 | 64 | 73 | 73 | 39 | 55 | 27 | 41 | 43 | 47 | 44 | 40 |
| Delaware..... | 47 | 50 | 51 | 62 | 78 | 87 | 90 | 70 | 70 | 46 | 57 | 60 | 66 | 65 | 59 |
| Maryland..... | 47 | 52 | 49 | 61 | 75 | 86 | 82 | 70 | 68 | 45 | 51 | 54 | 64 | 53 | 53 |
| Virginia..... | 52 | 58 | 55 | 63 | 84 | 100 | 100 | 81 | 77 | 56 | 59 | 63 | 72 | 70 | 64 |
| West Virginia..... | 52 | 55 | 51 | 64 | 79 | 91 | 91 | 79 | 73 | 52 | 58 | 63 | 73 | 62 | 62 |
| North Carolina..... | 62 | 65 | 62 | 74 | 93 | 108 | 106 | 96 | 86 | 70 | 67 | 74 | 84 | 76 | 74 |
| South Carolina..... | 69 | 71 | 67 | 80 | 100 | 118 | 110 | 103 | 93 | 73 | 76 | 82 | 97 | 90 | 84 |
| Georgia..... | 68 | 70 | 66 | 79 | 117 | 119 | 115 | 108 | 96 | 64 | 75 | 85 | 95 | 87 | 81 |
| Florida..... | 71 | 70 | 70 | 71 | 98 | 115 | 120 | 60 | 86 | 65 | 77 | 80 | 90 | 90 | 79 |
| Kentucky..... | 46 | 53 | 48 | 60 | 76 | 90 | 91 | 73 | 70 | 48 | 56 | 56 | 67 | 59 | 57 |
| Tennessee..... | 50 | 53 | 50 | 62 | 83 | 93 | 93 | 73 | 73 | 48 | 53 | 60 | 69 | 64 | 59 |
| Alabama..... | 65 | 69 | 63 | 75 | 102 | 107 | 105 | 88 | 87 | 65 | 75 | 80 | 87 | 78 | 77 |
| Mississippi..... | 62 | 65 | 60 | 74 | 94 | 107 | 105 | 87 | 85 | 64 | 66 | 76 | 85 | 78 | 74 |
| Arkansas..... | 52 | 53 | 52 | 68 | 75 | 88 | 88 | 78 | 72 | 45 | 57 | 62 | 64 | 58 | 57 |
| Louisiana..... | 57 | 63 | 55 | 68 | 94 | 99 | 100 | 82 | 80 | 70 | 69 | 68 | 83 | 80 | 74 |
| Oklahoma..... | 42 | 41 | 35 | 57 | 75 | 84 | 70 | 44 | 58 | 27 | 45 | 52 | 53 | 51 | 46 |
| Texas..... | 51 | 48 | 42 | 61 | 82 | 92 | 94 | 66 | 65 | 39 | 55 | 57 | 59 | 63 | 55 |
| Montana..... | 39 | 39 | 32 | 47 | 81 | 80 | 91 | 51 | 60 | 34 | 37 | 38 | 47 | 53 | 42 |
| Idaho..... | 40 | 38 | 34 | 54 | 77 | 94 | 98 | 68 | 66 | 32 | 46 | 44 | 58 | 43 | 45 |
| Wyoming..... | 45 | 48 | 43 | 60 | 80 | 80 | 112 | 62 | 69 | 38 | 40 | 47 | 58 | 46 | 46 |
| Colorado..... | 46 | 45 | 41 | 60 | 76 | 80 | 90 | 60 | 65 | 33 | 45 | 46 | 58 | 50 | 46 |
| New Mexico..... | 58 | 45 | 50 | 67 | 84 | 89 | 95 | 80 | 73 | 48 | 58 | 70 | 60 | 64 | 60 |
| Arizona..... | 70 | 70 | 64 | 80 | 96 | 120 | 100 | 96 | 89 | 65 | 68 | 80 | 81 | 75 | 74 |
| Utah..... | 47 | 43 | 45 | 61 | 85 | 97 | 98 | 80 | 73 | 37 | 47 | 58 | 70 | 62 | 55 |
| Nevada..... | 60 | 55 | 55 | 75 | 95 | 118 | 100 | 120 | 88 | 75 | 75 | 81 | 72 | 65 | 74 |
| Washington..... | 44 | 42 | 37 | 51 | 81 | 98 | 93 | 72 | 68 | 42 | 58 | 50 | 59 | 52 | 52 |
| Oregon..... | 44 | 45 | 37 | 49 | 75 | 96 | 92 | 65 | 66 | 38 | 57 | 45 | 61 | 51 | 50 |
| California..... | 58 | 53 | 50 | 72 | 85 | 94 | 95 | 80 | 76 | 51 | 64 | 60 | 87 | 61 | 65 |
| United States.. | 38.2 | 43.8 | 36.1 | 52.4 | 66.6 | 70.9 | 70.4 | 46.0 | 55.3 | 30.2 | 39.4 | 41.5 | 47.8 | 38.1 | 39.4 |

Division of Crop and Livestock Estimates.

TABLE 100.—Oats, No. 3 white: Weighted average price per bushel of reported cash sales, 1909-1925

CHICAGO¹

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Weighted average ² |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$0.38 | \$0.39 | \$0.40 | \$0.40 | \$0.44 | \$0.48 | \$0.47 | \$0.44 | \$0.42 | \$0.40 | \$0.38 | \$0.41 | \$0.42 |
| 1910..... | .35 | .34 | .32 | .32 | .32 | .33 | .31 | .31 | .32 | .34 | .39 | .44 | .33 |
| 1911..... | .41 | .45 | .47 | .48 | .47 | .50 | .52 | .53 | .57 | .55 | .53 | .49 | .50 |
| 1912..... | .33 | .33 | .33 | .32 | .33 | .33 | .33 | .32 | .35 | .38 | .40 | .40 | .35 |
| 1913..... | .42 | .43 | .40 | .40 | .40 | .39 | .39 | .39 | .39 | .40 | .40 | .37 | .40 |
| Av. 1909-1913..... | .38 | .39 | .38 | .38 | .39 | .41 | .40 | .40 | .41 | .41 | .42 | .42 | .40 |
| 1914..... | .42 | .48 | .46 | .48 | .49 | .53 | .58 | .57 | .57 | .54 | .49 | .53 | .50 |
| 1915..... | .41 | .34 | .36 | .36 | .42 | .48 | .45 | .42 | .44 | .43 | .39 | .41 | .41 |
| 1916..... | .44 | .46 | .49 | .55 | .53 | .57 | .56 | .61 | .69 | .70 | .67 | .78 | .54 |
| 1917..... | .61 | .60 | .60 | .65 | .77 | .82 | .89 | .93 | .89 | .77 | .77 | .77 | .71 |
| 1918..... | .70 | .72 | .69 | .72 | .72 | .65 | .58 | .63 | .70 | .69 | .70 | .78 | .70 |
| 1919..... | .73 | .68 | .70 | .73 | .82 | .86 | .86 | .93 | 1.01 | 1.09 | 1.13 | .91 | .80 |
| 1920..... | .70 | .62 | .54 | .51 | .48 | .44 | .42 | .42 | .36 | .39 | .37 | .34 | .51 |
| Av. 1914-1920..... | .57 | .56 | .55 | .57 | .60 | .62 | .62 | .64 | .67 | .66 | .65 | .65 | .60 |
| 1921..... | .32 | .35 | .31 | .33 | .34 | .34 | .36 | .36 | .38 | .38 | .37 | .36 | .35 |
| 1922..... | .32 | .38 | .42 | .43 | .44 | .43 | .44 | .45 | .46 | .45 | .43 | .40 | .41 |
| 1923..... | .38 | .40 | .43 | .43 | .44 | .46 | .48 | .47 | .48 | .48 | .51 | .54 | .45 |
| 1924..... | .50 | .48 | .50 | .50 | .58 | .58 | .53 | .48 | .42 | .45 | .49 | .44 | .50 |
| 1925..... | .41 | .39 | .39 | .40 | .42 | | | | | | | | |

KANSAS CITY³

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Weighted average ² |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$0.41 | \$0.41 | \$0.40 | \$0.39 | \$0.44 | \$0.48 | \$0.46 | \$0.45 | \$0.42 | \$0.40 | \$0.35 | \$0.40 | \$0.42 |
| 1910..... | .34 | .33 | .32 | .32 | .32 | .32 | .31 | .30 | .32 | .32 | .39 | .43 | .34 |
| 1911..... | .41 | .46 | .49 | .48 | .48 | .50 | .53 | .53 | .57 | .54 | .52 | .44 | .50 |
| 1912..... | .34 | .33 | .32 | .34 | .33 | .38 | .39 | .36 | .48 | .40 | .40 | .38 | .37 |
| 1913..... | .40 | .47 | .45 | .47 | .47 | .34 | .33 | .33 | .35 | .36 | .39 | .37 | .40 |
| Av. 1909-1913..... | .38 | .40 | .40 | .40 | .41 | .40 | .40 | .39 | .43 | .40 | .41 | .40 | .41 |
| 1914..... | .47 | .47 | .45 | .47 | .48 | .53 | .50 | .57 | .55 | .54 | .46 | .51 | .54 |
| 1915..... | .38 | .35 | .36 | .39 | .42 | .44 | .47 | .43 | .44 | .43 | .39 | .45 | .40 |
| 1916..... | .45 | .46 | .48 | .55 | .54 | .56 | .58 | .63 | .71 | .71 | .67 | .75 | .58 |
| 1917..... | .69 | .60 | .60 | .67 | .76 | .83 | .90 | .91 | .91 | .77 | .72 | .74 | .72 |
| 1918..... | .74 | .72 | .70 | .69 | .72 | .67 | .61 | .66 | .71 | .71 | .70 | .69 | .66 |
| 1919..... | .73 | .66 | .69 | .74 | .81 | .87 | .89 | .92 | 1.06 | 1.12 | 1.11 | .91 | .83 |
| 1920..... | .72 | .68 | .55 | .61 | .49 | .46 | .43 | .43 | .37 | .40 | .37 | .35 | .50 |
| Av. 1914-1920..... | .58 | .56 | .55 | .57 | .60 | .62 | .63 | .65 | .68 | .67 | .63 | .63 | .60 |
| 1921..... | .32 | .35 | .32 | .32 | .33 | .36 | .37 | .37 | .37 | .39 | .37 | .36 | .34 |
| 1922..... | .33 | .38 | .42 | .44 | .45 | .44 | .44 | .46 | .47 | .45 | .43 | .40 | .43 |
| 1923..... | .40 | .40 | .43 | .42 | .44 | .47 | .49 | .48 | .49 | .49 | .49 | .56 | .44 |
| 1924..... | .60 | .48 | .51 | .50 | .59 | .59 | .53 | .49 | .45 | .47 | .51 | .46 | .51 |
| 1925..... | .41 | .41 | .40 | .40 | .42 | | | | | | | | |

Division of Statistical and Historical Research.

¹ Compiled from the Chicago Daily Trade Bulletin.² Average of daily prices weighted by carlot sales.³ Compiled from Kansas City Daily Price Current.

TABLE 101.—Oats, No. 3 white: Weighted average price per bushel of reported cash sales, Minneapolis, 1909-1925

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Weighted average ¹ |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$0.36 | \$0.37 | \$0.36 | \$0.38 | \$0.41 | \$0.46 | \$0.45 | \$0.43 | \$0.40 | \$0.39 | \$0.36 | \$0.42 | \$0.39 |
| 1910..... | .35 | .36 | .30 | .31 | .30 | .31 | .29 | .29 | .32 | .33 | .37 | .42 | .33 |
| 1911..... | .41 | .44 | .46 | .46 | .46 | .48 | .50 | .52 | .54 | .54 | .50 | .47 | .47 |
| 1912..... | .34 | .31 | .31 | .29 | .30 | .31 | .31 | .30 | .32 | .35 | .38 | .38 | .33 |
| 1913..... | .40 | .40 | .37 | .37 | .37 | .36 | .36 | .37 | .36 | .38 | .38 | .35 | .38 |
| Av. 1909-1913..... | .37 | .38 | .36 | .36 | .37 | .38 | .38 | .38 | .39 | .40 | .40 | .41 | .38 |
| 1914..... | .42 | .46 | .44 | .46 | .46 | .52 | .56 | .56 | .55 | .52 | .46 | .50 | .48 |
| 1915..... | .37 | .33 | .34 | .35 | .40 | .46 | .45 | .41 | .42 | .42 | .38 | .38 | .38 |
| 1916..... | .44 | .44 | .47 | .53 | .49 | .55 | .56 | .60 | .67 | .69 | .66 | .75 | .52 |
| 1917..... | .55 | .58 | .58 | .62 | .76 | .81 | .88 | .92 | .88 | .74 | .75 | .74 | .71 |
| 1918..... | .68 | .69 | .65 | .69 | .69 | .64 | .56 | .60 | .68 | .66 | .66 | .74 | .66 |
| 1919..... | .70 | .65 | .67 | .69 | .80 | .83 | .82 | .89 | 1.08 | 1.05 | 1.15 | .94 | .80 |
| 1920..... | .66 | .58 | .51 | .47 | .44 | .41 | .39 | .39 | .33 | .36 | .34 | .34 | .48 |
| Av. 1914-1920..... | .55 | .53 | .52 | .54 | .58 | .60 | .60 | .62 | .66 | .63 | .63 | .63 | .58 |
| 1921..... | .31 | .33 | .28 | .29 | .30 | .32 | .35 | .34 | .35 | .36 | .33 | .32 | .32 |
| 1922..... | .29 | .33 | .38 | .39 | .41 | .40 | .40 | .41 | .42 | .41 | .39 | .36 | .36 |
| 1923..... | .35 | .37 | .40 | .39 | .40 | .43 | .45 | .44 | .45 | .45 | .47 | .51 | .40 |
| 1924..... | .48 | .45 | .47 | .46 | .54 | .53 | .50 | .44 | .39 | .42 | .46 | .41 | .47 |
| 1925..... | .38 | .36 | .35 | .36 | .38 | | | | | | | | |

Division of Statistical and Historical Research. Compiled from Minneapolis Daily Market Record.

¹ Average of daily prices weighted by car-lot sales.

TABLE 102.—Oats, No. 3 white: Price per pound expressed as percentage of price per pound for No. 3 yellow corn, Chicago, 1909-1925

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. |
| 1909..... | 95 | 99 | 119 | 119 | 130 | 131 | 131 | 126 | 129 | 117 | 113 | 116 | 119 |
| 1910..... | 96 | 103 | 112 | 114 | 124 | 128 | 121 | 121 | 112 | 110 | 124 | 122 | 116 |
| 1911..... | 110 | 118 | 113 | 124 | 135 | 141 | 142 | 136 | 128 | 122 | 124 | 126 | 127 |
| 1912..... | 73 | 78 | 89 | 108 | 126 | 126 | 120 | 114 | 111 | 117 | 117 | 113 | 108 |
| 1913..... | 90 | 100 | 100 | 97 | 106 | 110 | 110 | 107 | 102 | 100 | 97 | 91 | 102 |
| Av. 1909-1913..... | 96 | 100 | 107 | 112 | 124 | 127 | 126 | 121 | 116 | 113 | 115 | 114 | 114 |
| 1914..... | 90 | 106 | 110 | 125 | 134 | 131 | 137 | 138 | 133 | 123 | 116 | 119 | 122 |
| 1915..... | 89 | 80 | 97 | 100 | 106 | 114 | 106 | 101 | 101 | 100 | 92 | 89 | 98 |
| 1916..... | 91 | 94 | 89 | 98 | 101 | 102 | 98 | 98 | 86 | 77 | 69 | 69 | 89 |
| 1917..... | 52 | 50 | 52 | 51 | 70 | 81 | 86 | 96 | 94 | 84 | 83 | 79 | 74 |
| 1918..... | 71 | 80 | 86 | 95 | 87 | 80 | 80 | 72 | 76 | 69 | 69 | 71 | 73 |
| 1919..... | 66 | 77 | 87 | 87 | 98 | 100 | 103 | 103 | 105 | 94 | 105 | 101 | 94 |
| 1920..... | 73 | 83 | 104 | 116 | 114 | 118 | 117 | 119 | 111 | 114 | 103 | 99 | 106 |
| Av. 1914-1920..... | 77 | 81 | 89 | 96 | 102 | 104 | 104 | 104 | 101 | 94 | 91 | 90 | 94 |
| 1921..... | 100 | 116 | 121 | 123 | 127 | 124 | 115 | 111 | 115 | 107 | 106 | 98 | 114 |
| 1922..... | 90 | 104 | 106 | 106 | 105 | 108 | 107 | 108 | 102 | 96 | 90 | 80 | 100 |
| 1923..... | 76 | 79 | 72 | 92 | 108 | 106 | 108 | 107 | 109 | 109 | 109 | 87 | 97 |
| 1924..... | 73 | 74 | 80 | 79 | 85 | 82 | 76 | 72 | 70 | 68 | 76 | 71 | 76 |
| 1925..... | 70 | 75 | 83 | 84 | 97 | | | | | | | | |

Division of Statistical and Historical Research. Compiled from the Chicago Daily Trade Bulletin.

TABLE 103.—Oats futures: Volume of trading, six markets, by calendar years, 1921 to 1924

[Thousand bushels—i. e., 000 omitted]

| Market | 1921 | | 1922 | | 1923 | | 1924 | |
|---------------------------------|-----------|-------------------|-----------|-------------------|---------|-------------------|-----------|-------------------|
| | Volume | Per cent of total | Volume | Per cent of total | Volume | Per cent of total | Volume | Per cent of total |
| Chicago Board of Trade | 2,653,688 | 89.29 | 1,559,923 | 88.10 | 788,308 | 87.82 | 1,766,040 | 91.16 |
| Chicago Open Board of Trade | 55,997 | 1.88 | 12,659 | .72 | 4,744 | .53 | 14,077 | .73 |
| Minneapolis Chamber of Commerce | 237,679 | 8.00 | 173,962 | 9.83 | 92,289 | 10.28 | 143,670 | 7.41 |
| Kansas City Board of Trade | 7,382 | .25 | 8,586 | .48 | 2,375 | .27 | 1,727 | .09 |
| St. Louis Merchants Exchange | 1,710 | .06 | 3,080 | .17 | 625 | .07 | (1) | ----- |
| Milwaukee Chamber of Commerce | 15,353 | .52 | 12,339 | .70 | 9,270 | 1.03 | 11,907 | .61 |
| Total | 2,971,809 | 100.00 | 1,770,649 | 100.00 | 897,606 | 100.00 | 1,938,321 | 100.00 |

Grain Futures Administration.

1 No trading.

TABLE 104.—Oats futures: Volume of trading in principal futures, by months, Chicago Board of Trade, July 1, 1924, to June 30, 1925

[Thousand bushels—i. e., 000 omitted]

| Month | July oats | September oats | December oats | May oats | Other oats futures | All futures |
|-------------|-----------|----------------|---------------|-----------|--------------------|-------------|
| 1924 | | | | | | |
| July | 7,687 | 89,946 | 50,120 | 8,364 | ----- | 156,117 |
| August | ----- | 70,924 | 139,548 | 38,827 | ----- | 249,299 |
| September | ----- | 12,235 | 90,873 | 68,789 | ----- | 171,897 |
| October | 3,104 | ----- | 106,521 | 188,406 | 130 | 298,161 |
| November | 5,423 | ----- | 41,648 | 128,275 | ----- | 175,346 |
| December | 18,226 | 5 | 11,898 | 342,260 | 15 | 372,404 |
| 1925 | | | | | | |
| January | 38,201 | 24,357 | ----- | 263,591 | 20 | 326,169 |
| February | 59,208 | 33,721 | ----- | 217,515 | ----- | 310,444 |
| March | 74,130 | 41,644 | ----- | 189,374 | 45 | 306,093 |
| April | 86,307 | 28,972 | ----- | 104,082 | 340 | 219,671 |
| May | 68,946 | 41,630 | 2,842 | 26,010 | 5 | 138,333 |
| June | 52,391 | 150,206 | 59,025 | ----- | 35 | 261,667 |
| Total | 413,623 | 492,940 | 501,975 | 1,575,463 | 590 | 2,984,591 |

Grain Futures Administration.

BARLEY

TABLE 105.—Barley: Acreage, production, value, exports, etc., United States, 1909-1925

| Year | Acreage harvested | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Chicago, cash price per bushel, low malting to fancy ² | | | | Domestic exports, fiscal year beginning July 1 ³ |
|-------------------|-------------------|------------------------|---------------|---|-------------------|-----------------------------|---|-------|---------------|-------|---|
| | | | | | | | December | | Following May | | |
| | | | | | | | Low | High | Low | High | |
| | 1,000 acres | Bushels of 48 lbs. | 1,000 bushels | Cents | 1,000 dollars | Dollars | Cts. | Cts. | Cts. | Cts. | Bushels |
| 1909 | 7,699 | 24.4 | 187,973 | 54.8 | 102,947 | 13.37 | 55 | 72 | 50 | 68 | 4,311,566 |
| 1910 | 7,743 | 22.5 | 173,832 | 57.8 | 100,426 | 12.97 | 72 | 90 | 75 | 115 | 9,399,346 |
| 1911 | 7,627 | 21.0 | 160,240 | 86.9 | 139,182 | 18.25 | 102 | 130 | 68 | 132 | 1,585,242 |
| 1912 | 7,530 | 29.7 | 223,824 | 50.5 | 112,957 | 15.00 | 43 | 77 | 45 | 68 | 17,536,703 |
| 1913 | 7,499 | 23.8 | 178,189 | 53.7 | 96,731 | 12.77 | 50 | 79 | 51 | 66 | 6,644,747 |
| Av. 1909-1913 | 7,620 | 24.3 | 184,812 | 59.7 | 110,249 | 14.47 | 64.4 | 89.6 | 57.8 | 89.8 | 7,895,521 |
| 1914 | 7,565 | 25.8 | 194,953 | 54.3 | 105,903 | 14.00 | 60 | 75 | 74½ | 82 | 26,754,522 |
| 1915 | 7,148 | 32.0 | 228,851 | 51.6 | 118,172 | 16.53 | 62 | 77 | 70 | 83 | 27,473,160 |
| 1916 | 7,757 | 23.5 | 182,309 | 88.1 | 160,646 | 20.71 | 95 | 125 | 128 | 165 | 16,381,077 |
| 1917 | 8,933 | 23.7 | 211,759 | 113.7 | 240,758 | 26.95 | 125 | 163 | 105 | 176 | 26,285,378 |
| 1918 | 9,740 | 26.3 | 256,225 | 91.7 | 234,942 | 24.12 | 88 | 105 | 110 | 130 | 23,367,001 |
| 1919 | 6,720 | 22.0 | 147,608 | 120.6 | 178,680 | 26.50 | 125 | 168 | 140 | 190 | 26,741,704 |
| 1920 | 7,600 | 24.9 | 189,332 | 71.3 | 135,083 | 17.77 | 50 | 98 | 56 | 75 | 20,457,248 |
| Av. 1914-1920 | 7,923 | 25.4 | 201,577 | 83.2 | 167,655 | 21.16 | 86.4 | 115.9 | 97.6 | 128.7 | 23,922,870 |
| 1921 | 7,414 | 20.9 | 154,946 | 41.9 | 64,934 | 8.76 | 48 | 64 | 62 | 75 | 22,400,393 |
| 1922 | 7,317 | 24.9 | 182,068 | 52.5 | 96,560 | 13.06 | 66 | 75 | 63 | 72 | 18,192,809 |
| 1923 | 7,835 | 25.2 | 197,691 | 54.1 | 107,038 | 13.66 | 80 | 100 | 69 | 90 | 11,298,733 |
| 1924 | 6,858 | 26.0 | 178,322 | 73.9 | 131,704 | 19.20 | 54 | 81 | 80 | 95 | 23,653,118 |
| 1925 ⁴ | 8,243 | 26.4 | 218,002 | 58.6 | 127,653 | 15.49 | 58 | | | | |

Division of Crop and Livestock Estimates.

¹ Based on farm price Dec. 1.

² Chicago Daily Trade Bulletin.

³ From reports of Bureau of Foreign and Domestic Commerce, 1909-1918 and June issues of Monthly Summaries of Foreign Commerce of the United States 1919-1925. Barley included. Barley flour since 1918.

⁴ Preliminary.

TABLE 106.—Barley: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1909-1924

| Year | Adverse weather conditions | | | | | | | | | Plant diseases | Insect pests | Animal pests | Defective seed | Other and unknown causes | Total |
|------|----------------------------|--------------------|------------|-----------------|------------|------------|------------|----------------|----------------|----------------|--------------|--------------|----------------|--------------------------|-------------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | |
| 1909 | F. ct. 8.9 | P. ct. 3.6 | P. ct. 0.3 | P. ct. 1.0 | P. ct. 2.1 | P. ct. 2.3 | P. ct. 0.8 | P. ct. 0.2 | P. ct. 19.0 | P. ct. 1.4 | P. ct. 0.4 | P. ct. 0.5 | P. ct. 0.2 | P. ct. 1.3 | P. ct. 22.8 |
| 1910 | 34.0 | .2 | .1 | .9 | .9 | 4.3 | .1 | 0.2 | 40.7 | .4 | .8 | .6 | .1 | .5 | 43.1 |
| 1911 | 29.6 | 1.2 | | .8 | .4 | 5.7 | .1 | .3 | 38.1 | .9 | .9 | .3 | .2 | .9 | 41.3 |
| 1912 | 8.4 | 1.8 | | .9 | 1.9 | 1.7 | .5 | .6 | 15.9 | .9 | .5 | .5 | .4 | 1.4 | 19.6 |
| 1913 | 24.9 | .7 | .1 | .4 | 1.0 | 3.2 | .3 | .5 | 31.1 | .2 | 1.2 | .2 | .2 | 1.4 | 34.3 |
| 1914 | 8.2 | 2.6 | .2 | .6 | 1.5 | 4.6 | .4 | .3 | 18.4 | 2.3 | .6 | .2 | .1 | 1.1 | 22.7 |
| 1915 | 1.3 | 3.2 | .3 | .7 | 1.7 | .3 | .5 | | 8.0 | .9 | .2 | .2 | .1 | .6 | 10.0 |
| 1916 | 8.0 | 3.4 | | .7 | 1.5 | 5.0 | .5 | .8 | 20.2 | 8.5 | .7 | .1 | .1 | 1.0 | 30.6 |
| 1917 | 26.6 | .8 | (1) | 1.0 | 1.1 | 2.3 | .2 | .1 | 32.1 | .6 | .4 | .2 | .1 | .3 | 35.6 |
| 1918 | 20.7 | .4 | .1 | .7 | 1.1 | 2.3 | .3 | .3 | 26.9 | .6 | 1.6 | .2 | (1) | .5 | 28.8 |
| 1919 | 18.0 | 3.4 | .5 | .2 | 1.8 | 3.8 | .3 | .2 | 28.2 | 5.3 | 4.3 | .1 | .2 | .4 | 38.5 |
| 1920 | 10.4 | 2.2 | .2 | .5 | 1.1 | 2.0 | .2 | .2 | 16.8 | 3.0 | 1.3 | .1 | .1 | .4 | 21.7 |
| 1921 | 20.2 | 1.4 | .1 | 1.3 | 1.2 | 6.6 | .5 | .1 | 31.4 | 2.9 | 1.3 | .1 | | .3 | 36.0 |
| 1922 | 13.5 | 1.3 | .1 | .5 | 1.6 | 1.6 | .2 | .2 | 19.0 | 1.3 | 1.4 | .1 | .1 | .3 | 22.2 |
| 1923 | 10.7 | 1.2 | .1 | .7 | 1.5 | 2.1 | .3 | | 16.6 | 2.8 | .9 | .1 | .1 | .3 | 20.8 |
| 1924 | 14.2 | 1.3 | .2 | .8 | 1.7 | .6 | .5 | .1 | 19.4 | .9 | .9 | .1 | .1 | .2 | 21.6 |

Division of Crop and Livestock Estimates.

¹ Less than 0.05 per cent.

TABLE 107.—Barley: Acreage, production, and total farm value, by States, 1924 and 1925

| State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|---------------------|--------------------|-------------------|----------------------------------|-------------------|---|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| Maine..... | 4 | 5 | 104 | 175 | 112 | 140 |
| New Hampshire..... | 1 | 1 | 26 | 28 | 27 | 24 |
| Vermont..... | 9 | 10 | 279 | 320 | 287 | 266 |
| New York..... | 140 | 163 | 4,284 | 4,727 | 3,898 | 3,640 |
| New Jersey..... | 1 | 1 | 29 | 27 | 27 | 24 |
| Pennsylvania..... | 14 | 19 | 371 | 484 | 334 | 416 |
| Ohio..... | 55 | 110 | 1,540 | 3,410 | 1,309 | 2,387 |
| Indiana..... | 19 | 25 | 456 | 575 | 351 | 408 |
| Illinois..... | 225 | 270 | 7,200 | 8,910 | 5,400 | 5,613 |
| Michigan..... | 115 | 128 | 3,370 | 3,087 | 2,696 | 2,223 |
| Wisconsin..... | 391 | 461 | 12,512 | 16,965 | 9,759 | 11,197 |
| Minnesota..... | 924 | 1,121 | 29,568 | 33,630 | 20,402 | 17,488 |
| Iowa..... | 136 | 184 | 4,216 | 5,704 | 2,951 | 3,251 |
| Missouri..... | 4 | 5 | 100 | 155 | 82 | 147 |
| North Dakota..... | 1,446 | 1,908 | 36,150 | 42,630 | 22,413 | 18,460 |
| South Dakota..... | 790 | 908 | 21,330 | 23,608 | 13,651 | 11,006 |
| Nebraska..... | 251 | 233 | 6,275 | 5,682 | 3,953 | 3,067 |
| Kansas..... | 447 | 380 | 7,376 | 4,284 | 4,794 | 2,491 |
| Maryland..... | 11 | 15 | 363 | 495 | 338 | 431 |
| Virginia..... | 15 | 16 | 405 | 416 | 425 | 404 |
| North Carolina..... | 7 | 10 | 161 | 230 | 177 | 278 |
| Kentucky..... | 5 | 6 | 120 | 156 | 121 | 148 |
| Tennessee..... | 20 | 22 | 400 | 506 | 440 | 557 |
| Oklahoma..... | 209 | 126 | 4,807 | 1,764 | 3,365 | 1,323 |
| Texas..... | 166 | 116 | 4,150 | 635 | 3,154 | 752 |
| Montana..... | 104 | 156 | 2,600 | 3,276 | 1,794 | 2,359 |
| Idaho..... | 118 | 124 | 3,658 | 5,456 | 3,000 | 3,055 |
| Wyoming..... | 25 | 34 | 725 | 1,122 | 522 | 694 |
| Colorado..... | 327 | 410 | 6,540 | 8,610 | 4,709 | 4,994 |
| New Mexico..... | 6 | 5 | 90 | 85 | 54 | 72 |
| Arizona..... | 20 | 20 | 600 | 700 | 528 | 700 |
| Utah..... | 14 | 18 | 399 | 774 | 347 | 658 |
| Nevada..... | 6 | 8 | 239 | 384 | 263 | 315 |
| Washington..... | 70 | 91 | 1,582 | 3,094 | 1,245 | 2,104 |
| Oregon..... | 65 | 96 | 1,430 | 3,168 | 1,430 | 2,313 |
| California..... | 698 | 1,040 | 14,867 | 32,240 | 17,246 | 24,180 |
| United States..... | 6,858 | 8,243 | 178,322 | 218,002 | 131,704 | 127,663 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 108.—Barley: Yield per acre, by States, 1909-1926

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------|------|------|------|------|--------|----------------------|------|------|------|------|--------|----------|--------|----------------------|------|------|------|--------|--------|----------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| Me. | 28.5 | 31.0 | 28.0 | 26.2 | 28.0 | 28.8 | 30.0 | 26.5 | 26.0 | 21.0 | 26.0 | 28.0 | 26.0 | 26.1 | 26.0 | 28.0 | 30.0 | 26.0 | 28.0 | 29.0 |
| N. H. | 25.0 | 26.0 | 24.0 | 28.0 | 28.0 | 26.2 | 32.0 | 30.0 | 28.0 | 25.0 | 32.0 | 24.0 | 26.0 | 26.3 | 23.0 | 28.0 | 26.0 | 26.0 | 28.0 | 26.3 |
| Vt. | 30.0 | 31.0 | 30.0 | 33.5 | 32.0 | 31.7 | 34.5 | 35.0 | 27.5 | 29.0 | 31.0 | 25.0 | 28.0 | 30.0 | 25.0 | 29.0 | 29.0 | 33.0 | 32.0 | 29.2 |
| N. Y. | 24.8 | 28.3 | 25.0 | 26.0 | 26.7 | 26.2 | 28.0 | 32.0 | 23.0 | 32.0 | 31.5 | 22.0 | 29.0 | 27.7 | 21.0 | 26.0 | 26.0 | 33.0 | 32.0 | 26.7 |
| Pa. | 21.8 | 26.5 | 25.0 | 27.5 | 26.0 | 26.4 | 28.0 | 29.5 | 25.0 | 28.0 | 28.0 | 24.5 | 24.0 | 26.7 | 21.5 | 25.5 | 22.0 | 26.5 | 25.5 | 24.3 |
| Ohio. | 25.9 | 28.5 | 27.2 | 23.1 | 24.0 | 27.8 | 25.0 | 31.0 | 27.8 | 33.0 | 31.5 | 23.0 | 27.7 | 28.4 | 26.0 | 19.5 | 27.0 | 28.0 | 31.0 | 26.3 |
| Ind. | 23.5 | 27.0 | 26.5 | 29.8 | 25.0 | 26.8 | 25.0 | 28.0 | 27.0 | 30.0 | 37.0 | 25.0 | 27.0 | 28.5 | 19.0 | 17.0 | 23.0 | 24.0 | 23.0 | 21.2 |
| Ill. | 28.0 | 30.0 | 28.0 | 31.5 | 28.0 | 28.7 | 29.5 | 34.0 | 32.0 | 37.0 | 33.0 | 27.0 | 30.0 | 32.3 | 26.0 | 29.5 | 29.0 | 32.0 | 33.0 | 30.0 |
| Mich. | 24.7 | 26.0 | 24.0 | 26.0 | 24.8 | 25.1 | 26.0 | 29.5 | 24.5 | 24.0 | 43.0 | 17.0 | 26.0 | 25.3 | 17.5 | 25.7 | 24.0 | 29.0 | 32.4 | 24.2 |
| Wis. | 28.0 | 25.9 | 26.5 | 29.4 | 25.0 | 26.8 | 27.3 | 35.5 | 30.0 | 32.0 | 35.7 | 26.5 | 31.7 | 31.2 | 22.5 | 32.1 | 28.5 | 32.0 | 36.8 | 30.4 |
| Minn. | 23.6 | 21.0 | 19.0 | 28.0 | 24.0 | 23.2 | 22.0 | 33.0 | 19.0 | 27.0 | 31.0 | 20.0 | 25.0 | 25.1 | 20.0 | 26.5 | 25.0 | 32.0 | 33.0 | 26.7 |
| Iowa. | 22.0 | 25.0 | 21.0 | 31.0 | 25.0 | 25.9 | 26.0 | 31.0 | 23.0 | 33.0 | 31.5 | 25.5 | 27.5 | 29.4 | 23.5 | 28.0 | 28.0 | 31.0 | 31.0 | 28.5 |
| Mo. | 25.0 | 27.0 | 26.0 | 24.8 | 22.0 | 23.8 | 24.0 | 25.0 | 20.0 | 25.0 | 25.0 | 30.0 | 26.0 | 25.3 | 22.0 | 23.0 | 22.0 | 26.0 | 31.0 | 25.6 |
| N. Dak. | 21.0 | 5.5 | 19.0 | 39.0 | 30.0 | 19.2 | 19.5 | 32.0 | 15.5 | 51.2 | 52.1 | 11.5 | 51.8 | 18.6 | 15.5 | 25.5 | 17.5 | 52.0 | 22.5 | 21.2 |
| S. Dak. | 19.5 | 18.2 | 8.4 | 26.0 | 17.5 | 17.3 | 23.0 | 32.0 | 22.7 | 72.7 | 0.2 | 29.0 | 25.0 | 25.9 | 17.0 | 23.0 | 22.5 | 57.0 | 26.0 | 23.1 |
| Nebr. | 22.0 | 18.5 | 11.0 | 22.0 | 16.0 | 17.9 | 23.0 | 31.0 | 28.0 | 26.5 | 16.5 | 25.7 | 29.0 | 26.7 | 24.7 | 18.0 | 28.0 | 25.0 | 24.3 | 24.0 |
| Kans. | 18.0 | 18.0 | 6.5 | 23.5 | 8.1 | 14.8 | 24.5 | 31.0 | 16.0 | 8.0 | 10.0 | 27.0 | 25.4 | 20.3 | 20.0 | 17.3 | 22.0 | 21.6 | 51.1 | 17.5 |
| Md. | 32.0 | 31.0 | 23.0 | 27.0 | 29.0 | 28.4 | 33.0 | 34.0 | 32.0 | 25.0 | 31.0 | 33.0 | 27.5 | 30.8 | 30.0 | 32.0 | 33.0 | 33.0 | 33.0 | 32.2 |
| Va. | 28.0 | 28.0 | 23.0 | 28.0 | 26.0 | 26.4 | 26.0 | 29.0 | 27.7 | 53.0 | 27.0 | 25.0 | 27.0 | 27.4 | 23.0 | 27.5 | 27.0 | 27.0 | 26.0 | 26.1 |
| Ky. | 24.0 | 24.0 | 23.0 | 26.0 | 26.6 | 25.9 | 28.5 | 30.0 | 26.0 | 28.0 | 26.0 | 25.0 | 28.0 | 27.6 | 24.0 | 28.0 | 27.0 | 24.0 | 26.0 | 25.8 |
| Tenn. | 24.0 | 23.0 | 28.0 | 26.0 | 25.2 | 25.2 | 27.0 | 24.0 | 23.7 | 71.5 | 0.2 | 30.0 | 23.0 | 22.2 | 21.0 | 22.5 | 23.0 | 20.0 | 23.0 | 21.9 |
| Okla. | 23.0 | 30.0 | 0.10 | 0.20 | 0.90 | 18.4 | 25.0 | 26.5 | 51.2 | 51.8 | 0.17 | 0.30 | 0.24.0 | 21.9 | 22.0 | 21.0 | 22.0 | 0.20 | 0.14.0 | 19.6 |
| Tex. | 19.4 | 30.0 | 0.18 | 0.29 | 3.24.0 | 24.1 | 25.0 | 28.0 | 0.17 | 0.20 | 0.17 | 0.36 | 0.23.0 | 23.6 | 24.0 | 19.0 | 0.94 | 0.25.0 | 7.2.0 | 19.8 |
| Mont. | 38.0 | 28.0 | 34.0 | 53.6 | 53.1.0 | 33.6 | 30.0 | 34.0 | 28.0 | 0.15 | 0.22.0 | 5.6.18.0 | 21.0 | 21.9 | 20.0 | 23.0 | 23.5 | 5.25 | 0.21.0 | 23.4 |
| Idaho. | 40.0 | 33.0 | 0.42 | 0.43 | 5.42.0 | 40.1 | 38.0 | 40.0 | 53.0 | 0.29 | 0.28 | 0.26 | 0.35.0 | 33.6 | 32.0 | 34.0 | 0.43 | 0.31 | 0.44.0 | 30.8 |
| Wyo. | 31.0 | 30.0 | 0.34 | 0.34 | 0.30.5 | 31.9 | 33.0 | 33.0 | 0.33 | 0.36 | 0.37 | 0.11 | 0.36.0 | 32.3 | 32.0 | 28.0 | 0.30 | 0.29 | 0.33.0 | 29.8 |
| Colo. | 36.0 | 32.0 | 0.29 | 0.33 | 0.32.5 | 38.3 | 38.0 | 33.0 | 0.32 | 0.33 | 0.18 | 0.19 | 0.24.5 | 33.0 | 22.0 | 19.0 | 0.29 | 0.20 | 0.21.0 | 22.2 |
| N. Mex. | 40.0 | 25.0 | 0.33 | 0.33 | 0.24.0 | 31.4 | 34.0 | 33.0 | 0.28 | 0.28 | 0.28 | 0.23 | 0.23.0 | 35.3 | 34.0 | 16.0 | 0.19 | 0.16 | 0.17.0 | 18.0 |
| Ariz. | 40.0 | 34.0 | 0.36 | 0.40 | 0.39.0 | 38.3 | 36.0 | 37.0 | 0.36 | 0.36 | 0.34 | 0.35 | 0.34.0 | 35.1 | 32.0 | 33.0 | 0.33 | 0.30 | 0.35.0 | 29.8 |
| Utah. | 40.0 | 36.0 | 0.43 | 0.43 | 0.38.5 | 40.5 | 46.0 | 42.0 | 0.38 | 0.37 | 0.35 | 0.22 | 0.31.2 | 35.7 | 32.0 | 35.0 | 0.40 | 0.28 | 0.43.0 | 35.8 |
| Nev. | 38.0 | 0.40 | 0.40 | 0.41 | 0.41.0 | 40.0 | 47.0 | 43.0 | 0.41 | 0.35 | 0.34 | 0.26 | 0.53.0 | 37.4 | 31.1 | 29.4 | 0.25 | 0.43 | 0.48.0 | 34.7 |
| Wash. | 39.5 | 32.0 | 0.37 | 0.43 | 0.40.5 | 37.8 | 39.0 | 41.0 | 0.41 | 0.32 | 0.15 | 0.30 | 0.35.3 | 33.0 | 36.5 | 24.0 | 0.46 | 0.72 | 0.34.0 | 32.6 |
| Oreg. | 31.5 | 31.0 | 34.0 | 0.66 | 0.35.0 | 33.6 | 30.0 | 36.0 | 0.38 | 0.29 | 0.25 | 0.23 | 1.32.2 | 30.5 | 32.0 | 27.0 | 0.35 | 0.22 | 0.33.0 | 29.8 |
| Calif. | 20.5 | 31.0 | 0.28 | 0.30 | 0.26.0 | 28.3 | 30.0 | 29.0 | 0.28 | 0.29 | 0.26 | 0.37 | 0.23.0 | 27.4 | 26.0 | 30.0 | 0.30 | 0.21 | 0.31.0 | 27.6 |
| U. S. | 24.4 | 22.5 | 21.0 | 20.9 | 23.8 | 24.3 | 25.8 | 32.0 | 23.5 | 23.7 | 26.3 | 22.0 | 24.9 | 25.5 | 20.9 | 24.9 | 25.2 | 22.0 | 26.4 | 24.7 |

Division of Crop and Livestock Estimates.

TABLE 109.—Barley: Monthly marketings by farmers, as reported by about 3,500 mills and elevators, United States, 1917-1924

| Year beginning July | Percentage of year's receipts | | | | | | | | | | | | Season |
|---------------------|-------------------------------|------|-------|------|------|------|------|------|------|------|------|------|--------|
| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | |
| 1917. | 2.2 | 15.0 | 23.4 | 16.5 | 8.5 | 8.6 | 6.5 | 7.5 | 6.1 | 2.9 | 1.8 | 1.0 | 100.0 |
| 1918. | 2.4 | 9.7 | 8.4 | 4.4 | 7.8 | 3.3 | 1.3 | .7 | 2.9 | 27.5 | 30.7 | .9 | 100.0 |
| 1919. | 18.5 | 19.2 | 14.3 | 9.9 | 6.4 | 7.5 | 5.4 | 3.1 | 3.7 | 8.4 | 3.0 | 5.6 | 100.0 |
| 1920. | 7.0 | 15.5 | 15.0 | 9.9 | 9.9 | 7.2 | 6.7 | 5.5 | 6.5 | 4.2 | 6.7 | 5.9 | 100.0 |
| 1921. | 35.0 | 14.0 | 10.5 | 7.8 | 4.4 | 4.2 | 3.9 | 4.3 | 4.2 | 3.0 | 4.4 | 4.3 | 100.0 |
| 1922. | 17.4 | 22.9 | 14.6 | 10.8 | 5.2 | 6.0 | 4.8 | 3.2 | 3.5 | 1.9 | 2.7 | 7.0 | 100.0 |
| 1923. | 10.3 | 23.7 | 18.1 | 9.9 | 7.8 | 6.5 | 4.1 | 3.5 | 3.1 | 2.6 | 2.3 | 11.1 | 100.0 |
| 1924. | 10.0 | 25.7 | 20.8 | 14.0 | 6.2 | 4.7 | 4.3 | 5.2 | 2.6 | 2.5 | 1.6 | 2.9 | 100.0 |

Division of Crop and Livestock Estimates.

TABLE 110.—Barley: Acreage and yield per acre in specified countries, average 1909-1913, annual 1922-1925

| Country | Acreage | | | | | Yield per acre | | | | |
|--|--------------------------------|-------------|-------------|-------------|------------------|--------------------------------|-------|-------|-------|------------------|
| | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMISPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Bush. | Bush. | Bush. | Bush. | Bush. |
| Canada..... | 1,574 | 2,800 | 2,785 | 3,407 | 4,076 | 28.8 | 27.7 | 27.6 | 26.1 | 27.6 |
| United States..... | 7,020 | 7,317 | 7,835 | 6,858 | 8,243 | 24.3 | 24.9 | 25.2 | 26.0 | 26.4 |
| Mexico..... | 1,436 | 697 | 697 | 711 | 779 | 4.9 | 5.6 | 5.6 | 5.6 | 6.3 |
| Total North America..... | 10,030 | 10,614 | 11,317 | 10,976 | 13,068 | ----- | ----- | ----- | ----- | ----- |
| EUROPE | | | | | | | | | | |
| United Kingdom: | | | | | | | | | | |
| England and Wales..... | 1,488 | 1,364 | 1,327 | 1,314 | 1,317 | 34.0 | 31.0 | 31.4 | 33.6 | 35.2 |
| Scotland..... | 191 | 157 | 150 | 152 | 153 | 37.6 | 39.1 | 36.5 | 37.4 | 39.8 |
| Ireland..... | 166 | 170 | 154 | 166 | ----- | 45.2 | 42.2 | 36.7 | 37.1 | ----- |
| Norway..... | 89 | 132 | 124 | 136 | 136 | 32.2 | 34.0 | 26.7 | 34.5 | 37.4 |
| Sweden..... | 448 | 427 | 382 | 428 | 411 | 33.6 | 31.6 | 29.9 | 31.1 | 35.8 |
| Denmark..... | 639 | 667 | 690 | 745 | 742 | 42.0 | 45.6 | 47.0 | 45.9 | 47.0 |
| Netherlands..... | 68 | 61 | 59 | 63 | 72 | 48.1 | 51.5 | 50.0 | 55.3 | 43.0 |
| Belgium..... | 88 | 80 | 85 | 78 | 98 | 50.5 | 43.0 | 49.2 | 47.9 | 46.3 |
| Luxemburg..... | 3 | 9 | 9 | 9 | 9 | 27.3 | 19.7 | 22.3 | 19.3 | 23.2 |
| France..... | 1,987 | 1,712 | 1,684 | 1,765 | 1,772 | 26.6 | 23.9 | 26.7 | 27.2 | 27.6 |
| Spain..... | 3,510 | 4,062 | 4,639 | 4,344 | 4,414 | 21.3 | 19.0 | 24.6 | 19.3 | 22.4 |
| Portugal..... | 647 | 188 | 170 | 156 | ----- | ----- | 9.7 | 14.4 | 10.7 | ----- |
| Italy..... | 647 | 576 | 569 | 572 | 576 | 16.4 | 14.3 | 18.5 | 15.2 | 22.3 |
| Switzerland..... | 13 | 16 | 16 | 16 | 15 | 33.9 | 30.7 | 35.6 | 32.4 | 35.5 |
| Germany..... | 3,464 | 2,846 | 3,216 | 3,573 | 3,545 | 38.6 | 25.9 | 33.7 | 30.8 | 33.7 |
| Austria..... | 421 | 313 | 334 | 341 | 349 | 23.9 | 17.9 | 23.5 | 21.1 | 30.1 |
| Czechoslovakia..... | 2,275 | 1,667 | 1,697 | 1,676 | 1,718 | 31.3 | 27.8 | 32.4 | 26.6 | 30.2 |
| Hungary..... | 1,322 | 1,145 | 1,137 | 1,008 | 1,033 | 24.5 | 19.4 | 24.0 | 14.6 | 21.9 |
| Yugoslavia..... | 1,058 | 927 | 891 | 890 | 883 | 19.1 | 11.9 | 15.8 | 15.0 | 20.8 |
| Greece..... | 369 | ----- | 400 | ----- | ----- | 18.8 | ----- | 17.8 | ----- | ----- |
| Bulgaria..... | 516 | 534 | 544 | 525 | 544 | 20.1 | 22.4 | 20.3 | 15.1 | 26.9 |
| Rumania..... | 3,378 | 4,269 | 4,642 | 4,573 | 4,211 | 18.3 | 22.0 | 13.1 | 6.7 | 11.3 |
| Poland..... | 3,048 | 2,825 | 2,964 | 3,011 | 3,020 | 22.7 | 21.1 | 25.7 | 18.4 | 25.6 |
| Lithuania..... | 536 | 417 | 432 | 484 | 507 | 16.5 | 25.7 | 18.4 | 19.3 | 23.2 |
| Latvia..... | 463 | 387 | 441 | 443 | 436 | 17.1 | 17.5 | 13.7 | 16.8 | 18.7 |
| Estonia..... | 329 | 331 | 312 | 307 | 18.8 | 20.2 | 13.1 | 18.0 | 18.9 | 20.9 |
| Finland..... | 278 | 277 | 273 | 272 | 272 | 17.8 | 23.3 | 14.3 | 21.9 | 20.9 |
| Russia, European..... | 23,281 | 7,452 | 14,818 | 14,970 | 12,589 | 16.4 | 14.9 | 13.8 | 9.9 | 19.3 |
| Total European countries reporting all years shown: | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Excluding Russia..... | 26,259 | 25,221 | 26,526 | 26,734 | 26,532 | 26.1 | 23.2 | 24.6 | 21.1 | 25.2 |
| Including Russia..... | 49,540 | 32,673 | 41,344 | 41,704 | 39,121 | 21.5 | 21.3 | 20.7 | 17.0 | 22.3 |
| NORTH AFRICA | | | | | | | | | | |
| Morocco..... | (3,000) | 2,547 | 2,803 | 3,120 | 3,361 | 12.7 | 10.7 | 12.6 | 17.1 | 11.7 |
| Algeria..... | 3,365 | 2,913 | 2,876 | 3,158 | 3,317 | 13.5 | 7.2 | 15.5 | 5.9 | 14.5 |
| Tunis..... | 1,228 | 734 | 1,212 | 662 | 1,248 | 6.4 | 2.5 | 9.5 | 3.7 | 5.6 |
| Egypt..... | 398 | 375 | 400 | 372 | 366 | 29.8 | 30.1 | 30.0 | 28.9 | 30.4 |
| ASIA | | | | | | | | | | |
| Cyprus..... | ----- | 118 | 113 | 112 | ----- | ----- | 14.3 | 22.5 | ----- | ----- |
| India..... | 8,877 | 7,303 | 7,350 | 7,126 | ----- | 16.4 | 20.0 | 19.8 | 19.2 | ----- |
| Russia..... | 2,912 | 452 | 514 | 1,996 | 676 | 12.9 | 9.9 | 14.5 | 13.6 | 46.2 |
| Japanese Empire: | | | | | | | | | | |
| Japan..... | 3,042 | 2,745 | 2,549 | 2,483 | 2,462 | 29.4 | 29.6 | 27.0 | 30.2 | 32.5 |
| Chosen..... | 1,623 | 2,130 | 2,128 | 2,124 | 2,162 | 19.9 | 16.5 | 14.7 | 19.0 | 18.7 |
| Formosa..... | 4 | 3 | 3 | ----- | ----- | 13.3 | 9.3 | 9.3 | ----- | ----- |
| Kwantung..... | 1 | 1 | 1 | ----- | ----- | 8.0 | 18.0 | ----- | ----- | ----- |
| Total Northern Hemisphere countries reporting all years shown: | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Excluding Russia..... | 49,575 | 47,280 | 49,811 | 49,659 | 52,546 | ----- | ----- | ----- | ----- | ----- |
| Including Russia..... | 75,768 | 55,184 | 65,143 | 66,625 | 65,811 | ----- | ----- | ----- | ----- | ----- |

¹ Where changes in boundary have occurred averages are estimates for territory within present boundaries.² Three-year average.³ One year only.⁴ Four-year average.⁵ Exclusive of Turkestan and Transcaucasia.

TABLE 110.—*Barley: Acreage and yield per acre in specified countries, average 1909-1913, annual 1922-1925—Continued*

| Country | Acreage | | | | | Yield per acre | | | | |
|--|--------------------------------|-------------|-------------|-------------|------------------|-------------------|-------|-------|-------|------------------|
| | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909-1913 | 1922 | 1923 | 1924 | 1925 preliminary |
| SOUTHERN HEMISPHERE | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Bush. | Bush. | Bush. | Bush. | Bush. |
| Chile..... | 111 | 153 | 145 | 124 | 126 | 36.8 | 40.5 | 36.3 | 35.2 | — |
| Uruguay..... | 7 | 3 | 5 | 8 | 17 | 11.1 | 9.3 | 15.8 | 12.9 | — |
| Argentina..... | 230 | 599 | 685 | 781 | 900 | 19.1 | 12.9 | 17.3 | 8.9 | 15.1 |
| Union of South Africa ² | 109 | 107 | — | — | — | 19.4 | 11.3 | — | — | — |
| Australia..... | 154 | — | — | — | — | 19.6 | — | — | — | — |
| New Zealand..... | 35 | 17 | 21 | 25 | — | 36.1 | 36.6 | 29.6 | 33.2 | — |
| Total Southern Hemisphere countries reporting all years shown | 348 | 755 | 835 | 913 | 1,043 | — | — | — | — | — |
| Total Northern and Southern Hemisphere countries reporting all years shown: | | | | | | | | | | |
| Excluding Russia..... | 49,923 | 48,035 | 50,646 | 50,572 | 53,589 | — | — | — | — | — |
| Including Russia..... | 76,116 | 55,939 | 65,978 | 67,538 | 66,854 | — | — | — | — | — |
| Estimated world total: ³ | | | | | | | | | | |
| Excluding Russia..... | 59,900 | 56,700 | 59,200 | 58,900 | 62,000 | — | — | — | — | — |
| Including Russia..... | 86,100 | 64,600 | 74,500 | 75,900 | 75,300 | — | — | — | — | — |

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¹ Where changes in boundary have occurred averages are estimates for territory within present boundaries.

² Three-year average.

³ One year only.

⁴ Excluding native locations.

⁵ Excludes a few minor producing countries which do not enter into world trade or for which no estimates are available.

TABLE 111.—*Barley: Production in specified countries, average 1909-1913, annual 1922-1925*

[Thousand bushels—i. e., 000 omitted]

| Country | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
|----------------------------|--------------------------------|---------|---------|---------|------------------|
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| Canada..... | 45,275 | 71,865 | 76,998 | 88,807 | 112,668 |
| United States..... | 184,812 | 182,068 | 197,691 | 178,322 | 218,002 |
| Mexico..... | 7,021 | 3,887 | 3,910 | 3,968 | 4,164 |
| Total, North America..... | 237,108 | 257,820 | 278,599 | 271,117 | 334,834 |
| EUROPE | | | | | |
| United Kingdom: | | | | | |
| England and Wales..... | 50,658 | 42,233 | 41,717 | 44,142 | 46,388 |
| Scotland..... | 7,173 | 6,133 | 5,800 | 5,992 | 6,065 |
| Ireland..... | 7,510 | 7,170 | 5,647 | 6,160 | — |
| Norway..... | 2,857 | 4,453 | 3,282 | 4,662 | 5,068 |
| Sweden..... | 15,035 | 13,503 | 11,429 | 13,303 | 14,702 |
| Denmark..... | 26,860 | 30,433 | 32,457 | 34,219 | 34,907 |
| Netherlands..... | 3,270 | 3,143 | 2,950 | 3,485 | 3,063 |
| Belgium..... | 4,445 | 3,438 | 4,182 | 3,735 | 4,536 |
| Luxemburg..... | 82 | 177 | 201 | 174 | 209 |
| France..... | 52,826 | 40,908 | 45,024 | 48,051 | 48,940 |
| Spain..... | 74,689 | 77,533 | 111,861 | 83,700 | 96,925 |
| Portugal..... | — | 1,823 | 2,453 | 1,663 | — |
| Italy..... | 10,638 | 8,253 | 10,499 | 8,985 | 12,800 |
| Switzerland..... | 441 | 491 | 870 | 519 | 532 |
| Germany..... | 133,787 | 73,824 | 108,448 | 110,226 | 119,373 |

¹ Where changes in boundaries have occurred averages are estimates for territory in present boundaries.

TABLE 111.—Barley: Production in specified countries, average 1909-1913, annual 1922-1925—Continued

(Thousand bushels—i. e., 000 omitted)

| Country | Average 1909-1913 | 1922 | 1923 | 1924 | 1925 pre- liminary |
|---|----------------------|-----------|-----------|-----------|-----------------------|
| NORTHERN HEMISPHERE—Continued | | | | | |
| EUROPE—continued | | | | | |
| Austria..... | 10,065 | 5,599 | 7,885 | 7,208 | 10,495 |
| Czechoslovakia..... | 71,108 | 46,352 | 54,981 | 44,883 | 51,932 |
| Hungary..... | 32,869 | 22,169 | 27,271 | 14,712 | 22,609 |
| Yugoslavia..... | 20,229 | 11,069 | 14,065 | 13,478 | 18,371 |
| Greece..... | 6,953 | 7,000 | 7,101 | 6,169 | 8,123 |
| Bulgaria..... | 10,380 | 11,941 | 11,063 | 7,945 | 14,652 |
| Rumania..... | 61,677 | 93,778 | 90,870 | 30,759 | 47,598 |
| Poland..... | 69,055 | 59,559 | 76,036 | 65,489 | 77,116 |
| Lithuania..... | 8,820 | 10,725 | 7,957 | 9,317 | 11,770 |
| Latvia..... | 7,922 | 6,770 | 6,021 | 7,437 | 8,169 |
| Estonia..... | 6,201 | 6,670 | 4,008 | 5,539 | 5,467 |
| Finland..... | 4,947 | 6,466 | 3,893 | 5,969 | 5,676 |
| Russia..... | 381,235 | 110,955 | 204,302 | 147,670 | 243,471 |
| Total European countries reporting all years shown: | | | | | |
| Excluding Russia..... | 692,498 | 592,650 | 659,629 | 569,228 | 677,619 |
| Including Russia..... | 1,073,733 | 703,605 | 863,931 | 716,798 | 921,090 |
| NORTH AFRICA | | | | | |
| Morocco..... | (38,000) | 27,230 | 35,371 | 53,279 | 39,315 |
| Algeria..... | 45,974 | 20,912 | 44,527 | 18,706 | 47,983 |
| Tunis..... | 7,826 | 1,837 | 11,482 | 2,520 | 6,981 |
| Egypt..... | 11,867 | 11,306 | 11,988 | 10,754 | 11,144 |
| ASIA | | | | | |
| Cyprus..... | 2,183 | 1,693 | 2,543 | | |
| India..... | 145,496 | 145,973 | 145,460 | 137,060 | |
| Russia..... | 36,705 | 4,458 | 7,431 | 27,195 | 31,246 |
| Japanese Empire: | | | | | |
| Japan..... | 89,531 | 81,411 | 68,858 | 74,982 | 80,081 |
| Chosen..... | 32,243 | 35,133 | 31,264 | 40,354 | 40,354 |
| Formosa..... | 53 | 28 | 28 | | |
| Kwangtung..... | 8 | 18 | | | |
| Total Northern Hemisphere coun- tries reporting all years shown: | | | | | |
| Excluding Russia..... | 1,155,047 | 1,028,299 | 1,141,718 | 1,040,946 | 1,238,311 |
| Including Russia..... | 1,573,077 | 1,143,712 | 1,353,451 | 1,215,711 | 1,613,028 |
| SOUTHERN HEMISPHERE | | | | | |
| Chile..... | 4,090 | 7,577 | 5,263 | 4,370 | |
| Uruguay..... | 78 | 28 | 79 | 103 | |
| Argentina..... | 4,395 | 7,741 | 11,871 | 6,974 | 13,565 |
| Union of South Africa ¹ | 1,146 | 1,213 | | | |
| Australia..... | 3,021 | 6,822 | 5,183 | | |
| New Zealand..... | 1,204 | 623 | 622 | 831 | |
| Total Southern Hemisphere coun- tries reporting all years shown: | | | | | |
| | 4,895 | 7,741 | 11,871 | 6,974 | 13,595 |
| Total Northern and Southern Hem- isphere countries reporting all years shown: | | | | | |
| Excluding Russia..... | 1,169,442 | 1,036,040 | 1,153,589 | 1,047,920 | 1,251,906 |
| Including Russia..... | 1,577,472 | 1,151,453 | 1,365,322 | 1,222,685 | 1,526,623 |
| Estimated world total: ² | | | | | |
| Excluding Russia..... | 1,326,000 | 1,209,000 | 1,322,000 | 1,207,000 | 1,414,000 |
| Including Russia..... | 1,744,000 | 1,324,000 | 1,534,000 | 1,382,000 | 1,680,000 |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Production as reported is for the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Where changes in boundaries have occurred averages are estimates for territory in present boundaries.

² One year only.

³ Four-year average.

⁴ The estimate for the five-year period 1909-1913 given in this table is somewhat larger than the figure obtained by averaging those five years in Table 112. This is because in the detailed table estimates for warring countries are for postwar boundaries, whereas in Table 112 they are for pre-war territory. As a result in excluding Russia, which lost territory during the war, a smaller area is excluded in the detailed table than in Table 112.

⁵ Excluding Turkistan and Transcaucasia.

⁶ Excludes native locations which produced 38,560 bushels in 1917-18 and 20,057 bushels in 1920-21.

⁷ Two-year average.

⁸ Excludes a few minor producing countries which do not enter into world trade or for which no statistics are available.

TABLE 112.—*Barley: World production, 1909-1925*

[Thousand bushels—1. e., 000 omitted]

| Year | Production in countries reporting all years | Preliminary estimate of world production, excluding Russia | Preliminary estimate of European totals, excluding Russia | Three selected countries— | | |
|-----------------------|---|--|---|---------------------------|-----------------------|----------|
| | | | | Russia ¹ | Germany | Japan |
| 1909..... | 778, 074 | 1, 247, 000 | 621, 000 | 501, 869 | 160, 568 | 87, 185 |
| 1910..... | 707, 237 | 1, 151, 000 | 560, 000 | 487, 919 | 133, 330 | 81, 953 |
| 1911..... | 728, 017 | 1, 235, 000 | 606, 000 | 436, 569 | 145, 133 | 86, 480 |
| 1912..... | 772, 145 | 1, 254, 000 | 589, 000 | 490, 352 | 159, 924 | 80, 550 |
| 1913..... | 783, 690 | 1, 309, 000 | 637, 000 | 600, 232 | 168, 709 | 101, 477 |
| 1914..... | 718, 069 | 1, 124, 000 | 546, 000 | ² 432, 615 | 144, 125 | 85, 774 |
| 1915..... | 691, 862 | 1, 156, 000 | 477, 000 | ² 420, 161 | 114, 077 | 94, 959 |
| 1916..... | 669, 754 | 1, 115, 000 | 507, 000 | ..... | 128, 450 | 89, 335 |
| 1917..... | 612, 658 | 1, 085, 000 | 426, 000 | ..... | ³ 89, 886 | 88, 806 |
| 1918..... | 694, 950 | 1, 189, 000 | 420, 000 | ..... | ² 93, 504 | 87, 769 |
| 1919..... | 536, 432 | 1, 033, 000 | 470, 000 | ..... | ³ 87, 741 | 89, 356 |
| 1920..... | 580, 268 | 1, 061, 000 | 551, 000 | ⁴ 183, 583 | ³ 82, 344 | 84, 909 |
| 1921..... | 574, 819 | 1, 123, 000 | 565, 000 | ⁴ 100, 826 | ³ 89, 056 | 82, 323 |
| 1922..... | 553, 733 | 1, 209, 000 | 602, 000 | ⁴ 115, 413 | ³ 73, 824 | 81, 411 |
| 1923..... | 650, 061 | 1, 322, 000 | 668, 000 | ⁴ 211, 733 | ³ 106, 446 | 68, 858 |
| 1924..... | 593, 786 | 1, 207, 000 | 577, 000 | ³ 174, 785 | ³ 110, 226 | 74, 982 |
| 1925 preliminary..... | 699, 741 | 1, 414, 000 | 678, 000 | ³ 274, 716 | ³ 119, 373 | 80, 081 |

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¹ Includes all Russian territory reporting for years named.

² Excludes Poland.

³ New boundaries and therefore not comparable with earlier years.

⁴ Excluding Turkestan and Transcaucasia.

TABLE 113.—*Barley: Farm stocks, supplies and shipments, United States, 1910-1925*

| Year beginning August | Old stocks on farms Aug. 1 ¹ | Crop | | | Total supplies | Stocks on farms Mar. 1 following ¹ | Shipped out of county where grown ¹ |
|-------------------------|---|----------------|--------------------------------|----------------------|----------------|---|--|
| | | Quantity | Weight per bushel ² | Quality ³ | | | |
| | 1, 000 bushels | 1, 000 bushels | Pounds | Per cent | 1, 000 bushels | 1, 000 bushels | 1, 000 bushels |
| 1910..... | 8, 075 | 173, 832 | 46. 9 | 88. 1 | 181, 907 | 33, 498 | 86, 955 |
| 1911..... | 5, 703 | 160, 240 | 46. 0 | 84. 9 | 166, 003 | 24, 754 | 91, 620 |
| 1912..... | 2, 591 | 223, 824 | 46. 8 | 86. 2 | 226, 415 | 62, 301 | 120, 143 |
| 1913..... | 11, 252 | 178, 189 | 46. 5 | 86. 4 | 189, 441 | 44, 126 | 86, 262 |
| 1914..... | 7, 609 | 194, 963 | 46. 2 | 87. 5 | 202, 562 | 42, 689 | 87, 834 |
| 1915..... | 6, 336 | 228, 861 | 47. 4 | 90. 5 | 235, 187 | 58, 301 | 98, 965 |
| 1916..... | 10, 982 | 182, 309 | 45. 2 | 84. 4 | 193, 291 | 33, 244 | 79, 257 |
| 1917..... | 3, 775 | 211, 759 | 46. 6 | 90. 9 | 215, 534 | 44, 419 | 84, 056 |
| 1918..... | 4, 510 | 256, 225 | 46. 9 | 89. 8 | 260, 735 | 81, 746 | 99, 967 |
| 1919..... | 11, 897 | 147, 608 | 45. 2 | 84. 8 | 159, 505 | 33, 820 | 60, 471 |
| 1920..... | 4, 122 | 189, 332 | 46. 0 | 88. 2 | 193, 454 | 65, 229 | 68, 663 |
| 1921..... | 13, 487 | 184, 946 | 44. 4 | 82. 5 | 168, 433 | 42, 284 | 55, 738 |
| 1922..... | 7, 497 | 182, 068 | 46. 2 | 88. 5 | 189, 565 | 42, 469 | 66, 660 |
| 1923..... | 6, 505 | 197, 691 | 45. 3 | 86. 6 | 204, 496 | 44, 630 | 68, 190 |
| 1924..... | 6, 359 | 178, 322 | 47. 0 | 88. 7 | 184, 681 | 40, 064 | 66, 040 |
| 1925 ⁴ | 5, 627 | 218, 002 | 45. 9 | 88. 1 | 223, 629 | 53, 466 | 77, 330 |

Division of Crop and Livestock Estimates.

¹ Based on percentage of entire crop as reported by crop reporters.

² Average weight per measured bushel as reported by crop reporters.

³ Per cent of a "high medium grade" as reported by crop reporters.

⁴ Preliminary.

TABLE 114.—*Barley: Receipts at markets named, 1909–1925*

[Thousand bushels—i. e., 000 omitted]

| Year beginning August | Minneapolis | Duluth | Chicago | Milwaukee | Omaha | Fort William and Port Arthur ¹ |
|-------------------------|-------------|--------|---------|-----------|---------|---|
| 1909..... | 22,828 | 12,177 | 26,658 | 15,143 | ----- | 3,301 |
| 1910..... | 1,518 | 7,157 | 20,740 | 12,915 | ----- | 1,537 |
| 1911..... | 19,134 | 6,019 | 20,929 | 12,797 | ----- | 3,483 |
| 1912..... | 35,682 | 14,504 | 30,083 | 19,824 | ----- | 9,850 |
| 1913..... | 29,796 | 10,895 | 26,201 | 17,499 | ----- | 10,667 |
| Average, 1909–1913..... | 21,792 | 10,150 | 24,922 | 15,636 | ----- | 5,769 |
| 1914..... | 29,465 | 11,122 | 25,073 | 7,096 | ----- | 2,884 |
| 1915..... | 45,143 | 15,396 | 32,085 | 19,850 | ----- | 10,356 |
| 1916..... | 26,301 | 8,633 | 28,075 | 19,619 | 1,236 | 7,688 |
| 1917..... | 35,423 | 7,470 | 21,473 | 14,675 | 2,089 | 7,470 |
| 1918..... | 43,172 | 8,427 | 26,871 | 18,458 | 3,991 | 7,741 |
| 1919..... | 13,194 | 2,322 | 13,694 | 10,208 | 831 | 8,194 |
| 1920..... | 17,774 | 4,043 | 10,192 | 9,813 | 1,325 | 12,326 |
| Average, 1914–1920..... | 30,067 | 8,202 | 22,495 | 14,246 | 2 1,894 | 8,094 |
| 1921..... | 11,945 | 5,154 | 7,597 | 9,341 | 1,075 | 11,597 |
| 1922..... | 14,259 | 3,835 | 10,073 | 9,446 | 801 | 15,756 |
| 1923..... | 13,641 | 3,925 | 9,755 | 9,077 | 785 | 15,910 |
| 1924..... | 23,158 | 15,287 | 11,336 | 13,127 | 600 | 28,045 |
| 1924 | | | | | | |
| August..... | 1,484 | 602 | 775 | 616 | ----- | ----- |
| September..... | 3,913 | 5,496 | 1,748 | 2,836 | 139 | 3,015 |
| October..... | 4,165 | 3,772 | 2,070 | 1,840 | 185 | 8,049 |
| November..... | 2,766 | 1,937 | 1,127 | 1,137 | 61 | 6,998 |
| December..... | 2,218 | 229 | 1,238 | 1,397 | 42 | 2,875 |
| 1925 | | | | | | |
| January..... | 2,349 | 47 | 915 | 1,267 | 43 | 736 |
| February..... | 1,612 | 129 | 1,036 | 1,096 | 29 | 1,086 |
| March..... | 1,493 | 144 | 690 | 823 | 26 | 1,050 |
| April..... | 724 | 142 | 416 | 669 | 19 | 1,212 |
| May..... | 889 | 520 | 382 | 744 | 19 | 724 |
| June..... | 790 | 1,254 | 491 | 648 | 13 | 444 |
| July..... | 775 | 1,013 | 478 | 554 | 54 | 1,502 |
| August..... | 3,784 | 3,200 | 1,860 | 2,444 | ----- | 354 |
| September..... | 5,231 | 7,196 | 1,166 | 1,061 | 98 | 9,973 |
| October..... | 3,229 | 1,639 | 1,255 | 1,060 | 69 | 5,774 |
| November..... | 2,229 | 996 | 492 | 823 | 50 | 6,240 |
| December..... | 2,214 | 445 | 682 | 680 | 51 | 4,466 |

Division of Statistical and Historical Research. Compiled from Minneapolis Daily Market Record, Chicago Daily Trade Bulletin, Grain Dealers Journal, and Canadian Statistics.

¹ Crop year begins in September.

² Five-year average.

TABLE 115.—Barley: International trade, average 1910-1914, annual 1923-1925

[Thousand bushels—1. e., 000 omitted]

| Country | Year ended June 30 | | | | | | | |
|--------------------------------------|--------------------|-----------|---------|----------|----------|---------|------------------|---------|
| | Average 1910-1914 | | 1923 | | 1924 | | 1925 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 1 213 | 1 5,482 | 4,282 | 105 | 202 | 9,452 | 1,964 | 957 |
| Argentina..... | 1 3 | 1 764 | 1 120 | 1,381 | 1 1 | 9,313 | 1 5 | 4,229 |
| Australia..... | 1 159 | 1 51 | | 2,305 | | 1,905 | | 1,552 |
| British India..... | 1 23 | 1 10,640 | | 1,399 | (1 0) | 11,367 | 1 4 | 19,075 |
| Bulgaria..... | | 1 1,876 | (1 0) | 1 1,270 | (1 0) | 1 484 | (1 0) | 1 517 |
| Canada..... | 66 | 5,210 | (0) | 12,474 | 2 | 16,577 | (0) | 27,796 |
| Chile..... | 1 88 | 1 1,062 | | 1,776 | | 3,737 | | 2,362 |
| Czechoslovakia..... | | | 11 | 7,103 | 1 106 | 1 8,182 | 2,292 | 3,153 |
| Hungary..... | 1 229 | 1 11,836 | 1 12 | 1 15 | 1 9 | 1 328 | 1 164 | 1 384 |
| Poland..... | | | 1 19 | 1 967 | 1 3 | 1 2,194 | 1 102 | 1 4,529 |
| Rumania..... | 1 11 63 | 1 116,804 | (1 10) | 1 39,065 | (0) | 24,714 | (0) | 7,743 |
| Russia..... | 1 124 | 1 173,240 | | | 1 10,883 | | | 1 2,433 |
| Spain..... | 640 | 117 | 142 | 1 | 83 | 662 | | 1 212 |
| Sweden..... | 1 28 | 1 102 | 28 | 782 | 204 | 19 | 31 | 540 |
| Tunis..... | 1 328 | 1 3,055 | 1 969 | 1 358 | 1 128 | 1 6,622 | 1 518 | 1 313 |
| United States..... | | 7,896 | | 18,193 | | 11,209 | | 23,653 |
| Yugoslavia..... | | | | 1 3 | | 1 218 | | 1 1,197 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | 1 716 | 1 8,123 | 1 3,367 | 1 106 | 3,910 | 1 45 | 3,890 | 1 32 |
| Belgium..... | 18,351 | 3,079 | 11,367 | 63 | 12,491 | 81 | 12,068 | 103 |
| Ceylon..... | | | 10 19 | | 10 11 | | 1 12 | |
| Cuba..... | 255 | | 384 | | 438 | | 1 251 | |
| Denmark..... | 1 3,024 | 1 2,908 | 6,149 | 1,190 | 10,640 | 622 | 5,128 | 3,071 |
| Egypt..... | 1 732 | 1 142 | 607 | 12 | 182 | 35 | 126 | 107 |
| Estonia..... | | | | | 372 | | 140 | |
| Finland..... | | | 67 | | 273 | | 42 | |
| France..... | 6,711 | 787 | 1,411 | 748 | 6,728 | 831 | 2,113 | 917 |
| Germany..... | 148,297 | 136 | 13,128 | 122 | 23,085 | 13 | 31,018 | 2,849 |
| Greece..... | | | 627 | | 1,368 | | 1 1,498 | |
| Irish Free State..... | | | | | | | 784 | 100 |
| Italy..... | 824 | 20 | 528 | 47 | 386 | 61 | 212 | 610 |
| Japan..... | 1 15 | | 1 10 | | 1 108 | | 1 48 | |
| Latvia..... | | | 1 51 | 1 312 | 1 415 | 1 26 | 1 196 | 1 175 |
| Netherlands..... | 1 38,039 | 1 26,975 | 9,067 | 404 | 15,267 | 556 | 9,293 | 782 |
| Norway..... | 1 4,550 | | 1,627 | (0) | 2,968 | (0) | 1,501 | (0) |
| Portugal..... | 1 24 | 1 5 | | | | | | |
| Switzerland..... | 1 1,140 | 1 1 | 2,907 | (0) | 3,101 | 1 | 2,956 | 1 |
| Syria and Lebanon..... | | | | | 10 64 | | 10 487 | |
| United Kingdom..... | 48,550 | 1 101 | 38,958 | 1 137 | 43,676 | 1 131 | 41,140 | |
| Total 38 countries..... | 273,192 | 280,310 | 95,865 | 90,338 | 126,241 | 129,268 | 117,983 | 108,392 |

Division of Statistical and Historical Research. Official sources except as otherwise noted.

1 Year ended July 31 as compiled by the International Institute of Agriculture.

2 Average of calendar years 1909-1913.

3 Year ended December 31.

4 International Institute of Agriculture.

5 Average for seasons 1909-10 to 1911-12.

6 Less than 500 bushels.

7 Sea-trade only.

8 Ten months ended May 31, from the International Institute of Agriculture.

9 Eight months.

10 Eleven months, from the International Institute of Agriculture.

11 Average for seasons 1911-12 to 1913-14.

12 Six months.

13 Commercial sources.

14 Average for seasons 1912-13 to 1913-14.

TABLE 116.—Barley: Estimated price per bushel, received by producers, United States, 1909-1925

| Year beginning August | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Weighted average |
|-----------------------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1909..... | 57.9 | 54.0 | 53.4 | 53.6 | 55.8 | 58.4 | 59.8 | 60.0 | 58.1 | 56.1 | 54.8 | 54.3 | 55.8 |
| 1910..... | 56.0 | 56.6 | 55.7 | 56.6 | 58.8 | 62.0 | 63.6 | 66.0 | 71.6 | 73.9 | 72.0 | 69.7 | 61.3 |
| 1911..... | 73.2 | 79.4 | 83.3 | 85.9 | 86.6 | 88.8 | 91.1 | 91.6 | 94.2 | 93.6 | 86.5 | 74.4 | 83.2 |
| 1912..... | 60.2 | 54.2 | 54.3 | 52.2 | 50.2 | 50.6 | 50.2 | 48.8 | 48.4 | 50.5 | 53.2 | 52.2 | 53.2 |
| 1913..... | 53.0 | 56.0 | 55.8 | 54.2 | 53.0 | 52.3 | 51.8 | 51.4 | 50.5 | 49.2 | 48.3 | 46.3 | 52.6 |
| Av. 1909-1913..... | 60.1 | 60.0 | 60.5 | 60.5 | 60.9 | 62.4 | 63.3 | 63.6 | 64.6 | 64.7 | 63.0 | 59.4 | 61.2 |
| 1914..... | 48.8 | 52.2 | 51.8 | 53.0 | 54.3 | 58.6 | 65.3 | 66.2 | 64.2 | 62.9 | 58.9 | 56.2 | 55.4 |
| 1915..... | 54.3 | 49.4 | 48.4 | 50.8 | 53.2 | 58.3 | 60.6 | 58.4 | 58.4 | 59.6 | 59.4 | 59.3 | 54.3 |
| 1916..... | 66.1 | 74.7 | 79.8 | 85.6 | 87.6 | 89.9 | 94.8 | 99.6 | 111.2 | 119.7 | 113.0 | 110.6 | 88.7 |
| 1917..... | 112.2 | 112.0 | 112.6 | 112.5 | 120.1 | 129.2 | 146.5 | 165.6 | 164.4 | 147.0 | 126.9 | 114.2 | 137.8 |
| 1918..... | 105.4 | 98.2 | 95.2 | 93.3 | 91.5 | 89.0 | 86.1 | 82.0 | 98.3 | 106.6 | 108.8 | 113.0 | 98.6 |
| 1919..... | 117.2 | 115.4 | 116.2 | 118.8 | 125.4 | 132.6 | 133.2 | 134.6 | 145.2 | 147.4 | 145.2 | 131.5 | 125.7 |
| 1920..... | 113.0 | 98.1 | 86.4 | 76.5 | 67.9 | 60.8 | 57.0 | 55.6 | 51.8 | 50.4 | 51.1 | 50.0 | 76.1 |
| Av. 1914-1920..... | 88.1 | 85.7 | 84.3 | 84.4 | 85.7 | 88.5 | 91.9 | 95.6 | 98.8 | 99.1 | 94.8 | 90.8 | 90.9 |
| 1921..... | 48.2 | 46.2 | 43.6 | 41.8 | 42.8 | 44.0 | 47.0 | 51.2 | 54.6 | 57.0 | 55.0 | 51.0 | 47.4 |
| 1922..... | 47.7 | 46.2 | 49.2 | 52.0 | 55.6 | 56.8 | 56.2 | 58.0 | 59.6 | 60.8 | 58.3 | 54.7 | 52.6 |
| 1923..... | 52.2 | 51.9 | 54.7 | 55.2 | 57.6 | 56.5 | 58.0 | 60.0 | 61.0 | 60.0 | 61.9 | 68.8 | 57.1 |
| 1924..... | 75.7 | 75.6 | 81.4 | 79.7 | 76.2 | 82.4 | 84.8 | 81.5 | 76.1 | 75.9 | 76.4 | 73.5 | 77.9 |
| 1925..... | 67.1 | 60.8 | 57.6 | 58.0 | 58.4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Crop and Livestock Estimates. Mean of prices reported on 1st of month and 1st of succeeding month, August, 1909-December, 1923.

TABLE 117.—Barley: Estimated price per bushel, received by producers, December 1, average 1909-1913, annual 1914-1925

| State | Av. 1909-1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914-1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921-1925 |
|--------------------|---------------|------|------|------|-------|------|-------|------|---------------|------|------|------|------|------|---------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| Maine..... | 80 | 81 | 75 | 104 | 130 | 149 | 170 | 138 | 121 | 86 | 100 | 100 | 108 | 80 | 95 |
| New Hampshire..... | 81 | 82 | 79 | 90 | 176 | 150 | 188 | 146 | 130 | 110 | 98 | 85 | 105 | 85 | 97 |
| Vermont..... | 77 | 75 | 75 | 100 | 140 | 153 | 150 | 120 | 116 | 80 | 97 | 95 | 103 | 83 | 92 |
| New York..... | 75 | 71 | 75 | 101 | 130 | 126 | 136 | 99 | 105 | 62 | 74 | 75 | 91 | 77 | 76 |
| Pennsylvania..... | 67 | 70 | 75 | 75 | 140 | 120 | 128 | 90 | 100 | 62 | 65 | 72 | 90 | 86 | 75 |
| Ohio..... | 64 | 59 | 54 | 80 | 118 | 93 | 125 | 82 | 87 | 51 | 65 | 63 | 85 | 70 | 67 |
| Indiana..... | 61 | 67 | 65 | 75 | 104 | 104 | 118 | 87 | 89 | 48 | 58 | 65 | 77 | 71 | 64 |
| Illinois..... | 62 | 61 | 57 | 103 | 121 | 90 | 121 | 82 | 91 | 46 | 58 | 58 | 75 | 63 | 60 |
| Michigan..... | 66 | 65 | 62 | 91 | 119 | 100 | 118 | 87 | 92 | 57 | 65 | 64 | 80 | 72 | 68 |
| Wisconsin..... | 67 | 62 | 56 | 105 | 124 | 92 | 121 | 84 | 92 | 51 | 57 | 61 | 78 | 66 | 63 |
| Minnesota..... | 58 | 53 | 49 | 87 | 111 | 80 | 118 | 62 | 80 | 34 | 47 | 44 | 69 | 52 | 49 |
| Iowa..... | 60 | 55 | 49 | 91 | 117 | 85 | 112 | 63 | 82 | 42 | 49 | 52 | 70 | 57 | 54 |
| Missouri..... | 66 | 65 | 63 | 93 | 94 | 115 | 130 | 98 | 94 | 65 | 72 | 75 | 82 | 95 | 78 |
| North Dakota..... | 52 | 45 | 44 | 80 | 100 | 73 | 108 | 56 | 72 | 29 | 39 | 38 | 62 | 43 | 42 |
| South Dakota..... | 56 | 50 | 46 | 88 | 110 | 78 | 115 | 52 | 76 | 29 | 42 | 40 | 64 | 47 | 44 |
| Nebraska..... | 48 | 47 | 42 | 75 | 98 | 85 | 100 | 50 | 71 | 28 | 47 | 44 | 63 | 54 | 47 |
| Kansas..... | 51 | 47 | 42 | 77 | 115 | 95 | 100 | 45 | 74 | 29 | 45 | 49 | 65 | 58 | 49 |
| Maryland..... | 63 | 60 | 70 | 73 | 130 | 120 | 123 | 110 | 99 | 67 | 76 | 80 | 93 | 87 | 80 |
| Virginia..... | 71 | 60 | 75 | 85 | 139 | 160 | 130 | 100 | 110 | 72 | 80 | 80 | 105 | 97 | 87 |
| Kentucky..... | 75 | 77 | 77 | 90 | 115 | 140 | 157 | 115 | 110 | 61 | 85 | 84 | 101 | 95 | 85 |
| Tennessee..... | 80 | 82 | 75 | 100 | 144 | 152 | 180 | 110 | 120 | 100 | 80 | 180 | 110 | 110 | 100 |
| Oklahoma..... | 62 | 53 | 50 | 100 | 148 | 124 | 122 | 72 | 96 | 45 | 55 | 70 | 70 | 75 | 63 |
| Texas..... | 68 | 70 | 68 | 80 | 137 | 130 | 112 | 75 | 96 | 45 | 65 | 68 | 76 | 90 | 69 |
| Montana..... | 59 | 53 | 48 | 76 | 103 | 100 | 140 | 65 | 84 | 60 | 50 | 48 | 69 | 72 | 60 |
| Idaho..... | 56 | 50 | 52 | 82 | 106 | 130 | 140 | 75 | 91 | 47 | 65 | 58 | 82 | 56 | 62 |
| Wyoming..... | 68 | 64 | 55 | 87 | 130 | 130 | 175 | 110 | 107 | 65 | 60 | 65 | 72 | 61 | 55 |
| Colorado..... | 60 | 55 | 49 | 82 | 104 | 113 | 120 | 75 | 85 | 37 | 59 | 54 | 72 | 58 | 56 |
| New Mexico..... | 79 | 75 | 70 | 100 | 139 | 110 | 110 | 75 | 97 | 61 | 95 | 80 | 60 | 85 | 76 |
| Arizona..... | 85 | 60 | 56 | 108 | 150 | 130 | 140 | 140 | 112 | 80 | 85 | 95 | 88 | 100 | 90 |
| Utah..... | 61 | 50 | 52 | 76 | 120 | 140 | 141 | 100 | 97 | 48 | 55 | 70 | 87 | 85 | 69 |
| Nevada..... | 81 | 65 | 70 | 95 | 119 | 154 | 150 | 165 | 117 | 80 | 100 | 83 | 110 | 82 | 91 |
| Washington..... | 59 | 52 | 56 | 84 | 115 | 115 | 135 | 100 | 94 | 52 | 74 | 60 | 85 | 68 | 68 |
| Oregon..... | 61 | 61 | 62 | 80 | 115 | 135 | 150 | 100 | 101 | 50 | 74 | 67 | 100 | 73 | 78 |
| California..... | 70 | 59 | 62 | 95 | 120 | 115 | 141 | 100 | 99 | 56 | 63 | 70 | 116 | 75 | 76 |
| United States..... | 60.7 | 54.3 | 51.6 | 58.1 | 113.7 | 91.7 | 120.6 | 71.3 | 84.5 | 41.9 | 52.5 | 54.1 | 73.9 | 58.6 | 56.2 |

Division of Crop and Livestock Estimates.

TABLE 118.—*Barley, No. 2: Weighted average price per bushel, Minneapolis, 1909-1925*

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Weighted average ¹ |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------|
| 1909..... | \$0.45 | \$0.48 | \$0.49 | \$0.52 | \$0.57 | \$0.61 | \$0.60 | \$0.58 | \$0.54 | \$0.54 | \$0.53 | \$0.60 | \$0.54 |
| 1910..... | .61 | .63 | .63 | .66 | .70 | .77 | .74 | .81 | .88 | .75 | .77 | .87 | .74 |
| 1911..... | .85 | .94 | .95 | .98 | .91 | 1.05 | 1.00 | .95 | 1.01 | .99 | .76 | .60 | .92 |
| 1912..... | .46 | .49 | .50 | .47 | .45 | .49 | .48 | .46 | .46 | .50 | .52 | .48 | .48 |
| 1913..... | .58 | .61 | .66 | .53 | .50 | .82 | .60 | .48 | .47 | .48 | .47 | .45 | .51 |
| Av. 1909-1913..... | .59 | .63 | .63 | .63 | .63 | .69 | .66 | .66 | .67 | .65 | .61 | .60 | .64 |
| 1914..... | .59 | .58 | .55 | .59 | .57 | .68 | .75 | .70 | .70 | .70 | .66 | .68 | .65 |
| 1915..... | .69 | .48 | .51 | .56 | .61 | .70 | .66 | .65 | .68 | .70 | .68 | .69 | .63 |
| 1916..... | .81 | .81 | 1.03 | 1.11 | 1.07 | 1.17 | 1.17 | 1.21 | 1.36 | 1.48 | 1.38 | 1.49 | 1.17 |
| 1917..... | 1.31 | 1.33 | 1.28 | 1.27 | 1.49 | 1.56 | 1.88 | 2.12 | 1.82 | 1.46 | 1.23 | 1.18 | 1.49 |
| 1918..... | 1.02 | .95 | .91 | .94 | .92 | .90 | .87 | .93 | 1.09 | 1.13 | 1.12 | 1.21 | 1.00 |
| 1919..... | 1.33 | 1.27 | 1.20 | 1.33 | 1.52 | 1.52 | 1.37 | 1.51 | 1.60 | 1.74 | 1.49 | 1.16 | 1.43 |
| 1920..... | 1.02 | .99 | .92 | .82 | .74 | .69 | .65 | .67 | .61 | .59 | .57 | .62 | .74 |
| Av. 1914-1920..... | .95 | .92 | .93 | .95 | .99 | 1.03 | 1.05 | 1.11 | 1.12 | 1.11 | 1.02 | 1.00 | 1.02 |
| 1921..... | .58 | .55 | .50 | .54 | .47 | .51 | .56 | .58 | .61 | .62 | .56 | .56 | .55 |
| 1922..... | .49 | .54 | .57 | .60 | .61 | .57 | .60 | .59 | .64 | .61 | .58 | .59 | .58 |
| 1923..... | .56 | .58 | .60 | .61 | .62 | .62 | .68 | .70 | .75 | .70 | .73 | .76 | .63 |
| 1924..... | .80 | .81 | .85 | .81 | .87 | .93 | .94 | .88 | .81 | .84 | .84 | .84 | .84 |
| 1925..... | .72 | .66 | .65 | .63 | .65 | | | | | | | | |

Division of Statistical and Historical Research. Compiled from Minneapolis Market Record.

¹ Average of daily prices weighted by carlot sales.

FLAX AND FLAXSEED

TABLE 119.—*Flaxseed: Acreage, production, value, exports, etc., United States, 1909-1925*

| Year | Acreage | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Domestic exports, fiscal year beginning July 1 ² | Imports, fiscal year beginning July 1 ³ |
|--------------------|--------------|-------------------------|----------------|---|-------------------|-----------------------------|---|--|
| | <i>Acres</i> | <i>Bush. of 56 lbs.</i> | <i>Bushels</i> | <i>Cents</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Bushels</i> | <i>Bushels</i> |
| 1909..... | 8,085,000 | 9.5 | 19,699,000 | 152.8 | 30,093,000 | 14.45 | 65,193 | 5,002,496 |
| 1910..... | 2,467,000 | 5.2 | 12,718,000 | 231.7 | 29,472,000 | 11.95 | 976 | 10,499,227 |
| 1911..... | 2,757,000 | 7.0 | 19,370,000 | 182.1 | 35,272,000 | 12.79 | 4,323 | 6,841,806 |
| 1912..... | 2,851,000 | 9.8 | 28,073,000 | 114.7 | 32,202,000 | 11.29 | 16,894 | 5,294,296 |
| 1913..... | 2,291,000 | 7.8 | 17,863,000 | 119.9 | 21,399,000 | 9.34 | 305,646 | 8,653,235 |
| Av. 1909-1913..... | 2,490,000 | 7.9 | 19,543,000 | 151.9 | 29,688,000 | 11.92 | 78,586 | 7,258,212 |
| 1914..... | 1,645,000 | 8.4 | 13,749,000 | 126.0 | 17,318,000 | 10.63 | 4,145 | 10,666,215 |
| 1915..... | 1,887,000 | 10.1 | 14,030,000 | 174.0 | 24,410,000 | 17.60 | 2,614 | 14,679,233 |
| 1916..... | 1,474,000 | 9.7 | 14,296,000 | 248.6 | 35,541,000 | 24.11 | 1,017 | 12,393,988 |
| 1917..... | 1,964,000 | 4.6 | 9,164,000 | 296.6 | 27,182,000 | 13.70 | 21,481 | 13,366,529 |
| 1918..... | 1,910,000 | 7.0 | 13,369,000 | 340.1 | 46,470,000 | 23.81 | 15,574 | 8,426,886 |
| 1919..... | 1,503,000 | 4.8 | 7,178,000 | 438.5 | 31,475,000 | 20.94 | 24,044 | 23,391,934 |
| 1920..... | 1,757,000 | 6.1 | 10,752,000 | 176.7 | 18,999,000 | 10.81 | 1,481 | 16,170,415 |
| Av. 1914-1920..... | 1,666,000 | 7.1 | 11,805,000 | 242.9 | 28,680,000 | 17.22 | 10,051 | 14,156,457 |
| 1921..... | 1,106,000 | 7.2 | 8,029,000 | 145.1 | 11,648,000 | 10.51 | 2,267 | 13,632,073 |
| 1922..... | 1,113,000 | 9.3 | 10,375,000 | 211.5 | 21,941,000 | 19.71 | 216 | 25,005,936 |
| 1923..... | 2,014,000 | 8.5 | 17,060,000 | 210.7 | 35,951,000 | 17.91 | | 19,576,750 |
| 1924..... | 3,469,000 | 9.2 | 31,711,000 | 227.3 | 72,094,000 | 20.78 | | 13,419,087 |
| 1925..... | 3,012,000 | 7.3 | 22,007,000 | 226.5 | 49,842,000 | 16.55 | | |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

¹ Based on farm price Dec. 1.

² Compiled from Commerce and Navigation of United States, 1909-1918, and June issues of Monthly Summaries of Foreign Commerce, 1919-1925.

³ Six months, beginning July 1, not separately reported in 1923.

⁴ Preliminary.

TABLE 120.—*Flaxseed: Acreage, production, and total farm value, by States, 1924 and 1925*

| State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|--------------|--------------------|-------------------|----------------------------------|-------------------|---|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| Wisconsin | 8 | 11 | 104 | 152 | 234 | 344 |
| Minnesota | 712 | 760 | 8,117 | 7,600 | 18,913 | 17,480 |
| Iowa | 8 | 9 | 94 | 94 | 212 | 207 |
| Missouri | 1 | 1 | 9 | 8 | 20 | 15 |
| North Dakota | 1,873 | 1,349 | 15,920 | 8,768 | 36,138 | 19,816 |
| South Dakota | 548 | 559 | 4,877 | 3,801 | 10,876 | 8,552 |
| Nebraska | 8 | 6 | 56 | 54 | 126 | 124 |
| Kansas | 57 | 45 | 370 | 306 | 796 | 612 |
| Montana | 246 | 271 | 2,140 | 1,220 | 4,729 | 2,684 |
| Colorado | 8 | 1 | 24 | 4 | 50 | 8 |
| | 3,469 | 3,012 | 31,711 | 22,007 | 72,094 | 49,842 |

Division of Crop and Livestock Estimates.

¹ Preliminary.TABLE 121.—*Flaxseed: Yield per acre, by States, 1909-1925*

| State | 1909 | 1910 | 1911 | 1912 | 1913 | A. v. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | A. v. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | A. v. 1921- 1925 |
|---------|-------|-------|-------|-------|-------|------------------------|------|------|------|------|-------|-------|-------|------------------------|-------|-------|------|------|-------|------------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| Wis. | 14.5 | 10.0 | 12.0 | 12.5 | 14.0 | 12.6 | 13.5 | 13.5 | 12.0 | 11.0 | 10.5 | 11.0 | 11.0 | 10.5 | 10.5 | 13.0 | 12.1 | 13.0 | 13.8 | 12.5 |
| Minn. | 10.0 | 7.5 | 8.0 | 10.2 | 9.0 | 8.9 | 9.3 | 10.5 | 8.5 | 9.5 | 10.4 | 8.0 | 9.5 | 9.4 | 9.5 | 10.0 | 10.0 | 11.4 | 10.0 | 10.2 |
| Iowa | 9.8 | 12.2 | 8.0 | 11.5 | 9.4 | 10.2 | 9.5 | 9.0 | 10.0 | 11.0 | 11.0 | 9.5 | 10.0 | 10.0 | 8.7 | 10.4 | 9.4 | 11.7 | 10.5 | 10.1 |
| Mo. | 8.1 | 8.4 | 3.0 | 6.0 | 5.0 | 6.1 | 8.0 | 8.0 | 7.0 | 8.5 | 8.0 | 9.5 | 7.5 | 8.1 | 7.0 | 8.0 | 7.3 | 9.0 | 7.5 | 7.8 |
| N. Dak. | 9.3 | 3.6 | 7.6 | 9.7 | 7.2 | 7.5 | 8.3 | 9.9 | 10.3 | 3.9 | 7.8 | 4.6 | 5.3 | 7.2 | 6.5 | 9.3 | 7.7 | 8.5 | 6.5 | 7.7 |
| S. Dak. | 9.4 | 5.0 | 5.3 | 8.6 | 7.2 | 7.1 | 7.5 | 11.0 | 9.3 | 7.0 | 9.5 | 7.0 | 10.0 | 8.8 | 6.5 | 9.5 | 8.5 | 8.9 | 6.8 | 8.0 |
| Nebr. | 8.5 | 8.0 | 5.0 | 9.5 | 6.0 | 7.4 | 7.0 | 11.0 | 8.0 | 5.5 | 9.5 | 5.0 | 9.0 | 7.9 | 8.0 | 8.0 | 11.0 | 7.0 | 9.0 | 8.6 |
| Kans. | 7.0 | 8.2 | 3.0 | 6.0 | 6.0 | 6.0 | 6.0 | 5.7 | 5.8 | 7.0 | 5.0 | 6.3 | 6.9 | 6.1 | 6.7 | 6.0 | 7.6 | 6.5 | 6.8 | 6.7 |
| Mont. | 12.0 | 7.0 | 7.7 | 12.0 | 9.0 | 9.5 | 8.0 | 10.5 | 9.5 | 3.0 | 3.0 | 1.3 | 2.6 | 5.4 | 5.0 | 7.2 | 8.2 | 8.7 | 4.5 | 6.7 |
| Wyo. | ----- | ----- | ----- | ----- | ----- | ----- | 13.0 | 7.0 | 6.5 | 9.0 | 4.0 | 8.2 | ----- | ----- | 5.7 | 7.0 | 10.0 | 9.0 | ----- | ----- |
| Colo. | ----- | 7.0 | 7.0 | 8.0 | 5.0 | ----- | 8.0 | 9.4 | 6.0 | 7.0 | ----- | ----- | 7.0 | ----- | ----- | ----- | 6.6 | 3.0 | 4.5 | ----- |
| U. S. | 9.5 | 5.2 | 7.0 | 9.8 | 7.8 | 7.9 | 8.4 | 10.1 | 9.7 | 4.6 | 7.0 | 4.8 | 6.1 | 7.2 | 7.2 | 9.3 | 8.5 | 9.2 | 7.3 | 8.3 |

Division of Crop and Livestock Estimates.

TABLE 122.—*Flaxseed: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1910-1924*

| Year | Adverse weather conditions | | | | | | | | | | Plant diseases | Insect pests | Animal pests | Defective seed | Other and unknown causes | Total |
|--------|----------------------------|--------------------|--------|-----------------|------------|------------|------------|----------------|----------------|------------|----------------|--------------|--------------|----------------|--------------------------|-------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | | |
| 1910.. | P. ct. 49.4 | P. ct. (1) | ----- | P. ct. 2.5 | P. ct. 0.9 | P. ct. 6.2 | P. ct. 0.1 | P. ct. 0.2 | P. ct. 59.3 | P. ct. 1.4 | P. ct. 1.8 | P. ct. (1) | P. ct. 0.1 | P. ct. 0.5 | P. ct. 63.1 | |
| 1911.. | 16.4 | 1.1 | ----- | 8.4 | .9 | 2.8 | .1 | .8 | 30.5 | 2.2 | 1.7 | (1) | .2 | 1.7 | 36.3 | |
| 1912.. | 6.1 | 2.9 | 0.2 | 5.9 | 2.8 | 1.1 | .8 | .2 | 19.0 | 3.7 | .4 | 0.4 | 1.4 | 1.7 | 26.6 | |
| 1913.. | 24.2 | .7 | .1 | 1.0 | 1.7 | 2.2 | .2 | .4 | 30.6 | 1.6 | .3 | ----- | .4 | 1.6 | 34.5 | |
| 1914.. | 11.4 | 1.7 | .2 | 2.0 | 1.9 | 6.6 | .3 | ----- | 24.1 | 2.2 | .5 | .2 | .3 | 1.8 | 29.1 | |
| 1915.. | 2.1 | 2.0 | .3 | 8.5 | 2.1 | .4 | .2 | .5 | 16.1 | 2.6 | .1 | (1) | (1) | .8 | 19.6 | |
| 1916.. | 3.3 | 2.3 | .3 | 1.4 | 1.7 | 2.8 | .3 | .3 | 12.4 | 3.9 | .1 | (1) | .1 | .7 | 17.2 | |
| 1917.. | 51.3 | .3 | (1) | 2.9 | 1.1 | 2.9 | (1) | .8 | 59.3 | 1.2 | 1.2 | (1) | .1 | .5 | 67.3 | |
| 1918.. | 26.2 | .2 | .1 | 3.3 | 2.3 | 2.5 | .2 | ----- | 34.8 | .9 | 2.6 | (1) | .1 | .9 | 39.3 | |
| 1919.. | 38.0 | .7 | .1 | .5 | 2.0 | 4.1 | (1) | .1 | 45.5 | 3.7 | 10.6 | .1 | (1) | .3 | 60.2 | |
| 1920.. | 23.2 | 1.2 | .3 | .6 | 1.7 | 4.2 | .2 | .3 | 31.7 | 4.4 | 3.7 | (1) | .1 | 1.5 | 41.4 | |
| 1921.. | 25.2 | .9 | .2 | .5 | 1.9 | 6.5 | .1 | ----- | 35.3 | 4.3 | 3.1 | (1) | .1 | .7 | 43.5 | |
| 1922.. | 9.6 | .4 | .1 | .3 | 2.4 | 1.7 | .2 | ----- | 14.7 | 2.6 | 2.9 | (1) | .1 | .3 | 21.6 | |
| 1923.. | 10.2 | 1.0 | .2 | 1.1 | 2.5 | 2.8 | .3 | ----- | 18.1 | 3.8 | 1.4 | .1 | .1 | 1.0 | 24.5 | |
| 1924.. | 7.6 | 1.0 | .2 | 3.6 | 1.8 | .8 | .3 | ----- | 15.3 | 4.0 | .2 | ----- | .1 | .8 | 20.4 | |

Division of Crop and Livestock Estimates.

¹ Less than 0.05 per cent.

TABLE 123.—Flax: Acreage in specified countries, average 1909–1913, annual 1922–1925

| Country | Acreage | | | | |
|---|-----------------------------------|------------|------------|------------|-----------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 pre- liminary |
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| Canada..... | 1,034,874 | 565,479 | 629,938 | 1,276,667 | 1,128,100 |
| United States..... | 2,489,800 | 1,113,000 | 2,014,000 | 3,469,000 | 3,012,000 |
| Total North America..... | 3,524,674 | 1,678,479 | 2,643,938 | 4,745,667 | 4,140,100 |
| EUROPE | | | | | |
| United Kingdom: | | | | | |
| England and Wales..... | 480 | 9,352 | 9,446 | 5,743 | ..... |
| Northern Ireland..... | 53,014 | 29,117 | 42,712 | 42,833 | 37,912 |
| Irish Free State..... | | 4,915 | 8,066 | 10,499 | ..... |
| Sweden..... | ² 4,016 | 5,567 | 5,446 | ..... | ..... |
| Netherlands..... | 33,055 | 23,954 | 24,915 | 31,315 | 35,200 |
| Belgium..... | 48,930 | 40,700 | 46,287 | 54,461 | 57,878 |
| France..... | 61,666 | 38,221 | 36,813 | 48,510 | 49,141 |
| Spain..... | ³ 7,349 | 4,594 | 4,201 | (3,000) | 2,500 |
| Italy..... | ⁴ 50,758 | 71,906 | 70,127 | 51,400 | 49,400 |
| Austria..... | 12,787 | 9,212 | 9,039 | 9,254 | ..... |
| Czechoslovakia..... | 61,404 | 56,151 | 52,440 | 54,080 | 61,170 |
| Hungary..... | 7,907 | 6,027 | 4,171 | 5,533 | ..... |
| Yugoslavia..... | 32,274 | 32,568 | 33,163 | 32,333 | 32,700 |
| Bulgaria..... | 756 | 722 | 1,285 | 672 | 700 |
| Rumania..... | ⁵ 71,253 | 26,947 | 33,200 | 50,638 | 62,200 |
| Poland..... | 191,710 | 251,493 | 255,632 | 261,958 | 265,900 |
| Lithuania..... | 143,257 | 126,517 | 128,741 | 151,966 | 187,800 |
| Latvia..... | 161,906 | 93,169 | 140,392 | 149,486 | 193,000 |
| Estonia..... | 135,193 | 59,178 | 75,704 | 75,912 | 112,200 |
| Finland..... | ⁶ 12,236 | 15,938 | 14,512 | 13,100 | 13,600 |
| Russia, including Asiatic territory..... | 3,165,082 | 2,160,400 | 2,318,000 | 2,864,000 | 3,413,900 |
| Total European countries reporting all years shown, including Asiatic Russia..... | 4,229,843 | 3,031,475 | 3,278,124 | 3,885,569 | 4,576,101 |
| NORTH AFRICA | | | | | |
| Kenya..... | ..... | 11,781 | 5,438 | 5,168 | ..... |
| Morocco..... | ..... | 31,720 | 33,961 | 45,308 | 55,200 |
| Algeria..... | 1,368 | ..... | 667 | 793 | ..... |
| Tunis..... | (8,000) | 4,791 | 4,317 | 5,246 | 4,466 |
| Egypt..... | 4,628 | 1,384 | 1,696 | 2,449 | 3,300 |
| Total North African countries report- ing all years shown..... | 12,628 | 6,175 | 6,015 | 7,695 | 7,700 |
| ASIA | | | | | |
| India ⁷ | 3,824,880 | 3,382,000 | 3,730,000 | 3,695,000 | ..... |
| Japanese Empire: | | | | | |
| Japan..... | ⁸ 12,139 | 39,248 | 44,532 | 37,208 | ..... |
| Chosen (Korea)..... | 3,000 | 3,175 | 3,428 | 3,450 | ..... |
| Total Northern Hemisphere coun- tries reporting all years shown..... | 7,767,145 | 4,716,129 | 5,928,077 | 8,638,931 | 8,723,901 |
| SOUTHERN HEMISPHERE | | | | | |
| Chile..... | 748 | 526 | 798 | ..... | ..... |
| Uruguay..... | ⁹ 126,528 | 84,459 | 104,941 | 146,000 | 125,100 |
| Argentina..... | 4,113,434 | 4,270,000 | 5,360,679 | 5,379,345 | 6,200,860 |
| Australia..... | ¹ 1,066 | 714 | 5 | ..... | ..... |
| New Zealand..... | ² 2,565 | 10,645 | 12,119 | 6,700 | ..... |
| Total Southern Hemisphere coun- tries reporting all years shown..... | 4,239,962 | 4,354,459 | 5,465,620 | 5,525,345 | 6,325,960 |
| Total Northern and Southern Hemis- phere countries reporting all years shown..... | 12,007,107 | 9,070,588 | 11,393,697 | 14,164,276 | 15,048,861 |
| Estimated world total ¹ | 15,910,000 | 12,587,000 | 15,261,000 | 17,995,000 | ..... |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Estimates given are for crops harvested during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere with the exception of India. See note on India.

¹ Where changes in boundary have occurred averages are estimates for territory within present boundaries.

² Three-year average.

³ Two-year average.

⁴ Four-year average.

⁵ One year only.

⁶ Acreage of crop sown in autumn of year given and harvested in the spring of the succeeding year.

⁷ Excludes a few minor producing countries which do not enter into world trade and for which no acreage or production estimates are available.

TABLE 124.—*Flax: Production in specified countries, average 1909–1913, annual 1922–1925*

| Country | Seed | | | | | Fiber | | | | |
|---|--------------------------------|----------------------|----------------------|----------------------|----------------------|--------------------------------|--------------|--------------|--------------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMI-SPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| Canada..... | 1,000 bush-cls 12,040 | 1,000 bush-cls 5,009 | 1,000 bush-cls 7,140 | 1,000 bush-cls 9,695 | 1,000 bush-cls 9,297 | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| United States..... | 19,543 | 10,376 | 17,000 | 31,711 | 22,007 | | | | | |
| Total North America..... | 31,583 | 15,384 | 24,200 | 41,406 | 31,304 | | | | | |
| EUROPE | | | | | | | | | | |
| United Kingdom: | | | | | | | | | | |
| Northern Ireland..... | | | | | | 23,700 | 10,526 | 14,490 | 13,085 | |
| Irish Free State..... | | | | | | | 1,902 | 2,612 | 3,060 | |
| Sweden..... | ² 14 | 6 | 4 | | | ³ 1,128 | 692 | 620 | | |
| Netherlands..... | 376 | 250 | 258 | 346 | 315 | 17,276 | 9,690 | 15,872 | 20,490 | 19,140 |
| Belgium..... | ⁴ 472 | 356 | 413 | 404 | 461 | ³ 51,887 | 33,481 | 59,779 | 35,379 | 51,638 |
| France..... | 534 | 280 | 288 | 417 | 310 | 40,732 | 20,769 | 23,172 | 33,870 | 39,205 |
| Spain..... | ³ 26 | 51 | 51 | (50) | 45 | ³ 1,995 | 1,417 | 1,168 | (1,300) | 1,370 |
| Italy..... | 340 | 413 | 402 | 422 | 394 | 6,675 | 4,982 | 5,201 | 4,541 | 5,290 |
| Austria..... | 112 | 48 | 52 | 65 | | 7,480 | 7,130 | 7,311 | 7,706 | |
| Czechoslovakia..... | 435 | 312 | 362 | 356 | 492 | 39,143 | 27,781 | 28,377 | 27,046 | 33,570 |
| Hungary..... | 63 | 41 | 30 | 42 | | 6,671 | 5,188 | 3,258 | 3,829 | |
| Yugoslavia..... | 161 | | | | | 22,277 | 15,269 | 10,177 | 18,683 | |
| Bulgaria..... | 6 | 3 | 11 | 4 | 5 | 382 | 205 | 551 | 201 | 230 |
| Rumania..... | ² 707 | 194 | 248 | 223 | 315 | ³ 11,044 | 3,114 | (6,000) | 14,040 | |
| Poland..... | 1,703 | 1,995 | 2,338 | 2,240 | 2,441 | 47,336 | 113,771 | 90,004 | 96,222 | 134,481 |
| Lithuania..... | 1,126 | 1,106 | 1,056 | 1,332 | 1,653 | 49,703 | 45,194 | 66,623 | 71,859 | 90,389 |
| Latvia..... | 953 | 563 | 647 | 980 | 1,102 | 62,318 | 37,563 | 42,683 | 57,708 | 66,138 |
| Estonia..... | 733 | 328 | 347 | 460 | 518 | 49,518 | 20,750 | 21,643 | 23,665 | 32,628 |
| Finland..... | | | | | | 4,244 | 3,447 | 2,923 | 2,800 | |
| Russia (including Asiatic territory)..... | 18,884 | 11,044 | 13,389 | 16,523 | 24,605 | 739,990 | 703,819 | 513,926 | 625,225 | 578,000 |
| Total Europe reporting all years shown, including Asiatic Russia..... | 26,395 | 16,906 | 19,810 | 23,817 | 32,656 | 1,106,955 | 1,019,381 | 869,069 | 997,506 | 1,052,079 |
| NORTH AFRICA | | | | | | | | | | |
| Kenya..... | | 34 | 15 | 10 | | | 1,351 | 391 | 442 | |
| Morocco..... | | 267 | 258 | 445 | 481 | | | | | |
| Algeria..... | 13 | 7 | 11 | 4 | | 188 | | 441 | | |
| Tunis..... | 37 | 8 | 27 | 15 | 37 | | | | | |
| Egypt..... | | 14 | 18 | 25 | | | 992 | 1,212 | 1,742 | |
| Total African countries reporting all years shown..... | 37 | 8 | 27 | 15 | 37 | | | | | |
| ASIA | | | | | | | | | | |
| India ⁴ | 20,578 | 21,320 | 18,480 | 21,640 | | | | | | |
| Japanese Empire: | | | | | | | | | | |
| Japan..... | ² 98 | 271 | 284 | 213 | | ³ 5,142 | 10,896 | 11,040 | 8,309 | |
| Chosen (Korea)..... | | | | | | | 1,106 | 1,142 | 1,258 | |
| Total Northern Hemisphere countries reporting all years shown..... | 58,015 | 32,298 | 44,037 | 65,238 | 63,907 | 1,106,955 | 1,019,381 | 869,069 | 997,506 | 1,052,079 |

¹ Where changes in boundary have occurred averages are estimates for territory within present boundaries.² Four-year average.³ Three-year average.⁴ Figures are for crop sown in autumn of year given and harvested in the spring of the succeeding year.

TABLE 124.—*Flax: Production in specified countries, average 1909-1913, annual 1922-1925—Continued*

| Country | Seed | | | | | Fiber | | | | |
|---|--------------------------------|---------------|---------------|---------------|------------------|--------------------------------|--------------|--------------|--------------|------------------|
| | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| SOUTHERN HEMISPHERE | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| Chile..... | 19 | 5 | 9 | | | | | | | |
| Uruguay..... | 1 961 | 719 | 1,178 | 1,542 | | | | | | |
| Argentina..... | 31,117 | 47,577 | 58,005 | 45,084 | 75,000 | | | | | |
| Australia..... | 9 | 3 | | | | 128 | 49 | | | |
| New Zealand..... | | 205 | 187 | 116 | | | | | | |
| Total Southern Hemisphere countries reporting all years shown. | 31,117 | 47,577 | 58,005 | 45,084 | 75,000 | | | | | |
| Total Northern and Southern Hemisphere countries reporting all years shown. | 80,132 | 79,875 | 102,042 | 10,322 | 138,997 | 1,106,955 | 1,019,381 | 869,089 | 997,506 | 1,052,079 |
| Estimated world total ² | 111,500 | 102,800 | 122,500 | 134,400 | | 1,194,000 | 1,082,000 | 941,000 | 1,075,000 | |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Estimates given are for crops harvested during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere with the exception of India. See note on India.

¹ Where changes in boundary have occurred averages are estimates for territory within present boundaries.

² Four-year average.

³ Two-year average.

⁴ Excludes a few minor producing countries which do not enter into world trade and for which no acreage or production statistics are available.

TABLE 125.—*Flaxseed: Monthly marketings by farmers, as reported by about 3,500 mills and elevators, United States, 1917-1924*

| Year beginning July | Percentage of year's receipts | | | | | | | | | | | | |
|------------------------|-------------------------------|------|-------|------|------|------|------|------|------|------|-----|------|--------|
| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Season |
| 1917..... | 1.8 | 3.6 | 21.5 | 28.1 | 17.6 | 7.6 | 4.7 | 4.0 | 4.8 | 1.8 | 1.6 | 2.9 | 100.0 |
| 1918..... | 1.8 | 2.9 | 14.8 | 21.5 | 15.0 | 10.9 | 8.2 | 4.4 | 5.8 | 4.3 | 5.0 | 8.4 | 100.0 |
| 1919..... | 3.6 | 8.0 | 20.6 | 22.2 | 11.1 | 7.4 | 5.0 | 6.3 | 3.1 | 3.1 | 2.6 | 7.0 | 100.0 |
| 1920..... | 2.1 | 4.7 | 23.6 | 28.6 | 13.0 | 6.2 | 5.0 | 3.3 | 3.1 | 2.1 | 3.4 | 4.9 | 100.0 |
| 1921..... | 6.4 | 10.9 | 20.7 | 25.7 | 12.0 | 6.9 | 4.3 | 2.8 | 3.0 | 2.4 | 2.1 | 2.8 | 100.0 |
| 1922..... | 2.5 | 13.4 | 27.6 | 23.3 | 11.4 | 5.9 | 4.7 | 8.0 | 2.7 | 2.3 | 1.6 | 1.6 | 100.0 |
| 1923..... | 1.1 | 10.0 | 30.7 | 27.3 | 12.1 | 6.0 | 2.6 | 2.3 | 2.0 | 1.5 | 2.1 | 2.3 | 100.0 |
| 1924..... | .5 | 5.3 | 23.0 | 34.5 | 17.8 | 6.7 | 3.8 | 2.7 | 1.8 | 1.4 | 1.2 | 1.3 | 100.0 |

Division of Crop and Livestock Estimates.

TABLE 126.—*Flaxseed: Receipts at Minneapolis, 1909-1925*

[Thousand bushels—1. e., 000 omitted]

| Year beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Total |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1909..... | 999 | 2,219 | 1,892 | 601 | 966 | 670 | 826 | 437 | 222 | 159 | 123 | 137 | 9,251 |
| 1910..... | 854 | 1,530 | 1,292 | 535 | 838 | 300 | 232 | 112 | 118 | 122 | 133 | 191 | 5,767 |
| 1911..... | 563 | 1,212 | 1,570 | 1,716 | 531 | 459 | 397 | 468 | 571 | 440 | 487 | 160 | 8,574 |
| 1912..... | 700 | 1,657 | 1,520 | 2,245 | 1,450 | 1,248 | 1,057 | 742 | 518 | 514 | 432 | 281 | 12,362 |
| 1913..... | 756 | 1,686 | 1,505 | 1,131 | 711 | 478 | 592 | 270 | 139 | 165 | 233 | 117 | 7,783 |
| Av. 1909-1913..... | 774 | 1,661 | 1,556 | 1,246 | 799 | 631 | 621 | 406 | 314 | 280 | 282 | 177 | 8,745 |
| 1914..... | 901 | 1,890 | 1,247 | 1,016 | 599 | 443 | 384 | 142 | 77 | 140 | 239 | 115 | 7,199 |
| 1915..... | 347 | 1,038 | 1,506 | 1,113 | 319 | 399 | 810 | 486 | 440 | 363 | 441 | 199 | 7,461 |
| 1916..... | 316 | 2,380 | 1,694 | 1,045 | 544 | 442 | 441 | 384 | 263 | 565 | 325 | 92 | 8,491 |
| 1917..... | 265 | 980 | 1,112 | 614 | 533 | 553 | 527 | 283 | 349 | 648 | 208 | 94 | 6,160 |
| 1918..... | 536 | 915 | 857 | 788 | 558 | 473 | 829 | 439 | 456 | 942 | 642 | 196 | 7,611 |
| 1919..... | 753 | 570 | 568 | 492 | 344 | 368 | 408 | 159 | 295 | 522 | 554 | 297 | 5,331 |
| 1920..... | 580 | 1,444 | 861 | 609 | 298 | 269 | 364 | 434 | 578 | 572 | 338 | 289 | 6,726 |
| Av. 1914-1920..... | 528 | 1,317 | 1,121 | 824 | 456 | 421 | 538 | 332 | 348 | 537 | 392 | 183 | 6,998 |
| 1921..... | 500 | 1,144 | 375 | 354 | 308 | 200 | 254 | 198 | 300 | 220 | 157 | 288 | 4,296 |
| 1922..... | 909 | 1,121 | 580 | 577 | 447 | 249 | 319 | 476 | 401 | 481 | 359 | 1,019 | 6,938 |
| 1923..... | 2,654 | 1,953 | 1,308 | 877 | 358 | 250 | 229 | 210 | 296 | 266 | 264 | 269 | 8,964 |
| 1924..... | 2,265 | 8,476 | 2,781 | 1,375 | 1,244 | 750 | 671 | 374 | 402 | 442 | 286 | 1,094 | 15,159 |
| 1925..... | 3,331 | 2,745 | 1,107 | 722 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from annual reports of the Minneapolis Chamber of Commerce.

TABLE 127.—*Flaxseed: Receipts at Duluth, 1909-1925*

[Thousand bushels—1. e., 000 omitted]

| Year beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Total |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1909..... | 673 | 3,185 | 4,489 | 651 | 172 | 42 | 59 | 122 | 148 | 57 | 179 | 51 | 9,828 |
| 1910..... | 370 | 823 | 1,442 | 368 | 64 | 56 | 37 | 18 | 18 | 13 | 38 | 14 | 3,270 |
| 1911..... | 281 | 1,105 | 3,015 | 1,259 | 689 | 313 | 137 | 167 | 109 | 247 | 354 | 47 | 7,723 |
| 1912..... | 229 | 2,084 | 6,408 | 3,433 | 1,113 | 190 | 359 | 188 | 494 | 780 | 1,743 | 582 | 17,603 |
| 1913..... | 467 | 2,603 | 2,763 | 1,153 | 365 | 62 | 48 | 139 | 58 | 185 | 323 | 81 | 8,247 |
| Av. 1909-1913..... | 406 | 1,960 | 3,623 | 1,373 | 481 | 133 | 128 | 127 | 165 | 256 | 527 | 155 | 9,334 |
| 1914..... | 89 | 1,362 | 2,212 | 562 | 154 | 92 | 221 | 224 | 126 | 87 | 187 | 29 | 5,345 |
| 1915..... | 15 | 228 | 2,765 | 1,670 | 462 | 223 | 39 | 32 | 39 | 74 | 121 | 109 | 5,837 |
| 1916..... | 33 | 909 | 3,610 | 1,445 | 249 | 114 | 223 | 156 | 364 | 106 | 129 | 72 | 7,410 |
| 1917..... | 184 | 272 | 838 | 539 | 87 | 8 | 45 | 101 | 129 | 310 | 150 | 24 | 2,687 |
| 1918..... | 154 | 1,097 | 1,385 | 630 | 216 | 80 | 111 | 245 | 138 | 121 | 322 | 135 | 4,634 |
| 1919..... | 194 | 314 | 81 | 227 | 88 | 102 | 90 | 111 | 59 | 021 | 792 | 365 | 3,044 |
| 1920..... | 524 | 997 | 589 | 611 | 171 | 107 | 47 | 144 | 421 | 467 | 572 | 280 | 4,930 |
| Av. 1914-1920..... | 170 | 740 | 1,640 | 812 | 204 | 104 | 111 | 145 | 182 | 255 | 325 | 153 | 4,841 |
| 1921..... | 409 | 567 | 801 | 356 | 107 | 72 | 126 | 43 | 85 | 167 | 81 | 16 | 2,880 |
| 1922..... | 515 | 1,143 | 912 | 391 | 169 | 57 | 74 | 57 | 89 | 542 | 112 | 225 | 4,253 |
| 1923..... | 1,272 | 2,454 | 1,518 | 365 | 120 | 111 | 105 | 63 | 253 | 94 | 119 | 36 | 5,500 |
| 1924..... | 1,728 | 6,178 | 6,197 | 642 | 156 | 110 | 96 | 170 | 249 | 394 | 459 | 241 | 16,620 |
| 1925..... | 2,409 | 2,693 | 2,391 | 693 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from annual reports of the Duluth Board of Trade.

TABLE 128.—*Flaxseed: Shipments from Minneapolis, 1909-1925*

[Thousand bushels—1. e., 000 omitted]

| Year beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Total |
|--------------------------|-------|-------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1909 | 121 | 584 | 578 | 86 | 89 | 93 | 112 | 153 | 149 | 89 | 33 | 25 | 2,092 |
| 1910 | 175 | 207 | 295 | 48 | 28 | 30 | 35 | 37 | 73 | 20 | 4 | 9 | 859 |
| 1911 | 106 | 223 | 315 | 212 | 142 | 142 | 110 | 111 | 139 | 110 | 61 | 20 | 1,697 |
| 1912 | 134 | 366 | 616 | 253 | 297 | 199 | 199 | 155 | 91 | 112 | 122 | 54 | 2,670 |
| 1913 | 106 | 200 | 169 | 102 | 54 | 32 | 34 | 43 | 31 | 17 | 10 | 6 | 804 |
| Av. 1909-1913 | 128 | 310 | 395 | 140 | 118 | 99 | 112 | 100 | 97 | 70 | 46 | 24 | 1,644 |
| 1914 | 32 | 98 | 150 | 61 | 40 | 56 | 137 | 61 | 21 | 14 | 76 | 3 | 755 |
| 1915 | 6 | 80 | 313 | 169 | 109 | 38 | 27 | 12 | 26 | 7 | 16 | 34 | 837 |
| 1916 | 10 | 299 | 468 | 118 | 57 | 78 | 103 | 50 | 122 | 17 | 76 | 22 | 1,420 |
| 1917 | 27 | 77 | 424 | 118 | 47 | 46 | 68 | 86 | 29 | 27 | 19 | 14 | 982 |
| 1918 | 57 | 165 | 272 | 172 | 160 | 98 | 68 | 116 | 42 | 84 | 114 | 1 | 1,385 |
| 1919 | 106 | 143 | 46 | 35 | 19 | 20 | 35 | 38 | 19 | 67 | 31 | 27 | 588 |
| 1920 | 82 | 211 | 59 | 16 | 22 | 37 | 62 | 103 | 71 | 83 | 114 | 203 | 1,063 |
| Av. 1914-1920 | 46 | 153 | 247 | 98 | 67 | 53 | 71 | 71 | 47 | 43 | 64 | 43 | 1,004 |
| 1921 | 197 | 163 | 225 | 82 | 158 | 114 | 95 | 52 | 46 | 24 | 51 | 70 | 1,277 |
| 1922 | 183 | 199 | 186 | 108 | 127 | 54 | 82 | 57 | 30 | 53 | 36 | 71 | 1,183 |
| 1923 | 265 | 409 | 234 | 166 | 121 | 132 | 188 | 127 | 105 | 78 | 54 | 33 | 1,912 |
| 1924 | 676 | 1,456 | 478 | 283 | 170 | 142 | 126 | 102 | 44 | 30 | 64 | 232 | 3,801 |
| 1925 | 1,007 | 621 | 347 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 1,007 |

Division of Statistical and Historical Research. Compiled from annual reports of the Minneapolis Chamber of Commerce.

TABLE 129.—*Flaxseed: Shipments from Duluth, 1909-1925*

[Thousand bushels—1. e., 000 omitted]

| Year beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Total |
|--------------------------|-------|-------|-------|-------|------|------|------|------|-------|------|-------|-------|--------|
| 1909 | 380 | 2,172 | 2,996 | 3,179 | 262 | 34 | 64 | 184 | 166 | 163 | 151 | 98 | 9,849 |
| 1910 | 253 | 614 | 1,482 | 480 | 55 | 91 | 26 | 40 | 85 | 4 | 1 | 148 | 3,279 |
| 1911 | 120 | 960 | 2,318 | 1,477 | 651 | 645 | 208 | 184 | 592 | 381 | 209 | 168 | 7,993 |
| 1912 | 258 | 1,135 | 5,573 | 3,676 | 333 | 46 | 33 | 281 | 1,307 | 832 | 1,689 | 1,269 | 16,432 |
| 1913 | 1,237 | 1,736 | 1,752 | 2,672 | 54 | 30 | 31 | 4 | 378 | 85 | 153 | 81 | 8,213 |
| Av. 1909-1913 | 450 | 1,327 | 2,824 | 2,297 | 271 | 109 | 72 | 139 | 506 | 293 | 453 | 353 | 9,153 |
| 1914 | 745 | 466 | 3,550 | 877 | 99 | 8 | 0 | 13 | 385 | 26 | 0 | 460 | 6,629 |
| 1915 | 919 | 115 | 2,118 | 830 | 28 | 18 | 22 | 12 | 428 | 20 | 25 | 755 | 5,290 |
| 1916 | 423 | 305 | 2,622 | 2,697 | 89 | 15 | 13 | 47 | 1,246 | 878 | 354 | 241 | 8,930 |
| 1917 | 150 | 307 | 376 | 784 | 128 | 0 | 48 | 58 | 225 | 337 | 219 | 97 | 2,729 |
| 1918 | 91 | 619 | 1,201 | 949 | 348 | 93 | 50 | 36 | 297 | 223 | 286 | 190 | 4,392 |
| 1919 | 50 | 250 | 155 | 112 | 63 | 51 | 65 | 11 | 124 | 153 | 535 | 309 | 1,968 |
| 1920 | 199 | 424 | 900 | 347 | 57 | 23 | 51 | 154 | 866 | 371 | 932 | 246 | 4,630 |
| Av. 1914-1920 | 368 | 355 | 1,569 | 942 | 116 | 30 | 36 | 47 | 510 | 287 | 336 | 342 | 4,938 |
| 1921 | 314 | 894 | 761 | 741 | 144 | 79 | 125 | 49 | 214 | 41 | 165 | 82 | 3,009 |
| 1922 | 190 | 597 | 1,007 | 784 | 366 | 87 | 30 | 26 | 155 | 386 | 114 | 186 | 3,928 |
| 1923 | 607 | 1,555 | 1,727 | 1,351 | 171 | 229 | 141 | 119 | 183 | 170 | 84 | 119 | 6,416 |
| 1924 | 1,019 | 4,554 | 6,620 | 1,233 | 295 | 284 | 248 | 84 | 285 | 285 | 281 | 371 | 15,459 |
| 1925 | 942 | 1,994 | 3,499 | 343 | 343 | 343 | 343 | 343 | 343 | 343 | 343 | 343 | 9,421 |

Division of Statistical and Historical Research. Compiled from annual reports of the Duluth Board of Trade.

TABLE 130.—*Flaxseed: Stocks held in public storage houses in Minneapolis on Saturday nearest the 1st of the month, 1909-1925*

[Thousand bushels—i. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1909..... | 791 | 620 | 480 | 191 | 19 | 8 | 10 | 24 | 1 | 14 | 199 | 449 |
| 1910..... | 528 | 560 | 572 | 597 | 518 | 231 | 55 | 4 | 9 | 28 | 106 | 189 |
| 1911..... | 158 | 61 | 29 | 15 | 10 | 4 | 4 | 1 | 1 | 11 | 55 | 151 |
| 1912..... | 321 | 290 | 236 | 177 | 134 | 87 | 64 | 68 | 58 | 90 | 102 | 178 |
| 1913..... | 321 | 413 | 461 | 497 | 361 | 202 | 146 | 102 | 87 | 69 | 116 | 239 |
| Av. 1909-1913. | 424 | 389 | 356 | 295 | 208 | 105 | 56 | 40 | 21 | 42 | 116 | 241 |
| 1914..... | 210 | 196 | 182 | 214 | 258 | 250 | 241 | 148 | 23 | 37 | 241 | 203 |
| 1915..... | 385 | 300 | 142 | 74 | 77 | 38 | 55 | 52 | 11 | 5 | 32 | 86 |
| 1916..... | 238 | 265 | 215 | 148 | 118 | 82 | 51 | 22 | 5 | 7 | 95 | 261 |
| 1917..... | 328 | 513 | 512 | 458 | 239 | 123 | 166 | 101 | 5 | 19 | 102 | 47 |
| 1918..... | 93 | 100 | 82 | 79 | 31 | 32 | 46 | 50 | 23 | 13 | 52 | 84 |
| 1919..... | 63 | 61 | 19 | 115 | 50 | 24 | 55 | 173 | 53 | 29 | 37 | 54 |
| 1920..... | 49 | 21 | 24 | 24 | 29 | 22 | 16 | 49 | 120 | 150 | 447 | 724 |
| Av. 1914-1920 | 195 | 208 | 168 | 159 | 115 | 83 | 90 | 85 | 34 | 37 | 144 | 221 |
| 1921..... | 950 | 1,091 | 1,067 | 1,047 | 974 | 905 | 1,093 | 1,135 | 1,074 | 925 | 834 | 674 |
| 1922..... | 380 | 147 | 86 | 41 | 41 | 57 | 48 | 10 | 7 | 19 | 75 | 41 |
| 1923..... | 21 | 8 | 2 | 4 | 2 | 27 | 13 | 5 | 26 | 342 | 448 | 757 |
| 1924..... | 458 | 382 | 260 | 149 | 72 | 67 | 20 | 3 | 7 | 88 | 205 | 276 |
| 1925..... | 447 | 412 | 368 | 361 | 339 | 281 | 240 | 187 | 60 | 304 | 927 | 994 |
| Av. 1921-1925 | 451 | 408 | 366 | 320 | 286 | 285 | 283 | 268 | 235 | 336 | 498 | 548 |

Division of Statistical and Historical Research. Compiled from annual reports of the Minneapolis Chamber of Commerce, 1899-1924, and from Minneapolis Daily Market Record 1925.

1 Not over 500 bushels.

TABLE 131.—*Flaxseed: Stocks held in Duluth on Saturday nearest the 1st of the month, 1909-1925*

[Thousand bushels—i. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-----------------------|------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|------------|------------|--------------|--------------|
| 1909..... | 865 | 930 | 984 | 1,117 | 1,174 | 691 | 290 | 334 | 50 | 336 | 1,388 | 391 |
| 1910..... | 316 | 228 | 239 | 226 | 169 | 35 | 54 | 74 | 29 | 132 | 374 | 259 |
| 1911..... | 225 | 216 | 208 | 211 | 189 | 122 | 130 | 103 | 31 | 193 | 411 | 848 |
| 1912..... | 843 | 828 | 573 | 618 | 636 | 468 | 318 | 360 | 229 | 107 | 1,345 | 2,018 |
| 1913..... | 2,490 | 3,308 | 4,388 | 5,786 | 4,337 | 3,793 | 3,181 | 2,330 | 1,540 | 826 | 1,727 | 2,699 |
| Av. 1909-1913. | 948 | 1,102 | 1,278 | 1,592 | 1,301 | 1,010 | 795 | 652 | 376 | 319 | 1,049 | 1,243 |
| 1914..... | 1,385 | 1,692 | 1,715 | 1,846 | 2,041 | 1,934 | 2,113 | 2,642 | 2,255 | 1,307 | 1,873 | 738 |
| 1915..... | 241 | 396 | 605 | 882 | 1,068 | 1,223 | 1,292 | 1,471 | 852 | 149 | 266 | 688 |
| 1916..... | 1,003 | 1,484 | 1,647 | 1,713 | 1,755 | 1,369 | 1,640 | 1,641 | 1,069 | 647 | 1,722 | 884 |
| 1917..... | 1,171 | 1,398 | 1,562 | 1,851 | 1,990 | 1,081 | 503 | 389 | 201 | 241 | 203 | 447 |
| 1918..... | 129 | 74 | 45 | 59 | 265 | 347 | 103 | 103 | 34 | 72 | 440 | 608 |
| 1919..... | 245 | 60 | 23 | 25 | 324 | 253 | 113 | 129 | 45 | 126 | 163 | 40 |
| 1920..... | 408 | 67 | 71 | 34 | 130 | 32 | 458 | 693 | 840 | 1,172 | 1,659 | 1,094 |
| Av. 1914-1920 | 612 | 732 | 810 | 916 | 1,086 | 891 | 887 | 1,010 | 755 | 531 | 904 | 643 |
| 1921..... | 1,460 | 1,558 | 1,040 | 1,636 | 1,630 | 1,138 | 1,319 | 962 | 921 | 994 | 654 | 448 |
| 1922..... | 227 | 144 | 122 | 84 | 161 | 64 | 134 | 36 | 9 | 334 | 656 | 595 |
| 1923..... | 340 | 21 | 40 | 18 | 9 | 15 | 121 | 17 | 85 | 715 | 1,753 | 668 |
| 1924..... | 474 | 364 | 229 | 165 | 187 | 160 | 114 | 90 | 8 | 474 | 2,243 | 1,801 |
| 1925..... | 1,092 | 888 | 636 | 372 | 274 | 211 | 379 | 393 | 227 | 2,062 | 2,300 | 1,433 |

Division of Statistical and Historical Research. Compiled from annual reports of the Duluth Board of Trade.

TABLE 132.—*Flaxseed, including linseed oil: Acreage, production, imports, exports, and net supply in the United States, 1911-1925*

| Year beginning July 1 | Acreage | Production | Imports | | | Exports (domestic and foreign) | | | Net supply |
|-----------------------|--------------------|---------------------|---------------|-------------------------------------|---------------|--------------------------------|-------------------------------------|---------------|---------------|
| | | | Seed | Oil (in terms of seed) ¹ | Total | Seed | Oil (in terms of seed) ¹ | Total | |
| | 1,000 acres | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| 1911..... | 2,767 | 19,370 | 6,842 | 296 | 7,137 | 26 | 99 | 125 | 26,381 |
| 1912..... | 2,851 | 28,078 | 5,294 | 69 | 5,364 | 17 | 694 | 711 | 32,726 |
| 1913..... | 2,291 | 17,853 | 8,653 | 77 | 8,730 | 306 | 96 | 402 | 26,182 |
| 1914..... | 1,645 | 13,749 | 10,666 | 214 | 10,880 | 67 | 485 | 552 | 24,077 |
| 1915..... | 1,387 | 14,030 | 14,679 | 20 | 14,699 | 3 | 286 | 288 | 28,441 |
| 1916..... | 1,474 | 14,296 | 12,394 | 44 | 12,438 | 1 | 481 | 482 | 26,253 |
| 1917..... | 1,984 | 9,164 | 13,367 | 20 | 13,387 | 22 | 476 | 499 | 22,052 |
| 1918..... | 1,910 | 13,369 | 8,427 | 396 | 8,823 | 16 | 439 | 455 | 21,737 |
| 1919..... | 1,503 | 7,256 | 23,392 | 1,820 | 25,212 | 49 | 457 | 506 | 31,962 |
| 1920..... | 1,757 | 10,774 | 16,170 | 799 | 16,969 | 1 | 225 | 226 | 27,517 |
| 1921..... | 1,106 | 8,029 | 13,632 | 8,998 | 22,630 | 2 | 149 | 151 | 30,508 |
| 1922..... | 1,113 | 10,375 | 26,006 | 3,027 | 28,033 | (²) | 166 | 166 | 38,242 |
| 1923..... | 2,014 | 17,060 | 19,677 | 951 | 20,628 | (²) | 140 | 140 | 37,448 |
| 1924..... | 3,469 | 31,711 | 13,419 | 1,268 | 14,677 | (²) | 128 | 128 | 46,290 |
| 1925..... | ¹ 3,012 | ² 22,007 | | | | | | | |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of Foreign and Domestic Commerce and Division of Crop and Livestock Estimates.

¹ Oil converted to seed on basis of 7½ pounds to a gallon and 2½ gallons of oil to the bushel.

² Preliminary.

Less than 500 bushels for the 6 months ended Dec. 31, 1922; not separately reported since that date.

³ Not separately reported.

⁴ Represents domestic oil only. Exports of "foreign" linseed oil not separately reported since December, 1922, but included with exports of "other vegetable oils" (foreign) n. e. s. Exports of "foreign" linseed oil for the 6 months ended Dec. 31, 1922, were the equivalent of 260 bushels of flaxseed.

TABLE 133.—*Flaxseed used in the production of oil, United States, 1919-1925*

[Thousand bushels—i. e., 000 omitted]

| Year beginning July 1— | July-Sept. | Oct.-Dec. | Jan.-Mar. | Apr.-June | Total |
|------------------------|------------|-----------|-----------|-----------|--------|
| 1918..... | | | 1,041 | 4,786 | |
| 1919..... | 6,899 | 7,684 | 0,336 | 6,407 | 27,326 |
| 1920..... | 6,842 | 6,341 | 6,343 | 6,332 | 25,558 |
| 1921..... | 8,812 | 7,539 | 6,713 | 3,441 | 23,505 |
| 1922..... | 5,583 | 8,602 | 8,292 | 6,689 | 31,166 |
| 1923..... | 8,223 | 8,970 | 9,575 | 9,434 | 36,202 |
| 1924..... | 7,650 | 11,630 | 12,303 | 9,128 | 40,511 |
| 1925..... | 7,822 | 11,798 | | | |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of the Census.

TABLE 134.—*Flaxseed: International trade, average 1911-1913, annual 1922-1924*
[Thousand bushels—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Average 1911-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 1 | 25,562 | 3 | 36,909 | 3 | 40,777 | 1 | 53,458 |
| British India..... | 323 | 14,409 | 260 | 12,404 | 226 | 15,357 | 44 | 13,010 |
| Canada..... | 89 | 10,645 | 45 | 2,073 | 797 | 2,871 | 395 | 3,101 |
| China..... | | 648 | | 1,331 | | 314 | | 209 |
| Estonia ¹ | | | 3 | 124 | | 20 | | 111 |
| Latvia ¹ | | | 39 | 417 | 270 | 421 | 413 | 693 |
| Lithuania ¹ | | | | | | 744 | | 734 |
| Morocco..... | | 338 | | 225 | | 289 | | 283 |
| Rumania..... | 19 | 120 | 4 | | (¹) | 1 | (¹) | 2 |
| Russia..... | 80 | 5,739 | | | | 193 | | 1,176 |
| Tunis..... | (¹) | 39 | (¹) | 22 | (¹) | 41 | (¹) | 21 |
| Uruguay..... | | 994 | | 500 | | 750 | | 1,118 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Australia..... | 103 | (¹) | 691 | (¹) | 747 | (¹) | 718 | |
| Austria ¹ | | | 1 | (¹) | 2 | | 17 | (¹) |
| Austria-Hungary..... | 1,913 | 41 | | | | | | |
| Belgium..... | 9,313 | 5,965 | 2,934 | 102 | 2,453 | 178 | 3,691 | 246 |
| Czechoslovakia..... | | | 402 | (¹) | 505 | (¹) | 837 | 12 |
| Denmark..... | 1 | | 596 | (¹) | 633 | | 865 | (¹) |
| Eritrea ¹ | | | 117 | 114 | 111 | 172 | 280 | 210 |
| Finland..... | 110 | (¹) | 142 | 1 | 115 | | 177 | (¹) |
| France..... | 4,304 | 60 | 5,285 | 47 | 6,167 | 33 | 6,474 | 30 |
| Germany..... | 15,312 | 210 | 4,061 | 2 | 2,206 | 1 | 5,106 | 24 |
| Hungary ¹ | | | | | 2 | | 13 | 11 |
| Italy..... | 1,698 | | 1,217 | 2 | 1,470 | 3 | 2,288 | 1 |
| Japan..... | 27 | 27 | 140 | 14 | 337 | 1 | 406 | 1 |
| Netherlands..... | 8,741 | 2,488 | 9,862 | 201 | 7,743 | 155 | 11,479 | 165 |
| Norway..... | 445 | | | | 494 | | 605 | |
| Spain ¹ | | | | | 544 | | 602 | |
| Sweden..... | 911 | 7 | 1,043 | (¹) | 1,204 | (¹) | 1,212 | (¹) |
| United Kingdom..... | 15,908 | | 14,092 | | 15,163 | | 17,765 | |
| United States..... | 7,298 | 101 | 14,913 | 2 | 24,332 | | 16,589 | |
| Other countries..... | 575 | 139 | 40 | 102 | 134 | 133 | 260 | 313 |
| Total..... | 69,171 | 67,533 | 56,240 | 54,592 | 65,648 | 62,457 | 70,311 | 74,914 |

Division of Statistical and Historical Research. Official sources except where otherwise noted.

¹ Two-year average.² Three months only.³ International Institute of Agriculture.⁴ Less than 500 bushels.⁵ One year only.TABLE 135.—*Flaxseed: Estimated price per bushel, received by producers, United States, 1909-1925*

| Year beginning September— | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Weighted average |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------------|
| 1909..... | Cts. 123.0 | Cts. 131.3 | Cts. 146.4 | Cts. 162.0 | Cts. 182.0 | Cts. 193.0 | Cts. 193.5 | Cts. 201.7 | Cts. 202.5 | Cts. 199.5 | Cts. 196.6 | Cts. 214.8 | Cts. 159.0 |
| 1910..... | 227.2 | 231.8 | 230.6 | 226.4 | 227.5 | 237.3 | 237.6 | 238.2 | 233.4 | 215.3 | 202.4 | 201.4 | 228.5 |
| 1911..... | 204.3 | 207.8 | 196.4 | 184.6 | 189.0 | 187.4 | 187.6 | 186.2 | 193.0 | 201.7 | 186.8 | 168.9 | 194.3 |
| 1912..... | 155.2 | 140.6 | 124.0 | 110.4 | 107.8 | 114.2 | 116.3 | 114.0 | 115.0 | 114.6 | 116.0 | 123.2 | 123.5 |
| 1913..... | 125.2 | 120.6 | 119.3 | 122.0 | 126.0 | 130.2 | 132.6 | 133.8 | 135.8 | 136.4 | 143.4 | 145.0 | 124.5 |
| Average 1909-1913..... | 167.0 | 166.4 | 163.3 | 161.1 | 166.5 | 172.4 | 173.5 | 154.8 | 175.9 | 171.5 | 169.0 | 170.7 | 165.9 |
| 1914..... | 133.4 | 123.0 | 122.4 | 130.4 | 140.2 | 160.8 | 162.8 | 168.6 | 169.6 | 161.0 | 148.6 | 144.0 | 134.5 |
| 1915..... | 145.8 | 155.5 | 108.4 | 180.0 | 198.4 | 206.7 | 202.3 | 197.0 | 184.2 | 169.8 | 170.6 | 184.2 | 174.0 |
| 1916..... | 194.7 | 217.0 | 241.6 | 249.6 | 252.2 | 253.4 | 259.6 | 283.4 | 299.7 | 298.4 | 274.8 | 287.2 | 243.5 |
| 1917..... | 305.6 | 302.2 | 296.2 | 303.7 | 318.8 | 338.2 | 364.8 | 376.5 | 369.4 | 356.4 | 379.9 | 395.8 | 315.0 |
| 1918..... | 381.0 | 357.4 | 337.0 | 333.9 | 318.9 | 318.8 | 338.0 | 355.0 | 375.4 | 416.7 | 492.4 | 529.0 | 353.6 |
| 1919..... | 477.8 | 410.2 | 410.3 | 436.0 | 445.0 | 464.0 | 464.2 | 452.0 | 434.6 | 300.4 | 331.6 | 287.0 | 421.1 |
| 1920..... | 285.0 | 259.9 | 208.4 | 170.2 | 160.0 | 153.4 | 146.8 | 134.2 | 135.7 | 145.8 | 164.0 | 163.4 | 199.2 |
| Average 1914-1920..... | 274.8 | 260.7 | 254.9 | 267.7 | 263.2 | 270.8 | 276.9 | 281.0 | 281.1 | 275.5 | 278.8 | 185.8 | 263.1 |
| 1921..... | 163.8 | 154.0 | 145.0 | 148.1 | 162.1 | 194.6 | 217.4 | 224.6 | 233.8 | 230.0 | 217.2 | 200.8 | 164.2 |
| 1922..... | 189.1 | 199.4 | 211.0 | 217.8 | 229.9 | 245.4 | 261.6 | 279.5 | 273.1 | 248.4 | 228.8 | 210.4 | 218.2 |
| 1923..... | 209.4 | 212.1 | 211.4 | 218.8 | 218.8 | 224.9 | 228.7 | 217.7 | 222.6 | 213.1 | 218.1 | 210.2 | 218.0 |
| 1924..... | 201.2 | 210.8 | 222.7 | 235.8 | 271.8 | 275.3 | 267.8 | 244.7 | 251.8 | 246.8 | 227.6 | 229.5 | 281.9 |
| 1925..... | 227.9 | 228.9 | 228.1 | 232.1 | | | | | | | | | |

Division of Crop and Livestock Estimates.
1909-1925.

Mean of prices reported on 1st of month and 1st of succeeding month, September, 1909-December, 1923.

TABLE 136.—*Flaxseed: Estimated price per bushel, received by producers December 1, average 1909–1913, annual 1914–1925*

| State | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|--------------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------|-------------|-------------|-------------|-------------|-------------|----------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| Wisconsin..... | 158 | 125 | 180 | 240 | 275 | 330 | 430 | 212 | 258 | 150 | 180 | 210 | 225 | 226 | 198 |
| Minnesota..... | 161 | 128 | 176 | 240 | 295 | 341 | 445 | 183 | 258 | 151 | 218 | 213 | 233 | 230 | 209 |
| Iowa..... | 156 | 120 | 150 | 215 | 275 | 320 | 420 | 180 | 240 | 153 | 185 | 210 | 225 | 229 | 199 |
| North Dakota..... | 162 | 128 | 178 | 262 | 300 | 345 | 441 | 178 | 260 | 143 | 214 | 212 | 227 | 226 | 204 |
| South Dakota..... | 158 | 123 | 167 | 247 | 299 | 325 | 425 | 165 | 250 | 139 | 201 | 206 | 223 | 225 | 199 |
| Nebraska..... | 154 | 119 | 147 | 230 | 250 | 330 | 400 | 165 | 233 | 150 | 190 | 210 | 225 | 230 | 201 |
| Kansas..... | 151 | 125 | 145 | 234 | 290 | 330 | 380 | 180 | 241 | 135 | 186 | 215 | 215 | 200 | 190 |
| Montana..... | 161 | 120 | 170 | 248 | 295 | 338 | 440 | 175 | 255 | 140 | 197 | 193 | 221 | 220 | 194 |
| United States..... | 100.2 | 126.0 | 174.0 | 248.6 | 296.6 | 340.1 | 438.5 | 176.7 | 257.2 | 145.1 | 211.5 | 210.7 | 227.3 | 226.5 | 204.2 |

Division of Crop and Livestock Estimates.

TABLE 137.—*Flaxseed No. 1: Average price per bushel at Minneapolis, 1909–1925*

| Year beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Average |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> |
| 1909..... | 1.41 | 1.57 | 1.75 | 1.93 | 2.18 | 2.18 | 2.25 | 2.38 | 2.22 | 2.04 | 2.34 | 2.47 | 2.06 |
| 1910..... | 2.66 | 2.62 | 2.61 | 2.42 | 2.60 | 2.68 | 2.60 | 2.56 | 2.47 | 2.24 | 2.10 | 2.34 | 2.49 |
| 1911..... | 2.47 | 2.35 | 2.04 | 2.06 | 2.15 | 2.06 | 2.06 | 2.15 | 2.23 | 2.25 | 1.97 | 1.96 | 2.14 |
| 1912..... | 1.76 | 1.60 | 1.35 | 1.25 | 1.29 | 1.34 | 1.26 | 1.29 | 1.30 | 1.31 | 1.38 | 1.47 | 1.88 |
| 1913..... | 1.45 | 1.38 | 1.35 | 1.44 | 1.49 | 1.53 | 1.58 | 1.54 | 1.56 | 1.59 | 1.68 | 1.64 | 1.52 |
| Av. 1909–1913..... | 1.95 | 1.90 | 1.82 | 1.82 | 1.94 | 1.96 | 1.95 | 1.98 | 1.96 | 1.89 | 1.89 | 1.96 | 1.92 |
| 1914..... | 1.51 | 1.33 | 1.45 | 1.54 | 1.83 | 1.86 | 1.91 | 1.93 | 1.95 | 1.76 | 1.67 | 1.67 | 1.70 |
| 1915..... | 1.70 | 1.86 | 1.99 | 2.07 | 2.31 | 2.32 | 2.27 | 2.13 | 1.96 | 1.80 | 1.96 | 2.15 | 2.04 |
| 1916..... | 2.11 | 2.54 | 2.78 | 2.84 | 2.89 | 2.81 | 2.90 | 3.18 | 3.33 | 3.11 | 3.01 | 3.46 | 2.91 |
| 1917..... | 3.38 | 3.16 | 3.29 | 3.40 | 3.60 | 3.74 | 4.08 | 4.09 | 3.93 | 3.86 | 4.40 | 4.39 | 3.78 |
| 1918..... | 4.09 | 3.59 | 3.77 | 3.54 | 3.41 | 3.45 | 3.75 | 3.88 | 4.12 | 4.86 | 5.94 | 5.87 | 4.19 |
| 1919..... | 4.92 | 4.32 | 4.83 | 4.99 | 5.12 | 5.09 | 5.02 | 4.68 | 4.53 | 3.02 | 3.45 | 3.28 | 4.52 |
| 1920..... | 3.23 | 2.83 | 2.27 | 2.06 | 1.96 | 1.82 | 1.78 | 1.68 | 1.84 | 1.86 | 1.89 | 2.01 | 2.09 |
| Av. 1914–1920..... | 2.99 | 2.80 | 2.91 | 2.92 | 3.02 | 3.01 | 3.10 | 3.07 | 3.09 | 3.02 | 3.19 | 3.26 | 3.03 |
| 1921..... | 2.03 | 1.81 | 1.81 | 1.89 | 2.13 | 2.46 | 2.57 | 2.70 | 2.80 | 2.50 | 2.59 | 2.29 | 2.19 |
| 1922..... | 2.28 | 2.38 | 2.48 | 2.62 | 2.80 | 3.04 | 3.07 | 3.40 | 2.94 | 2.80 | 2.70 | 2.34 | 2.58 |
| 1923..... | 2.38 | 2.48 | 2.42 | 2.46 | 2.60 | 2.58 | 2.49 | 2.47 | 2.46 | 2.44 | 2.47 | 2.44 | 2.44 |
| 1924..... | 2.26 | 2.40 | 2.58 | 2.84 | 3.15 | 3.12 | 2.97 | 2.79 | 2.80 | 2.68 | 2.49 | 2.54 | 2.63 |
| 1925..... | 2.59 | 2.58 | 2.56 | 2.61 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. The figures shown for 1909–1920 are averages of daily closing prices compiled from Annual Reports of the Minneapolis Chamber of Commerce; 1921–1925 are average of daily prices weighted by car-lot sales, compiled from Minneapolis Daily Market Record.

TABLE 138.—*Flaxseed, 4 per cent extraneous matter: Average price per bushel of 56 pounds at Buenos Aires, 1913, 1920–25*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | <i>\$1.14</i> | <i>\$1.14</i> | <i>\$1.12</i> | <i>\$1.17</i> | <i>\$1.20</i> | <i>\$1.20</i> | <i>\$1.28</i> | <i>\$1.34</i> | <i>\$1.28</i> | <i>\$1.23</i> | <i>\$1.20</i> | <i>\$1.26</i> | <i>\$1.21</i> |
| 1913..... | 2.30 | 2.64 | 3.05 | 3.09 | 3.01 | 2.92 | 2.52 | 2.48 | 2.46 | 1.93 | 1.77 | 1.54 | 2.48 |
| 1920..... | 1.40 | 1.33 | 1.33 | 1.15 | 1.30 | 1.40 | 1.56 | 1.65 | 1.55 | 1.33 | 1.36 | 1.44 | 1.40 |
| 1921..... | 1.62 | 1.91 | 1.86 | 1.89 | 1.96 | 1.84 | 1.91 | 1.58 | 1.69 | 1.84 | 1.77 | 1.82 | 1.81 |
| 1922..... | 1.72 | 1.83 | 1.87 | 2.02 | 1.72 | 1.94 | 1.86 | 1.62 | 1.70 | 1.94 | 1.93 | 1.78 | 1.83 |
| 1923..... | 1.62 | 1.66 | 1.58 | 1.53 | 1.60 | 1.68 | 1.88 | 1.98 | 1.99 | 2.12 | 2.21 | 2.26 | 1.94 |
| 1924..... | 2.44 | 2.41 | 2.25 | 2.09 | 2.14 | 2.11 | 2.02 | 2.12 | 2.06 | 1.94 | 1.94 | 1.83 | 2.11 |
| 1925..... | 1.76 | 1.83 | 1.78 | 1.75 | 1.74 | 1.79 | 1.85 | 1.79 | 1.80 | 1.83 | 1.84 | 1.83 | 1.80 |

Division of Statistical and Historical Research.
International Yearbook of Agricultural Statistics and Review of the River Plate.
Conversions to United States currency during 1913 at par of exchange; 1920–1925 at monthly average rates of exchange at New York as quoted in Federal Reserve Bulletins.

TABLE 139.—*Flaxseed: Monthly average cash prices per bushel of 56 pounds at Winnipeg, 1914-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> |
| 1914 | 1.26 | 1.31 | 1.36 | 1.36 | 1.36 | 1.40 | 1.44 | 1.42 | 1.30 | 1.12 | 1.24 | 1.29 | 1.32 |
| 1915 | 1.57 | 1.61 | 1.70 | 1.78 | 1.78 | 1.56 | 1.48 | 1.42 | 1.44 | 1.63 | 1.80 | 1.84 | 1.63 |
| 1916 | 2.06 | 2.07 | 2.02 | 1.88 | 1.70 | 1.60 | 1.69 | 1.92 | 1.92 | 2.35 | 2.58 | 2.57 | 2.03 |
| 1917 | 2.60 | 2.60 | 2.60 | 2.90 | 3.10 | 2.86 | 2.76 | 2.34 | 3.12 | 3.05 | 3.13 | 3.05 | 2.84 |
| 1918 | 3.18 | 3.40 | 3.81 | 3.79 | 3.70 | 3.67 | 4.23 | 4.19 | 3.94 | 3.43 | 3.57 | 3.25 | 3.68 |
| 1919 | 3.05 | 3.07 | 3.46 | 3.65 | 3.94 | 4.59 | 5.83 | 5.64 | 4.74 | 4.04 | 4.52 | 4.64 | 4.35 |
| 1920 | 4.50 | 4.48 | 4.82 | 4.94 | 4.43 | 3.81 | 3.28 | 3.10 | 2.20 | 2.68 | 2.04 | 1.75 | 3.50 |
| A. V. 1914-1920 | 2.60 | 2.65 | 2.82 | 2.90 | 2.86 | 2.78 | 2.96 | 2.86 | 2.67 | 2.61 | 2.70 | 2.63 | 2.76 |
| 1921 | 1.65 | 1.60 | 1.54 | 1.33 | 1.51 | 1.61 | 1.67 | 1.80 | 1.80 | 1.63 | 1.63 | 1.60 | 1.61 |
| 1922 | 1.71 | 2.17 | 2.28 | 2.29 | 2.42 | 2.32 | 2.37 | 2.03 | 2.02 | 2.13 | 2.09 | 2.06 | 2.16 |
| 1923 | 2.15 | 2.31 | 2.39 | 2.80 | 2.43 | 2.30 | 2.18 | 2.05 | 2.04 | 2.08 | 2.04 | 1.95 | 2.23 |
| 1924 | 2.08 | 2.22 | 2.07 | 2.02 | 2.12 | 2.11 | 2.26 | 2.34 | 2.20 | 2.33 | 2.35 | 2.48 | 2.22 |
| 1925 | 2.68 | 2.63 | 2.50 | 2.35 | 2.44 | 2.37 | 2.22 | 2.40 | 2.37 | 2.33 | 2.29 | 2.26 | 2.40 |
| A. V. 1921-1925 | 2.05 | 2.19 | 2.16 | 2.16 | 2.18 | 2.14 | 2.14 | 2.12 | 2.09 | 2.10 | 2.08 | 2.07 | 2.12 |

Canada Year Book, except for periods September, 1917, to August, 1919, inclusive, and January, 1924, to date, which are from reports of the Grain Trade of Canada. Monthly averages of weekly rates except for period September, 1917, to August, 1919, when daily quotations were averaged.

Conversion to United States currency beginning January, 1917, at rates of exchange as quoted by the Commercial and Financial Chronicle, and beginning January, 1920, at rates quoted by Federal Reserve Board.

TABLE 140.—*Linseed oil: International trade, average 1909-1913, annual 1922-1924*
[Thousand pounds—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|---------------------------------|------------------|---------|---------|---------|------------------|------------------|---------|
| | Average, 1909-1913 ¹ | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina | 866 | 12 | 374 | 2,036 | 555 | 1,144 | 739 | 1,108 |
| Belgium | 10,233 | 26,790 | 1,429 | 19,860 | 1,196 | 18,477 | 1,176 | 19,471 |
| Netherlands | 457 | 73,634 | 62 | 157,920 | 498 | 116,317 | 600 | 142,549 |
| United Kingdom | 58,018 | 58,013 | 9,062 | 133,029 | 9,184 | 84,379 | 5,902 | 68,477 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Australia | 12,262 | — | 8,137 | 51 | 7,574 | 30 | — | — |
| Austria | — | — | 5,131 | 112 | 6,962 | — | 8,355 | — |
| Austria-Hungary | 16,367 | 6,542 | — | — | — | — | — | — |
| Brazil | 8,726 | — | 9,399 | — | 8,058 | — | — | — |
| British India | 3,430 | 1,967 | 2,792 | 290 | 2,001 | 748 | 2,161 | 545 |
| Canada | 2,279 | — | 1,058 | 94 | 1,968 | 59 | 964 | 98 |
| Chile | 2,854 | 15 | 1,260 | — | 2,240 | — | — | — |
| Czechoslovakia | — | — | 1,629 | 9 | 483 | (²) | 1,015 | — |
| Denmark | (³) | (³) | 819 | 391 | 356 | 1,081 | 578 | 67 |
| Dutch East Indies | 3,199 | — | 2,849 | — | 3,580 | — | 2,687 | — |
| Egypt | 3,647 | — | 3,126 | 7 | 3,579 | 11 | 4,122 | 3 |
| Finland | 812 | — | 2,695 | — | 4,438 | — | 4,258 | — |
| France | 3,382 | 10,931 | 8,362 | 3,069 | 11,225 | 5,728 | 14,227 | 5,503 |
| Germany | 5,231 | 4,377 | 64,458 | 3,304 | 47,691 | 673 | 68,508 | 865 |
| Greece | 246 | — | 915 | — | 746 | — | 877 | — |
| Italy | 1,042 | 165 | 6,617 | 196 | 2,357 | 239 | 4,378 | 206 |
| New Zealand | 4,188 | — | 2,699 | — | 3,406 | 1 | 3,623 | 9 |
| Norway | 1,609 | 53 | 5,672 | 2 | 4,847 | 8 | 3,065 | — |
| Philippine Islands | 809 | — | 852 | — | 874 | — | 839 | — |
| Sweden | 933 | 5 | 119 | 467 | 57 | 287 | 368 | 81 |
| Switzerland | 7,825 | 16 | 8,584 | 29 | 9,574 | 2 | 12,471 | 11 |
| Union of South Africa | 3,449 | — | 2,930 | 1 | 4,459 | — | 4,349 | — |
| United States | 2,605 | 4,105 | 144,137 | 2,703 | 43,097 | 3,013 | 13,247 | 2,387 |
| Other countries | 7,562 | 1,460 | 6,035 | 581 | 8,220 | 663 | 11,992 | 476 |
| Total | 162,041 | 188,075 | 301,192 | 324,271 | 188,757 | 232,850 | 171,361 | 241,916 |

¹ Division of Statistical and Historical Research. Official sources except as otherwise noted. Conversions made on the basis of 7.5 pounds to the gallon.

² International Institute of Agriculture, Oleaginous Products and Vegetable Oils.

³ Five-year average.

⁴ Beginning July 1.

⁵ Less than 500 pounds.

⁶ Separately stated.

⁷ Not.

⁸ Two-year average.

⁹ Java and Madura only.

¹⁰ Includes reexports.

TABLE 141.—*Linseed oil: Average price per gallon at New York, 1910-1925*

| Year beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Average |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | \$0.90 | \$0.90 | \$0.95 | \$0.95 | \$0.95 | \$0.96 | \$0.96 | \$0.91 | \$0.91 | \$0.89 | \$0.87 | \$0.80 | \$0.91 |
| 1911..... | .87 | .88 | .84 | .71 | .74 | .71 | .70 | .73 | .76 | .77 | .66 | .76 | .76 |
| 1912..... | .66 | .62 | .56 | .43 | .42 | .46 | .45 | .44 | .46 | .45 | .47 | .49 | .49 |
| 1913..... | .60 | .47 | .46 | .48 | .48 | .48 | .50 | .51 | .50 | .50 | .52 | .59 | .50 |
| 1914..... | .67 | .49 | .44 | .45 | .48 | .56 | .55 | .58 | .62 | .63 | .54 | .50 | .53 |
| 1915..... | .52 | .55 | .60 | .61 | .66 | .72 | .77 | .76 | .75 | .67 | .63 | .71 | .66 |
| 1916..... | .70 | .82 | .90 | .92 | .94 | .95 | .94 | 1.07 | 1.21 | 1.21 | 1.12 | 1.18 | 1.00 |
| 1917..... | 1.25 | 1.18 | 1.15 | 1.21 | 1.29 | 1.29 | 1.41 | 1.57 | 1.57 | 1.57 | 1.64 | 1.88 | 1.42 |
| 1918..... | 1.90 | 1.83 | 1.55 | 1.58 | 1.50 | 1.45 | 1.48 | 1.54 | 1.61 | 1.81 | 2.10 | 2.22 | 1.71 |
| 1919..... | 2.04 | 1.79 | 1.75 | 1.82 | 1.77 | 1.77 | 1.80 | 1.83 | 1.69 | 1.65 | 1.52 | 1.41 | 1.74 |
| 1920..... | 1.22 | 1.20 | .98 | .82 | .78 | .66 | .61 | .70 | .75 | .75 | .74 | .74 | .82 |
| Av. 1914-1920..... | 1.17 | 1.12 | 1.05 | 1.06 | 1.06 | 1.06 | 1.09 | 1.14 | 1.16 | 1.18 | 1.19 | 1.23 | 1.13 |
| 1921..... | .74 | .68 | .67 | .67 | .72 | .82 | .82 | .84 | .90 | .84 | .89 | .87 | .79 |
| 1922..... | .88 | .89 | .88 | .89 | .89 | .95 | 1.02 | 1.16 | 1.15 | 1.12 | 1.04 | .97 | .99 |
| 1923..... | .90 | .94 | .92 | .92 | .92 | .91 | .93 | .90 | .94 | .94 | .98 | 1.02 | .94 |
| 1924..... | 1.02 | 1.02 | 1.08 | 1.10 | 1.17 | 1.16 | 1.11 | 1.04 | 1.05 | 1.06 | .98 | 1.02 | 1.07 |
| 1925..... | 1.03 | .99 | .96 | .95 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Statistical and Historical Research. Figures for 1910-1915 from Monthly Labor Review; 1916-1918 from War Industries Board Price Bulletin; 1919-1925 from Oil, Paint, and Drug Reporter, average of weekly range.

¹ Beginning October, 1925, prices were quoted on pound basis and have been converted to price per gallon by multiplying by 7.5.

TABLE 142.—*Linseed oil meal: Average price per ton at New York, 1910-1925*

| Year beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Average |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
| 1910..... | Dolls. 37.46 | Dolls. 36.90 | Dolls. 35.50 | Dolls. 35.50 | Dolls. 35.50 | Dolls. 35.50 | Dolls. 35.50 | Dolls. 34.12 | Dolls. 33.75 | Dolls. 33.50 | Dolls. 34.33 | Dolls. 35.71 | 35.27 |
| 1911..... | 40.00 | 40.75 | 40.12 | 39.00 | 39.65 | 40.17 | 39.75 | 38.80 | 38.10 | 37.30 | 36.57 | 35.50 | 38.81 |
| 1912..... | 35.38 | 35.30 | 34.38 | 32.75 | 32.34 | 31.90 | 29.20 | 27.86 | 28.12 | 28.25 | 29.40 | 30.12 | 31.25 |
| 1913..... | 32.50 | 32.00 | 31.40 | 31.25 | 31.25 | 31.35 | 31.25 | 31.50 | 31.50 | 32.27 | 32.30 | 34.60 | 31.97 |
| 1914..... | 33.62 | 32.83 | 32.75 | 35.10 | 38.75 | 41.00 | 37.13 | 35.50 | 32.50 | 32.50 | 35.31 | 37.71 | 35.39 |
| 1915..... | 39.70 | 38.75 | 38.50 | 40.50 | 40.60 | 39.50 | 36.63 | 32.86 | 31.50 | 32.12 | 33.00 | 37.00 | 36.72 |
| 1916..... | 39.50 | 42.28 | 45.45 | 47.50 | 48.50 | 48.50 | 48.33 | 47.00 | 49.44 | 49.25 | 51.08 | 53.50 | 47.53 |
| 1917..... | 53.00 | 54.00 | 54.42 | 57.00 | 58.15 | 58.50 | 58.50 | 57.00 | 52.50 | 50.00 | 52.80 | 54.00 | 51.93 |
| 1918..... | 55.00 | 56.00 | 55.75 | 56.50 | 62.15 | 63.35 | 65.50 | 65.00 | 70.50 | 75.50 | 82.30 | 90.25 | 63.52 |
| 1919..... | 81.58 | 73.80 | 78.75 | 80.75 | 81.60 | 71.75 | 70.40 | 62.50 | 60.00 | 60.00 | 60.00 | 60.00 | 70.09 |
| 1920..... | 60.00 | 60.00 | 56.80 | 52.00 | 48.38 | 43.12 | 43.75 | 46.00 | 36.25 | 37.00 | 41.60 | 46.88 | 47.65 |
| Av. 1914-1920..... | 51.77 | 51.09 | 51.77 | 52.76 | 54.00 | 52.25 | 51.46 | 49.48 | 47.53 | 48.05 | 50.87 | 54.19 | 51.27 |
| 1921..... | 46.30 | 40.00 | 40.75 | 48.00 | 51.00 | 51.62 | 55.00 | 49.50 | 47.62 | 49.20 | 46.88 | 45.50 | 47.61 |
| 1922..... | 43.50 | 43.50 | (1) | (1) | 53.50 | 54.12 | 46.30 | 43.25 | 42.50 | 38.00 | 38.00 | 38.00 | 48.67 |
| 1923..... | 45.00 | 45.02 | 43.88 | 45.00 | 43.75 | 42.00 | 42.00 | 40.50 | 40.00 | 39.90 | 43.75 | 45.00 | 43.03 |
| 1924..... | 47.80 | 49.38 | 50.62 | 51.30 | 50.00 | 47.12 | 42.38 | 42.75 | 42.88 | 44.81 | 45.50 | 48.38 | 46.91 |
| 1925..... | 48.38 | 46.60 | 50.00 | 51.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Statistical and Historical Research. From Annual Statistical Review of New York Produce Exchange and the Oil, Paint, and Drug Reporter.

¹ Nominal.

TABLE 143.—*Linseed meal, bagged: Average price per ton at 11 markets, 1925*

| Market | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Boston..... | Dolls. 50.35 | Dolls. 46.81 | Dolls. 44.00 | Dolls. 44.31 | Dolls. 48.39 | Dolls. 50.56 | Dolls. 51.56 | Dolls. 53.40 | Dolls. 50.50 | Dolls. 49.00 | Dolls. 51.06 | Dolls. 53.25 |
| Buffalo..... | 45.62 | 42.62 | 39.38 | 39.50 | 43.10 | 46.25 | 47.12 | 48.88 | ..... | 44.38 | 46.12 | 48.62 |
| Chicago..... | 47.60 | 44.38 | 40.50 | 40.75 | 44.30 | 45.88 | 46.62 | 47.50 | 45.50 | 44.05 | 46.00 | 47.12 |
| Cincinnati..... | 49.90 | 42.12 | 42.62 | 42.00 | 44.70 | 47.00 | 47.75 | 48.70 | 47.50 | 46.50 | 47.75 | 48.67 |
| Kansas City..... | 51.55 | 48.25 | 45.50 | 43.75 | 45.60 | 47.25 | 47.50 | 47.08 | 47.47 | 46.78 | 47.80 | 49.12 |
| Minneapolis..... | 47.00 | 44.50 | 39.88 | 38.75 | 41.30 | 43.00 | 43.31 | 43.80 | 42.88 | 42.30 | 42.88 | 44.00 |
| Omaha..... | 49.42 | 49.25 | 45.12 | 43.50 | 47.00 | 48.33 | 47.50 | 49.40 | 47.98 | 47.22 | 48.58 | 49.32 |
| Philadelphia..... | 49.74 | 46.44 | 43.38 | 43.80 | 47.55 | 50.06 | 51.19 | 53.00 | 49.29 | 48.24 | 50.34 | 52.84 |
| Pittsburgh..... | 49.80 | 46.56 | 42.94 | 42.24 | 46.12 | 48.75 | 49.56 | 51.62 | 48.92 | 47.03 | 48.62 | 50.62 |
| St. Louis..... | 49.80 | 46.38 | 42.25 | 42.12 | 44.50 | 46.62 | 46.50 | 48.00 | ..... | ..... | ..... | ..... |
| San Francisco..... | 49.00 | 48.00 | 45.50 | 42.75 | 45.00 | 47.00 | 46.50 | 45.60 | ..... | 47.75 | 46.83 | ..... |

Division of Statistical and Historical Research. Compiled from reports of the Hay, Feed, and Seed Division.

RICE

TABLE 144.—*Rice, rough: Acreage, production, value, exports, etc., United States, 1909-1925*

| Year | Acreage | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Farm value Dec. 1 | Value per acre 1 | Domestic exports, fiscal year beginning July 1 2 | Net imports, fiscal year beginning July 1 2 |
|-------------------|--------------|-------------------------|----------------|---|-------------------|------------------|--|---|
| | <i>Acres</i> | <i>Bush. of 45 lbs.</i> | <i>Bushels</i> | <i>Cents</i> | <i>Dollars</i> | <i>Dolls.</i> | <i>Bushels</i> | <i>Bushels</i> |
| 1909..... | 610,000 | 33.8 | 20,607,000 | 79.5 | 16,392,000 | 26.87 | 4,487,287 | 7,820,643 |
| 1910..... | 723,000 | 33.9 | 24,510,000 | 67.8 | 16,624,000 | 22.99 | 5,134,355 | 7,292,960 |
| 1911..... | 696,000 | 32.9 | 22,934,000 | 70.7 | 18,274,000 | 26.26 | 5,824,568 | 6,467,505 |
| 1912..... | 723,000 | 34.7 | 25,054,000 | 93.5 | 23,423,000 | 32.40 | 5,672,996 | 7,539,200 |
| 1913..... | 827,000 | 31.1 | 25,744,000 | 85.8 | 22,090,000 | 26.71 | 5,871,289 | 0,806,634 |
| A. v. 1909-1913.. | 716,000 | 33.2 | 23,770,000 | 81.5 | 19,361,000 | 27.05 | 5,398,105 | 7,785,400 |
| 1914..... | 694,000 | 34.1 | 23,649,000 | 92.4 | 21,849,000 | 31.48 | 7,334,389 | 7,848,181 |
| 1915..... | 803,000 | 36.1 | 28,947,000 | 90.6 | 26,212,000 | 32.64 | 9,506,099 | 6,931,061 |
| 1916..... | 859,000 | 47.0 | 40,861,000 | 88.9 | 36,311,000 | 41.78 | 12,315,486 | 6,180,934 |
| 1917..... | 981,000 | 35.4 | 34,739,000 | 189.6 | 65,879,000 | 67.16 | 11,885,265 | 13,095,243 |
| 1918..... | 1,119,000 | 34.5 | 38,606,000 | 191.8 | 74,042,000 | 66.17 | 12,892,190 | 5,309,014 |
| 1919..... | 1,063,000 | 39.5 | 41,885,000 | 266.6 | 111,913,000 | 105.28 | 22,899,774 | 3,001,362 |
| 1920..... | 1,336,000 | 39.0 | 52,066,000 | 119.1 | 62,036,000 | 46.43 | 22,449,930 | 1,267,391 |
| A. v. 1914-1920.. | 981,000 | 38.0 | 37,265,000 | 152.7 | 56,592,000 | 58.01 | 14,183,390 | 6,233,312 |
| 1921..... | 921,000 | 40.8 | 37,612,000 | 98.2 | 35,802,000 | 38.87 | 33,834,616 | 721,411 |
| 1922..... | 1,055,000 | 39.2 | 41,405,000 | 93.1 | 38,562,000 | 36.55 | 21,583,817 | 1,168,077 |
| 1923..... | 895,000 | 37.7 | 33,717,000 | 110.2 | 37,150,000 | 41.51 | 17,245,060 | 809,252 |
| 1924..... | 849,000 | 39.2 | 33,249,000 | 138.2 | 45,956,000 | 54.07 | 12,141,853 | 1,332,315 |
| 1925 1..... | 904,000 | 37.6 | 33,959,000 | 153.9 | 52,246,000 | 57.79 | | |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

1 Based upon farm price Dec. 1.

2 Commerce and Navigation of United States, 1900-1918, and the June issue of Monthly Summaries of Foreign Commerce, 1919-1925. Domestic exports here include also shipments from the United States to Porto Rico and Hawaii; net imports are total imports minus reexports. Bushels are computed from pounds as reported in original by assuming 1 bushel of rough rice to yield 27½ pounds of cleaned rice.

3 Preliminary.

TABLE 145.—*Rice, rough: Acreage, production, and total farm value, by States, 1924, and 1925*

| State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|---------------------|--------------------|--------|----------------------------------|--------|---|--------|
| | 1924 | 1925 1 | 1924 | 1925 1 | 1924 | 1925 1 |
| South Carolina..... | 5 | 5 | 70 | 80 | 98 | 100 |
| Georgia..... | 3 | 3 | 51 | 51 | 71 | 74 |
| Mississippi..... | 1 | 1 | 10 | 18 | 14 | 20 |
| Arkansas..... | 164 | 174 | 7,003 | 8,039 | 9,664 | 12,058 |
| Louisiana..... | 440 | 450 | 15,224 | 14,985 | 20,705 | 22,927 |
| Texas..... | 146 | 168 | 6,526 | 6,048 | 8,168 | 9,012 |
| California..... | 90 | 103 | 4,368 | 4,738 | 7,246 | 8,055 |
| United States..... | 849 | 904 | 33,249 | 33,959 | 45,956 | 52,246 |

Division of Crop and Livestock Estimates.

1 Preliminary.

TABLE 146.—*Rice, rough: Yield per acre, by States, 1909–1925*

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|--------|-------|------|------|------|------|----------------------|------|------|------|------|------|------|-------|----------------------|------|------|------|------|-------|----------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| S. C. | 25.6 | 21.0 | 11.7 | 25.0 | 30.9 | 22.7 | 26.0 | 24.3 | 14.0 | 25.0 | 23.0 | 24.0 | 25.0 | 23.0 | 25.0 | 26.0 | 25.0 | 14.0 | 16.0 | 21.2 |
| Ga. | 23.9 | 22.0 | 26.9 | 30.0 | 32.0 | 26.9 | 28.0 | 29.3 | 20.0 | 30.0 | 20.0 | 24.0 | 26.0 | 26.2 | 26.0 | 24.1 | 22.7 | 17.0 | 17.0 | 21.4 |
| Fla. | 25.0 | 21.0 | 25.0 | 25.0 | 25.0 | 24.2 | 25.0 | 25.0 | 25.0 | 25.0 | 24.0 | 26.0 | 24.0 | 25.0 | 22.0 | 25.0 | 23.0 | 24.0 | ..... | ..... |
| Miss. | 30.0 | 30.0 | 36.0 | 35.0 | 28.0 | 31.8 | 30.0 | 25.0 | 28.0 | 30.0 | 23.0 | 29.0 | 131.0 | 28.0 | 20.0 | 19.0 | 18.0 | 10.0 | 18.0 | 17.0 |
| Ark. | 10.0 | 40.0 | 39.0 | 37.5 | 36.0 | 38.5 | 39.8 | 48.4 | 50.5 | 41.0 | 37.9 | 46.0 | 49.0 | 44.7 | 53.5 | 48.0 | 39.5 | 42.7 | 46.2 | 46.0 |
| La. | 33.8 | 34.4 | 31.5 | 33.5 | 29.0 | 32.4 | 32.1 | 34.2 | 40.0 | 31.0 | 28.8 | 35.2 | 236.0 | 34.8 | 36.0 | 36.0 | 33.5 | 34.6 | 33.2 | 34.7 |
| Tex. | 34.0 | 33.0 | 34.3 | 35.5 | 32.0 | 33.8 | 33.8 | 30.5 | 45.0 | 30.0 | 32.0 | 32.0 | 34.0 | 33.9 | 36.1 | 31.0 | 24.0 | 44.7 | 36.0 | 37.6 |
| Calif. | ..... | 33.0 | 40.0 | 50.0 | 48.0 | ..... | 53.3 | 66.7 | 59.0 | 68.0 | 65.5 | 60.0 | 51.0 | 60.5 | 54.0 | 55.0 | 53.5 | 48.5 | 46.9 | 51.4 |
| U. S. | 33.8 | 33.9 | 32.9 | 34.7 | 31.1 | 33.3 | 34.1 | 36.1 | 47.0 | 35.4 | 34.5 | 39.5 | 39.0 | 37.9 | 40.8 | 39.2 | 37.7 | 39.2 | 37.6 | 38.9 |

Division of Crop and Livestock Estimates.

TABLE 147.—*Rice, rough: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1909–1924*

| Year | Adverse weather conditions | | | | | | | | | Plant dis- eases | Insect pests | Animal pests | Defec- tive seed | Other and un- known causes | Total |
|--------|---------------------------------|--------------------------------------|------------------|------------------------|------------------|------------------|--------|------------------------|------------------------|------------------------|-----------------|------------------|------------------------|--|--------|
| | Defi- cient mois- ture | Ex- ces- sive mois- ture | Floods | Frost and freeze | Hail | Hot winds | Storms | Other cli- matic | Total cli- matic | | | | | | |
| | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. |
| 1909.. | 4.6 | 0.1 | ..... | ..... | ..... | 1.1 | 6.6 | ..... | 12.4 | 2.7 | 0.9 | 0.2 | 0.1 | 0.7 | 17.0 |
| 1910.. | 7.2 | 1.7 | ..... | 0.1 | ..... | 1.1 | 1.0 | ..... | 10.1 | 3.4 | .4 | 1.2 | (¹) | 2.2 | 17.3 |
| 1911.. | 6.5 | 3.2 | ..... | .2 | ..... | .7 | ..... | ..... | 10.6 | .7 | .6 | .5 | .1 | 2.0 | 14.5 |
| 1912.. | 3.1 | 1.1 | 6.2 | ..... | ..... | .6 | .5 | 0.1 | 11.6 | 2.5 | 2.0 | .5 | .6 | 2.4 | 19.6 |
| 1913.. | 3.9 | 14.3 | 5.8 | ..... | ..... | (¹) | ..... | ..... | 24.0 | .1 | .7 | ..... | ..... | 3.7 | 28.5 |
| 1914.. | 5.2 | 2.2 | .1 | ..... | (¹) | .6 | .6 | 1.4 | 10.1 | .1 | 1.3 | (¹) | .3 | 5.7 | 17.5 |
| 1915.. | 7.0 | .6 | .1 | .3 | ..... | .4 | 8.1 | .2 | 16.7 | .4 | .2 | ..... | (¹) | 2.1 | 19.4 |
| 1916.. | 4.8 | .2 | ..... | .3 | ..... | .3 | .2 | .4 | 6.2 | 1.1 | .3 | ..... | .2 | 1.7 | 9.5 |
| 1917.. | 17.3 | .7 | .1 | 1.5 | .2 | .1 | .1 | ..... | 20.0 | .5 | .2 | .5 | .1 | 4.1 | 25.4 |
| 1918.. | 7.2 | 7.1 | 2.4 | .2 | ..... | .4 | 1.5 | ..... | 18.8 | .3 | 1.1 | (¹) | ..... | 1.5 | 21.7 |
| 1919.. | 1.0 | 12.8 | 1.1 | .3 | ..... | .1 | 2.6 | .5 | 18.4 | .3 | .5 | .7 | .1 | (¹) | 20.0 |
| 1920.. | .6 | 8.0 | .4 | ..... | ..... | 1.2 | .2 | ..... | 10.3 | 3.1 | 1.6 | ..... | ..... | 1.7 | 16.7 |
| 1921.. | 4.5 | .2 | (¹) | .3 | ..... | .2 | .1 | ..... | 5.3 | 1.7 | 2.7 | ..... | .1 | 2.0 | 11.8 |
| 1922.. | 3.8 | 4.2 | ..... | .1 | ..... | .1 | ..... | ..... | 8.2 | 3.4 | 1.0 | .1 | ..... | 1.4 | 14.1 |
| 1923.. | 2.8 | 13.9 | .6 | 1.5 | ..... | .1 | .3 | .5 | 19.6 | .7 | 1.0 | .1 | ..... | .6 | 22.0 |
| 1924.. | 19.1 | ..... | ..... | 2.1 | ..... | .6 | .3 | ..... | 22.0 | 1.0 | .4 | .1 | ..... | .4 | 23.9 |

Division of Crop and Livestock Estimates.

¹ Less than 0.05 per cent.

TABLE 148.—*Rice: Acreage and yield per acre in specified countries, average 1909–1913, annual 1922–1925*

| Country | Acreage | | | | | Yield per acre | | | | |
|--|--------------------------------|------------------|--------|--------|------------------|-------------------|-------|-------|-------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMISPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| United States..... | 716 | 1,055 | 895 | 892 | 995 | Pounds 922 | 1,108 | 1,046 | 1,057 | 1,000 |
| Mexico..... | 162 | 54 | 53 | 54 | | 605 | 824 | 821 | 830 | |
| Hawaii..... | 9 | | | | | | | | | |
| CENTRAL AND SOUTH AMERICA AND WEST INDIES | | | | | | | | | | |
| Guatemala..... | | 8 | 8 | 8 | | | 485 | 510 | | |
| Salvador..... | | | 14 | 15 | | | | 972 | 1,047 | |
| Costa Rica..... | 7 | 15 | 18 | 19 | | | | | | |
| British Guiana..... | 36 | 49 | 35 | 29 | | 1,496 | 917 | 1,216 | 1,904 | |
| Porto Rico..... | 162 | | | | | 269 | | | | |
| Trinidad and Tobago..... | 12 | 10 | 8 | 8 | | | | | | |
| EUROPE | | | | | | | | | | |
| France..... | 1 | (²) | | | | | | | | |
| Spain..... | 94 | 114 | 114 | 116 | | 3,188 | 3,275 | 2,896 | 3,467 | |
| Portugal..... | | 15 | 12 | 20 | | | 1,856 | | 1,185 | |
| Italy..... | 358 | 294 | 303 | 340 | 346 | 1,806 | 2,150 | 2,340 | 2,865 | 2,439 |
| Yugoslavia..... | 5 | 5 | 5 | 4 | 4 | | | | | |
| Bulgaria..... | 7 | 7 | 9 | 10 | 13 | | | | | |
| Turkey..... | | | | | | | | | | |
| Russia (Northern Caucasus)..... | 2 | | | | | | | | | |
| NORTH AFRICA | | | | | | | | | | |
| French West Africa: | | | | | | | | | | |
| French Guinea..... | | 124 | 124 | 124 | | | 1,262 | 1,240 | | |
| French Senegal..... | | | 79 | | | | | 775 | | |
| Sudan..... | | 400 | 351 | 400 | | | 588 | 632 | 622 | |
| Sierra Leone..... | 257 | 50 | 186 | 255 | 101 | 2,132 | 1,100 | 1,626 | 1,611 | |
| Egypt..... | | | | | | | | | | |
| ASIA | | | | | | | | | | |
| Turkey..... | 151 | | | | | | | | | |
| India..... | 67,004 | 82,401 | 78,932 | 80,575 | 81,461 | 957 | 917 | 800 | 862 | 835 |
| Andaman and Nicobar..... | | 4 | 3 | | | | | | | |
| British North Borneo..... | | 55 | 62 | 64 | | | 754 | 745 | | |
| Brunei..... | | | 2 | 2 | | | | | | |
| French Establishments in India..... | 40 | 46 | 46 | 43 | | 657 | 704 | 625 | 658 | |
| Russia..... | 572 | | | | | 584 | | | | |
| Japanese Empire: | | | | | | | | | | |
| Japan..... | 7,300 | 7,668 | 7,714 | 7,701 | 7,739 | 2,163 | 2,477 | 2,258 | 2,332 | 2,416 |
| Chosen (Korea)..... | 2,905 | 3,817 | 3,801 | 3,862 | 3,693 | 1,133 | 1,226 | 1,243 | 1,064 | 1,275 |
| Taiwan (Formosa)..... | 1,193 | 1,263 | 1,253 | 1,310 | 1,357 | 1,184 | 1,355 | 1,220 | 1,457 | 1,434 |
| Kwantung..... | 1 | 1 | | | | | | | | |
| French Indo-China..... | 78,550 | 12,307 | 11,401 | 11,787 | 11,960 | 858 | 638 | 633 | 667 | 590 |
| Siam..... | 4,666 | 5,936 | 5,843 | 6,416 | 7,006 | 1,168 | 1,003 | 1,033 | 1,049 | |
| Federated Malay States..... | 116 | 197 | 176 | 178 | | 894 | 650 | 684 | 702 | |
| Unfederated Malay States..... | | 364 | 374 | 401 | | | 745 | 829 | 715 | |
| Straits Settlements..... | 93 | 63 | 77 | 72 | | | 1,145 | 1,066 | 1,187 | |
| Philippine Islands..... | 2,753 | 4,106 | 4,141 | 4,294 | | 423 | 653 | 653 | 690 | |
| Ceylon..... | 695 | 850 | 745 | 800 | 800 | 587 | 526 | 581 | 617 | 617 |

¹ Averages for European countries are estimates for the territory within present boundaries.² Three years only.³ One year only.⁴ Four years only.⁵ Less than 500 acres.⁶ Pre-war average.⁷ Two years only.⁸ Total acreage estimated from area under summer or main crop which was 91,000 acres this year compared with 231,000 in 1924. The acreage under this crop in 1924 was 90 per cent of the total acreage under rice in Egypt.⁹ Total acreage estimated from that under rice in Annam, Cambodia, Laos, Tonking, and Cochin-China which was estimated at 9,197,400 acres in 1925 compared with 9,064,000 in 1924. In 1924 the acreage in these provinces comprised 76.9 per cent of the acreage under rice in Indo-China.

TABLE 148.—*Rice: Acreage and yield per acre in specified countries average 1909–1913, annual 1922–1925—Continued*

| Country | Acreage | | | | | Yield per acre | | | | |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|---------------|---------------|---------------|------------------|
| | Average 1909–1913 | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 | 1922 | 1923 | 1924 | 1925 preliminary |
| SOUTHERN HEMISPHERE | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| Peru..... | ¹ 131 | 86 | — | — | — | 639 | 1,078 | — | — | — |
| Brazil..... | — | 599 | 849 | 1,344 | 1,325 | — | 1,952 | 1,168 | 822 | — |
| Paraguay..... | — | 2 | — | — | — | — | — | — | — | — |
| Argentina..... | ⁴ 11 | 16 | 9 | 13 | — | — | 1,293 | — | — | — |
| Belgian Congo..... | — | 18 | 30 | — | — | — | 196 | 204 | — | — |
| Madagascar..... | ⁴ 979 | — | 1,284 | 1,285 | — | 914 | — | 1,102 | 1,165 | — |
| Java and Madura: | — | — | — | — | — | — | — | — | — | — |
| Irrigated..... | 5,933 | 7,319 | 7,287 | 7,403 | — | 1,005 | 938 | 938 | 956 | — |
| Nonirrigated..... | — | 859 | 879 | 955 | — | — | 484 | 484 | 523 | — |
| Total Java and Madura..... | — | 8,178 | 8,166 | 8,358 | 8,234 | — | 890 | 889 | 900 | — |
| Australia..... | (⁵) | (⁵) | — | — | — | — | — | — | — | — |
| Fiji Islands..... | 11 | 13 | 10 | 10 | — | — | — | — | — | — |
| Total countries reporting all periods listed..... | 93,650 | 115,743 | 111,087 | 113,952 | 115,445 | — | — | — | — | — |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture. Yield has not been calculated when total acreage is below 15,000 acres. Acreage figures in most cases are for crops harvested during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Three years only.

⁴ Four years only.

⁵ Less than 500 acres.

TABLE 149.—*Rice, in terms of cleaned rice: Production in specified countries, average 1909–1913 annual 1922–1925*

[Thousand pounds—i. e., 000 omitted]

| Country | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
|--|--------------------------------|-----------|---------|---------|------------------|
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| United States..... | 660,272 | 1,165,694 | 936,583 | 943,222 | 904,722 |
| Mexico..... | ² 98,016 | 44,489 | 43,498 | 44,827 | 31,272 |
| Hawaii..... | ³ 25,820 | — | — | — | — |
| CENTRAL AND SOUTH AMERICA AND WEST INDIES | | | | | |
| Guatemala..... | ² 2,208 | 3,882 | 4,063 | — | — |
| Salvador..... | — | — | 13,609 | 13,611 | — |
| British Guiana..... | 53,865 | 44,957 | 42,560 | 55,226 | — |
| Dutch Guiana..... | 2,254 | 13,203 | 11,040 | 17,334 | — |
| Porto Rico..... | ³ 4,298 | — | — | — | — |
| Trinidad and Tobago..... | — | — | 3,460 | 3,457 | — |
| EUROPE | | | | | |
| France..... | 2,017 | 75 | — | — | — |
| Spain..... | 290,703 | 373,339 | 330,067 | 402,207 | 416,389 |
| Portugal..... | — | 27,840 | 21,205 | 23,302 | 21,438 |
| Italy..... | 646,465 | 631,985 | 708,874 | 804,135 | 843,747 |
| Yugoslavia..... | ⁴ 2,586 | 2,941 | 3,376 | 2,716 | — |
| Bulgaria..... | 8,612 | 7,946 | 11,317 | 13,238 | 14,560 |
| Russia (Northern Caucasus)..... | ¹ 1,218 | — | — | — | — |

¹ Averages for European countries are estimates for territory within present boundaries.

² Two-years only.

³ One year only.

⁴ Pre-war average.

TABLE 149.—*Rice, in terms of cleaned rice: Production in specified countries, average 1909–1913, annual 1922–1925—Continued*

[Thousand pounds—i. e., 000 omitted]

| Country | Average 1909–1913 ¹ | 1922 | 1923 | 1925 | 1925 pre- liminary |
|--|-----------------------------------|-------------|---------------------|---------------------|------------------------|
| NORTH AFRICA | | | | | |
| French West Africa: | | | | | |
| French Senegal | | 156,499 | 153,778 | | |
| Upper Volta | | | 61,200 | 5,400 | |
| Sudan | | | 6,200 | | |
| Sierre Leone | | 235,062 | 221,821 | 248,900 | |
| Egypt | 547,972 | 54,997 | 302,466 | 410,792 | |
| Kenya Colony | | 464 | | | |
| ASIA | | | | | |
| India | 64,144,192 | 76,523,840 | 63,163,520 | 69,440,000 | 67,909,935 |
| Andaman and Nicobar | | 2,780 | 2,478 | | |
| French Establishments in India | 26,268 | 32,378 | 28,745 | 28,365 | |
| British North Borneo | | 41,496 | 46,191 | | |
| Brunei | | 1,728 | 1,521 | 755 | |
| Russia | 334,061 | | | | |
| China | | | 50,050,000 | | |
| Japanese Empire: | | | | | |
| Japan | 15,787,276 | 19,067,307 | 17,417,935 | 17,960,713 | 18,759,000 |
| Chosen (Korea) | 3,292,776 | 4,679,313 | 4,724,513 | 4,110,476 | 4,609,112 |
| Taiwan (Formosa) | 1,412,504 | 1,710,832 | 1,528,476 | 1,909,040 | 1,945,777 |
| Kwantung | 1,074 | 3,094 | | | |
| French Indo-China | ² 7,333,250 | 7,893,012 | 7,212,580 | 7,850,069 | ³ 7,199,000 |
| Siam | ⁴ 4,257,663 | 5,953,997 | 6,034,465 | 6,733,006 | 6,732,654 |
| Federated Malay States | 79,015 | 127,971 | 120,405 | 125,026 | |
| Unfederated Malay States | | 271,003 | 310,008 | 238,901 | |
| Straits Settlements | | 72,143 | 82,118 | 85,454 | |
| Philippine Islands | 1,165,293 | 2,681,305 | 2,703,137 | 2,570,550 | 1,836,000 |
| Ceylon | 407,784 | 447,299 | 433,016 | 493,400 | 493,400 |
| SOUTHERN HEMISPHERE | | | | | |
| Ecuador | | | ⁷ 41,000 | ⁷ 14,000 | |
| Peru | ² 83,700 | 92,681 | 66,000 | 61,000 | |
| Brazil | ³ 89,798 | 1,109,050 | 991,273 | 1,108,021 | |
| Argentina | ³ 8,302 | 20,691 | 6,250 | 16,009 | |
| Belgian Congo | | 3,525 | 6,124 | | |
| Southern Rhodesia | | 34 | 11 | | |
| Nyasaland | 1,191 | 548 | 319 | | |
| Madagascar | ³ 806,300 | | 1,415,299 | 1,496,951 | |
| Java and Madura: | | | | | |
| Irrigated | 5,982,693 | 6,864,235 | 6,831,953 | 7,076,171 | } 7,322,393 |
| Nonirrigated | ³ 450,000 | 415,616 | 425,080 | 499,000 | |
| Australia | ³ 19 | 8 | | | |
| Fiji Islands | 23,377 | 8,520 | 10,175 | 4,567 | |
| Total all countries reporting for all periods listed | 105,945,599 | 127,460,209 | 112,505,044 | 120,859,114 | 119,253,825 |
| Estimated world total, exclusive of China ¹⁰ | 100,000,000 | 132,000,000 | 118,000,000 | 127,000,000 | |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture. Production figures in most cases are for crops harvested in the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Averages for European countries are estimated for territory within present boundaries.

² Two years only.

³ One year only.

⁴ Total production estimated from production reported in Annam, Laos, Cochin-China and the first crop in Cambodia and Tonking, aggregating 5,355,734,000 pounds in 1925 compared with 5,846,079,000 in 1924. In 1924 the production in these provinces amounted to 74.4 per cent of the total crop produced in Indo-China.

⁵ Production estimated by multiplying acreage by an average yield for years 1920–21 to 1923–24 for which years the Ministry of Lands and Agriculture gives official estimates of both area and production.

⁷ Unofficial.

⁸ Three-years only.

⁹ Rough estimate for nonirrigated crop also included in total.

¹⁰ Unofficial estimates of the Chinese crop are as follows: 70,219,000,000 pounds in 1917; 52,788,000,000 in 1920 and 50,056,000,000 in 1923.

TABLE 150.—*Rice, in terms of cleaned rice: World production, 1909-1925*
[Million pounds—1. e., 600,000 omitted]

| Year | Production for countries reporting, all years ¹ | Estimated world production, exclusive of China ² | Production in chief producing countries ³ | | | | | | |
|-------------------|--|---|--|--------|------------|------------------------------|-------------------|--------|-------------|
| | | | India | Japan | Indo-China | Java and Madura ⁴ | Siam ⁵ | Chosen | Philippines |
| 1909 | 88,496 | 107,000 | 63,869 | 16,474 | ----- | 5,723 | 3,734 | 2,343 | ----- |
| 1910 | 87,201 | 106,000 | 64,552 | 14,660 | ----- | 5,738 | 3,465 | 3,269 | 1,164 |
| 1911 | 88,767 | 110,000 | 63,943 | 16,246 | ----- | 6,170 | 4,533 | 3,634 | 1,267 |
| 1912 | 87,683 | 109,000 | 63,802 | 15,778 | 6,614 | 5,842 | 4,561 | 3,413 | 717 |
| 1913 | 89,486 | 113,000 | 64,555 | 15,789 | 8,051 | 6,440 | 4,994 | 3,804 | 1,512 |
| 1914 | 87,970 | 113,000 | 61,109 | 17,909 | 9,521 | 6,339 | 4,708 | 4,439 | 1,404 |
| 1915 | 90,926 | 124,000 | 73,315 | 17,569 | 7,921 | 6,451 | 4,786 | 4,036 | 1,100 |
| 1916 | 105,798 | 129,000 | 78,521 | 18,363 | 6,733 | 6,409 | 5,011 | 4,377 | 1,289 |
| 1917 | 107,084 | 131,000 | 80,638 | 17,142 | 6,313 | 6,742 | 5,133 | 4,261 | 1,745 |
| 1918 | 80,574 | 105,000 | 64,526 | 17,185 | 6,302 | 6,400 | 4,642 | 4,765 | 2,213 |
| 1919 | 100,916 | 123,000 | 71,743 | 19,106 | 6,532 | 7,435 | 3,114 | 3,974 | 2,089 |
| 1920 | 90,610 | 117,000 | 61,963 | 19,858 | 6,284 | 6,250 | 5,808 | 4,639 | 2,247 |
| 1921 | 99,811 | 127,000 | 74,278 | 17,336 | 7,931 | 5,624 | 5,866 | 4,463 | 2,565 |
| 1922 | 104,185 | 132,000 | 75,524 | 19,067 | 7,893 | 6,804 | 5,954 | 4,679 | 2,681 |
| 1923 | 99,992 | 118,000 | 63,164 | 17,418 | 7,213 | 6,832 | 6,034 | 4,725 | 2,703 |
| 1924 | 97,610 | 127,000 | 69,440 | 17,961 | 7,859 | 7,076 | 6,733 | 4,110 | 2,571 |
| 1925, preliminary | ----- | ----- | 68,000 | 18,759 | * 7,199 | ----- | 6,733 | 4,669 | 1,836 |

Division of Statistical and Historical Research. The figures for each year include the crop harvested in the Northern Hemisphere within the calendar year and the following harvest in the Southern Hemisphere.

¹ Includes India, Japan, Java and Madura, Formosa, Italy, Spain, and Dutch Guiana.

² Revised figures based on additional information since the publication of the 1924 Yearbook of the United States Department of Agriculture due principally to changes in the figures for Java and Madura and Siam.

³ China would rank among the chief producing countries, but owing to lack of official statistics has been omitted.

⁴ Irrigated rice. The changes in the figures for Java and Madura from those previously reported are based on official information recently received as to the percentage of cleaned rice obtained from paddy and rough rice.

⁵ Estimated figures obtained by multiplying acreage under rice as classified for revenue purposes up to 1912 and acreage as reported by the Department of Land and Agriculture from 1912 on by an average yield for the years 1920-1923 for which years official estimates have been published of areas, yield, and total production.

* Estimated.

TABLE 151.—*Rice, rough: Receipts at New Orleans, 1909-1925*

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Total |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|-----------|
| | Sacks | Sacks | Sacks | Sacks | Sacks | Sacks | Sacks | Sacks | Sacks | Sacks | Sacks | Sacks | Sacks |
| 1909 | 283,974 | 322,339 | 217,189 | 117,975 | 77,507 | 151,750 | 85,267 | 62,776 | 34,947 | 81,723 | 65,093 | 8,817 | 1,509,347 |
| 1910 | 178,691 | 320,845 | 169,886 | 110,298 | 116,610 | 109,123 | 57,123 | 51,196 | 57,742 | 64,059 | 23,499 | 30,689 | 1,289,761 |
| 1911 | 114,011 | 233,663 | 233,217 | 191,919 | 81,499 | 135,770 | 107,650 | 28,718 | 5,885 | 3,868 | 510 | 19,968 | 1,156,678 |
| 1912 | 112,153 | 185,820 | 189,805 | 235,008 | 190,303 | 79,293 | 16,056 | 11,309 | 2,587 | 6,703 | 24,947 | 20,807 | 1,074,461 |
| 1913 | 207,267 | 156,916 | 116,727 | 196,066 | 146,384 | 149,057 | 105,994 | 45,068 | 49,118 | 26,253 | 10,664 | 7,546 | 1,217,030 |
| 1914 | 195,206 | 224,773 | 152,665 | 214,241 | 194,462 | 62,061 | 86,702 | 38,750 | 4,684 | 8,575 | 10,122 | 8,406 | 1,195,737 |
| 1915 | 167,961 | 297,334 | 196,521 | 252,763 | 87,769 | 125,626 | 73,025 | 84,838 | 47,153 | 11,422 | 1,446 | 973 | 1,349,721 |
| 1916 | 221,968 | 288,260 | 253,145 | 233,276 | 113,264 | 30,991 | 93,454 | 146,502 | 64,831 | 11,966 | 10,602 | 9,967 | 1,478,248 |
| 1917 | 160,843 | 255,102 | 249,538 | 178,079 | 69,645 | 34,144 | 58,814 | 132,926 | 56,054 | 30,350 | 1,852 | 4,524 | 1,221,901 |
| 1918 | 127,893 | 345,669 | 164,037 | 90,732 | 76,789 | 92,246 | 89,522 | 51,048 | 54,581 | 47,964 | 23,373 | 16,724 | 1,189,578 |
| 1919 | 115,840 | 268,561 | 207,085 | 111,712 | 153,265 | 129,527 | 60,616 | 66,042 | 52,098 | 44,786 | 54,554 | 32,980 | 1,277,046 |
| 1920 | 172,155 | 247,671 | 281,608 | 206,144 | 131,880 | 113,196 | 50,944 | 142,962 | 126,032 | 227,415 | 119,643 | 86,771 | 1,909,427 |
| 1921 | 221,559 | 173,694 | 143,017 | 83,941 | 193,487 | 104,856 | 101,621 | 232,778 | 85,551 | 24,236 | 20,966 | 16,378 | 1,402,084 |
| 1922 | 95,959 | 178,308 | 253,557 | 194,110 | 136,372 | 86,853 | 51,284 | 17,365 | 96,324 | 19,721 | 39,402 | 43,424 | 1,212,679 |
| 1923 | 43,257 | 98,986 | 110,755 | 117,374 | 108,164 | 86,844 | 31,873 | 38,852 | 9,559 | 6,145 | 674 | 742 | 662,135 |
| 1924 | 83,872 | 174,271 | 193,047 | 165,857 | 119,084 | 79,519 | 74,298 | 13,145 | 14,323 | 6,338 | 9,162 | 6,466 | 939,312 |
| 1925 | 129,073 | 128,641 | 87,133 | 78,948 | 141,345 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from annual reports of the New Orleans Board of Trade.

A sack of rough rice contains 162 pounds.

TABLE 152.—*Rice, rough: Stocks at New Orleans as reported at the end of each month, 1909–1925*

| Year beginning August | Aug. 31 | Sept. 30 | Oct. 31 | Nov. 30 | Dec. 31 | Jan. 31 | Feb. 28 or 29 | Mar. 31 | Apr. 30 | May 31 | June 30 | July 31 |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> | <i>Sacks</i> |
| 1909..... | 187, 849 | 223, 616 | 250, 743 | 228, 862 | 244, 630 | 276, 499 | 236, 948 | 184, 915 | 170, 713 | 154, 765 | 150, 993 | 120, 129 |
| 1910..... | 168, 849 | 256, 155 | 249, 329 | 268, 309 | 222, 167 | 188, 907 | 185, 843 | 139, 147 | 121, 652 | 100, 316 | 67, 891 | 78, 114 |
| 1911..... | 42, 523 | 104, 491 | 102, 064 | 121, 966 | 117, 705 | 113, 245 | 137, 887 | 79, 367 | 74, 114 | 77, 982 | 67, 568 | 47, 564 |
| 1912..... | 55, 951 | 49, 215 | 81, 190 | 72, 760 | 113, 776 | 116, 737 | 79, 015 | 46, 100 | 27, 555 | 16, 690 | 14, 015 | 8, 145 |
| 1913..... | 62, 952 | 30, 342 | 21, 008 | 33, 491 | 70, 882 | 67, 008 | 44, 485 | 32, 582 | 14, 907 | 17, 198 | 14, 676 | 6, 673 |
| 1914..... | 21, 202 | 62, 574 | 79, 740 | 97, 410 | 128, 376 | 112, 480 | 118, 566 | 102, 266 | 91, 882 | 80, 527 | 37, 990 | 14, 801 |
| 1915..... | 72, 546 | 75, 416 | 73, 052 | 131, 181 | 109, 918 | 137, 555 | 130, 693 | 107, 135 | 75, 338 | 39, 642 | 26, 457 | 14, 091 |
| 1916..... | 69, 303 | 89, 995 | 81, 465 | 101, 734 | 78, 093 | 62, 228 | 62, 966 | 62, 880 | 27, 776 | 8, 887 | 4, 419 | 1, 162 |
| 1917..... | 50, 517 | 69, 592 | 58, 967 | 67, 802 | 68, 607 | 75, 698 | 63, 233 | 58, 809 | 19, 344 | 5, 062 | 3, 093 | 368 |
| 1918..... | 28, 751 | 128, 751 | 118, 040 | 117, 138 | 52, 614 | 24, 404 | 43, 607 | 43, 789 | 41, 869 | 50, 607 | 9, 117 | 13, 606 |
| 1919..... | 38, 307 | 66, 400 | 53, 647 | 39, 733 | 51, 586 | 41, 706 | 46, 029 | 37, 192 | 28, 037 | 22, 206 | 15, 869 | 6, 428 |
| 1920..... | 70, 906 | 125, 650 | 145, 054 | 99, 932 | 58, 082 | 36, 712 | 30, 466 | 40, 089 | 49, 172 | 60, 652 | 40, 758 | 24, 158 |
| 1921..... | 38, 499 | 40, 419 | 37, 465 | 35, 825 | 69, 664 | 68, 660 | 66, 778 | 63, 200 | 66, 168 | 67, 151 | 48, 265 | 21, 184 |
| 1922..... | 31, 218 | 37, 942 | 35, 848 | 56, 667 | 43, 068 | 56, 926 | 64, 249 | 54, 061 | 51, 526 | 34, 074 | 27, 879 | 41, 967 |
| 1923..... | 41, 967 | 60, 013 | 40, 686 | 18, 446 | 26, 445 | 34, 280 | 48, 031 | 34, 897 | 46, 920 | 36, 241 | 35, 149 | 34, 188 |
| 1924..... | 91, 065 | 34, 244 | 41, 802 | 53, 854 | 85, 701 | 60, 219 | 70, 182 | 38, 260 | 24, 966 | 22, 956 | 19, 179 | 3, 846 |
| 1925..... | 23, 636 | 20, 511 | 16, 528 | 20, 923 | 39, 734 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from annual reports of the New Orleans Board of Trade.

A sack of rough rice contains 162 pounds.

TABLE 153.—*Rice, clean: Stocks at New Orleans as reported at the end of each month, 1909–1925*

| Year beginning August | Aug. 31 | Sept. 30 | Oct. 31 | Nov. 30 | Dec. 31 | Jan. 31 | Feb. 28 or 29 | Mar. 31 | Apr. 30 | May 31 | June 30 | July 31 |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> | <i>Pock-ets</i> |
| 1909..... | 76, 132 | 94, 008 | 125, 794 | 101, 543 | 111, 286 | 112, 279 | 120, 021 | 92, 395 | 65, 504 | 111, 042 | 109, 505 | 139, 959 |
| 1910..... | 122, 747 | 92, 394 | 94, 792 | 107, 570 | 106, 429 | 104, 536 | 97, 634 | 80, 190 | 65, 679 | 83, 126 | 76, 295 | 60, 258 |
| 1911..... | 76, 236 | 59, 552 | 95, 387 | 142, 990 | 172, 236 | 206, 126 | 240, 708 | 273, 925 | 257, 546 | 205, 144 | 161, 738 | 202, 916 |
| 1912..... | 161, 317 | 123, 701 | 179, 323 | 173, 897 | 197, 744 | 219, 185 | 225, 157 | 191, 090 | 159, 795 | 145, 754 | 93, 363 | 65, 289 |
| 1913..... | 73, 386 | 69, 125 | 38, 589 | 73, 403 | 107, 334 | 118, 686 | 130, 081 | 104, 240 | 113, 723 | 117, 070 | 130, 651 | 88, 135 |
| 1914..... | 55, 858 | 78, 427 | 70, 668 | 93, 456 | 129, 561 | 164, 413 | 224, 043 | 205, 858 | 170, 745 | 150, 009 | 140, 687 | 124, 779 |
| 1915..... | 62, 172 | 77, 563 | 84, 685 | 120, 921 | 183, 242 | 219, 332 | 252, 751 | 257, 194 | 268, 454 | 243, 710 | 241, 344 | 202, 906 |
| 1916..... | 143, 196 | 117, 844 | 157, 769 | 243, 810 | 252, 101 | 157, 062 | 123, 371 | 199, 188 | 258, 342 | 205, 059 | 154, 870 | 126, 562 |
| 1917..... | 109, 947 | 96, 790 | 143, 409 | 227, 715 | 270, 364 | 237, 150 | 147, 517 | 126, 814 | 106, 975 | 72, 192 | 27, 618 | 3, 913 |
| 1918..... | 27, 750 | 67, 082 | 70, 091 | 79, 973 | 107, 798 | 117, 467 | 185, 070 | 206, 819 | 199, 396 | 136, 995 | 184, 242 | 111, 459 |
| 1919..... | 85, 554 | 152, 194 | 248, 152 | 243, 850 | 280, 245 | 363, 442 | 421, 258 | 399, 070 | 257, 079 | 248, 667 | 201, 019 | 166, 394 |
| 1920..... | 172, 419 | 174, 156 | 175, 928 | 277, 228 | 400, 808 | 359, 321 | 201, 871 | 158, 452 | 142, 796 | 180, 450 | 179, 086 | 86, 504 |
| 1921..... | 114, 635 | 128, 099 | 135, 454 | 114, 504 | 144, 587 | 177, 698 | 180, 096 | 294, 626 | 315, 960 | 244, 808 | 308, 557 | 238, 899 |
| 1922..... | 123, 463 | 91, 028 | 97, 561 | 124, 710 | 193, 886 | 276, 407 | 172, 764 | 152, 171 | 151, 443 | 158, 965 | 190, 106 | 130, 240 |
| 1923..... | 91, 843 | 73, 990 | 95, 516 | 120, 592 | 167, 105 | 187, 581 | 177, 306 | 185, 323 | 139, 830 | 116, 136 | 94, 983 | 70, 836 |
| 1924..... | 86, 848 | 138, 446 | 171, 893 | 183, 984 | 254, 731 | 242, 992 | 272, 666 | 254, 347 | 214, 907 | 133, 523 | 116, 281 | 62, 345 |
| 1925..... | 86, 641 | 128, 788 | 98, 860 | 115, 322 | 151, 720 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from annual reports of the New Orleans Board of Trade.

A pocket of cleaned rice contains 100 pounds.

TABLE 154.—*Rice: International trade, average 1909–1913, annual 1922–1924*

[Thousand pounds—i. e., 000 omitted]

| Country | Year ended December 31 | | | | | | | |
|--------------------------------------|------------------------|--------------|--------------|--------------|--------------|--------------|------------------|--------------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Brazil..... | 24, 753 | 1 102 | 8 | 83, 478 | 5 | 75, 293 | 164, 338 | 14, 438 |
| British India..... | 278, 272 | 5, 337, 510 | 302, 760 | 4, 836, 325 | 349, 213 | 4, 554, 204 | 5, 108, 366 | |
| Chosen (Korea)..... | 17, 830 | 130, 446 | 1, 636 | 827, 989 | 7, 934 | | 10, 314 | |
| French Indo-China..... | 41 | 2, 288, 040 | 86 | 2, 382, 823 | 103 | 2, 104, 304 | 89 | 1, 909, 316 |
| Italy..... | 4, 415 | 142, 239 | 1, 484 | 230, 017 | 2, 047 | 190, 338 | 4, 447 | 378, 387 |
| Siam..... | | 1, 928, 507 | 21 | 2, 810, 004 | 4 | 2, 894, 440 | 21 | 2, 496, 837 |
| Spain..... | 5, 467 | 18, 063 | 86 | 53, 766 | 18 | 149, 446 | 27 | 167, 160 |
| United States..... | 209, 814 | 16, 215 | 62, 371 | 411, 542 | 48, 520 | 348, 839 | 40, 737 | 154, 509 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | | | 47, 068 | 1, 220 | 47, 808 | 627 | 50, 572 | 109 |
| Austria-Hungary..... | 183, 411 | 461 | | | | | | |
| Belgium..... | 180, 830 | 99, 948 | 69, 620 | 10, 487 | 80, 461 | 1, 549 | 79, 758 | 1, 533 |
| British Malaya..... | 1, 909, 672 | 1, 290, 475 | 1, 349, 258 | 522, 892 | 1, 268, 645 | 455, 833 | 1, 308, 298 | 420, 458 |
| Canada..... | 32, 109 | 2, 354 | 41, 403 | 335 | 53, 027 | 2, 278 | 37, 254 | 3, 115 |
| Ceylon..... | 821, 654 | | 850, 981 | 9 | 881, 441 | 5 | 876, 700 | 46 |
| China..... | 704, 992 | | 1, 576, 640 | 3, 713 | 1, 846, 499 | 5, 193 | 1, 759, 741 | 5, 591 |
| Cuba..... | 262, 207 | | 391, 608 | | 449, 186 | | 450, 933 | |
| Czechoslovakia..... | | | 90, 859 | 107 | 92, 279 | 37 | 113, 788 | 71 |
| Dutch East Indies..... | 1, 178, 111 | 132, 400 | 1, 377, 069 | 48, 524 | 920, 019 | 64, 890 | 335, 449 | 83, 585 |
| Egypt..... | 98, 090 | 53, 700 | 86, 577 | 39, 551 | 113, 454 | 23, 730 | 39, 985 | 72, 739 |
| France..... | 517, 891 | 79, 087 | 370, 772 | 71, 437 | 646, 721 | 77, 751 | 431, 499 | 60, 529 |
| Germany..... | 913, 772 | 396, 628 | 417, 858 | 33, 399 | 346, 775 | 4, 873 | 1, 022, 773 | 347, 494 |
| Hongkong..... | | | 2, 324, 954 | 2, 034, 358 | 2, 628, 404 | 2, 285, 510 | 2, 187, 930 | 1, 760, 410 |
| Hungary..... | | | 26, 515 | 336 | 25, 279 | 468 | 43, 549 | 296 |
| Japan..... | 655, 076 | 61, 936 | 1, 014, 637 | 13, 532 | 589, 851 | 10, 447 | 1, 089, 290 | 8, 182 |
| Mauritius..... | 132, 543 | 1, 446 | 145, 635 | | 138, 144 | | 97, 728 | |
| Netherlands..... | 778, 682 | 476, 276 | 162, 152 | 29, 249 | 186, 868 | 50, 771 | 251, 001 | 149, 101 |
| Philippine Islands..... | 412, 781 | 4 | 93, 243 | 892 | 146, 404 | 1, 390 | 333, 134 | 479 |
| Russia..... | 250, 461 | 5, 746 | 104, 906 | | 21, 559 | 24 | | 7 |
| United Kingdom..... | 768, 853 | 90, 564 | 305, 281 | 20, 483 | 621, 671 | 23, 086 | 788, 940 | 22, 976 |
| Other countries..... | 1, 007, 053 | 159, 692 | 1, 260, 805 | 208, 708 | 1, 527, 167 | 286, 929 | 1, 501, 352 | 237, 492 |
| Total..... | 11, 430, 950 | 12, 720, 845 | 12, 476, 301 | 14, 675, 166 | 13, 041, 186 | 13, 612, 675 | 13, 220, 527 | 13, 469, 236 |

Division of Statistical and Historical Research. Official sources except where otherwise noted.

Mostly cleaned rice. Under rice is included paddy, unhulled, rough, cleaned, polished, broken and cargo rice, in addition to rice flour and meal. Rice bran is not included. Rough rice, or paddy, where specifically reported, has been reduced to terms of cleaned rice at the ratio of 162 pounds of rough or unhulled to 100 pounds of cleaned. "Rice, other than whole or cleaned rice," in the returns of the United Kingdom is not considered paddy, since the chief sources of supply indicate that it is practically all hulled rice. Cargo rice, a mixture of hulled and unhulled, is included without being reduced to terms of cleaned. Broken rice and rice flour and meal are taken without being reduced to terms of whole cleaned rice.

1 Three-year average.

2 Twelve months' sea-trade, three months' land-trade.

3 International Institute of Agriculture.

4 Java and Madura only.

5 Two-year average.

6 One year only.

TABLE 155.—*Rice, rough: Estimated price per bushel, received by producers, December 1, average 1909–1913, annual 1914–1925*

| State | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|---------------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------|-------------|-------------|-------------|-------------|-------------|----------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| South Carolina..... | 85 | 92 | 90 | 90 | 195 | 195 | 300 | 290 | 179 | 97 | 115 | 120 | 140 | 125 | 119 |
| Georgia..... | 82 | 89 | 88 | 87 | 195 | 175 | 275 | 225 | 162 | 92 | 117 | 132 | 140 | 145 | 125 |
| Florida..... | 75 | 70 | 75 | 75 | 195 | 140 | 263 | 175 | 142 | 97 | 130 | 135 | 140 | 150 | 130 |
| Mississippi..... | 77 | 85 | 88 | 80 | 190 | 150 | 190 | 200 | 140 | 118 | 110 | 115 | 136 | 110 | 118 |
| Arkansas..... | 85 | 90 | 95 | 96 | 190 | 180 | 240 | 131 | 146 | 92 | 88 | 112 | 138 | 150 | 116 |
| Louisiana..... | 80 | 93 | 90 | 90 | 190 | 195 | 271 | 110 | 148 | 86 | 89 | 107 | 136 | 153 | 114 |
| Texas..... | 81 | 92 | 89 | 86 | 200 | 197 | 280 | 125 | 153 | 101 | 90 | 115 | 125 | 149 | 116 |
| California..... | | 100 | 90 | 78 | 175 | 190 | 267 | 121 | 146 | 115 | 110 | 112 | 166 | 170 | 135 |
| United States..... | 81.2 | 92.4 | 90.6 | 88.9 | 189.6 | 191.8 | 266.6 | 119.1 | 148.4 | 95.2 | 93.1 | 110.2 | 138.2 | 153.9 | 118.1 |

Division of Crop and Livestock Estimates.

TABLE 156.—*Rice, rough: Wholesale price per 162 pounds at New Orleans, 1909–1925*

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1909..... | 3.50 | 2.98 | 2.80 | 2.75 | 2.62 | 3.05 | 2.75 | 2.50 | 2.90 | 2.86 | 2.55 | 3.90 | 2.93 |
| 1910..... | 2.80 | 2.28 | 2.28 | 2.36 | 2.43 | 2.50 | 2.30 | 2.46 | 2.16 | 2.35 | 2.25 | 2.75 | 2.41 |
| 1911..... | 2.82 | 2.50 | 2.68 | 2.78 | 2.66 | 2.92 | 3.30 | 3.52 | 3.92 | 3.82 | 3.55 | 4.28 | 3.23 |
| 1912..... | 3.58 | 3.38 | 2.65 | 3.20 | 3.38 | 3.53 | 3.59 | 3.50 | 2.95 | 3.62 | 3.25 | 3.42 | 3.34 |
| 1913..... | 3.75 | 3.40 | 3.16 | 4.00 | 2.75 | 3.10 | 2.70 | 2.20 | 2.62 | 3.12 | 3.08 | 3.38 | 3.10 |
| 1914..... | 4.32 | 3.90 | 2.65 | 2.75 | 3.38 | 3.18 | 3.60 | 3.68 | 3.75 | 3.56 | 3.55 | 3.38 | 3.48 |
| 1915..... | 3.20 | 2.86 | 2.66 | 3.13 | 2.82 | 2.78 | 3.35 | 3.56 | 3.62 | 2.73 | ----- | 3.10 | ----- |
| 1916..... | 3.01 | 3.06 | 3.18 | 3.44 | 3.30 | 3.32 | 3.53 | 3.72 | 5.00 | 6.33 | 5.50 | 6.40 | 4.22 |
| 1917..... | 6.62 | 6.50 | 6.00 | 6.88 | 7.10 | 7.25 | 7.63 | 8.81 | 7.70 | 8.53 | 7.88 | 7.12 | 7.29 |
| 1918..... | 7.20 | 7.00 | 6.25 | 6.12 | 6.25 | 5.88 | ----- | ----- | ----- | 7.38 | ----- | 9.88 | ----- |
| 1919..... | 13.00 | 9.50 | 8.38 | 8.48 | 8.38 | 10.51 | ----- | ----- | 9.62 | 8.88 | 9.88 | ----- | ----- |
| 1920..... | 6.38 | 5.88 | 4.75 | 4.75 | ----- | ----- | 2.90 | 3.02 | ----- | 3.08 | ----- | 2.78 | ----- |
| 1921..... | 3.52 | 3.62 | 3.58 | 3.24 | ----- | 4.11 | 3.58 | 4.01 | 3.35 | 3.22 | 3.65 | 4.01 | ----- |
| 1922..... | 3.89 | 3.00 | 3.11 | 4.00 | 3.58 | 3.57 | 3.41 | 4.03 | ----- | 3.25 | 3.98 | ----- | ----- |
| 1923..... | 4.44 | 3.96 | 3.88 | 4.18 | 4.28 | 4.02 | 4.03 | 4.61 | 4.84 | 4.25 | ----- | ----- | ----- |
| 1924..... | 4.78 | 4.22 | 4.47 | 5.02 | 6.12 | 5.80 | ----- | ----- | 5.54 | 5.01 | 5.95 | 5.95 | ----- |
| 1925..... | 5.54 | 4.53 | 4.50 | 4.72 | 5.32 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research.

Compiled from annual reports of the New Orleans Board of Trade, average of monthly range.

TABLE 157.—*Rice, rough: Wholesale price per 162 pounds at Lake Charles, La., 1909–1925*

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July. |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1909..... | ----- | 2.38 | 2.75 | 2.50 | 2.40 | 2.50 | 2.50 | 2.30 | 2.10 | 2.05 | 2.18 | 2.12 |
| 1910..... | 2.22 | 2.42 | 2.28 | 2.45 | 2.25 | 2.25 | 2.18 | 2.18 | 2.25 | 2.25 | ----- | ----- |
| 1911..... | 2.45 | 2.45 | 2.58 | 2.62 | 2.82 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1912..... | ----- | ----- | ----- | ----- | ----- | 3.16 | 3.10 | ----- | ----- | ----- | ----- | ----- |
| 1913..... | ----- | 2.65 | 2.98 | 2.88 | 2.82 | 2.90 | 2.40 | 2.50 | 2.75 | 3.02 | 3.22 | 3.28 |
| 1914..... | 3.78 | 4.02 | 3.50 | 3.00 | 2.78 | 3.43 | 3.75 | 3.81 | ----- | ----- | ----- | ----- |
| 1915..... | 3.26 | 3.26 | 3.08 | 3.41 | 3.32 | 3.00 | 3.28 | 3.32 | 3.51 | 3.64 | 4.00 | ----- |
| 1916..... | ----- | 2.99 | 3.02 | 3.50 | 3.42 | 3.05 | 3.38 | 3.72 | 4.90 | 5.55 | ----- | 5.75 |
| 1917..... | 6.09 | 6.00 | 6.72 | 6.52 | 6.27 | ----- | ----- | ----- | 6.50 | 6.50 | 6.75 | 7.50 |
| 1918..... | ----- | ----- | ----- | ----- | ----- | 7.00 | 6.75 | ----- | ----- | ----- | ----- | ----- |
| 1919..... | 13.00 | 11.00 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | ----- | ----- | ----- | ----- | 2.00 | 1.75 | 1.60 | 2.50 | 2.00 | 2.50 | 2.50 |
| 1921..... | 2.75 | 4.00 | 4.25 | 2.75 | 3.50 | 3.05 | 3.50 | 3.90 | 4.00 | 3.75 | 3.85 | 4.00 |
| 1922..... | 4.25 | 3.30 | 3.30 | 3.25 | 3.25 | 3.25 | 3.20 | 3.50 | 3.40 | 3.10 | 3.40 | 3.36 |
| 1923..... | 3.50 | 4.21 | 4.00 | 4.00 | 3.90 | 4.25 | 4.00 | 4.25 | ----- | ----- | ----- | ----- |
| 1924..... | ----- | 4.80 | 5.00 | 5.60 | 5.90 | 5.85 | ----- | ----- | ----- | ----- | ----- | ----- |
| 1925..... | ----- | ----- | 5.50 | 5.75 | 5.75 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research.

TABLE 158.—Rice: Wholesale price per pound, 1909–1925
NEW YORK (CLEANED, DOMESTIC, FANCY HEAD)

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Average. |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909..... | 5.9 | 5.2 | 5.1 | 4.9 | 4.8 | 5.0 | 4.8 | 4.6 | 4.1 | 4.4 | 4.4 | 4.4 | 4.8 |
| 1910..... | 4.4 | 4.6 | 4.4 | 4.1 | 4.1 | 4.2 | 4.0 | 3.9 | 3.8 | 3.8 | 3.7 | 3.8 | 4.1 |
| 1911..... | 3.9 | 4.2 | 4.3 | 4.2 | 4.2 | 4.4 | 4.7 | 4.9 | 4.9 | 5.1 | 5.1 | 5.1 | 4.6 |
| 1912..... | 5.0 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 5.0 | 4.9 |
| 1913..... | 5.1 | 5.1 | 5.1 | 5.1 | 5.0 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 5.0 |
| Av. 1909–1913..... | 4.9 | 4.8 | 4.8 | 4.6 | 4.6 | 4.7 | 4.7 | 4.6 | 4.5 | 4.6 | 4.6 | 4.6 | 4.7 |
| 1914..... | 5.3 | 5.7 | 5.6 | 5.6 | 5.4 | 5.2 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 |
| 1915..... | 5.2 | 4.9 | 4.9 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 |
| 1916..... | 5.2 | 5.2 | 5.2 | 5.2 | 5.4 | 5.4 | 5.4 | 5.6 | 7.1 | 8.8 | 8.6 | 8.4 | 6.3 |
| 1917..... | 7.9 | 7.8 | 8.2 | 9.0 | 8.9 | 8.9 | 8.9 | 9.4 | 9.6 | 9.9 | 10.0 | 10.1 | 9.0 |
| 1918..... | 10.1 | 10.1 | 10.2 | 10.5 | 10.5 | 10.4 | 10.4 | 10.4 | 10.4 | 10.7 | 11.7 | 13.7 | 10.8 |
| 1919..... | 14.3 | 14.1 | 13.6 | 13.8 | 14.2 | 14.8 | 14.8 | 14.8 | 14.8 | 14.8 | 14.8 | 14.4 | 14.4 |
| 1920..... | 14.0 | 13.2 | 11.1 | 7.4 | 8.5 | 7.5 | 6.9 | 6.9 | 6.5 | 6.1 | 6.5 | 6.5 | 8.4 |
| Av. 1914–1920..... | 8.9 | 8.7 | 8.4 | 8.1 | 8.3 | 8.2 | 8.1 | 8.2 | 8.4 | 8.7 | 8.9 | 9.1 | 8.5 |
| 1921..... | 6.7 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.1 | 7.5 | 7.5 | 7.1 |
| 1922..... | 7.5 | 7.5 | 7.6 | 7.4 | 7.4 | 7.8 | 7.8 | 7.7 | 7.6 | 7.9 | 7.9 | 7.9 | 7.7 |
| 1923..... | 7.9 | 7.7 | 7.6 | 7.6 | 7.6 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 |
| 1924..... | 7.8 | 7.7 | 7.5 | 7.6 | 7.8 | 7.8 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 7.9 |
| 1925..... | 8.1 | 7.9 | 7.9 | 7.9 | 8.2 | --- | --- | --- | --- | --- | --- | --- | --- |

NEW ORLEANS (HONDURAS, CLEAN, FANCY)

| | | | | | | | | | | | | | |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1909..... | 4.1 | 3.6 | 3.8 | 3.7 | 3.7 | 3.8 | 3.8 | 3.4 | 3.2 | 3.6 | 3.5 | 3.7 | 3.7 |
| 1910..... | 3.8 | 3.6 | 3.4 | 3.1 | 3.2 | 2.9 | 3.1 | 2.9 | 3.0 | 2.9 | 2.9 | 3.6 | 3.2 |
| 1911..... | 3.6 | 3.5 | 3.3 | 3.4 | 3.4 | 3.8 | 3.9 | 4.0 | 3.9 | 4.6 | 4.2 | 4.6 | 3.8 |
| 1912..... | 4.1 | 4.1 | 3.5 | 3.8 | 4.1 | 4.1 | 4.0 | 3.9 | 4.0 | 4.1 | 4.1 | 4.4 | 4.0 |
| 1913..... | 4.4 | 3.8 | 3.8 | 3.6 | 3.7 | 3.9 | 3.8 | 3.7 | 3.6 | 3.9 | 3.8 | 3.7 | 3.8 |
| Av. 1909–1913..... | 4.0 | 3.7 | 3.6 | 3.5 | 3.6 | 3.7 | 3.7 | 3.6 | 3.5 | 3.8 | 3.7 | 4.0 | 3.7 |
| 1914..... | 4.1 | 4.2 | 3.6 | 3.4 | 3.6 | 3.9 | 4.1 | 4.1 | 4.0 | 4.1 | 4.2 | 4.2 | 4.0 |
| 1915..... | 3.6 | 3.3 | 3.8 | 3.8 | 3.8 | 3.5 | 3.6 | 3.9 | 3.8 | 4.0 | 4.2 | 3.9 | 3.8 |
| 1916..... | 3.8 | 3.5 | 3.8 | 3.9 | 3.9 | 3.9 | 3.9 | 4.1 | 5.2 | 5.9 | 6.3 | 6.3 | 4.5 |
| 1917..... | 6.1 | 6.4 | 6.7 | 6.6 | 6.8 | 6.8 | 7.0 | 7.6 | 8.2 | 8.3 | 8.3 | 8.4 | 7.3 |
| 1918..... | 7.6 | 7.6 | 7.5 | 7.3 | 7.5 | 7.8 | 7.7 | 8.0 | 7.9 | 7.9 | 9.2 | 10.1 | 7.9 |
| 1919..... | 10.9 | 12.2 | 11.8 | 11.9 | 12.3 | 12.7 | 12.8 | 12.5 | 12.3 | 12.2 | 12.8 | 12.5 | 12.2 |
| 1920..... | 10.0 | 9.6 | 7.9 | 6.9 | 6.6 | 4.6 | 4.7 | 4.4 | 5.3 | 5.5 | 5.8 | 5.6 | 6.5 |
| Av. 1914–1920..... | 6.7 | 6.7 | 6.4 | 6.3 | 6.4 | 6.2 | 6.3 | 6.5 | 6.7 | 6.7 | 7.2 | 7.3 | 6.6 |
| 1921..... | 5.7 | 5.4 | 5.3 | 5.4 | 5.7 | 5.7 | 5.7 | 5.9 | 6.4 | 6.4 | 6.4 | 6.4 | 5.9 |
| 1922..... | 6.6 | 6.6 | 6.5 | 6.5 | 6.5 | 6.6 | 6.6 | 6.3 | 6.4 | 6.4 | 6.5 | 6.5 | 6.5 |
| 1923..... | 6.5 | 6.4 | 6.3 | 6.3 | 6.4 | 6.4 | 6.5 | 6.3 | 6.4 | 6.5 | 6.6 | 6.6 | 6.4 |
| 1924..... | 6.6 | 6.6 | 6.4 | 6.5 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 7.2 | 7.4 | 7.6 | 6.9 |
| 1925..... | 7.3 | 7.1 | 7.1 | 7.5 | 7.9 | --- | --- | --- | --- | --- | --- | --- | --- |

HOUSTON (HEAD, CLEANED)

| | | | | | | | | | | | | | |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1909..... | 5.6 | 5.4 | 5.2 | 4.9 | 4.9 | 4.1 | 4.4 | 3.9 | 3.8 | 4.0 | 3.9 | 4.0 | 4.5 |
| 1910..... | 5.2 | 4.1 | 4.2 | 3.9 | 3.5 | 3.8 | 3.5 | 3.2 | 3.4 | 3.5 | 3.4 | 3.3 | 3.8 |
| 1911..... | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.4 | 4.7 | 4.8 | 5.0 | 5.0 | 4.8 | 5.0 | 4.5 |
| 1912..... | 5.1 | 4.9 | 4.2 | 4.6 | 4.9 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 5.0 | 5.2 | 4.8 |
| 1913..... | 5.5 | 5.2 | 4.9 | 4.8 | 4.7 | 4.9 | 4.9 | 4.8 | 4.1 | 4.5 | 4.4 | 3.5 | 4.7 |
| Av. 1909–1913..... | 5.1 | 4.7 | 4.5 | 4.5 | 4.4 | 4.4 | 4.5 | 4.3 | 4.2 | 4.4 | 4.3 | 4.2 | 4.5 |
| 1914..... | 4.7 | 4.9 | 5.0 | 4.6 | 4.8 | 4.6 | 4.6 | 4.6 | 4.7 | 4.8 | 4.9 | 5.0 | 4.8 |
| 1915..... | 5.1 | 5.0 | 4.9 | 4.9 | 4.9 | 4.2 | 4.4 | 4.4 | 4.2 | 4.0 | 4.0 | 4.0 | 4.5 |
| 1916..... | 4.0 | 4.1 | 4.5 | 4.6 | 4.6 | 4.9 | 4.9 | 5.2 | 6.5 | 7.9 | 7.6 | 7.5 | 5.5 |
| 1917..... | 7.2 | 7.1 | 7.8 | 8.0 | 8.0 | --- | --- | --- | --- | --- | --- | --- | 7.6 |
| 1918..... | --- | --- | --- | --- | --- | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 | 11.1 | 13.2 | 10.0 |
| 1919..... | 13.0 | 13.1 | 10.6 | 10.5 | 11.2 | 12.8 | 12.5 | 12.8 | 12.5 | 12.0 | 11.6 | 11.2 | 12.0 |
| 1920..... | 10.0 | 7.8 | 6.9 | 6.2 | 6.1 | 4.6 | 4.2 | 3.5 | 3.2 | 3.4 | 3.5 | 3.8 | 5.3 |
| Av. 1914–1920..... | 7.3 | 7.0 | 6.6 | 6.5 | 6.6 | 6.7 | 6.6 | 6.6 | 6.7 | 6.9 | 7.1 | 7.4 | 7.1 |
| 1921..... | 4.2 | 4.6 | 4.8 | 4.8 | 4.4 | 4.2 | 4.4 | 4.5 | 4.9 | 4.5 | 4.5 | 4.5 | 4.6 |
| 1922..... | 4.6 | 4.6 | 4.1 | 4.1 | 4.1 | 4.2 | 4.1 | 4.1 | 4.2 | 4.1 | 4.1 | 4.2 | 4.2 |
| 1923..... | 4.4 | 4.6 | 5.0 | 4.8 | 4.8 | 4.9 | 5.1 | 4.8 | 4.9 | 4.9 | 6.1 | 6.1 | 5.0 |
| 1924..... | 6.5 | 6.1 | 6.0 | 5.8 | 6.0 | 6.6 | 6.6 | 6.7 | 6.7 | 6.5 | 7.0 | 7.6 | 6.5 |
| 1925..... | 6.5 | 6.1 | 6.4 | 7.0 | 7.0 | --- | --- | --- | --- | --- | --- | --- | --- |

Division of Statistical and Historical Research. Compiled from the New York Journal of Commerce; New Orleans Times-Picayune, averages of daily range; and reports received from the Houston Cotton Exchange.

¹ Average for 5 months.

² Average for 7 months.

³ Average for 6 years.

BUCKWHEAT

TABLE 159.—Buckwheat: Acreage, production, value, exports, etc., United States, 1909–1925

| Year | Acreage | Average yield per acre | Production | Price per bushel received by producers, Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Domestic exports, fiscal year beginning July 1 ² |
|-------------------------|--------------------|-----------------------------|----------------------|--|----------------------|-----------------------------|---|
| | <i>1,000 acres</i> | <i>Bushels of 48 pounds</i> | <i>1,000 bushels</i> | <i>Cents</i> | <i>1,000 dollars</i> | <i>Dollars</i> | <i>Bushels</i> |
| 1909..... | 878 | 20.5 | 17,983 | 70.2 | 12,628 | 14.38 | 158,160 |
| 1910..... | 860 | 20.5 | 17,598 | 66.1 | 11,636 | 13.53 | 223 |
| 1911..... | 833 | 21.1 | 17,549 | 72.6 | 12,735 | 15.29 | 180 |
| 1912..... | 841 | 22.9 | 19,249 | 66.1 | 12,720 | 15.12 | 1,347 |
| 1913..... | 805 | 17.2 | 13,833 | 75.5 | 10,445 | 12.98 | 586 |
| Average, 1909–1913..... | 843 | 20.4 | 17,242 | 69.8 | 12,033 | 14.27 | 32,099 |
| 1914..... | 792 | 21.3 | 16,881 | 76.4 | 12,892 | 16.28 | 413,643 |
| 1915..... | 769 | 19.6 | 15,056 | 78.7 | 11,843 | 15.40 | 515,304 |
| 1916..... | 828 | 14.1 | 11,662 | 112.7 | 13,147 | 15.88 | 260,102 |
| 1917..... | 924 | 17.3 | 16,022 | 160.0 | 25,631 | 27.74 | 5,567 |
| 1918..... | 1,027 | 16.5 | 16,905 | 166.5 | 28,142 | 27.40 | 119,516 |
| 1919..... | 700 | 20.6 | 14,399 | 146.1 | 21,032 | 30.05 | 244,785 |
| 1920..... | 701 | 18.7 | 13,142 | 128.3 | 16,863 | 24.06 | 399,437 |
| Average, 1914–1920..... | 820 | 18.1 | 14,867 | 124.5 | 18,507 | 22.57 | 279,765 |
| 1921..... | 680 | 20.9 | 14,207 | 81.2 | 11,540 | 16.97 | 484,763 |
| 1922..... | 764 | 19.1 | 14,564 | 88.5 | 12,889 | 16.87 | 171,535 |
| 1923..... | 739 | 18.9 | 13,965 | 93.3 | 13,029 | 17.63 | 92,587 |
| 1924..... | 738 | 18.0 | 13,277 | 103.0 | 13,673 | 18.53 | 190,901 |
| 1925 ³ | 776 | 18.9 | 14,647 | 89.2 | 13,068 | 16.83 | ..... |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

¹ Based on farm price Dec. 1.² Compiled from Commerce and Navigation of United States, 1909–1918, and June issue of Monthly Summary of Foreign Commerce, 1919–1925, including buckwheat flour since Jan. 1, 1922.³ Preliminary.

TABLE 160.—Buckwheat: Acreage, production, and total farm value, by States, 1924 and 1925

| State | Thou- sands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | | State | Thou- sands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|-----------|----------------------------|-------------------|--|-------------------|---|-------------------|-------------|----------------------------|-------------------|--|-------------------|---|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| Mo..... | 12 | 16 | 288 | 416 | 274 | 416 | Iowa..... | 6 | 5 | 90 | 88 | 93 | 79 |
| N. H..... | 1 | 1 | 23 | 24 | 25 | 22 | Mo..... | 1 | 1 | 13 | 14 | 14 | 13 |
| Vt..... | 4 | 4 | 88 | 88 | 92 | 79 | S. Dak..... | 10 | 10 | 148 | 120 | 168 | 84 |
| Mass..... | 1 | 1 | 19 | 19 | 24 | 21 | Nebr..... | 1 | 1 | 15 | 14 | 15 | 14 |
| Conn..... | 2 | 2 | 38 | 40 | 41 | 46 | Del..... | 7 | 8 | 118 | 128 | 120 | 118 |
| N. Y..... | 218 | 235 | 4,578 | 4,465 | 4,624 | 3,840 | Md..... | 7 | 7 | 122 | 168 | 134 | 168 |
| N. J..... | 3 | 4 | 57 | 84 | 67 | 84 | Va..... | 17 | 15 | 294 | 240 | 312 | 264 |
| Pa..... | 207 | 211 | 3,933 | 4,853 | 4,051 | 4,416 | W. Va..... | 31 | 32 | 527 | 576 | 590 | 576 |
| Ohio..... | 34 | 27 | 544 | 532 | 560 | 458 | N. C..... | 10 | 10 | 180 | 140 | 214 | 154 |
| Ind..... | 16 | 16 | 224 | 211 | 231 | 179 | Ky..... | 7 | 7 | 96 | 88 | 117 | 88 |
| Ill..... | 10 | 9 | 140 | 126 | 168 | 126 | Tenn..... | 3 | 3 | 57 | 45 | 71 | 82 |
| Mich..... | 50 | 55 | 700 | 754 | 672 | 679 | U. S..... | 738 | 776 | 13,277 | 14,647 | 13,673 | 13,068 |
| Wis..... | 23 | 35 | 299 | 560 | 308 | 442 | | | | | | | |
| Minn..... | 57 | 61 | 684 | 854 | 698 | 640 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 161.—Buckwheat: Yield per acre, by States, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------|------------|------------|------------|------------|------------|----------------------|------------|------------|------------|------------|------------|------------|------------|----------------------|------------|------------|------------|------------|------------|----------------------|
| | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> |
| Mo. | 28.0 | 32.5 | 30.0 | 29.4 | 32.0 | 30.4 | 29.0 | 26.0 | 24.0 | 21.5 | 20.0 | 24.0 | 27.0 | 24.5 | 27.0 | 27.0 | 23.0 | 24.0 | 26.0 | 25.4 |
| N. H. | 22.0 | 31.0 | 27.3 | 31.0 | 31.0 | 28.5 | 25.0 | 30.0 | 20.0 | 16.0 | 17.0 | 18.0 | 20.0 | 20.9 | 21.0 | 25.0 | 22.0 | 23.0 | 24.0 | 23.0 |
| Vt. | 22.0 | 24.0 | 24.3 | 30.0 | 25.0 | 25.1 | 28.0 | 27.0 | 17.5 | 20.0 | 21.0 | 22.0 | 21.0 | 22.4 | 22.0 | 24.0 | 18.0 | 22.0 | 22.0 | 21.6 |
| Mass. | 19.3 | 22.0 | 21.0 | 21.0 | 17.0 | 20.1 | 18.5 | 16.0 | 16.0 | 15.0 | 16.0 | 20.0 | 19.0 | 17.2 | 18.0 | 21.0 | 20.0 | 19.0 | 19.0 | 19.4 |
| Conn. | 19.5 | 19.5 | 19.0 | 20.0 | 17.0 | 19.1 | 18.5 | 20.0 | 19.0 | 17.3 | 19.0 | 18.0 | 17.0 | 18.4 | 17.5 | 18.0 | 16.0 | 19.0 | 20.0 | 18.1 |
| N. Y. | 24.0 | 23.0 | 21.3 | 23.8 | 14.3 | 21.3 | 23.0 | 19.0 | 12.0 | 18.0 | 15.0 | 22.0 | 20.0 | 18.4 | 21.5 | 21.0 | 19.0 | 21.0 | 19.0 | 20.3 |
| N. J. | 21.8 | 21.5 | 20.0 | 22.0 | 22.0 | 21.5 | 21.0 | 21.0 | 19.0 | 18.0 | 18.0 | 18.0 | 18.0 | 19.0 | 21.0 | 22.0 | 21.0 | 19.0 | 21.0 | 20.8 |
| Pa. | 19.5 | 19.5 | 21.9 | 24.2 | 21.8 | 20.7 | 20.5 | 21.0 | 14.0 | 18.0 | 18.0 | 21.6 | 18.0 | 18.7 | 23.0 | 21.0 | 21.5 | 19.0 | 23.0 | 21.5 |
| Ohio. | 21.2 | 18.0 | 21.0 | 19.5 | 18.0 | 19.5 | 24.0 | 23.0 | 17.7 | 17.2 | 16.0 | 23.2 | 20.9 | 20.3 | 25.0 | 20.0 | 20.0 | 16.0 | 19.7 | 20.1 |
| Ind. | 17.3 | 17.3 | 18.3 | 19.0 | 18.5 | 18.2 | 17.5 | 14.0 | 18.0 | 15.0 | 15.0 | 16.5 | 17.0 | 16.6 | 19.0 | 15.0 | 17.0 | 14.0 | 13.2 | 15.6 |
| Ill. | 18.2 | 20.0 | 18.1 | 22.0 | 17.0 | 19.1 | 17.7 | 17.0 | 17.0 | 19.0 | 17.8 | 15.0 | 18.0 | 17.8 | 17.4 | 14.0 | 15.0 | 14.0 | 14.0 | 14.9 |
| Mich. | 14.3 | 15.3 | 18.0 | 17.0 | 15.0 | 15.9 | 18.5 | 14.5 | 11.0 | 9.0 | 10.0 | 13.8 | 14.5 | 13.0 | 16.0 | 14.0 | 14.2 | 14.0 | 13.7 | 14.4 |
| Wis. | 12.3 | 14.0 | 17.5 | 17.0 | 16.5 | 15.5 | 17.5 | 13.0 | 14.0 | 12.2 | 15.0 | 16.2 | 16.0 | 15.0 | 16.0 | 14.0 | 14.0 | 13.0 | 16.0 | 14.5 |
| Minn. | 15.2 | 16.0 | 18.0 | 21.0 | 16.5 | 17.3 | 17.0 | 17.5 | 15.0 | 14.0 | 17.0 | 19.0 | 16.0 | 16.5 | 16.0 | 14.0 | 13.0 | 12.0 | 14.0 | 13.8 |
| Iowa. | 15.0 | 14.9 | 17.5 | 19.0 | 14.5 | 16.1 | 18.5 | 13.0 | 15.0 | 12.0 | 15.0 | 14.0 | 17.0 | 14.9 | 15.0 | 14.0 | 15.0 | 15.0 | 17.5 | 15.3 |
| Mo. | 21.0 | 16.5 | 10.0 | 15.0 | 11.0 | 14.7 | 15.5 | 15.0 | 14.0 | 15.0 | 13.0 | 15.0 | 16.0 | 14.8 | 14.0 | 13.0 | 13.0 | 13.0 | 14.0 | 13.4 |
| S. Dak. | | | | | | | | | | | | | | | 14.0 | 8.0 | 14.0 | 14.8 | 12.0 | 12.6 |
| Nebr. | 16.0 | 20.0 | 16.0 | 18.0 | 20.0 | 18.0 | 18.5 | 20.0 | 17.0 | 16.0 | 14.0 | 16.0 | 16.0 | 16.8 | 16.0 | 16.0 | 18.0 | 15.0 | 14.0 | 15.8 |
| Del. | 19.8 | 20.5 | 19.0 | 16.0 | 17.0 | 18.5 | 19.0 | 18.5 | 19.0 | 20.0 | 20.5 | 18.0 | 18.0 | 19.0 | 14.0 | 19.0 | 18.0 | 16.8 | 16.0 | 16.8 |
| Md. | 16.6 | 18.5 | 20.0 | 17.5 | 16.5 | 17.8 | 18.5 | 20.0 | 19.0 | 21.0 | 20.0 | 25.0 | 20.0 | 20.2 | 19.0 | 20.0 | 22.2 | 17.5 | 24.0 | 20.6 |
| Va. | 18.0 | 18.0 | 16.0 | 21.5 | 23.1 | 19.3 | 19.4 | 20.0 | 19.2 | 21.1 | 21.0 | 19.0 | 21.6 | 20.2 | 21.0 | 19.5 | 19.3 | 17.3 | 16.0 | 18.6 |
| W. Va. | 22.7 | 23.0 | 24.0 | 24.0 | 21.0 | 22.9 | 21.5 | 22.0 | 18.3 | 20.0 | 19.5 | 21.0 | 19.5 | 20.3 | 22.0 | 21.0 | 20.0 | 17.0 | 18.0 | 19.6 |
| N. C. | 18.9 | 19.0 | 17.5 | 17.5 | 19.3 | 18.9 | 19.0 | 17.5 | 17.5 | 20.0 | 20.0 | 17.0 | 20.0 | 18.7 | 17.0 | 20.0 | 22.0 | 18.0 | 14.0 | 18.2 |
| Ky. | | | | | | | | | | | | 13.0 | 15.0 | | 20.0 | 16.0 | 18.0 | 14.0 | 12.5 | 16.1 |
| Tenn. | 15.0 | 15.0 | 16.0 | 18.0 | 15.0 | 15.8 | 22.3 | 18.0 | 18.0 | 17.0 | 18.0 | 15.5 | 16.5 | 17.9 | 18.0 | 14.5 | 19.0 | 19.0 | 15.0 | 17.1 |
| U. S. | 20.5 | 20.5 | 21.1 | 22.9 | 17.2 | 20.4 | 21.3 | 19.6 | 14.1 | 17.3 | 16.5 | 20.6 | 18.7 | 18.3 | 20.9 | 19.1 | 18.9 | 18.0 | 18.9 | 19.2 |

Division of Crop and Livestock Estimates.

TABLE 162.—Buckwheat: Estimated price per bushel, received by producers, United States, 1909-1925

| Year beginning September | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Weight- ed average |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1909 | 76.0 | 73.3 | 70.8 | 70.0 | 71.0 | 71.3 | 72.0 | 72.2 | 72.4 | 75.8 | 76.4 | 73.7 | 72.1 |
| 1910 | 72.0 | 68.6 | 66.0 | 66.0 | 65.1 | 64.2 | 64.7 | 65.6 | 68.0 | 71.2 | 74.2 | 75.0 | 67.5 |
| 1911 | 71.8 | 71.3 | 72.8 | 73.2 | 73.6 | 75.2 | 76.9 | 78.4 | 82.4 | 85.5 | 84.9 | 80.1 | 75.4 |
| 1912 | 73.2 | 67.6 | 65.8 | 66.4 | 68.1 | 68.2 | 67.6 | 69.8 | 71.1 | 78.7 | 72.6 | 71.2 | 68.3 |
| 1913 | 72.0 | 74.8 | 75.5 | 76.0 | 76.1 | 75.4 | 76.0 | 77.1 | 78.2 | 82.2 | 83.4 | 80.5 | 76.6 |
| Av. 1909-1913 | 73.0 | 71.1 | 70.2 | 70.3 | 70.8 | 70.9 | 71.4 | 72.6 | 74.4 | 77.3 | 78.3 | 76.1 | 72.0 |
| 1914 | 79.2 | 78.4 | 77.2 | 77.2 | 80.8 | 84.6 | 85.4 | 85.0 | 85.8 | 89.5 | 90.6 | 85.3 | 81.1 |
| 1915 | 77.6 | 76.1 | 78.6 | 80.1 | 81.1 | 82.0 | 83.2 | 84.0 | 86.0 | 90.0 | 91.0 | 87.7 | 81.5 |
| 1916 | 88.4 | 96.6 | 107.8 | 115.0 | 115.9 | 119.7 | 126.6 | 130.4 | 167.2 | 196.4 | 199.2 | 176.8 | 126.5 |
| 1917 | 159.4 | 154.3 | 157.1 | 161.4 | 162.3 | 165.0 | 169.2 | 173.0 | 183.5 | 195.9 | 196.8 | 191.5 | 167.1 |
| 1918 | 185.2 | 176.5 | 169.8 | 164.7 | 160.5 | 153.2 | 149.0 | 148.4 | 156.4 | 163.2 | 163.4 | 162.8 | 164.7 |
| 1919 | 160.9 | 156.5 | 148.6 | 148.4 | 152.8 | 155.3 | 159.4 | 166.0 | 174.5 | 191.4 | 192.0 | 178.8 | 159.2 |
| 1920 | 167.8 | 145.2 | 129.6 | 126.8 | 122.0 | 117.5 | 112.8 | 112.6 | 116.0 | 115.7 | 117.5 | 117.0 | 126.8 |
| Av. 1914-1920 | 131.2 | 126.2 | 124.1 | 124.8 | 125.1 | 125.3 | 126.5 | 129.8 | 138.5 | 148.9 | 150.1 | 142.8 | 129.6 |
| 1921 | 110.2 | 95.0 | 82.6 | 82.4 | 84.4 | 85.6 | 89.2 | 93.0 | 95.4 | 100.0 | 99.2 | 91.0 | 89.1 |
| 1922 | 85.2 | 82.2 | 84.4 | 89.0 | 88.5 | 88.6 | 92.6 | 95.0 | 98.4 | 102.3 | 101.4 | 99.4 | 89.9 |
| 1923 | 96.6 | 94.2 | 93.4 | 94.7 | 92.7 | 92.5 | 94.7 | 93.6 | 97.0 | 96.5 | 104.5 | 123.9 | 96.3 |
| 1924 | 118.8 | 107.1 | 106.8 | 104.6 | 107.0 | 112.2 | 112.4 | 104.1 | 113.3 | 115.7 | 110.0 | | 106.6 |
| 1925 | 101.2 | 87.6 | 86.7 | 87.9 | | | | | | | | | |

Division of Crop and Livestock estimates. Mean of prices reported on 1st of month and 1st of succeeding month, September, 1909-December, 1923.

TABLE 163.—*Buckwheat: Estimated price per bushel, received by producers, December 1, average 1909–1913, annual 1914–1925*

| State | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|---------------------|----------------------|------|------|-------|-------|-------|-------|-------|----------------------|------|------|------|-------|------|----------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| Maine..... | 67 | 60 | 70 | 95 | 150 | 150 | 175 | 153 | 122 | 100 | 110 | 95 | 95 | 100 | 100 |
| New Hampshire..... | 71 | 70 | 81 | 105 | 183 | 200 | 156 | 122 | 130 | 88 | 125 | 100 | 110 | 90 | 109 |
| Vermont..... | 77 | 82 | 82 | 105 | 150 | 160 | 170 | 135 | 126 | 99 | 92 | 100 | 106 | 90 | 95 |
| Massachusetts..... | 83 | 84 | 95 | 140 | 166 | 196 | 160 | 140 | 140 | 125 | 138 | 115 | 126 | 110 | 123 |
| Connecticut..... | 92 | 95 | 96 | 120 | 200 | 210 | 200 | 160 | 154 | 139 | 140 | 110 | 100 | 115 | 123 |
| New York..... | 70 | 76 | 80 | 122 | 160 | 175 | 145 | 140 | 128 | 83 | 100 | 96 | 101 | 86 | 93 |
| New Jersey..... | 73 | 83 | 83 | 108 | 168 | 170 | 150 | 150 | 129 | 100 | 115 | 95 | 117 | 190 | 105 |
| Pennsylvania..... | 67 | 76 | 78 | 111 | 163 | 160 | 140 | 120 | 121 | 75 | 80 | 91 | 103 | 91 | 88 |
| Ohio..... | 75 | 76 | 77 | 110 | 153 | 156 | 155 | 105 | 119 | 105 | 80 | 94 | 103 | 86 | 94 |
| Indiana..... | 74 | 78 | 80 | 112 | 155 | 160 | 150 | 120 | 122 | 100 | 95 | 103 | 85 | 95 | 97 |
| Illinois..... | 85 | 95 | 90 | 130 | 170 | 180 | 180 | 136 | 140 | 110 | 85 | 101 | 120 | 100 | 103 |
| Michigan..... | 67 | 71 | 72 | 115 | 147 | 170 | 137 | 100 | 117 | 78 | 80 | 84 | 96 | 90 | 86 |
| Wisconsin..... | 73 | 76 | 83 | 116 | 174 | 165 | 150 | 120 | 126 | 75 | 87 | 89 | 103 | 79 | 87 |
| Minnesota..... | 70 | 70 | 75 | 112 | 155 | 170 | 130 | 106 | 114 | 70 | 80 | 90 | 102 | 75 | 83 |
| Iowa..... | 83 | 77 | 80 | 125 | 200 | 180 | 160 | 134 | 138 | 80 | 125 | 94 | 103 | 90 | 98 |
| Missouri..... | 92 | 93 | 90 | 133 | 144 | 180 | 184 | 155 | 140 | 150 | 125 | 118 | 105 | 90 | 118 |
| South Dakota..... | | | | | | | | | | 80 | 70 | 86 | 107 | 70 | 83 |
| Nebraska..... | 69 | 84 | 95 | 110 | 150 | 165 | 180 | 100 | 126 | 80 | 85 | 85 | 100 | 100 | 90 |
| Delaware..... | 65 | 76 | 75 | 118 | 148 | 143 | 160 | 120 | 120 | 75 | 80 | 91 | 102 | 92 | 88 |
| Maryland..... | 71 | 81 | 72 | 110 | 165 | 165 | 135 | 133 | 126 | 55 | 86 | 100 | 110 | 100 | 96 |
| Virginia..... | 70 | 84 | 80 | 85 | 150 | 163 | 155 | 140 | 124 | 82 | 82 | 95 | 106 | 110 | 95 |
| West Virginia..... | 78 | 83 | 80 | 101 | 170 | 173 | 170 | 140 | 131 | 82 | 85 | 96 | 112 | 100 | 95 |
| North Carolina..... | 81 | 83 | 82 | 85 | 130 | 150 | 140 | 110 | 111 | 85 | 97 | 108 | 119 | 110 | 104 |
| Kentucky..... | | | | | | | 100 | 100 | | 100 | 90 | 100 | 119 | 100 | 102 |
| Tennessee..... | 79 | 78 | 76 | 100 | 150 | 140 | 150 | 130 | 118 | 95 | 80 | 109 | 125 | 115 | 105 |
| United States..... | 70.1 | 70.4 | 78.7 | 112.7 | 160.0 | 160.5 | 146.1 | 128.3 | 124.1 | 81.2 | 88.5 | 93.3 | 103.0 | 89.2 | 91.0 |

Division of Crop and Livestock Estimates.

TABLE 164.—*Buckwheat: Average price per 100 pounds*BUFFALO¹

| Season beginning October | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Average |
|--------------------------|--------|--------|--------|--------|--------|--------|---------|
| 1914..... | \$1.60 | \$1.55 | \$1.75 | \$1.85 | \$2.21 | \$2.07 | \$1.84 |
| 1915..... | 1.50 | 1.81 | 1.81 | 1.85 | 1.80 | 1.70 | 1.74 |
| 1916..... | 1.86 | 2.92 | 3.15 | 2.86 | 3.00 | 3.03 | 2.80 |
| 1917..... | 3.22 | 3.60 | 3.62 | 3.60 | 3.73 | 4.50 | 3.68 |
| 1918..... | 3.84 | 3.70 | 3.32 | 2.93 | 2.50 | 2.35 | 3.11 |
| 1919..... | 2.98 | 2.84 | 3.16 | 3.25 | 3.45 | 3.47 | 3.19 |
| 1920..... | 2.73 | 2.52 | 2.51 | 2.48 | 2.40 | 2.60 | 2.54 |
| Average, 1914–1920..... | 2.53 | 2.69 | 2.75 | 2.69 | 2.73 | 2.82 | 2.70 |
| 1921..... | 1.75 | 1.64 | 1.78 | 1.94 | 2.08 | 2.50 | 1.96 |
| 1922..... | 1.79 | 2.04 | 2.13 | 2.05 | 2.10 | 2.12 | 2.04 |
| 1923..... | 2.20 | 2.12 | 2.06 | 2.02 | 2.06 | 2.25 | 2.13 |
| 1924..... | 2.95 | 2.13 | 2.27 | 2.32 | 2.35 | 2.33 | 2.30 |
| 1925..... | 1.82 | 1.82 | 1.92 | | | | |

MINNEAPOLIS¹

| | | | | | | | |
|-----------|--------|--------|--------|--------|--------|--------|--------|
| 1922..... | \$1.70 | \$2.12 | \$2.20 | \$2.06 | \$2.07 | \$2.03 | \$2.03 |
| 1923..... | 2.04 | 2.17 | 1.98 | 1.94 | 2.05 | 2.05 | 2.04 |
| 1924..... | 2.37 | 2.14 | 2.37 | 2.47 | 2.28 | 2.05 | 2.37 |
| 1925..... | 1.54 | 1.65 | 1.74 | | | | |

Division of Statistical and Historical Research.

¹From the Weekly Northwestern Miller. Average of weekly quotations. 1922, 1923, and 1924 from Commercial Bulletin, Buffalo Corn Exchange.¹From Minneapolis Daily Market Record. Average of daily quotations.

SORGHUMS

TABLE 165.—*Sorghums*¹: *Acreage, production, and total farm value, United States, 1915-1925*

| Year | Thousands of acres | Average yield in bushels per acre | Production, thousands of bushels | Price per bushel received by producers, Nov. 15 | Farm value thousands of dollars |
|-------------------------|--------------------|-----------------------------------|----------------------------------|---|---------------------------------|
| 1915..... | 4,153 | 27.6 | 114,460 | 44.7 | 51,157 |
| 1916..... | 3,944 | 13.7 | 53,858 | 105.9 | 57,027 |
| 1917..... | 5,153 | 11.9 | 61,409 | 161.9 | 99,433 |
| 1918..... | 6,036 | 12.1 | 73,241 | 150.0 | 109,881 |
| 1919..... | 5,060 | 25.8 | 130,734 | 127.4 | 166,519 |
| 1920..... | 5,120 | 26.8 | 137,408 | 92.9 | 127,620 |
| 1921..... | 4,635 | 24.6 | 113,990 | 39.1 | 44,575 |
| 1922..... | 5,064 | 17.9 | 90,524 | 87.8 | 79,508 |
| 1923..... | 5,792 | 18.3 | 106,835 | 94.0 | 99,473 |
| 1924..... | 3,813 | 21.1 | 80,443 | 85.2 | 68,501 |
| 1925 ² | 4,120 | 17.2 | 71,050 | ³ 75.7 | 53,801 |

Division of Crop and Livestock Estimates.

¹ Kafir, milo maize, feterita.² Preliminary.³ Dec. 1 price.TABLE 166.—*Sorghums*¹: *Acreage, production, and total farm value, by States, 1924 and 1925*

| State | Thousands of acres | | Average yield in bushels per acre | | Production, thousands of bushels | | Price per bushel received by producers Nov. 15 | | Farm value, thousands of dollars | |
|--------------------|--------------------|-------------------|-----------------------------------|------|----------------------------------|-------------------|--|-------------------|----------------------------------|-------------------|
| | 1924 | 1925 ² | 1924 | 1925 | 1924 | 1925 ² | 1924 | 1925 ² | 1924 | 1925 ² |
| Iowa..... | 7 | 7 | 22.0 | 23.2 | 154 | 162 | 115 | 100 | 177 | 162 |
| Missouri..... | 63 | 57 | 15.0 | 15.0 | 945 | 855 | 115 | 100 | 1,087 | 855 |
| Nebraska..... | 25 | 20 | 18.0 | 15.0 | 450 | 300 | 91 | 75 | 410 | 225 |
| Kansas..... | 1,144 | 1,100 | 21.4 | 16.9 | 24,482 | 18,590 | 80 | 71 | 19,588 | 13,199 |
| Oklahoma..... | 975 | 1,053 | 20.0 | 13.5 | 19,500 | 14,216 | 77 | 73 | 15,015 | 10,002 |
| Texas..... | 1,343 | 1,625 | 22.0 | 19.0 | 29,600 | 30,875 | 87 | 70 | 24,882 | 23,465 |
| Colorado..... | 50 | 50 | 9.0 | 12.0 | 450 | 600 | 90 | 71 | 405 | 428 |
| New Mexico..... | 135 | 90 | 20.0 | 20.0 | 2,700 | 1,800 | 100 | 65 | 2,700 | 1,170 |
| Arizona..... | 30 | 30 | 20.0 | 22.0 | 600 | 660 | 130 | 66 | 780 | 436 |
| California..... | 84 | 88 | 30.5 | 34.0 | 2,562 | 2,992 | 135 | 107 | 3,459 | 3,201 |
| United States..... | 3,813 | 4,120 | 21.1 | 17.2 | 80,443 | 71,050 | 85.2 | 75.7 | 68,501 | 53,801 |

Division of Crop and Livestock Estimates.

¹ Kafir, milo maize, feterita.² Preliminary.³ Dec. 1 price.TABLE 167.—*Kafir: Monthly and yearly receipts at Kansas City, 1909-1925*

[Thousand pounds—i. e., 000 omitted]

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Total |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|---------|
| 1909..... | 5,940 | 2,820 | 7,020 | 8,400 | 9,000 | 2,520 | 1,800 | 1,140 | 660 | 420 | 300 | 200 | 40,220 |
| 1910..... | 6,000 | 16,050 | 12,550 | 10,050 | 4,800 | 2,900 | 4,000 | 3,150 | 1,700 | 2,350 | 1,050 | 3,450 | 63,050 |
| 1911..... | 11,300 | 18,100 | 14,291 | 22,945 | 10,718 | 11,088 | 10,410 | 6,776 | 4,189 | 2,587 | 3,450 | 5,790 | 121,844 |
| 1912..... | 24,948 | 36,098 | 34,188 | 18,605 | 6,222 | 8,439 | 7,207 | 12,505 | 5,051 | 616 | 1,846 | 1,478 | 167,265 |
| 1913..... | 1,232 | 2,967 | 7,454 | 4,004 | 1,417 | 862 | 924 | 862 | 185 | 62 | 493 | 2,341 | 22,793 |
| Av., 1909-1913..... | 9,884 | 15,205 | 15,101 | 12,813 | 6,431 | 5,162 | 4,868 | 4,887 | 2,357 | 1,207 | 1,428 | 2,652 | 81,994 |
| 1914 ¹ | 17,433 | 40,286 | 37,022 | 34,619 | 10,595 | 27,227 | 14,106 | 10,410 | 11,519 | 11,396 | 6,283 | 7,269 | 25,165 |
| 1915 ¹ | 20,574 | 62,524 | 32,088 | 32,424 | 35,616 | 33,376 | 30,352 | 33,880 | 21,504 | 9,576 | 5,600 | 2,016 | 319,530 |
| 1916 ¹ | 1,512 | 5,432 | 10,780 | 15,338 | 4,004 | 2,526 | 2,156 | 493 | 431 | 393 | 308 | 43 | 719 |
| 1917 ¹ | 4,928 | 15,585 | 25,995 | 21,500 | 28,336 | 18,049 | 5,482 | 5,975 | 2,218 | 1,602 | 493 | 370 | 130,593 |
| 1918 ¹ | 2,834 | 9,117 | 8,562 | 9,425 | 21,498 | 18,418 | 21,006 | 5,298 | 8,932 | 3,634 | 4,866 | 4,497 | 118,087 |
| 1919 ¹ | 1,232 | 13,059 | 41,703 | 40,410 | 51,925 | 13,330 | 24,045 | 7,760 | 42,997 | 13,182 | 8,932 | 6,899 | 321,091 |
| 1920 ¹ | 6,283 | 36,652 | 54,880 | 25,934 | 31,847 | 16,078 | 16,878 | 36,036 | 13,121 | 16,386 | 6,714 | 11,704 | 272,519 |
| Av., 1914-1920..... | 7,828 | 26,094 | 30,148 | 25,673 | 26,202 | 20,115 | 17,175 | 19,694 | 14,389 | 8,030 | 4,742 | 4,723 | 204,813 |
| 1921 ¹ | 14,722 | 19,589 | 26,365 | 30,061 | 21,630 | 17,494 | 11,149 | 11,889 | 8,378 | 4,682 | 1,971 | 6,714 | 174,944 |
| 1922..... | 9,425 | 24,886 | 23,531 | 13,059 | 9,486 | 7,762 | 4,280 | 2,772 | 3,881 | 1,971 | 1,047 | 986 | 103,056 |
| 1923..... | 10,903 | 19,589 | 28,358 | 32,402 | 22,299 | 19,034 | 15,338 | 14,661 | 13,983 | 5,914 | 3,511 | 5,790 | 276,605 |
| 1924..... | 36,221 | 64,495 | 38,254 | | 27,843 | 17,926 | | 24,640 | 12,382 | 10,226 | 3,819 | 1,355 | 237,161 |
| 1925..... | 15,646 | 36,236 | | | | | | | | | | | |

Division of Statistical and Historical Research. Compiled from Kansas City Annual Statistical Report, Board of Trade, and Grain Dealers Journal.

¹ Kafir, milo maize, and feterita included from January, 1915-December, 1921.

TABLE 168.—*Kafir: Estimated price per bushel, received by producers, United States, 1916-1925*

| Year beginning November | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Weight- ed average |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1916..... | 102.4 | 101.5 | 119.1 | 129.0 | 147.0 | 152.0 | 188.0 | 206.3 | 214.0 | 243.3 | 187.7 | 174.1 | 152.6 |
| 1917..... | 160.6 | 166.7 | 170.8 | 185.7 | 193.5 | 204.0 | 211.0 | 179.6 | 165.6 | 177.2 | 181.0 | 175.9 | 182.3 |
| 1918..... | 150.5 | 154.8 | 153.7 | 156.9 | 150.9 | 162.1 | 173.6 | 174.1 | 175.9 | 176.9 | 153.7 | 139.7 | 160.4 |
| 1919..... | 133.6 | 144.3 | 137.3 | 138.7 | 129.8 | 145.4 | 154.5 | 153.9 | 135.2 | 150.0 | 124.8 | 95.5 | 140.4 |
| 1920..... | 95.5 | 81.7 | 65.6 | 57.8 | 67.3 | 63.8 | 51.5 | 62.0 | 51.0 | 58.0 | 54.9 | 48.3 | 63.6 |
| 1921..... | 35.8 | 33.8 | 41.4 | 48.0 | 60.5 | 63.2 | 61.2 | 63.8 | 68.7 | 87.7 | 77.1 | 85.6 | 54.8 |
| 1922..... | 89.2 | 89.3 | 89.0 | 92.1 | 98.6 | 108.2 | 96.4 | 100.2 | 109.8 | 102.2 | 94.1 | 100.8 | 96.6 |
| 1923..... | 94.1 | 85.5 | 87.0 | 86.6 | 86.3 | 86.8 | 87.2 | 84.2 | 91.5 | 102.8 | 97.2 | 100.4 | 88.1 |
| 1924..... | 86.8 | 90.1 | 93.1 | 100.8 | 99.5 | 106.6 | 110.3 | 102.7 | 117.0 | 113.2 | 105.2 | 97.9 | 100.8 |
| 1925..... | 77.9 | 75.6 | | | | | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 169.—*Kafir, No. 2 White: Weighted average price per 100 pounds of reported cash sales, Kansas City, 1909-1925*

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weight- ed average ¹ |
|----------------------------|------------------|--------|------------------|------------------|--------|------------------|--------|------------------|------------------|------------------|------------------|------------------|---------------------------------------|
| 1909..... | \$1.20 | \$1.31 | \$1.53 | \$1.42 | \$1.37 | \$1.32 | \$1.46 | \$1.50 | \$1.53 | \$1.81 | \$1.78 | \$1.19 | \$1.45 |
| 1910..... | 1.12 | .96 | .96 | .93 | .94 | .94 | 1.06 | 1.24 | 1.42 | 1.34 | 1.27 | 1.21 | 1.12 |
| 1911..... | 1.06 | .99 | 1.10 | (²) | 1.29 | 1.43 | 1.44 | 1.25 | 1.63 | 1.68 | 1.36 | 1.13 | 1.31 |
| 1912..... | .98 | .86 | .85 | .83 | .81 | .82 | .88 | 1.11 | 1.09 | 1.41 | 1.53 | 1.51 | 1.03 |
| 1913..... | 1.57 | 1.63 | 1.72 | 1.72 | 1.76 | (²) | 2.00 | (²) | (²) | (²) | (²) | (²) | ----- |
| Av., 1909-1913..... | 1.19 | 1.15 | 1.25 | ----- | 1.23 | ----- | 1.37 | ----- | ----- | ----- | ----- | ----- | ----- |
| 1914..... | 1.04 | 1.14 | 1.33 | 1.38 | 1.28 | 1.18 | 1.14 | 1.20 | 1.16 | 1.09 | 1.04 | 1.06 | 1.17 |
| 1915..... | .91 | .99 | .99 | .96 | .93 | 1.00 | 1.05 | 1.11 | 1.22 | 1.58 | 1.71 | 1.84 | 1.19 |
| 1916..... | 2.34 | 2.11 | 2.43 | 2.48 | 2.66 | 3.17 | 3.79 | 3.36 | 4.00 | 4.48 | 4.34 | 3.69 | 3.24 |
| 1917..... | 3.40 | 3.25 | 3.33 | 3.69 | 3.84 | 3.37 | 2.93 | 2.65 | 3.03 | 3.40 | 3.40 | 3.27 | 3.28 |
| 1918..... | 2.96 | 2.61 | 2.60 | 2.70 | 2.56 | 2.67 | 2.97 | 3.42 | 3.51 | 3.61 | 2.41 | 2.34 | 2.86 |
| 1919..... | 2.67 | 2.93 | 2.49 | 2.17 | 2.31 | 2.38 | 2.65 | 2.52 | 2.36 | 2.43 | 2.24 | 1.81 | 2.41 |
| 1920..... | 1.39 | 1.17 | .98 | .91 | .85 | .80 | 1.03 | 1.12 | 1.21 | 1.13 | 1.13 | 1.02 | 1.06 |
| Av., 1914-1920..... | 2.10 | 2.03 | 2.02 | 2.04 | 2.06 | 2.09 | 2.22 | 2.20 | 2.36 | 2.53 | 2.32 | 2.15 | 2.17 |
| 1921..... | .85 | .90 | .90 | 1.29 | 1.32 | 1.20 | 1.28 | 1.38 | 1.66 | 1.72 | 1.98 | 1.83 | 1.36 |
| 1922..... | 1.78 | 1.63 | 1.59 | 1.60 | 1.66 | 1.72 | 1.76 | 1.67 | 1.50 | 1.48 | (²) | (²) | ----- |
| 1923..... | (²) | 1.27 | (²) | 1.22 | 1.19 | 1.30 | 1.10 | 1.51 | 1.68 | (²) | 2.01 | 1.59 | ----- |
| 1924..... | 1.57 | 1.76 | 1.95 | 1.84 | 1.66 | 1.65 | 1.74 | 1.88 | 2.01 | 2.08 | 1.91 | 1.79 | 1.81 |
| 1925..... | 1.46 | 1.38 | | | | | | | | | | | |

Division of Statistical and Historical Research. Compiled from Kansas City Price Current and Grain Market Review.

¹ Average of daily prices weighted by car-lot sales.² No quotations.

STATISTICS OF FRUITS AND VEGETABLES

APPLES

TABLE 170.—Apples: Total production in the United States, 1909-1925

| Year | Production | Year | Production | Year | Production | Year | Production |
|------|----------------|------|----------------|------|----------------|-------------------|----------------|
| | <i>Bushels</i> | | <i>Bushels</i> | | <i>Bushels</i> | | <i>Bushels</i> |
| 1909 | 145,412,000 | 1914 | 253,200,000 | 1919 | 142,086,000 | 1924 | 171,250,000 |
| 1910 | 141,640,000 | 1915 | 230,011,000 | 1920 | 223,677,000 | 1925 ¹ | 164,616,000 |
| 1911 | 214,020,000 | 1916 | 193,905,000 | 1921 | 99,002,000 | | |
| 1912 | 235,220,000 | 1917 | 166,749,000 | 1922 | 202,702,000 | | |
| 1913 | 145,410,000 | 1918 | 169,625,000 | 1923 | 202,842,000 | | |

Division of Crop and Livestock Estimates. Census figures are in italics.

¹ Preliminary.

TABLE 171.—Apples: Total production, by States, 1916-1925

[Thousand bushels—i. e., 000 omitted]

| State | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|----------------|---------|---------|---------|---------|---------|--------|---------|---------|---------|-------------------|
| Maine | 5,040 | 4,275 | 2,010 | 4,829 | 1,680 | 4,060 | 1,250 | 2,500 | 3,241 | 3,305 |
| New Hampshire | 1,596 | 1,035 | 1,155 | 1,364 | 1,200 | 700 | 775 | 935 | 1,462 | 1,230 |
| Vermont | 3,312 | 1,248 | 900 | 960 | 993 | 600 | 960 | 521 | 895 | 935 |
| Massachusetts | 3,450 | 2,163 | 2,430 | 3,187 | 3,575 | 1,125 | 3,010 | 3,300 | 3,360 | 3,100 |
| Rhode Island | 201 | 105 | 189 | 334 | 390 | 63 | 200 | 450 | 324 | 299 |
| Connecticut | 1,776 | 1,251 | 909 | 1,395 | 2,375 | 758 | 1,300 | 1,600 | 1,480 | 1,375 |
| New York | 35,334 | 16,266 | 40,878 | 14,350 | 47,087 | 13,500 | 36,000 | 26,000 | 22,000 | 26,829 |
| New Jersey | 2,250 | 2,058 | 2,463 | 1,666 | 2,942 | 667 | 2,610 | 2,203 | 3,000 | 2,846 |
| Pennsylvania | 18,621 | 11,646 | 16,080 | 5,513 | 18,584 | 2,208 | 11,400 | 10,555 | 7,400 | 6,970 |
| Ohio | 6,601 | 5,760 | 7,005 | 2,976 | 13,960 | 3,390 | 7,268 | 12,395 | 6,350 | 6,300 |
| Indiana | 3,360 | 4,836 | 1,794 | 1,100 | 4,506 | 1,020 | 4,148 | 5,035 | 1,900 | 2,700 |
| Illinois | 4,848 | 7,518 | 3,459 | 4,673 | 5,866 | 2,381 | 9,726 | 7,500 | 6,400 | 7,000 |
| Michigan | 9,951 | 4,146 | 9,792 | 5,844 | 16,500 | 6,317 | 11,850 | 13,159 | 6,000 | 9,000 |
| Wisconsin | 2,604 | 3,090 | 2,811 | 1,545 | 2,260 | 1,050 | 2,024 | 2,340 | 1,378 | 2,106 |
| Minnesota | 1,266 | 1,446 | 996 | 1,336 | 1,350 | 900 | 1,020 | 1,520 | 979 | 910 |
| Iowa | 3,673 | 3,795 | 1,584 | 1,810 | 4,410 | 630 | 4,410 | 4,350 | 2,800 | 2,200 |
| Missouri | 6,003 | 8,070 | 4,245 | 5,132 | 4,724 | 490 | 6,400 | 7,072 | 4,300 | 4,100 |
| South Dakota | 348 | 336 | 273 | 168 | 180 | 126 | 263 | 212 | 150 | 62 |
| Nebraska | 1,278 | 1,854 | 525 | 907 | 797 | 125 | 1,620 | 880 | 1,000 | 450 |
| Kansas | 2,268 | 2,853 | 1,603 | 1,835 | 1,144 | 172 | 3,280 | 2,160 | 2,200 | 1,600 |
| Delaware | 432 | 798 | 714 | 606 | 822 | 68 | 1,414 | 1,200 | 1,250 | 1,300 |
| Maryland | 2,544 | 2,550 | 2,034 | 1,519 | 2,600 | 225 | 1,500 | 2,300 | 1,810 | 1,870 |
| Virginia | 13,230 | 11,778 | 10,068 | 8,943 | 13,744 | 570 | 8,060 | 10,000 | 14,500 | 7,844 |
| West Virginia | 7,752 | 4,320 | 5,556 | 4,189 | 8,040 | 420 | 5,625 | 8,320 | 7,000 | 4,185 |
| North Carolina | 5,559 | 4,500 | 3,588 | 2,000 | 6,320 | 593 | 6,000 | 2,700 | 6,350 | 3,192 |
| South Carolina | 1,179 | 1,635 | 1,407 | 216 | 440 | 293 | 383 | 274 | 600 | 386 |
| Georgia | 1,623 | 1,713 | 1,713 | 417 | 1,270 | 698 | 1,135 | 864 | 1,500 | 741 |
| Kentucky | 4,416 | 5,802 | 2,709 | 1,281 | 5,022 | 636 | 5,070 | 2,625 | 5,700 | 2,628 |
| Tennessee | 4,299 | 4,170 | 4,050 | 1,259 | 4,280 | 754 | 4,250 | 1,311 | 4,550 | 1,881 |
| Alabama | 1,116 | 1,449 | 1,062 | 577 | 1,186 | 890 | 1,068 | 731 | 1,190 | 596 |
| Mississippi | | | | 218 | 190 | 145 | 216 | 120 | 270 | 221 |
| Arkansas | 1,503 | 2,574 | 1,290 | 7,164 | 3,900 | 120 | 2,400 | 3,025 | 3,880 | 4,076 |
| Louisiana | | | | 34 | 34 | 37 | 31 | 30 | 30 | 28 |
| Oklahoma | 468 | 1,263 | 660 | 1,600 | 685 | 486 | 1,140 | 1,240 | 1,170 | 644 |
| Texas | | 357 | 273 | 487 | 274 | 274 | 264 | 270 | 330 | 264 |
| Montana | 768 | 1,044 | 792 | 850 | 825 | 975 | 610 | 990 | 290 | 86 |
| Idaho | 738 | 3,843 | 1,200 | 3,800 | 3,420 | 4,500 | 3,900 | 5,600 | 2,178 | 5,500 |
| Wyoming | | | 30 | 30 | 18 | 19 | 40 | 35 | 50 | 25 |
| Colorado | 2,541 | 2,190 | 2,067 | 3,418 | 2,830 | 3,200 | 4,250 | 3,010 | 3,024 | 3,200 |
| New Mexico | 459 | 879 | 912 | 1,100 | 434 | 483 | 750 | 1,400 | 851 | 1,021 |
| Arizona | 138 | 129 | 138 | 125 | 80 | 47 | 77 | 128 | 70 | 68 |
| Utah | 99 | 906 | 786 | 760 | 1,064 | 1,037 | 1,085 | 1,119 | 600 | 1,250 |
| Nevada | | | 53 | 53 | 36 | 24 | 35 | 56 | 35 | 74 |
| Washington | 17,688 | 19,830 | 16,491 | 25,295 | 21,502 | 29,062 | 25,775 | 33,000 | 22,000 | 28,700 |
| Oregon | 3,855 | 4,335 | 3,384 | 6,921 | 4,158 | 6,667 | 6,300 | 8,000 | 6,500 | 5,400 |
| California | 6,990 | 6,804 | 6,560 | 8,200 | 6,000 | 6,500 | 7,850 | 10,500 | 8,903 | 6,016 |
| United States | 193,905 | 166,749 | 169,625 | 142,086 | 223,677 | 99,002 | 202,702 | 202,842 | 171,250 | 164,616 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 172.—Apples (commercial crop): Summer, fall, and winter varieties by States¹

| State | Summer | | | | Fall and Early Winter | | | | Winter | | | |
|---------------------|--------|--------|--------|--------|-----------------------|--------|--------|--------|--------|--------|--------|--------|
| | Usual | 1923 | 1924 | 1925 | Usual | 1923 | 1924 | 1925 | Usual | 1923 | 1924 | 1925 |
| | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. |
| Maine..... | 12 | 13 | 3 | 10 | 24 | 27 | 15 | 25 | 64 | 60 | 82 | 65 |
| New Hampshire..... | 8 | 11 | 7 | 10 | 16 | 26 | 14 | 25 | 76 | 63 | 79 | 65 |
| Vermont..... | 13 | 12 | 8 | 8 | 32 | 29 | 35 | 34 | 55 | 59 | 57 | 58 |
| Massachusetts..... | 14 | 11 | 12 | 14 | 28 | 31 | 25 | 36 | 58 | 58 | 63 | 50 |
| Rhode Island..... | 15 | 19 | 17 | 10 | 24 | 23 | 26 | 30 | 61 | 58 | 57 | 60 |
| Connecticut..... | 10 | 10 | 6 | 10 | 25 | 27 | 18 | 26 | 65 | 63 | 76 | 64 |
| New York..... | 9 | 7 | 14 | 12 | 23 | 21 | 36 | 26 | 68 | 72 | 50 | 62 |
| New Jersey..... | 29 | 31 | 24 | 35 | 28 | 30 | 28 | 28 | 43 | 39 | 48 | 37 |
| Pennsylvania..... | 16 | 15 | 17 | 19 | 29 | 35 | 28 | 25 | 55 | 50 | 55 | 56 |
| Delaware..... | 42 | 43 | 43 | 48 | 18 | 18 | 19 | 17 | 40 | 39 | 38 | 35 |
| Maryland..... | 15 | 16 | 13 | 17 | 24 | 26 | 27 | 25 | 61 | 58 | 60 | 58 |
| Virginia..... | 2 | 3 | 3 | 2 | 9 | 7 | 10 | 5 | 89 | 90 | 87 | 93 |
| West Virginia..... | 17 | 20 | 16 | 17 | 25 | 25 | 30 | 26 | 58 | 55 | 54 | 57 |
| North Carolina..... | 21 | | 17 | 22 | 37 | | 32 | 36 | 42 | | 51 | 42 |
| Georgia..... | 7 | 2 | 7 | 13 | 32 | 34 | 35 | 40 | 61 | 64 | 58 | 47 |
| Ohio..... | 17 | 17 | 24 | | 25 | 23 | 29 | | 58 | 60 | 47 | |
| Indiana..... | 19 | 16 | 20 | | 31 | 28 | 31 | | 50 | 56 | 45 | |
| Illinois..... | 18 | 19 | 24 | 16 | 29 | 32 | 29 | 29 | 53 | 49 | 47 | 55 |
| Michigan..... | 18 | | 25 | 22 | 25 | | 32 | 28 | 57 | | 43 | 50 |
| Wisconsin..... | 28 | 27 | 24 | 28 | 44 | 49 | 45 | 44 | 28 | 24 | 31 | 28 |
| Minnesota..... | 41 | 42 | 41 | 33 | 45 | 39 | 45 | 51 | 14 | 19 | 14 | 16 |
| Iowa..... | 27 | 24 | 30 | 28 | 33 | 38 | 33 | 35 | 40 | 38 | 37 | 37 |
| Missouri..... | 6 | 10 | 2 | 3 | 31 | 35 | 27 | 35 | 63 | 55 | 71 | 62 |
| South Dakota..... | 43 | | 41 | | 38 | | 38 | | 19 | | 21 | |
| Nebraska..... | 13 | 8 | 16 | 16 | 23 | 19 | 26 | 24 | 64 | 73 | 58 | 60 |
| Kansas..... | 8 | 7 | 13 | | 26 | 23 | 28 | | 66 | 70 | 59 | |
| Kentucky..... | 25 | 18 | 25 | 28 | 30 | 29 | 30 | 31 | 45 | 53 | 45 | 41 |
| Tennessee..... | 35 | 28 | 37 | | 35 | 36 | 24 | | 30 | 36 | 39 | |
| Texas..... | 29 | 28 | 25 | | 34 | 48 | 32 | | 37 | 24 | 43 | |
| Oklahoma..... | 17 | 13 | 18 | | 35 | 25 | 32 | | 48 | 62 | 50 | |
| Arkansas..... | 4 | 2 | 4 | 4 | 22 | 22 | 26 | 16 | 74 | 76 | 70 | 80 |
| Montana..... | 6 | 6 | 6 | 25 | 70 | 73 | 73 | 35 | 24 | 21 | 21 | 40 |
| Colorado..... | 5 | 5 | 10 | 5 | 30 | 37 | 24 | 25 | 65 | 58 | 66 | 70 |
| New Mexico..... | 8 | 8 | 7 | 10 | 37 | 42 | 33 | 30 | 55 | 50 | 60 | 60 |
| Utah..... | 10 | 10 | 16 | 13 | 33 | 34 | 28 | 35 | 57 | 56 | 56 | 52 |
| Idaho..... | 4 | 4 | 6 | 5 | 38 | 36 | 30 | 32 | 58 | 60 | 64 | 63 |
| Washington..... | 4 | 4 | 5 | 5 | 34 | 35 | 30 | 30 | 62 | 61 | 65 | 65 |
| Oregon..... | 5 | 5 | 4 | 6 | 17 | 22 | 17 | 24 | 78 | 73 | 79 | 70 |
| California..... | 22 | 25 | 20 | 12 | 26 | 28 | 25 | 20 | 52 | 47 | 55 | 68 |
| United States..... | 10.4 | 9.2 | 11.7 | 10.3 | 26.5 | 27.9 | 27.3 | 26.8 | 63.1 | 62.9 | 61.0 | 62.9 |

Division of Crop and Livestock Estimates.

¹ The percentages shown are the percentages of the various apple crops reported by the growers to be of summer varieties, such as ordinarily go into consumption not later than early September, fall and early winter varieties not suitable for keeping later than Christmas; and later varieties, including those which can ordinarily be stored for winter use.

TABLE 173.—Apples: Percentage reduction from full yield, from stated causes, as reported by crop correspondents, 1912–1924

| Year | Adverse weather conditions | | | | | | | | | Plant diseases | Insect pests | Animal pests | Other and unknown causes | Total |
|-----------|----------------------------|--------------------|--------|-----------------|--------|-----------|--------|----------------|----------------|----------------|--------------|--------------|--------------------------|--------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | |
| | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. |
| 1912..... | 2.5 | 0.9 | 0.1 | 10.2 | 0.7 | 0.3 | 0.9 | 1.1 | 16.9 | 4.2 | 3.1 | 0.1 | 8.1 | 32.4 |
| 1913..... | 10.3 | .4 | .4 | 24.3 | .6 | .9 | .6 | 2.4 | 39.9 | 1.0 | 5.2 | (1) | 7.4 | 53.5 |
| 1914..... | 6.5 | .3 | (1) | 6.4 | .6 | .4 | .6 | .4 | 15.2 | 1.8 | 5.0 | .1 | 7.1 | 28.2 |
| 1915..... | 1.2 | 1.9 | .2 | 15.8 | .9 | .1 | 1.2 | .5 | 21.8 | 5.2 | 3.0 | .1 | 5.3 | 35.4 |
| 1916..... | 5.4 | 3.2 | .2 | 9.9 | .9 | .6 | 1.4 | 1.2 | 22.8 | 5.6 | 3.0 | .1 | 7.1 | 38.6 |
| 1917..... | 4.1 | 3.8 | .1 | 15.3 | 1.0 | .3 | 1.1 | 1.3 | 27.0 | 4.7 | 2.8 | .1 | 9.6 | 44.2 |
| 1918..... | 7.5 | .7 | .2 | 19.1 | .8 | 1.0 | .7 | .7 | 30.7 | 4.2 | 2.8 | .2 | 7.0 | 44.9 |
| 1919..... | 4.3 | 2.9 | .1 | 29.1 | .6 | .6 | 1.0 | .5 | 39.1 | 5.1 | 2.7 | .1 | 5.7 | 52.7 |
| 1920..... | 2.2 | .8 | .2 | 11.6 | .8 | .2 | .7 | .1 | 16.6 | 4.4 | 1.9 | .1 | 2.9 | 25.9 |
| 1921..... | 5.0 | .7 | ----- | 50.3 | .6 | .3 | .6 | .2 | 57.7 | 3.0 | 1.9 | .1 | 2.4 | 65.1 |
| 1922..... | 4.1 | 1.3 | ----- | 13.4 | .8 | .4 | .7 | .6 | 21.3 | 4.8 | 2.4 | .1 | 1.7 | 30.3 |
| 1923..... | 5.7 | .6 | .1 | 16.9 | 1.0 | .1 | .7 | .2 | 25.3 | 4.5 | 2.7 | .1 | 2.0 | 34.3 |
| 1924..... | 6.5 | 3.3 | .1 | 14.2 | .8 | .1 | 1.1 | .1 | 28.2 | 5.8 | 2.7 | .1 | 2.0 | 36.8 |

Division of Crop and Livestock Estimates.

¹ Less than 0.05 per cent.

TABLE 174.—Apples: Car-lot shipments by State of origin, June, 1920–June, 1925

Crop movement season ¹

| State | 1920 | 1921 | 1922 | 1923 | 1924 preliminary |
|---------------------------|-------------|-------------|-------------|-------------|------------------|
| BOX AREA | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| Montana..... | 443 | 699 | 351 | 461 | 173 |
| Idaho..... | 2,977 | 5,913 | 4,280 | 6,665 | 2,223 |
| Colorado..... | 3,083 | 3,882 | 3,385 | 2,718 | 2,404 |
| New Mexico..... | 293 | 636 | 445 | 1,368 | 864 |
| Arizona..... | 5 | 3 | 14 | 9 | ----- |
| Utah..... | 603 | 740 | 718 | 947 | 338 |
| Washington..... | 22,213 | 33,355 | 28,291 | 37,633 | 25,152 |
| Oregon..... | 3,265 | 6,588 | 3,805 | 6,428 | 5,515 |
| California..... | 4,413 | 5,062 | 4,901 | 6,505 | 4,890 |
| Total box..... | 37,275 | 56,868 | 46,290 | 63,004 | 41,559 |
| BARREL AREA | | | | | |
| Maine..... | 425 | 4,499 | 290 | 918 | 2,115 |
| New Hampshire..... | 287 | 334 | 187 | 311 | 905 |
| Massachusetts..... | 609 | 166 | 246 | 587 | 587 |
| New York..... | 35,736 | 17,779 | 30,080 | 20,434 | 16,632 |
| New Jersey..... | 897 | 187 | 446 | 399 | 130 |
| Pennsylvania..... | 3,462 | 242 | 2,050 | 4,033 | 1,706 |
| Ohio..... | 1,086 | 627 | 425 | 1,051 | 1,046 |
| Illinois..... | 4,087 | 503 | 6,297 | 6,832 | 5,867 |
| Michigan..... | 7,367 | 6,096 | 6,076 | 9,266 | 3,443 |
| Missouri..... | 1,933 | 115 | 3,083 | 4,050 | 2,939 |
| Kansas..... | 832 | 64 | 1,083 | 1,412 | 1,294 |
| Delaware..... | 782 | 125 | 1,751 | 1,590 | 1,384 |
| Maryland..... | 1,739 | 129 | 1,150 | 2,181 | 1,239 |
| Virginia..... | 8,911 | 409 | 6,975 | 9,830 | 13,080 |
| West Virginia..... | 4,912 | 779 | 2,240 | 7,332 | 3,763 |
| Arkansas..... | 3,868 | 6 | 2,620 | 2,763 | 3,451 |
| Other States..... | 1,959 | 632 | 2,632 | 2,532 | 2,801 |
| Total barrel..... | 78,842 | 32,692 | 67,069 | 75,180 | 62,281 |
| Total box and barrel..... | 116,117 | 89,560 | 113,959 | 138,184 | 103,840 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from June 1 of one year through June of the following year.

TABLE 175.—*Apples (commercial crop): Production, by States, 1921-1925*

[Thousand barrels—1. e., 000 omitted]

| State | 1921 | 1922 | 1923 | 1924 | 1925 ¹ | State | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---------|-------|-------|-------|-------|-------------------|---------|--------|--------|--------|--------|-------------------|
| Me. | 657 | 232 | 480 | 660 | 645 | Va. | 80 | 1,400 | 1,950 | 2,520 | 1,386 |
| N. H. | 110 | 110 | 150 | 292 | 225 | W. Va. | 130 | 881 | 1,400 | 800 | 825 |
| Vt. | 116 | 128 | 89 | 100 | 170 | N. C. | 25 | 236 | 100 | 307 | 160 |
| Mass. | 172 | 461 | 600 | 675 | 655 | Ga. | 58 | 95 | 60 | 120 | 60 |
| R. I. | 8 | 20 | 80 | 64 | 57 | Ky. | 31 | 169 | 70 | 162 | 70 |
| Conn. | 70 | 108 | 200 | 285 | 300 | Tenn. | 45 | 95 | 30 | 106 | 41 |
| N. Y. | 3,300 | 6,000 | 4,200 | 3,738 | 5,397 | Ala. | 15 | 18 | 12 | --- | --- |
| N. J. | 132 | 552 | 470 | 612 | 607 | Ark. | 16 | 520 | 656 | 720 | 691 |
| Pa. | 221 | 1,216 | 1,266 | 780 | 1,011 | Okl. | 21 | 38 | 42 | 54 | 29 |
| Ohio. | 360 | 608 | 1,033 | 694 | 678 | Tex. | 21 | 15 | 15 | --- | --- |
| Ind. | 109 | 277 | 300 | 145 | 258 | Mont. | 175 | 115 | 130 | 70 | 14 |
| Ill. | 397 | 1,450 | 1,400 | 1,100 | 1,164 | Idaho. | 1,350 | 1,150 | 1,600 | 600 | 1,700 |
| Mich. | 1,208 | 1,699 | 2,118 | 1,000 | 1,700 | Colo. | 812 | 1,034 | 803 | 806 | 860 |
| Wis. | 64 | 101 | 136 | 98 | 157 | N. Mex. | 123 | 150 | 315 | 189 | 260 |
| Minn. | 64 | 41 | 61 | 38 | 38 | Ariz. | 6 | 9 | 14 | 7 | 10 |
| Iowa. | 25 | 220 | 290 | 150 | 80 | Utah. | 198 | 198 | 260 | 120 | 290 |
| Mo. | 30 | 1,250 | 850 | 588 | 646 | Wash. | 8,300 | 7,341 | 9,600 | 6,275 | 8,318 |
| S. Dak. | 0 | 4 | 3 | --- | --- | Oreg. | 1,667 | 1,260 | 1,750 | 1,550 | 1,206 |
| Nebr. | 17 | 130 | 103 | 120 | 65 | Calif. | 1,352 | 1,399 | 2,100 | 1,490 | 1,097 |
| Kans. | 29 | 546 | 400 | 344 | 285 | U. S. | 21,557 | 31,045 | 35,936 | 28,063 | 31,909 |
| Del. | 14 | 380 | 340 | 310 | 340 | | | | | | |
| Md. | 20 | 280 | 460 | 314 | 324 | | | | | | |

Division of Crop and Livestock Estimates. Included in "Apples" (Table 171).

By commercial crop is meant that portion of the total crop which is sold for consumption as fresh fruits. One barrel is equivalent to three boxes.

¹ Preliminary.TABLE 176.—*Apples: Car-lot shipments by State of origin, June, 1920—December, 1925*

| State and year | Crop movement season ¹ | | | | | | | | | | | | | | |
|---------------------|-----------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|
| | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total | |
| New York: | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | |
| 1920. | | 16 | 762 | 2,681 | 9,875 | 8,488 | 3,521 | 2,795 | 3,415 | 2,611 | 1,039 | 452 | 81 | 35,736 | |
| 1921. | | 135 | 867 | 3,130 | 5,894 | 1,221 | 829 | 1,090 | 1,485 | 1,472 | 970 | 563 | 123 | 17,770 | |
| 1922. | | 71 | 1,367 | 3,568 | 8,012 | 5,710 | 1,068 | 2,193 | 2,241 | 2,399 | 1,482 | 903 | 166 | 30,080 | |
| 1923. | | 4 | 334 | 1,715 | 4,297 | 3,317 | 1,201 | 1,697 | 2,005 | 2,839 | 1,711 | 1,015 | 299 | 20,424 | |
| 1924. | | 7 | 591 | 1,494 | 3,906 | 2,994 | 1,186 | 1,576 | 1,586 | 1,536 | 1,001 | 577 | 118 | 10,632 | |
| 1925 ¹ . | | 36 | 693 | 2,873 | 7,066 | 4,933 | 1,895 | | | | | | | | |
| Pennsylvania: | | | | | | | | | | | | | | | |
| 1920. | | 29 | 47 | 222 | 1,424 | 604 | 366 | 292 | 250 | 152 | 9 | 1 | | 3,402 | |
| 1921. | | | 1 | 72 | 119 | 16 | 7 | 7 | 15 | 9 | 2 | | | 242 | |
| 1922. | | 19 | 23 | 270 | 849 | 375 | 220 | 177 | 71 | 21 | 17 | 8 | | 2,050 | |
| 1923. | | 20 | 30 | 382 | 1,611 | 933 | 292 | 303 | 288 | 143 | 19 | 9 | 3 | 4,033 | |
| 1924. | | 4 | 5 | 67 | 630 | 337 | 163 | 240 | 152 | 74 | 21 | 13 | | 1,706 | |
| 1925 ¹ . | | 17 | 52 | 327 | 950 | 343 | 213 | | | | | | | | |
| Illinois: | | | | | | | | | | | | | | | |
| 1920. | | 50 | 557 | 192 | 1,037 | 1,517 | 353 | 46 | 44 | 111 | 83 | 59 | 5 | 4,087 | |
| 1921. | | 39 | 27 | 57 | 148 | 101 | 10 | 9 | 33 | 46 | 12 | 7 | 12 | 503 | |
| 1922. | | 310 | 650 | 342 | 1,687 | 2,037 | 804 | 59 | 65 | 85 | 88 | 61 | 48 | 1 | 6,297 |
| 1923. | | 22 | 481 | 203 | 1,603 | 3,519 | 607 | 78 | 75 | 70 | 45 | 68 | 39 | 22 | 6,832 |
| 1924. | | 37 | 484 | 305 | 1,155 | 2,949 | 502 | 79 | 69 | 63 | 57 | 42 | 105 | 20 | 5,867 |
| 1925 ¹ . | | 245 | 470 | 357 | 1,446 | 1,764 | 362 | 40 | | | | | | | |
| Michigan: | | | | | | | | | | | | | | | |
| 1920. | | 65 | 1,207 | 1,247 | 2,793 | 1,618 | 237 | 92 | 91 | 78 | 38 | 1 | | 7,367 | |
| 1921. | | 538 | 1,360 | 1,783 | 2,352 | 117 | 16 | 12 | 11 | 7 | 1 | | | 6,096 | |
| 1922. | | 307 | 913 | 1,000 | 2,739 | 890 | 96 | 42 | 33 | 35 | 20 | 2 | | 6,076 | |
| 1923. | | 39 | 1,220 | 1,406 | 3,651 | 1,070 | 240 | 80 | 142 | 183 | 90 | 28 | 7 | 9,200 | |
| 1924. | | 2 | 388 | 657 | 1,443 | 727 | 60 | 35 | 37 | 37 | 40 | 16 | 1 | 3,443 | |
| 1925 ¹ . | | 44 | 726 | 999 | 2,514 | 1,088 | 86 | | | | | | | | |
| Missouri: | | | | | | | | | | | | | | | |
| 1920. | | 5 | 45 | 413 | 877 | 217 | 69 | 68 | 83 | 87 | 43 | 19 | 7 | 1,933 | |
| 1921. | | 3 | 3 | 31 | 59 | 16 | | 2 | 1 | | | | | 115 | |
| 1922. | | 8 | 11 | 84 | 825 | 1,362 | 301 | 81 | 74 | 78 | 94 | 80 | 73 | 12 | 3,083 |
| 1923. | | 1 | 17 | 33 | 785 | 2,002 | 653 | 140 | 61 | 62 | 62 | 61 | 102 | 71 | 4,050 |
| 1924. | | 2 | 20 | 44 | 606 | 1,590 | 257 | 105 | 92 | 76 | 57 | 37 | 48 | 6 | 2,939 |
| 1925 ¹ . | | 15 | 23 | 115 | 651 | 1,167 | 274 | 46 | | | | | | | |

¹ Crop movement season extends from June 1 of one year through June of the following year.² Preliminary.

TABLE 176.—Apples: Car-lot shipments by State of origin, June, 1920—December, 1925—Continued

| State and year | Crop movement season ¹ | | | | | | | | | | | | | | |
|-------------------------|-----------------------------------|-------|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|------|---------|--|
| | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total | |
| Virginia: | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | |
| 1920..... | | 48 | 101 | 1,577 | 18,310 | 1,226 | 821 | 715 | 450 | 378 | 202 | 77 | 6 | 8,911 | |
| 1921..... | | | 14 | 193 | 104 | 14 | 34 | 16 | 10 | 16 | 8 | | | 409 | |
| 1922..... | 5 | 32 | 300 | 1,741 | 2,349 | 1,139 | 465 | 342 | 133 | 94 | 98 | 160 | 117 | 6,075 | |
| 1923..... | | 50 | 129 | 1,963 | 8,892 | 1,482 | 773 | 712 | 304 | 200 | 115 | 101 | 109 | 9,830 | |
| 1924..... | | 59 | 171 | 2,336 | 5,855 | 2,503 | 580 | 552 | 308 | 341 | 164 | 137 | 76 | 13,080 | |
| 1925 ¹ | | 40 | 297 | 2,617 | 2,253 | 595 | 441 | | | | | | | | |
| West Virginia: | | | | | | | | | | | | | | | |
| 1920..... | | 67 | 82 | 771 | 2,185 | 869 | 249 | 188 | 145 | 148 | 111 | 87 | 10 | 4,912 | |
| 1921..... | | 5 | 18 | 404 | 160 | 20 | 27 | 15 | 42 | 59 | 27 | 2 | | 779 | |
| 1922..... | 10 | 28 | 75 | 451 | 1,005 | 310 | 141 | 84 | 37 | 36 | 38 | 25 | | 2,340 | |
| 1923..... | | 78 | 118 | 1,162 | 3,446 | 1,585 | 340 | 271 | 108 | 114 | 39 | 35 | 36 | 7,242 | |
| 1924..... | | 48 | 91 | 516 | 1,762 | 721 | 220 | 127 | 106 | 69 | 58 | 34 | 10 | 3,762 | |
| 1925 ¹ | | 92 | 136 | 992 | 1,517 | 575 | 129 | | | | | | | | |
| Arkansas: | | | | | | | | | | | | | | | |
| 1920..... | 15 | 36 | 205 | 1,360 | 1,760 | 183 | 71 | 86 | 77 | 47 | 28 | | | 3,868 | |
| 1921..... | | | | 1 | | | | | | | 3 | 2 | | 6 | |
| 1922..... | 41 | 37 | 441 | 769 | 975 | 144 | 57 | 47 | 35 | 49 | 24 | 1 | | 2,620 | |
| 1923..... | 11 | 13 | 190 | 727 | 1,116 | 506 | 29 | 29 | 25 | 36 | 42 | 38 | 1 | 2,763 | |
| 1924..... | 11 | 39 | 113 | 934 | 1,593 | 447 | 106 | 66 | 70 | 40 | 28 | 4 | | 3,451 | |
| 1925 ¹ | 8 | 89 | 597 | 499 | 1,398 | 325 | 86 | | | | | | | | |
| Idaho: | | | | | | | | | | | | | | | |
| 1920..... | | | | 153 | 1,443 | 733 | 221 | 147 | 129 | 124 | 20 | 4 | 3 | 2,977 | |
| 1921..... | | 2 | 22 | 1,191 | 3,101 | 855 | 286 | 140 | 214 | 66 | 9 | 12 | 6 | 5,013 | |
| 1922..... | | | 3 | 68 | 1,049 | 1,236 | 384 | 377 | 287 | 198 | 16 | 11 | 1 | 4,230 | |
| 1923..... | | 1 | 5 | 266 | 2,595 | 1,895 | 660 | 648 | 543 | 237 | 56 | 17 | 12 | 6,035 | |
| 1924..... | | 1 | | 397 | 888 | 606 | 193 | 77 | 37 | 13 | 3 | 7 | 1 | 2,223 | |
| 1925 ¹ | | 1 | 10 | 881 | 2,911 | 1,529 | 825 | | | | | | | | |
| Colorado: | | | | | | | | | | | | | | | |
| 1920..... | 1 | 3 | 166 | 1,793 | 761 | 117 | 73 | 89 | 51 | 7 | 2 | | | 3,063 | |
| 1921..... | | 13 | 861 | 2,224 | 430 | 141 | 103 | 91 | 14 | 5 | | | | 3,882 | |
| 1922..... | | 2 | 158 | 1,213 | 1,027 | 601 | 223 | 111 | 43 | 5 | | | | 3,355 | |
| 1923..... | | 4 | 274 | 1,150 | 679 | 289 | 118 | 197 | 95 | 12 | | | | 2,718 | |
| 1924..... | | 3 | 239 | 1,205 | 580 | 223 | 65 | 57 | 27 | | 5 | | | 2,404 | |
| 1925 ¹ | | 1 | 5 | 407 | 1,180 | 680 | 310 | | | | | | | | |
| Washington: | | | | | | | | | | | | | | | |
| 1920..... | 23 | 88 | 760 | 7,923 | 4,996 | 2,138 | 1,158 | 1,717 | 1,490 | 1,066 | 660 | 185 | 22 | 21,213 | |
| 1921..... | 44 | 151 | 2,671 | 12,980 | 7,847 | 3,076 | 2,060 | 2,293 | 994 | 636 | 491 | 112 | 33 | 35,355 | |
| 1922..... | 33 | 78 | 2,187 | 6,792 | 5,506 | 3,298 | 4,194 | 3,007 | 2,004 | 780 | 294 | 28 | 28 | 29,291 | |
| 1923..... | 65 | 204 | 2,486 | 13,111 | 7,871 | 2,708 | 3,410 | 3,813 | 1,962 | 1,074 | 818 | 111 | 37 | 37,633 | |
| 1924..... | 8 | 26 | 196 | 3,186 | 9,056 | 5,527 | 2,066 | 1,669 | 1,085 | 730 | 737 | 606 | 264 | 25,152 | |
| 1925 ¹ | 108 | 427 | 5,161 | 11,416 | 5,971 | 2,512 | | | | | | | | | |
| Oregon: | | | | | | | | | | | | | | | |
| 1920..... | | 2 | 1 | 95 | 998 | 1,106 | 451 | 273 | 197 | 96 | 34 | 12 | | 3,265 | |
| 1921..... | | 9 | 9 | 323 | 2,367 | 1,913 | 1,000 | 498 | 300 | 109 | 44 | 6 | 1 | 6,588 | |
| 1922..... | | 1 | 1 | 98 | 867 | 1,239 | 707 | 451 | 314 | 191 | 23 | 3 | | 3,895 | |
| 1923..... | | 19 | 27 | 371 | 2,241 | 2,012 | 635 | 482 | 394 | 186 | 59 | 1 | 1 | 6,428 | |
| 1924..... | | | 40 | 497 | 2,329 | 1,459 | 613 | 323 | 129 | 82 | 41 | 1 | 1 | 5,515 | |
| 1925 ¹ | 1 | 6 | 34 | 417 | 2,130 | 1,020 | 337 | | | | | | | | |
| California: | | | | | | | | | | | | | | | |
| 1920..... | 5 | 219 | 584 | 998 | 1,002 | 787 | 389 | 116 | 86 | 70 | 78 | 67 | 12 | 4,413 | |
| 1921..... | 10 | 301 | 677 | 1,250 | 1,534 | 714 | 174 | 120 | 117 | 101 | 42 | 21 | 1 | 5,062 | |
| 1922..... | 2 | 212 | 998 | 782 | 920 | 887 | 495 | 179 | 103 | 168 | 107 | 78 | 30 | 4,961 | |
| 1923..... | 61 | 1,290 | 984 | 1,277 | 1,431 | 771 | 219 | 122 | 77 | 123 | 55 | 65 | 30 | 6,505 | |
| 1924..... | 22 | 734 | 645 | 943 | 1,185 | 695 | 186 | 120 | 111 | 97 | 85 | 59 | 8 | 4,890 | |
| 1925 ¹ | 53 | 343 | 155 | 456 | 703 | 228 | 88 | | | | | | | | |
| Other States: | | | | | | | | | | | | | | | |
| 1920..... | 85 | 889 | 455 | 1,280 | 3,990 | 1,950 | 539 | 218 | 197 | 216 | 66 | 24 | 1 | 9,910 | |
| 1921..... | 43 | 175 | 452 | 1,876 | 4,151 | 1,624 | 324 | 86 | 58 | 44 | 9 | 8 | 1 | 8,831 | |
| 1922..... | 495 | 1,311 | 393 | 1,831 | 3,820 | 1,327 | 250 | 123 | 76 | 82 | 56 | 11 | 1 | 9,776 | |
| 1923..... | 58 | 1,283 | 641 | 2,272 | 5,614 | 2,390 | 457 | 290 | 185 | 135 | 68 | 27 | 5 | 13,425 | |
| 1924..... | 125 | 938 | 538 | 1,614 | 5,415 | 2,876 | 619 | 283 | 209 | 117 | 33 | 8 | 4 | 12,776 | |
| 1925 ¹ | 98 | 1,532 | 628 | 2,279 | 4,621 | 1,553 | 239 | | | | | | | | |
| Total: | | | | | | | | | | | | | | | |
| 1920..... | 155 | 1,957 | 3,772 | 12,760 | 40,890 | 23,851 | 9,222 | 6,267 | 6,976 | 5,659 | 2,824 | 1,474 | 310 | 116,117 | |
| 1921..... | 92 | 1,239 | 3,544 | 13,934 | 35,126 | 14,791 | 5,922 | 4,191 | 4,062 | 2,903 | 1,763 | 1,117 | 246 | 89,560 | |
| 1922..... | 871 | 2,712 | 5,020 | 15,435 | 34,589 | 21,045 | 8,821 | 8,573 | 6,611 | 5,802 | 2,807 | 1,617 | 356 | 113,959 | |
| 1923..... | 153 | 3,360 | 4,122 | 10,689 | 49,876 | 26,571 | 8,061 | 8,298 | 8,213 | 6,370 | 3,469 | 2,295 | 707 | 138,184 | |
| 1924..... | 205 | 2,362 | 3,126 | 14,641 | 39,866 | 20,231 | 6,390 | 5,294 | 4,024 | 3,277 | 2,295 | 1,615 | 505 | 108,840 | |
| 1925 ¹ | 420 | 2,808 | 4,232 | 20,036 | 41,590 | 19,478 | 7,244 | | | | | | | | |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from June 1 of one year through June of the following year.

TABLE 177.—Apples: International trade, average 1911-1913, annual 1922-1924

(Thousand barrels (of 144 pounds)—i. e., 000 omitted)

| Country | Year ended December 31 | | | | | | | |
|--------------------------------------|------------------------|----------|------------------|----------|------------------|------------------|-------------------|------------------|
| | Average, 1911-1913 | | 1922 | | 1923 | | 1924, preliminary | |
| | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Australia..... | 26 | 380 | | 1 662 | | 1 455 | | |
| Belgium..... | 264 | 312 | 30 | 187 | 41 | 263 | 104 | 328 |
| Canada..... | 280 | 1, 286 | 171 | 1, 494 | 185 | 1, 009 | 177 | 1, 524 |
| Italy..... | 13 | 220 | (¹) | 93 | (²) | 153 | (³) | 333 |
| Japan..... | | 68 | | | | 7 | | 5 |
| Netherlands..... | 35 | 311 | 59 | 116 | 107 | 251 | 121 | 353 |
| New Zealand..... | 17 | 5 | 6 | 31 | 6 | 41 | 13 | 68 |
| Spain..... | | 10 | | 2 | | 3 | | 2 |
| United States..... | (⁴) | 3, 290 | 48 | 1, 648 | 44 | 2, 989 | 32 | 4, 120 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Brazil..... | 27 | | 11 | | 17 | | | |
| Cuba..... | 13 | | 26 | | 31 | | | |
| Denmark..... | 36 | 1 | 84 | 1 | 131 | (⁵) | 132 | (⁶) |
| Germany..... | 4, 818 | 31 | 28 | 80 | 806 | 14 | 3, 767 | 26 |
| Sweden..... | 44 | 1 | 68 | 1 | 154 | 1 | 216 | (⁷) |
| United Kingdom..... | 2, 562 | | 3, 411 | | 4, 827 | | 5, 250 | |
| Total 15 countries..... | 8, 135 | 5, 915 | 3, 941 | 4, 315 | 6, 048 | 5, 786 | 9, 812 | 6, 759 |

Division of Statistical and Historical Research. Official sources.

¹ Year beginning July 1.² Includes pears.³ Not separately stated.⁴ Less than 500 barrels.⁵ Six months.

TABLE 178.—Apples: Estimated price per bushel, received by producers, United States, 1910-1925

| Year beginning June | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | Weight ed av. |
|---------------------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|---------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1910..... | 112.0 | 76.9 | 73.8 | 73.6 | 77.4 | 89.3 | 100.2 | 115.7 | 118.6 | 124.7 | 133.8 | 139.6 | 88.1 |
| 1911..... | 135.4 | 94.8 | 73.0 | 70.2 | 65.8 | 73.1 | 86.1 | 92.7 | 96.8 | 103.5 | 114.9 | 128.8 | 76.6 |
| 1912..... | 108.0 | 82.5 | 67.5 | 62.2 | 61.3 | 63.5 | 72.6 | 74.3 | 78.4 | 82.4 | 85.0 | 94.0 | 66.8 |
| 1913..... | 101.2 | 86.0 | 75.2 | 76.5 | 85.6 | 94.4 | 103.6 | 110.6 | 123.0 | 128.9 | 137.1 | 146.4 | 93.0 |
| Av. 1910-1913..... | 114.2 | 85.0 | 72.4 | 70.6 | 72.5 | 80.1 | 90.6 | 98.3 | 104.7 | 108.9 | 119.0 | 127.2 | 81.1 |
| 1914..... | 135.6 | 91.2 | 68.6 | 61.6 | 56.0 | 57.3 | 66.6 | 69.3 | 73.1 | 73.4 | 80.1 | 90.6 | 62.7 |
| 1915..... | 90.3 | 78.4 | 61.8 | 58.0 | 63.1 | 72.4 | 77.0 | 88.1 | 90.5 | 91.2 | 94.8 | 97.5 | 71.0 |
| 1916..... | 104.9 | 80.5 | 80.7 | 75.6 | 82.5 | 92.0 | 103.4 | 104.3 | 114.4 | 126.9 | 137.1 | 142.9 | 90.7 |
| 1917..... | 146.5 | 125.1 | 100.6 | 96.6 | 105.1 | 116.8 | 127.4 | 132.9 | 138.5 | 142.6 | 143.9 | 155.8 | 113.6 |
| 1918..... | 144.6 | 125.7 | 114.5 | 118.9 | 129.4 | 138.9 | 150.9 | 148.9 | 159.8 | 190.1 | 203.5 | 220.8 | 137.5 |
| 1919..... | 223.4 | 167.6 | 161.4 | 153.2 | 175.6 | 184.9 | 213.9 | 215.9 | 226.2 | 226.7 | 233.5 | 285.8 | 186.1 |
| 1920..... | 249.1 | 196.7 | 152.1 | 134.8 | 125.9 | 136.7 | 143.2 | 130.8 | 132.8 | 134.7 | 142.2 | 162.3 | 134.4 |
| Av. 1914-1920..... | 156.3 | 127.3 | 105.7 | 99.8 | 105.8 | 113.3 | 126.1 | 126.9 | 134.0 | 142.2 | 150.7 | 165.1 | 113.7 |
| 1921..... | 173.9 | 165.3 | 166.1 | 171.4 | 195.4 | 215.7 | 224.5 | 183.5 | 206.7 | 206.2 | 194.5 | 241.4 | 196.2 |
| 1922..... | 202.7 | 181.7 | 100.4 | 94.3 | 93.4 | 101.5 | 108.6 | 131.5 | 142.3 | 144.9 | 156.5 | 178.7 | 107.5 |
| 1923..... | 188.6 | 166.7 | 121.4 | 108.0 | 114.0 | 114.6 | 114.0 | 121.3 | 125.0 | 129.1 | 129.4 | 131.3 | 117.3 |
| 1924..... | 159.3 | 141.3 | 121.6 | 109.8 | 115.9 | 116.5 | 128.2 | 144.9 | 150.7 | 155.4 | 158.4 | 179.2 | 122.1 |
| 1925..... | 201.4 | 158.7 | 130.7 | 112.5 | 120.5 | 127.7 | 137.4 | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 179.—Apples: Cold-storage holdings, United States, 1915-1925 ¹

[Thousand—i. e., 000 omitted]

BARRELS

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|---------------------|--------|--------|--------|--------|-------|--------|--------|--------|--------|
| 1915..... | 2,929 | 2,438 | 1,716 | 896 | 299 | 61 | ----- | 3,093 | 4,213 |
| 1916..... | 3,743 | 3,324 | 2,543 | 1,561 | 799 | 218 | ----- | 2,530 | 3,166 |
| 1917..... | 2,680 | 2,121 | 1,560 | 1,044 | 543 | 183 | ----- | 2,558 | 3,195 |
| 1918..... | 2,754 | 2,226 | 1,575 | 978 | 356 | 101 | ----- | 2,915 | 3,280 |
| 1919..... | 2,582 | 1,704 | 962 | 487 | 198 | 68 | 824 | 3,108 | 3,326 |
| 1920..... | 2,693 | 2,092 | 1,385 | 705 | 274 | 64 | 452 | 3,516 | 4,570 |
| 1921..... | 3,966 | 3,016 | 2,020 | 1,027 | 449 | 179 | 570 | 1,822 | 1,979 |
| 1922..... | 1,742 | 1,424 | 946 | 561 | 248 | 74 | 1,219 | 4,133 | 4,319 |
| 1923..... | 3,708 | 2,839 | 2,013 | 1,199 | 578 | 150 | 664 | 4,610 | 5,477 |
| 1924..... | 4,962 | 3,998 | 3,024 | 1,925 | 1,113 | 451 | 543 | 3,551 | 4,167 |
| 1925..... | 3,643 | 2,811 | 2,006 | 1,151 | 543 | 175 | 1,058 | 4,434 | 5,061 |
| A v. 1921-1925..... | 3,604 | 2,817 | 2,012 | 1,173 | 586 | 204 | 811 | 3,712 | 4,199 |

BOXES

| | | | | | | | | | |
|---------------------|--------|--------|-------|-------|-------|-----|-------|-------|--------|
| 1915..... | 4,091 | 3,441 | 2,323 | 1,341 | 525 | 142 | ----- | 1,789 | 3,685 |
| 1916..... | 3,210 | 2,738 | 2,096 | 1,268 | 799 | 258 | ----- | 2,190 | 3,977 |
| 1917..... | 4,356 | 3,790 | 2,646 | 1,504 | 796 | 246 | ----- | 2,216 | 4,483 |
| 1918..... | 5,534 | 5,192 | 3,764 | 2,416 | 966 | 172 | ----- | 2,513 | 4,945 |
| 1919..... | 5,137 | 4,205 | 2,431 | 1,416 | 545 | 170 | 440 | 4,244 | 7,793 |
| 1920..... | 8,508 | 7,296 | 5,331 | 2,952 | 1,598 | 447 | 277 | 2,878 | 6,661 |
| 1921..... | 7,259 | 6,268 | 4,800 | 3,548 | 2,009 | 826 | 667 | 5,464 | 11,281 |
| 1922..... | 11,061 | 8,667 | 6,282 | 4,107 | 2,088 | 721 | 669 | 4,164 | 7,371 |
| 1923..... | 5,319 | 7,612 | 5,533 | 3,345 | 1,475 | 380 | 789 | 6,886 | 13,866 |
| 1924..... | 14,201 | 11,650 | 8,821 | 5,837 | 2,904 | 949 | 829 | 6,620 | 9,617 |
| 1925..... | 9,069 | 7,264 | 5,266 | 3,412 | 1,801 | 674 | 1,091 | 9,165 | 13,041 |
| A v. 1921-1925..... | 9,986 | 8,272 | 6,170 | 4,050 | 2,055 | 710 | 809 | 6,460 | 11,075 |

BARRELS AND BOXES ¹

| | | | | | | | | | |
|---------------------|-------|-------|-------|-------|-------|-----|-------|-------|--------|
| 1915..... | 4,293 | 3,585 | 2,491 | 1,343 | 474 | 166 | ----- | 3,689 | 5,441 |
| 1916..... | 4,813 | 4,236 | 3,242 | 1,984 | 1,035 | 304 | ----- | 3,290 | 4,492 |
| 1917..... | 4,132 | 3,385 | 2,442 | 1,545 | 808 | 265 | ----- | 3,296 | 4,669 |
| 1918..... | 4,599 | 3,957 | 2,830 | 1,783 | 678 | 159 | ----- | 3,752 | 4,928 |
| 1919..... | 4,294 | 3,105 | 1,772 | 956 | 380 | 125 | 971 | 4,523 | 5,923 |
| 1920..... | 5,529 | 4,524 | 3,162 | 1,699 | 806 | 213 | 544 | 4,473 | 6,787 |
| 1921..... | 6,396 | 5,108 | 3,650 | 2,210 | 1,119 | 445 | 792 | 3,642 | 5,739 |
| 1922..... | 5,429 | 4,313 | 3,060 | 1,990 | 944 | 314 | 1,452 | 5,521 | 6,743 |
| 1923..... | 6,481 | 5,376 | 3,877 | 2,314 | 1,070 | 277 | 927 | 6,914 | 10,099 |
| 1924..... | 9,696 | 7,843 | 5,965 | 3,871 | 2,060 | 768 | 820 | 5,758 | 7,473 |
| 1925..... | 6,673 | 5,233 | 3,761 | 2,288 | 1,143 | 399 | 1,422 | 7,489 | 9,398 |
| A v. 1921-1925..... | 6,933 | 5,574 | 4,069 | 2,523 | 1,271 | 441 | 1,083 | 5,865 | 7,890 |

Cold Storage Report Section.

¹ All apples, except those packed in western-style boxes, are tabulated in terms of barrels, on the basis of 3 bushels to the barrel; since Oct. 1, 1923, apples packed in bushel baskets are also included in this tabulation. Three boxes are considered the equivalent of 1 barrel.

TABLE 180.—Apples: Average l. c. l. price to jobbers at nine markets, 1920-1925

IN BARRELS

| Market. Season beginning September | September ¹ | | October | | November average | December average | January average | February average | March average | April ² | | May ³ | |
|--|------------------------|---------|------------|---------|---------------------|---------------------|--------------------|---------------------|------------------|--------------------|---------|------------------|---------|
| | Range | Average | Range | Average | | | | | | Range | Average | Range | Average |
| New York: | | | | | | | | | | | | | |
| 1920..... | 2.75-8.00 | 4.86 | 2.00-9.00 | 5.23 | 5.66 | 4.71 | 4.80 | 5.01 | 6.01 | 3.50-12.00 | 6.79 | 4.00-13.50 | 8.03 |
| 1921..... | 5.50-13.00 | 8.09 | 5.00-11.00 | 7.72 | 7.18 | 7.82 | 8.23 | 8.23 | 8.49 | 5.00-10.00 | 7.44 | 3.75-8.50 | 6.75 |
| 1922..... | 2.00-8.50 | 4.63 | 2.00-8.50 | 4.30 | 4.67 | 4.56 | 5.08 | 5.37 | 5.69 | 3.00-8.50 | 6.03 | 1.50-7.50 | 4.20 |
| 1923..... | 1.50-7.50 | 3.16 | 2.00-10.00 | 4.80 | 4.58 | 4.71 | 4.46 | 4.59 | 4.82 | 1.25-9.00 | 7.82 | 4.00-16.00 | 7.80 |
| 1924..... | 2.75-8.00 | 4.53 | 2.75-9.00 | 5.82 | 6.51 | 6.21 | 7.16 | 7.84 | 7.82 | 4.00-16.00 | 7.80 | 4.00-16.00 | 7.80 |
| 1925..... | 2.50-9.00 | 4.79 | 2.00-10.50 | 5.93 | 5.63 | 5.92 | 5.36 | 5.15 | 5.38 | 4.50-8.00 | 5.55 | 5.00-9.00 | 6.53 |
| Chicago: | | | | | | | | | | | | | |
| 1920..... | 3.50-9.00 | 5.86 | 3.50-9.00 | 6.28 | 6.29 | 5.23 | 5.36 | 5.15 | 5.38 | 4.50-8.00 | 5.55 | 5.00-9.00 | 6.53 |
| 1921..... | 7.00-10.00 | 8.26 | 6.00-10.50 | 8.00 | 7.97 | 8.10 | 8.48 | 9.07 | 8.49 | 6.00-9.00 | 7.86 | 4.00-9.50 | 6.40 |
| 1922..... | 2.00-6.00 | 3.38 | 2.25-7.00 | 4.41 | 4.68 | 4.90 | 4.58 | 4.84 | 5.17 | 4.00-7.00 | 5.43 | 2.00-6.75 | 4.02 |
| 1923..... | 2.75-7.00 | 4.26 | 3.50-6.25 | 5.06 | 5.12 | 4.96 | 4.90 | 5.12 | 4.99 | 2.00-6.00 | 4.28 | 2.00-6.75 | 4.02 |
| 1924..... | 2.50-12.00 | 6.25 | 3.75-10.00 | 6.31 | 6.80 | 6.21 | 6.50 | 6.64 | 6.70 | 5.25-8.50 | 6.90 | 4.00-7.50 | 6.00 |
| 1925..... | 3.00-7.00 | 5.06 | 3.50-6.50 | 5.00 | 5.29 | 5.07 | 4.05 | 4.17 | 4.44 | 2.85-7.00 | 5.07 | 4.00-7.50 | 6.00 |
| Philadelphia: | | | | | | | | | | | | | |
| 1920..... | 2.00-7.50 | 5.00 | 2.50-8.50 | 4.93 | 4.49 | 4.13 | 4.05 | 4.17 | 4.44 | 2.85-7.00 | 5.07 | 4.00-7.50 | 6.00 |
| 1921..... | 4.50-10.50 | 7.44 | 4.00-12.00 | 6.53 | 6.57 | 6.65 | 7.38 | 7.44 | 7.01 | 4.25-8.90 | 6.64 | 4.25-8.50 | 5.81 |
| 1922..... | 1.50-5.50 | 3.39 | 2.00-7.00 | 3.65 | 3.86 | 3.64 | 3.63 | 3.75 | 3.82 | 4.00-6.50 | 5.24 | 4.25-8.50 | 5.81 |
| 1923..... | 1.75-7.00 | 4.28 | 1.75-7.00 | 3.77 | 3.83 | 3.64 | 3.63 | 3.75 | 3.82 | 4.00-6.50 | 5.24 | 4.25-8.50 | 5.81 |
| 1924..... | 2.25-8.00 | 4.99 | 2.25-8.00 | 4.68 | 4.80 | 4.98 | 5.98 | 6.48 | 6.29 | 4.00-9.00 | 6.75 | 1.50-6.00 | 3.46 |
| 1925..... | 2.25-5.75 | 3.84 | 2.25-7.50 | 4.47 | 4.82 | 5.12 | 5.98 | 6.48 | 6.29 | 4.00-9.00 | 6.75 | 1.50-6.00 | 3.46 |
| Pittsburgh: | | | | | | | | | | | | | |
| 1920..... | 3.00-6.50 | 4.99 | 3.00-6.00 | 4.46 | 4.81 | 4.68 | 4.59 | 4.73 | 5.06 | 3.25-6.50 | 5.34 | 4.50-8.50 | 6.31 |
| 1921..... | 5.25-9.00 | 7.25 | 5.00-9.00 | 7.16 | 6.55 | 6.25 | 7.53 | 7.42 | 7.07 | 3.25-6.50 | 5.34 | 4.50-8.50 | 6.31 |
| 1922..... | 2.50-4.00 | 3.25 | 2.50-5.00 | 3.51 | 3.99 | 4.38 | 4.29 | 4.38 | 4.84 | 3.00-6.50 | 7.02 | 4.00-7.00 | 5.44 |
| 1923..... | 2.50-5.50 | 4.06 | 3.00-5.00 | 3.54 | 3.49 | 4.05 | 3.90 | 4.07 | 4.25 | 2.50-4.50 | 3.39 | 2.50-4.50 | 3.36 |
| 1924..... | 4.00-5.00 | 4.55 | 2.50-5.00 | 4.10 | 4.28 | 5.62 | 5.74 | 6.33 | 6.18 | 4.75-6.50 | 5.84 | 4.75-6.50 | 5.84 |
| 1925..... | 2.00-5.00 | 3.46 | 3.00-5.00 | 3.90 | 4.11 | 4.32 | 4.68 | 4.88 | 5.23 | 4.75-8.50 | 5.92 | 5.50-10.00 | 6.68 |
| St. Louis: | | | | | | | | | | | | | |
| 1920..... | 3.00-7.25 | 5.34 | 2.75-7.50 | 4.67 | 4.97 | 4.83 | 4.68 | 4.88 | 5.23 | 4.75-8.50 | 5.92 | 5.50-10.00 | 6.68 |
| 1921..... | 4.85-8.25 | 6.48 | 4.85-8.25 | 6.48 | 5.44 | 4.83 | 4.68 | 4.88 | 5.23 | 4.75-8.50 | 5.92 | 5.50-10.00 | 6.68 |
| 1922..... | 2.00-4.85 | 3.40 | 1.75-4.75 | 3.36 | 3.15 | 4.53 | 4.61 | 4.53 | 4.89 | 3.50-7.50 | 4.89 | 3.50-7.50 | 4.89 |
| 1923..... | 1.75-5.25 | 4.07 | 1.75-5.25 | 3.60 | 3.29 | 4.15 | 3.95 | 4.24 | 4.15 | 1.75-5.50 | 3.65 | 1.75-5.50 | 3.65 |
| 1924..... | 2.00-6.50 | 4.40 | 2.00-7.00 | 4.32 | 4.90 | 5.93 | 6.14 | 7.14 | 6.86 | 4.25-10.00 | 6.90 | 4.25-10.00 | 6.90 |
| 1925..... | 1.50-6.50 | 3.64 | 2.00-6.50 | 3.62 | 3.71 | 5.00 | 6.14 | 7.14 | 6.86 | 4.25-10.00 | 6.90 | 4.25-10.00 | 6.90 |
| Cincinnati: | | | | | | | | | | | | | |
| 1920..... | 4.00-6.00 | 5.40 | 2.75-6.00 | 4.63 | 4.45 | 4.87 | 4.46 | 4.65 | 5.31 | 4.25-8.00 | 6.02 | 5.00-7.75 | 6.70 |
| 1921..... | 7.00-9.00 | 8.12 | 5.00-8.50 | 7.64 | 6.98 | 6.72 | 7.44 | 7.56 | 7.76 | 6.00-8.50 | 7.76 | 4.65-6.50 | 5.98 |
| 1922..... | 2.50-4.00 | 3.15 | 2.00-4.75 | 3.32 | 4.15 | 4.41 | 4.46 | 4.72 | 5.08 | 4.00-6.50 | 5.46 | 4.65-6.50 | 5.98 |
| 1923..... | 2.50-4.00 | 3.15 | 3.00-5.50 | 4.07 | 4.30 | 4.88 | 4.39 | 4.16 | 3.89 | 1.50-4.50 | 3.41 | 2.50-4.75 | 3.84 |
| 1924..... | 2.50-7.00 | 5.69 | 2.50-7.00 | 5.69 | 4.80 | 5.43 | 6.08 | 6.69 | 6.51 | 5.50-7.50 | 7.08 | 5.50-7.50 | 7.08 |
| 1925..... | 3.50-6.75 | 4.52 | 3.50-6.75 | 4.52 | 4.74 | 5.11 | 6.08 | 6.69 | 6.51 | 5.50-7.50 | 7.08 | 5.50-7.50 | 7.08 |

| Minneapolis: | | | | | | | | | |
|--------------|-------------|-------|------------|------|------|------|------|------|------|
| 1920 | 6.50-11.50 | 9.63 | 5.75-11.00 | 8.88 | 7.85 | 5.84 | 6.13 | 6.17 | 6.14 |
| 1921 | 7.50-10.00 | 8.78 | 7.50-10.00 | 8.89 | 9.77 | 8.89 | 8.57 | 9.56 | 9.87 |
| 1922 | 3.25-6.00 | 4.73 | 3.50-6.50 | 5.12 | 4.80 | 5.05 | 5.29 | 5.37 | 5.49 |
| 1923 | 4.00-8.00 | 6.16 | 4.00-8.00 | 6.16 | 5.08 | 5.14 | 5.66 | 5.50 | 5.48 |
| 1924 | 6.00-7.50 | 6.30 | 4.50-7.50 | 6.89 | 6.46 | 7.40 | 7.82 | 8.12 | 8.91 |
| 1925 | 5.25-5.50 | 5.45 | 4.25-7.50 | 5.38 | 5.80 | 5.47 | | | |
| Kansas City: | | | | | | | | | |
| 1920 | 7.50-9.00 | 8.45 | 5.00-8.00 | 7.25 | 5.95 | 5.66 | 5.58 | 5.97 | 5.73 |
| 1921 | 10.00-12.00 | 11.00 | | | | | | | |
| 1922 | 3.00-4.00 | 3.62 | 3.75-5.00 | 4.33 | 4.50 | 4.38 | 4.53 | 4.38 | 5.05 |
| 1923 | 4.00-6.50 | 5.02 | 3.25-5.50 | 4.78 | 4.30 | 4.35 | 4.88 | 4.74 | 4.75 |
| 1924 | 3.25-6.00 | 5.67 | 6.00-6.50 | 6.16 | 6.54 | 6.15 | 6.84 | 7.23 | 7.22 |
| 1925 | | | 4.50-8.00 | 6.56 | 6.18 | 5.70 | | | |
| Washington: | | | | | | | | | |
| 1922 | 4.00-9.00 | 5.20 | 3.50-7.50 | 4.85 | 4.40 | 3.95 | 3.88 | 4.20 | 4.38 |
| 1924 | 3.00-10.00 | 6.40 | 3.00-8.00 | 5.42 | 5.35 | 5.79 | 6.42 | 6.42 | 6.32 |
| 1925 | | | 4.50-6.50 | 5.85 | 5.79 | 5.39 | | | |

IN BOXES

| New York: | | | | | | | | | |
|---------------|-----------|------|-----------|------|------|------|------|------|------|
| 1920 | 4.00-3.25 | 4.40 | 2.25-5.50 | 3.68 | 3.29 | 3.38 | 3.70 | 3.60 | 3.77 |
| 1921 | 2.25-6.00 | 5.06 | 2.00-5.50 | 3.86 | 3.60 | 3.12 | 3.01 | 3.35 | 3.41 |
| 1922 | 1.25-4.50 | 2.93 | 1.10-5.00 | 2.41 | 2.09 | 2.42 | 2.41 | 2.35 | 2.57 |
| 1923 | 1.50-4.50 | 2.93 | 1.10-5.00 | 2.41 | 2.09 | 2.42 | 2.04 | 2.05 | 2.11 |
| 1924 | 1.75-5.00 | 2.26 | 1.50-4.50 | 2.63 | 2.92 | 2.85 | 3.28 | 3.28 | 3.50 |
| 1925 | 2.00-4.00 | 2.64 | 1.90-4.00 | 2.78 | 2.59 | | | | |
| Chicago: | | | | | | | | | |
| 1920 | 4.00-5.25 | 4.62 | | | | | | | |
| 1921 | | | 2.00-4.75 | 3.43 | 3.67 | 3.75 | 3.14 | 3.30 | 3.62 |
| 1922 | 1.00-2.50 | 1.89 | 1.50-3.75 | 2.69 | 2.48 | 3.00 | 3.16 | 3.34 | 3.36 |
| 1923 | 2.50-4.00 | 3.10 | 1.50-3.75 | 2.30 | 2.42 | 2.55 | 2.69 | 2.71 | 3.07 |
| 1924 | 2.25-4.25 | 3.09 | 2.25-4.50 | 3.41 | 3.42 | 3.58 | 3.73 | 3.56 | 2.50 |
| 1925 | | | | | | 2.82 | | | 3.58 |
| Philadelphia: | | | | | | | | | |
| 1920 | | | 2.00-4.75 | 3.16 | 2.72 | 2.52 | 3.44 | 3.83 | 3.06 |
| 1921 | | | 1.39-5.00 | 2.88 | 2.41 | 2.49 | 2.77 | 2.96 | 3.32 |
| 1922 | | | 1.25-3.50 | 2.34 | 1.93 | 2.10 | 2.07 | 2.30 | 2.39 |
| 1923 | | | 1.00-3.25 | 1.82 | 1.77 | 1.76 | 1.87 | 1.71 | 1.76 |
| 1924 | | | 1.75-4.50 | 2.62 | 2.57 | 2.98 | 3.00 | 2.92 | 3.09 |
| 1925 | | | 2.00-4.00 | 2.61 | 2.42 | 2.36 | | | |
| Pittsburgh: | | | | | | | | | |
| 1920 | | | 3.50-5.50 | 4.26 | 3.64 | | 2.90 | | 3.11 |
| 1921 | | | 2.00-4.75 | 3.22 | 2.85 | | 3.07 | | 3.60 |
| 1922 | | | 1.50-3.00 | 2.17 | 2.00 | 2.32 | 2.22 | 2.28 | 3.50 |
| 1923 | | | 1.25-4.50 | 2.39 | 2.09 | 2.27 | 2.49 | 2.54 | 2.71 |
| 1924 | | | 2.00-4.50 | 3.10 | 2.77 | 3.09 | 3.34 | 3.44 | 2.66 |
| 1925 | | | 2.00-3.65 | 2.61 | 2.60 | 2.62 | | | 3.65 |

1 Quotations began on Sept. 1 in 1920, 1922, 1923, Sept. 7, 1921; Sept. 2, 1924.
 2 Last reported quotations of season May 28, 1921; May 1, 1922; June 12, 1923; June 18, 1924; Apr. 15, 1925.

TABLE 180.—Apples: Average l. c. l. price to jobbers at nine markets, 1920-1925.—Continued

IN BOXES—Continued

| Market. Season beginning September | September ¹ | | October | | November average | December average | January average | February average | March average | April ² | | May ³ | |
|--|------------------------|---------|-----------|---------|---------------------|---------------------|--------------------|---------------------|------------------|--------------------|---------|------------------|---------|
| | Range | Average | Range | Average | | | | | | Range | Average | Range | Average |
| Minneapolis: | | | | | | | | | | | | | |
| 1920..... | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1921..... | 2.25-4.75 | 3.22 | 2.40-4.40 | 3.80 | 2.74 | 2.49 | 2.18 | 2.45 | 2.41 | 2.00-2.75 | 2.38 | 2.00-2.75 | 2.38 |
| 1922..... | 2.40-3.37 | 2.59 | 2.90-4.75 | 3.75 | 3.37 | 3.77 | 3.46 | 3.39 | 3.37 | 2.00-4.00 | 3.46 | 2.80-3.00 | 2.78 |
| 1923..... | | | 1.75-3.50 | 2.50 | 2.70 | 2.62 | 2.59 | 2.40 | 2.58 | 2.50-3.00 | 2.79 | 2.25-2.75 | 2.57 |
| 1924..... | | | 1.30-3.15 | 2.55 | 2.49 | 2.37 | 2.60 | 2.93 | 2.73 | 2.10-2.50 | 2.53 | | |
| 1925..... | 2.75-3.50 | 3.09 | 2.75-4.50 | 3.00 | 3.70 | 3.79 | 4.20 | 4.44 | 3.84 | 3.00-3.65 | 3.53 | | |
| | 2.25-4.25 | 2.89 | 2.50-4.00 | 3.14 | 3.15 | 3.89 | | | | | | | |
| Kansas City: | | | | | | | | | | | | | |
| 1920..... | | | 3.00-4.50 | 3.61 | 2.60 | 2.07 | 2.84 | 3.29 | 2.53 | 2.50-4.50 | 4.00 | 2.50-4.50 | 4.00 |
| 1921..... | 3.75 | 3.75 | 2.75-4.50 | 3.54 | 3.63 | 3.52 | 3.40 | 3.59 | 3.75 | 3.00-4.50 | 3.43 | | |
| 1922..... | | | 1.75-3.50 | 2.76 | 2.78 | 2.75 | 2.74 | 2.70 | 3.18 | 2.75-4.00 | 3.32 | 2.75-3.25 | 3.00 |
| 1923..... | 2.50-3.25 | 2.74 | 1.25-4.00 | 2.69 | 2.38 | 2.33 | 2.68 | 2.75 | 2.86 | 2.25-3.75 | 2.92 | 2.40-2.75 | 2.68 |
| 1924..... | 1.75-4.00 | 2.67 | 1.75-5.00 | 3.63 | 3.62 | 3.63 | 3.74 | 3.88 | 3.88 | 3.25-4.50 | 3.38 | | |
| 1925..... | 2.25-3.00 | 2.58 | 2.25-3.75 | 2.83 | 2.44 | 2.60 | | | | | | | |
| Washington: | | | | | | | | | | | | | |
| 1923..... | 1.50-3.50 | 2.85 | 1.25-3.75 | 2.77 | 2.69 | 2.62 | 2.74 | 2.89 | 2.72 | 1.50-4.00 | 2.35 | 1.75-2.75 | 2.26 |
| 1924..... | 2.75-4.00 | 3.30 | 2.50-4.50 | 3.72 | 3.60 | 3.63 | 3.86 | 4.06 | 3.88 | 2.75-4.75 | 3.49 | | |
| 1925..... | 2.50-4.25 | 2.92 | 2.00-4.25 | 3.16 | 3.13 | 3.26 | | | | | | | |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division. Average prices as shown are based on stock of good merchantable quality and condition; they are simple averages of daily range of selling prices. Since all varieties are included, these figures can be taken only as an index of good changes in the level of apple prices.

¹ Quotations began on Sept. 1 in 1920, 1922, 1923, 1925; Sept. 7, 1921; Sept. 2, 1924.

² Last reported quotations of seasons May 28, 1921; May 1, 1922; May 12, 1923; June 8, 1924; Apr. 15, 1925.

TABLE 181.—Apples: Average l. c. l. price per barrel to jobbers at New York, September, 1909–December, 1925

| Season beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1909..... | 3.72 | 4.22 | 3.81 | 3.69 | 3.82 | 3.21 | 3.28 | 3.48 | 3.71 |
| 1910..... | 3.50 | 3.65 | 3.75 | 4.14 | 4.12 | 4.50 | 4.75 | 5.35 | 5.31 |
| 1911..... | 2.55 | 3.06 | 2.71 | 3.12 | 2.84 | 2.96 | 3.39 | 4.20 | 4.00 |
| 1912..... | 2.66 | 3.06 | 2.75 | 2.62 | 2.71 | 2.78 | 2.70 | 3.12 | 4.00 |
| 1913..... | 3.29 | 3.44 | 3.75 | 4.00 | 4.00 | 4.79 | 4.75 | 5.34 | 5.14 |
| Average, 1909–1913..... | 3.14 | 3.49 | 3.35 | 3.51 | 3.51 | 3.65 | 3.77 | 4.30 | 4.43 |
| 1914..... | 2.38 | 2.22 | 2.78 | 3.12 | 2.80 | 2.91 | 2.84 | 3.56 | 3.65 |
| 1915..... | 2.38 | 2.95 | 3.12 | 3.06 | 3.05 | 3.19 | 3.33 | 3.12 | 2.96 |
| 1916..... | 3.30 | 3.38 | 4.18 | 4.60 | 5.00 | 5.38 | 5.91 | 5.53 | 5.28 |
| 1917..... | 4.08 | 4.44 | 4.94 | 5.10 | 5.00 | 4.88 | 4.92 | 5.75 | 6.75 |
| 1918..... | 5.38 | 6.03 | 5.98 | 6.31 | 6.50 | 7.88 | 9.55 | 10.00 | 10.80 |
| 1919..... | 6.12 | 7.81 | 7.55 | 7.50 | 7.00 | 8.06 | 7.50 | 7.08 | 9.25 |
| 1920..... | 4.86 | 5.23 | 5.66 | 4.71 | 4.80 | 5.01 | 6.01 | 6.79 | 8.03 |
| Average, 1914–1920..... | 4.07 | 4.58 | 4.89 | 4.91 | 4.88 | 5.33 | 5.72 | 5.98 | 6.07 |
| 1921..... | 8.09 | 7.72 | 7.18 | 7.82 | 8.23 | 8.62 | 7.64 | 7.44 | ----- |
| 1922..... | 3.53 | 4.63 | 4.94 | 4.67 | 5.08 | 5.09 | 5.37 | 6.03 | 6.75 |
| 1923..... | 5.16 | 4.80 | 4.58 | 4.71 | 4.46 | 4.59 | 4.50 | 4.82 | 4.29 |
| 1924..... | 4.53 | 5.82 | 6.51 | 6.21 | 7.16 | 7.84 | 7.82 | 7.80 | ----- |
| 1925..... | 4.79 | 5.98 | 5.63 | 5.92 | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. September, 1909, to May, 1920, compiled from the American Agriculturist, average of weekly range; subsequently, compiled from Daily Market Report of Fruit and Vegetable Division; simple average of daily range of selling prices. Since all varieties are included, these figures can be taken only as an index of the changes in the level of apple prices.

TABLE 182.—Apples: Average l. c. l. price per barrel to jobbers at New York for October 15, January 1, and: March 1, 1909–1925

| Season beginning | Oct. 15 | Jan. 1 | Mar. 1 | Season beginning | Oct. 15 | Jan. 1 | Mar. 1 |
|-------------------------|---------|--------|--------|-------------------------|---------|--------|--------|
| | Dols. | Dols. | Dols. | | Dols. | Dols. | Dols. |
| 1909..... | 4.00 | 4.12 | 3.25 | 1918..... | 5.38 | 6.50 | 9.25 |
| 1910..... | 3.75 | 4.00 | 4.50 | 1919..... | 6.75 | 6.50 | 8.25 |
| 1911..... | 3.25 | 2.75 | 2.88 | 1920..... | 5.25 | 5.50 | 5.38 |
| 1912..... | 3.00 | 2.75 | 2.88 | Average, 1914–1920..... | 4.34 | 4.89 | 5.08 |
| 1913..... | 3.50 | 4.25 | 4.88 | 1921..... | 8.75 | 9.00 | 10.00 |
| Average, 1909–1913..... | 3.50 | 3.57 | 3.68 | 1922..... | 4.62 | 6.12 | 6.38 |
| 1914..... | 2.50 | 2.88 | 3.25 | 1923..... | 4.98 | 4.75 | 5.50 |
| 1915..... | 2.88 | 3.00 | 3.00 | 1924..... | 6.12 | 5.50 | 9.50 |
| 1916..... | 3.12 | 4.88 | 5.62 | 1925..... | 6.75 | ----- | ----- |
| 1917..... | 4.50 | 5.00 | 5.00 | | | | |

Division of Statistical and Historical Research. To March 1, 1920, compiled from the American Agriculturist; subsequently compiled from Daily Market Report of Fruit and Vegetable Division; simple average of the daily range of selling prices. Since all varieties are included, these figures can be taken only as an index of the changes in the level of apple prices.

CITRUS FRUITS

TABLE 183.—*Production of oranges, grapefruit, and lemons, by States, for various periods*¹

[Thousand boxes—i. e., 000 omitted]

ORANGES²

| States | 1889 ³ | 1899 ³ | 1909 ³ | 1919 ³ | 1920 ⁴ | 1921 ⁴ | 1922 ⁴ | 1923 ⁴ | 1924 ⁴ | 1925 ⁴ |
|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Florida..... | 3, 147 | 273 | 4, 888 | 4 7, 000 | 8, 100 | 7, 300 | 9, 700 | 12, 400 | 11, 000 | 4 8, 500 |
| California..... | 1, 245 | 5, 882 | 4 17, 440 | 4 16, 192 | 22, 030 | 13, 726 | 21, 091 | 23, 095 | 18, 100 | 20, 400 |
| Arizona..... | | 11 | 33 | 80 | 60 | 80 | 81 | 86 | 86 | 100 |
| Alabama..... | | (⁵) | 1 | 41 | 165 | 165 | 350 | 450 | 0 | 200 |
| Louisiana..... | | 1 | 152 | 37 | 42 | 50 | 60 | 75 | 75 | 100 |
| Mississippi..... | | | 5 | 31 | 25 | 30 | 45 | 55 | 0 | 30 |
| Texas..... | | | 11 | 9 | | | 4 | 6 | 12 | 16 |

GRAPEFRUIT

| States | 1889 ³ | 1899 ³ | 1909 ³ | 1919 ³ | 1920 ⁴ | 1921 ⁴ | 1922 ⁴ | 1923 ⁴ | 1924 ⁴ | 1925 ⁴ |
|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Florida..... | 10 | 12 | 1, 062 | 4 5, 500 | 5, 100 | 6, 000 | 7, 200 | 8, 000 | 8, 200 | 4 5, 500 |
| California..... | | 18 | 123 | 4 263 | 304 | 360 | 394 | 363 | 387 | 400 |
| Mississippi..... | | | 1 | (⁵) | 1 | 1 | 1 | 1 | 0 | 1 |
| Arizona..... | | 1 | 1 | 26 | 34 | 35 | 44 | 44 | 44 | 44 |
| Louisiana..... | | | 2 | (⁵) | | | | | | |
| Texas..... | | | (⁵) | 3 | | | 35 | 65 | 211 | 279 |

LEMONS

| States | 1889 ³ | 1899 ³ | 1909 ³ | 1919 ³ | 1920 ⁴ | 1921 ⁴ | 1922 ⁴ | 1923 ⁴ | 1924 ⁴ | 1925 ⁴ |
|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Florida..... | 253 | 2 | 12 | 32 | | | | | | |
| California..... | 306 | 874 | 2, 756 | 3, 949 | 5, 255 | 4, 172 | 3, 492 | 6, 840 | 5, 125 | 6, 000 |
| Arizona..... | | (⁵) | 1 | 2 | | | | | | |

Division of Crop and Livestock Estimates.

¹ *Production*.—For Florida the estimates for 1919 and more recent years represent shipments by rail or boat. For other States the figures aim to include all fruit actually picked, however utilized, but do not include fruit which matured on the trees but was not picked because of freezing, dropping, or low prices. For California the figures relate to the crop produced from the bloom of the year shown, fruiting through the winter and through the spring and summer of the following year, being picked from Nov. 1 of the year shown to Oct. 31 of the following year. Fruit not picked till after the latter date is included with the crop of the following year. For other States, the estimates include fruit picked after about Sept. 1 of the year shown. For the crop of 1925 the estimates shown were based on prospects on Dec. 1, 1925, except where shown otherwise.

² Including tangerines.

³ Data from census reports.

⁴ Compiled from records of Division of Crop and Livestock Estimates.

⁵ Revised February, 1926.

⁶ Less than 500 boxes.

TABLE 184.—Number of orange, grapefruit, and lemon trees of bearing age, by States, for various periods ¹

[Thousand trees—1. e., 000 omitted]

ORANGE ²

| State | 1889 ³ | 1899 ³ | 1909 ³ | 1919 ³ | 1920 ⁴ | 1921 ⁴ | 1922 ⁴ | 1923 ⁴ | 1924 ⁴ | 1925 ⁴ |
|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Florida..... | 2, 725 | 2, 553 | 2, 700 | 3, 684 | 4, 025 | 4, 525 | 5, 125 | 6, 025 | 7, 306 | ----- |
| California..... | 1, 154 | 5, 649 | 6, 619 | 10, 800 | 13, 224 | 16, 152 | 16, 456 | 16, 785 | 17, 114 | ----- |
| Arizona..... | ----- | 49 | 33 | 47 | 50 | 53 | 60 | 68 | 77 | ----- |
| Alabama..... | ----- | (⁵) | 3 | 260 | 605 | 660 | 1, 500 | 1, 700 | 275 | 300 |
| Louisiana..... | 6 | 141 | 267 | 104 | 111 | 119 | 128 | 138 | 151 | 153 |
| Mississippi..... | (⁵) | 4 | 10 | 30 | 32 | 34 | 50 | 60 | 25 | 40 |
| Texas..... | (⁵) | 1 | 42 | 14 | ----- | ----- | ----- | 145 | 165 | 190 |

GRAPEFRUIT

| | | | | | | | | | | |
|------------------|------------------|------------------|-----|------------------|--------|--------|--------|--------|------------------|--------|
| Florida..... | 3 | 117 | 656 | 1, 681 | 2, 044 | 2, 344 | 2, 544 | 2, 644 | 2, 972 | ----- |
| California..... | (⁵) | 81 | 43 | 231 | 280 | 328 | 385 | 383 | 381 | ----- |
| Arizona..... | ----- | 3 | 1 | 19 | 22 | 25 | 26 | 26 | 26 | ----- |
| Louisiana..... | ----- | 1 | 3 | (⁵) | ----- | ----- | ----- | ----- | ----- | ----- |
| Mississippi..... | ----- | ----- | 1 | 1 | 1 | 1 | 1 | 2 | (⁵) | 1 |
| Texas..... | ----- | (⁵) | 5 | 5 | ----- | ----- | ----- | 1, 202 | 1, 436 | 1, 653 |

LEMON

| | | | | | | | | | | |
|-----------------|-------|------------------|-----|------------------|--------|--------|--------|--------|--------|-------|
| Florida..... | 85 | 23 | 12 | 34 | ----- | ----- | ----- | ----- | ----- | ----- |
| California..... | 83 | 1, 493 | 941 | 2, 885 | 3, 275 | 3, 665 | 3, 748 | 3, 819 | 3, 800 | ----- |
| Arizona..... | ----- | 2 | 2 | 1 | ----- | ----- | ----- | ----- | ----- | ----- |
| Louisiana..... | ----- | 1 | 1 | (⁵) | ----- | ----- | ----- | ----- | ----- | ----- |
| Texas..... | ----- | (⁵) | 1 | 1 | ----- | ----- | ----- | 43 | 49 | 57 |

Division of Crops and Livestock Estimates.

¹ The figures shown are approximate only. They are intended to represent the numbers of citrus trees on farms and old enough to produce fruit in the year shown. The figures no doubt include some small trees producing a negligible quantity of fruit. The enumerators of the 1910 and 1920 censuses asked for orange trees and also for other subtropical fruits. In this table tangerine trees have been included with other orange trees. The enumerators of the 1925 census asked only for the number of orange trees, and the figures may include only part of the tangerine trees. In addition to the numbers shown there are in some sections a considerable number of trees on properties that were not listed as farms by the Census Bureau.

² Including tangerine trees.

³ Data from census reports.

⁴ From records of the Division of Crop and Livestock Estimates.

⁵ Less than 500 trees.

⁶ Preliminary report of 1925 census not yet available.

TABLE 185.—Citrus fruits: Car-lot shipments by State of origin, September, 1920–September, 1925

GRAPEFRUIT

| State | Crop movement season ¹ | | | | |
|-----------------|-----------------------------------|-----------------|-----------------|-----------------|----------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 ² |
| Florida..... | Cars 11, 115 | Cars 12, 943 | Cars 16, 969 | Cars 19, 614 | Cars 20, 105 |
| Texas..... | | 8 | 48 | 99 | 521 |
| Arizona..... | 48 | 62 | 103 | 155 | 159 |
| California..... | 463 | 475 | 552 | 439 | 436 |
| Total..... | 11, 626 | 13, 488 | 17, 672 | 20, 307 | ³ 21, 222 |

LEMONS

| | | | | | |
|-----------------|---------|---------|--------|---------|---------|
| Texas..... | | | | 1 | 2 |
| Arizona..... | | | 1 | 2 | 1 |
| California..... | 11, 759 | 10, 591 | 8, 488 | 13, 340 | 11, 571 |
| Total..... | 11, 759 | 10, 591 | 8, 489 | 13, 343 | 11, 574 |

ORANGES ⁴

| | | | | | |
|------------------|---------|----------------------|---------|---------|---------|
| Florida..... | 20, 859 | ⁵ 15, 718 | 23, 006 | 33, 418 | 25, 140 |
| Alabama..... | 87 | 145 | 476 | 600 | 2 |
| Mississippi..... | | | 9 | 13 | |
| Louisiana..... | | | | 3 | 2 |
| Texas..... | | | | 3 | 3 |
| Arizona..... | 49 | 78 | 71 | 94 | 45 |
| California..... | 46, 844 | 28, 376 | 48, 346 | 44, 905 | 34, 768 |
| Total..... | 67, 839 | 44, 317 | 71, 908 | 79, 036 | 59, 960 |

TOTAL CITRUS FRUITS (GRAPEFRUIT, LEMONS, ORANGES ⁴)

| | | | | | |
|------------------|---------|---------|---------|----------|---------|
| Florida..... | 31, 974 | 28, 661 | 39, 975 | 53, 032 | 45, 245 |
| Alabama..... | 87 | 145 | 476 | 600 | 3 |
| Mississippi..... | | | 9 | 13 | |
| Louisiana..... | | | | 3 | 2 |
| Texas..... | | 8 | 48 | 103 | 526 |
| Arizona..... | 97 | 140 | 175 | 251 | 205 |
| California..... | 59, 068 | 39, 442 | 57, 396 | 58, 694 | 40, 775 |
| Total..... | 91, 224 | 68, 396 | 98, 069 | 112, 686 | 92, 756 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from Sept. 1, of one year through September of the following year, except for oranges in California, where the season extends from November 1 to October.

² Preliminary.

³ Includes 1 car from Alabama.

⁴ Includes tangerines.

⁵ Includes 1 car in August, 1921.

TABLE 186.—*Lemons: International trade, average 1911-1913, annual 1922-1924*
[Thousand boxes (of 74 pounds)—i. e., 000 omitted]

| Country | Year ended December 31 | | | | | | | |
|--------------------------------------|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Average 1911-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Italy..... | 2 | 3,147 | (¹) | 4,049 | (¹) | 4,198 | (¹) | 5,236 |
| Spain..... | | 101 | (¹) | 178 | | 281 | | 22 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | | | 140 | (¹) | (²) | (²) | (²) | (²) |
| Austria-Hungary..... | 1,032 | 228 | | | | | | |
| Denmark..... | 26 | | 32 | | 32 | | 36 | |
| Germany..... | 1,107 | (²) | 648 | (²) | 387 | (²) | 1,201 | (²) |
| Netherlands..... | 94 | 3 | 164 | 12 | 158 | 11 | 178 | 18 |
| New Zealand..... | 10 | | 12 | | 15 | | 13 | (¹) |
| Sweden..... | 24 | | 32 | | 31 | | 34 | |
| United Kingdom..... | 1,116 | | 1,294 | | 1,393 | | 1,781 | |
| United States..... | 1,750 | 66 | 1,500 | 198 | 1,702 | 182 | 634 | 228 |
| Total 11 countries..... | 5,161 | 8,545 | 3,812 | 4,437 | 3,719 | 4,682 | 3,878 | 5,504 |

Division of Statistical and Historical Research. Official sources.

¹ Less than 500 boxes.

² Two-year average.

³ One year only.

⁴ Not separately stated.

⁵ Includes limes and grapefruit.

TABLE 187.—*Oranges: International trade, average 1911-1913, annual 1922-1924*
[Thousand boxes (of 73 pounds)—i. e., 000 omitted]

| Country | Year ended December 31 | | | | | | | |
|--------------------------------------|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Average 1911-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Cuba..... | | 111 | | 319 | | 263 | | |
| Greece ¹ | | 42 | | 115 | | 68 | | 70 |
| Italy..... | 3 | 3,476 | (¹) | 2,457 | (²) | 2,299 | (²) | 3,483 |
| Japan..... | | 353 | | 340 | | 370 | | 277 |
| Spain..... | | 14,830 | 1 | 11,335 | 1 | 13,030 | (²) | 13,880 |
| United States..... | 73 | 1,164 | (¹) | 1,382 | 93 | 2,204 | 15 | 2,564 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | | | 96 | 1 | (¹) | (¹) | (¹) | (¹) |
| Austria-Hungary..... | 2,110 | 102 | | | | | | |
| Denmark..... | 97 | | 241 | | 258 | | 239 | |
| Egypt..... | (²) | | 426 | 5 | 611 | 5 | 502 | 4 |
| France ¹ | 3,198 | 38 | 2,839 | 54 | 3,780 | 61 | 4,334 | 154 |
| Germany..... | 3,935 | (¹) | 539 | (¹) | 384 | (¹) | 4,425 | (¹) |
| Netherlands..... | 631 | 9 | 1,361 | 7 | 1,264 | 67 | 2,109 | 779 |
| New Zealand..... | (¹) | | 61 | | 48 | | 53 | |
| Norway ¹ | 208 | | 289 | | 379 | | 296 | |
| Sweden..... | 166 | | 249 | (¹) | 247 | (¹) | 231 | (¹) |
| Switzerland..... | 372 | | 318 | | 341 | | 367 | |
| United Kingdom..... | 7,638 | | 9,879 | | 10,714 | | 10,395 | |
| Total 18 countries..... | 18,431 | 20,115 | 16,281 | 16,015 | 18,120 | 18,457 | 22,965 | 21,218 |

Division of Statistical and Historical Research. Official sources.

¹ Includes lemons.

² Six months.

³ Expressed in value only.

⁴ Not separately stated.

⁵ Less than 500 boxes.

⁶ Two-year average.

⁷ Includes limes.

TABLE 188.—*Grapefruit, Florida: Average auction price per box at New York, 1919-1925*

| Season beginning October | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1919..... | 3.72 | 3.67 | 3.29 | 3.16 | 3.28 | 3.60 | 4.05 | 5.02 | 2.61 | 1.620 | 3.70 |
| 1920..... | 5.31 | 4.71 | 3.92 | 4.86 | 4.30 | 4.71 | 4.55 | 4.54 | 4.21 | 1.4.33 | 14.55 |
| 1921..... | 3.37 | 3.52 | 3.86 | 3.47 | 3.78 | 3.91 | 4.46 | 5.20 | 6.18 | 1.5.22 | 14.03 |
| 1922..... | 3.75 | 3.84 | 4.00 | 3.73 | 3.96 | 3.63 | 3.98 | 3.48 | 3.26 | 2.96 | 3.70 |
| 1923..... | 2.89 | 2.80 | 2.91 | 3.00 | 2.86 | 3.15 | 3.02 | 3.45 | 2.72 | 3.06 | 2.98 |
| 1924..... | 4.19 | 2.99 | 2.39 | 2.94 | 3.00 | 2.90 | 4.04 | 4.50 | 5.99 | ----- | 3.38 |
| 1925..... | 4.93 | 3.95 | 4.03 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from New York Daily Fruit Reporter. Monthly average obtained by taking simple average of reported averages of all sales of "golden" grade. Includes all sizes. Yearly average weighted by number of sales reported during each month.

¹ Ten sales or less during month.

² See footnotes to figures used in obtaining this average.

TABLE 189.—*Lemons, California: Average auction price per box at New York, 1919-1925*

| Season beginning October | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Average |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1919..... | 7.33 | 3.79 | 2.45 | 2.25 | 6.00 | 3.81 | 3.76 | 3.12 | 2.60 | 1.87 | 3.18 | 2.61 | 3.59 |
| 1920..... | 4.73 | 2.78 | 3.04 | 3.39 | 4.11 | 3.14 | 2.91 | 3.82 | 8.17 | 8.99 | 3.72 | 5.87 | 4.64 |
| 1921..... | 4.96 | 3.40 | 4.34 | 4.79 | 4.68 | 4.15 | 3.84 | 4.95 | 4.50 | 3.45 | 4.37 | 8.52 | 4.38 |
| 1922..... | 8.51 | 7.44 | 5.61 | 5.01 | 5.42 | 4.20 | 4.79 | 6.12 | 7.92 | 6.07 | 7.68 | 7.28 | 6.25 |
| 1923..... | 4.40 | 3.31 | 3.42 | 3.01 | 3.37 | 3.37 | 3.51 | 3.18 | 3.40 | 2.80 | 4.80 | 4.65 | 3.56 |
| 1924..... | 4.90 | 6.80 | 4.65 | 4.45 | 4.30 | 4.51 | 4.79 | 5.71 | 6.52 | 4.48 | 4.50 | 8.87 | 5.36 |
| 1925..... | 6.73 | 4.10 | 4.37 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from New York Daily Fruit Reporter. Monthly average obtained by taking simple average of reported averages of all sales. Includes all sizes and grades. Yearly average weighted by number of sales reported during each month.

TABLE 190.—*Oranges, California navel: Average auction price per box at New York, 1919-1925*

| Season beginning December ¹ | December | January | February | March | April | May | June | Average |
|---|--------------|-------------------|-------------------|--------------|-------------------|-------------------|-------------------|-------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1919..... | 5.80 | ² 5.98 | ² 6.39 | 5.13 | 7.10 | 5.71 | 4.76 | ² 5.70 |
| 1920..... | 5.79 | 4.96 | 3.56 | 4.20 | 4.41 | 5.01 | 5.71 | 4.63 |
| 1921..... | 6.46 | 4.64 | ² 4.81 | 6.51 | ² 6.97 | ² 6.78 | ----- | ² 6.07 |
| 1922..... | 5.00 | 4.34 | 4.17 | 3.91 | 4.60 | 4.61 | 4.67 | 4.45 |
| 1923..... | 4.44 | 3.50 | 3.60 | 3.23 | 4.05 | 3.49 | ² 4.35 | ² 3.67 |
| 1924..... | 4.71 | 5.32 | 4.98 | 5.76 | 5.72 | 7.05 | 6.74 | 5.94 |
| 1925..... | 4.67 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from New York Daily Fruit Reporter. Monthly average obtained by taking simple average of reported averages of all sales of the following-named brands: Paul Neyron, Golden Cross, Glendora Heights, Pinnacle, Earliest, and Big Tree. Includes all sizes. Yearly average weighted by number of sales reported during each month.

¹ The season usually begins in December, but in 1925 the season began in November, with an average price of \$7.03.

² Ten sales or less during month.

³ See footnotes to figures used in obtaining this average.

TABLE 191.—*Oranges, California Valencia: Average auction price per box at New York, 1919-1925*

| Season beginning May | May | June | July | August | September | October | November | December | Average |
|-------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|-------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1919..... | ¹ 6.03 | 5.56 | 5.49 | 5.90 | 5.91 | 6.63 | 5.56 | 5.24 | ² 5.99 |
| 1920..... | 4.91 | 6.52 | 7.05 | 7.57 | 7.88 | 7.91 | 9.22 | ² 8.67 | ² 7.56 |
| 1921..... | 5.06 | 5.76 | 5.35 | 6.24 | 6.23 | 6.82 | 6.31 | ----- | 6.09 |
| 1922..... | 7.86 | 8.42 | 9.33 | 8.95 | 9.09 | 8.45 | 5.04 | ² 5.90 | ² 8.13 |
| 1923..... | 4.81 | 5.65 | 4.77 | 4.45 | 5.56 | 5.87 | 6.89 | ----- | 5.36 |
| 1924..... | 4.34 | 4.97 | 4.57 | 5.81 | 5.92 | 6.64 | 6.53 | ² 5.19 | ² 5.70 |
| 1925..... | 7.36 | 8.28 | 7.41 | 7.51 | 8.55 | 9.58 | ----- | ----- | 8.12 |

Division of Statistical and Historical Research. Compiled from New York Daily Fruit Reporter. Monthly average obtained by taking simple average of reported averages of all sales of the following-named brands: Carmencita, Shamrock, Bird Rocks, Bowman, Advance, and Premium. Includes all sizes. Yearly average weighted by number of sales reported during each month.

¹ Ten sales or less during month.

² See footnotes to figures used in obtaining this average.

TABLE 192.—Oranges, Florida: Average auction price per box at New York, 1919-1925

| Season beginning October | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1919..... | 13.16 | 2.80 | 3.95 | 4.22 | 6.43 | 6.63 | 9.40 | 8.32 | ..... | ..... | 15.91 |
| 1920..... | 5.47 | 4.65 | 3.17 | 4.37 | 3.94 | 4.20 | 4.82 | 5.56 | 14.88 | 13.51 | 14.17 |
| 1921..... | 3.06 | 4.18 | 4.29 | 3.95 | 4.85 | 6.68 | 7.15 | 8.06 | 8.99 | 19.79 | 15.44 |
| 1922..... | 3.69 | 3.88 | 4.08 | 4.53 | 4.34 | 4.72 | 5.67 | 5.47 | 4.45 | 3.90 | 4.65 |
| 1923..... | 3.11 | 3.55 | 2.68 | 2.84 | 3.02 | 3.16 | 3.51 | 3.85 | 4.88 | 14.81 | 13.27 |
| 1924..... | ..... | 3.63 | 3.57 | 3.08 | 4.43 | 5.87 | 6.43 | 7.76 | 8.44 | ..... | 4.89 |
| 1925..... | 7.80 | 6.80 | 4.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Statistical and Historical Research. Compiled from New York Daily Fruit Reporter. Monthly average obtained by taking simple average of reported averages of all sales of "golden" grade. Includes all sizes. Yearly average weighted by number of sales reported during each month.

¹ Ten sales or less during month.

² See footnotes to figures used in obtaining this average.

TABLE 193.—Olive oil (including inedible): International trade, average 1909-1913, annual 1922-1924

[Thousand pounds—i. e., 000 omitted]

| Country | Year ended December 31 | | | | | | | |
|---|-----------------------------------|--------------|--------------|--------------|--------------|--------------|---------------------|--------------|
| | Average 1909-1913 ¹ | | 1922 | | 1923 | | 1924 preliminary | |
| | Im- ports | Ex- ports | Im- ports | Ex- ports | Im- ports | Ex- ports | Im- ports | Ex- ports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 974 | 11,566 | 246 | 20,830 | 171 | 24,516 | 167 | 28,654 |
| Greece..... | ..... | 22,272 | 127 | 36,404 | 77 | 5,528 | 165 | 10,040 |
| Italy..... | 10,613 | 75,130 | 9,321 | 40,510 | 1,116 | 94,657 | 335 | 93,730 |
| Spain..... | 30 | 65,454 | 9 | 102,472 | 1 | 125,463 | 1 | 87,515 |
| Tunis..... | 2,020 | 18,090 | 20 | 68,319 | 782 | 24,036 | 4,267 | 19,638 |
| Yugoslavia ¹..... | ..... | ..... | 3,752 | 170 | 1,446 | 4,565 | 860 | 1,310 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 48,248 | ..... | 47,716 | 64,399 | ..... | 64,639 | ..... | ..... |
| Australia..... | 510 | 11 | 992 | 1 | 1,034 | (*) | 1,053 | (*) |
| Belgium..... | 4,295 | 582 | 2,386 | 207 | 2,505 | 123 | 2,076 | 53 |
| Brazil..... | 8,409 | ..... | 5,896 | ..... | 6,303 | 1 | ..... | ..... |
| Bulgaria..... | 4,003 | 7 | 2,448 | (*) | 3,036 | ..... | 2,048 | ..... |
| Canada..... | 1,593 | ..... | 1,744 | ..... | 2,188 | ..... | 2,528 | ..... |
| Chile..... | 7,255 | ..... | 5,635 | ..... | 10,350 | ..... | ..... | ..... |
| Cuba..... | 146 | ..... | 12,419 | ..... | 17,647 | ..... | 16,035 | ..... |
| Denmark..... | ..... | ..... | ..... | ..... | 173 | 18 | 135 | 10 |
| Egypt..... | ..... | ..... | ..... | 81 | 3,357 | 79 | 3,043 | 28 |
| France..... | 4,803 | ..... | 3,213 | 12,660 | 46,079 | 12,129 | 41,804 | 13,868 |
| Germany..... | 42,602 | 12,935 | 53,955 | 4 | 937 | 13 | 2,060 | 44 |
| Japan..... | 6,085 | ..... | 155 | ..... | 250 | ..... | 227 | ..... |
| Macao (Portuguese China) ¹ | 126 | ..... | 2,930 | 1,173 | 5,687 | 4,234 | 4,732 | 4,470 |
| Morocco..... | 267 | 375 | 3,812 | 301 | 494 | 2 | 300 | 5,633 |
| Netherlands..... | 282 | 205 | 139 | 24 | 290 | 13 | 174 | 22 |
| New Zealand..... | 68 | ..... | 120 | ..... | 148 | ..... | 136 | ..... |
| Norway..... | 3,458 | 33 | 4,434 | ..... | 4,210 | ..... | 9,877 | ..... |
| Peru..... | 684 | 77 | 481 | (*) | 1,073 | ..... | 901 | (*) |
| Philippine Islands..... | 360 | ..... | 177 | ..... | 214 | ..... | 276 | ..... |
| Portugal..... | 2,020 | 5,492 | 6,850 | 235 | 4,033 | 1,678 | 1,240 | 2,609 |
| Rumania..... | 7,328 | ..... | 1,814 | (*) | 2,156 | (*) | 1,549 | ..... |
| Sweden..... | 138 | ..... | 420 | ..... | 465 | 3 | 420 | (*) |
| Switzerland..... | 4,138 | 71 | 2,914 | 8 | 3,084 | 30 | 3,295 | 36 |
| United Kingdom..... | 22,950 | 823 | 17,136 | 190 | 17,853 | 367 | 18,672 | 302 |
| United States..... | 39,003 | ..... | 87,974 | ..... | 117,795 | ..... | 108,104 | ..... |
| Uruguay..... | 4,249 | ..... | 6,846 | ..... | 8,825 | ..... | 10,640 | ..... |
| Other countries..... | 40,415 | 24,633 | 15,190 | 835 | 15,803 | 7,165 | 11,291 | 708 |
| Total..... | 264,653 | 258,768 | 302,226 | 284,508 | 343,951 | 307,520 | 313,230 | 278,280 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. Conversions made on the basis of 7.5 pounds to the gallon.

¹ International Institute of Agriculture, Oleaginous Products and Vegetable Oils.

² Four-year average.

³ Six months.

⁴ International Yearbook of Agricultural Statistics.

⁵ Year beginning July 1.
⁶ Less than 500 pounds.
Eleven months.

FRUITS AND NUTS

TABLE 194.—Fruits and nuts: Production and value in California, 1919–1925

| Crop and year | Production | Farm value | | Crop and year | Production | Farm value | |
|------------------------------|----------------|------------|--------------|--|--------------|------------|--------------|
| | | Per unit | Total | | | Per unit | Total |
| Apples: | <i>Bushels</i> | | | Raisins:⁴ | <i>Tons</i> | | |
| 1919..... | 8,200,000 | \$1.45 | \$11,890,000 | 1919..... | 182,500 | \$210.00 | \$38,325,000 |
| 1920..... | 6,000,000 | 1.60 | 9,600,000 | 1920..... | 177,000 | 235.00 | 41,595,000 |
| 1921..... | 6,500,000 | 1.35 | 8,775,000 | 1921..... | 155,000 | 190.00 | 29,550,000 |
| 1922..... | 7,850,000 | .99 | 7,085,000 | 1922..... | 287,000 | 105.00 | 30,135,000 |
| 1923..... | 10,590,000 | .75 | 7,942,500 | 1923..... | 296,000 | 70.00 | 20,720,000 |
| 1924..... | 8,903,000 | 1.22 | 10,862,000 | 1924..... | 170,000 | 70.00 | 11,900,000 |
| 1925..... | 6,016,000 | 1.15 | 6,918,000 | 1925..... | 180,000 | 80.00 | 14,400,000 |
| Pears:¹ | <i>Tons</i> | | | Grapes (raisin varieties marketed fresh):² | | | |
| 1919..... | 115,000 | 72.00 | 8,280,000 | 1923..... | 130,000 | 35.00 | 4,550,000 |
| 1920..... | 102,000 | 60.00 | 6,120,000 | 1924..... | 180,000 | 20.00 | 3,600,000 |
| 1921..... | 86,000 | 62.50 | 5,385,000 | 1925..... | 378,000 | 25.00 | 9,450,000 |
| 1922..... | 150,000 | 58.00 | 8,700,000 | Grapes (table): | | | |
| 1923..... | 133,000 | 50.00 | 6,650,000 | 1919..... | 200,000 | \$75.00 | \$15,000,000 |
| 1924..... | 133,000 | 65.00 | 8,645,000 | 1920..... | 190,000 | 75.00 | 14,250,000 |
| 1925..... | 160,000 | 52.00 | 8,320,000 | 1921..... | 210,000 | 75.00 | 15,750,000 |
| Peaches:³ | | | | 1922..... | 308,000 | 52.00 | 16,016,000 |
| 1919..... | 430,000 | 60.00 | 25,800,000 | 1923..... | 312,000 | 35.00 | 10,920,000 |
| 1920..... | 360,000 | 76.00 | 27,360,000 | 1924..... | 325,000 | 40.00 | 13,000,000 |
| 1921..... | 310,000 | 41.60 | 12,910,000 | 1925..... | 324,000 | 24.00 | 7,776,000 |
| 1922..... | 410,000 | 45.00 | 18,450,000 | Grapes (juice): | | | |
| 1923..... | 360,000 | 24.00 | 8,640,000 | 1919..... | 400,000 | 50.00 | 20,000,000 |
| 1924..... | 330,000 | 35.00 | 11,550,000 | 1920..... | 375,000 | 75.00 | 28,125,000 |
| 1925..... | 390,000 | 37.00 | 14,430,000 | 1921..... | 310,000 | 82.00 | 25,420,000 |
| Apricots:¹ | | | | 1922..... | 450,000 | 65.00 | 29,250,000 |
| 1919..... | 175,000 | 80.00 | 14,000,000 | 1923..... | 428,000 | 40.00 | 17,120,000 |
| 1920..... | 110,000 | 85.00 | 9,350,000 | 1924..... | 350,000 | 68.00 | 23,800,000 |
| 1921..... | 100,000 | 50.00 | 5,000,000 | 1925..... | 395,000 | 58.00 | 22,910,000 |
| 1922..... | 145,000 | 70.00 | 10,150,000 | Oranges:¹ | <i>Boxes</i> | | |
| 1923..... | 310,000 | 25.00 | 7,750,000 | 1919..... | 16,192,000 | 2.75 | 44,528,000 |
| 1924..... | 142,000 | 40.00 | 5,680,000 | 1920..... | 22,030,000 | 2.18 | 48,025,000 |
| 1925..... | 140,000 | 54.00 | 7,560,000 | 1921..... | 13,726,000 | 2.80 | 38,433,000 |
| Prunes:¹ | | | | 1922..... | 21,061,000 | 2.00 | 42,122,000 |
| 1919..... | 135,000 | 240.00 | 32,400,000 | 1923..... | 23,095,000 | 2.00 | 46,190,000 |
| 1920..... | 97,250 | 130.00 | 12,643,000 | 1924..... | 18,100,000 | 2.10 | 38,010,000 |
| 1921..... | 100,000 | 130.00 | 13,000,000 | 1925..... | 20,400,000 | 3.30 | 67,320,000 |
| 1922..... | 110,000 | 140.00 | 15,400,000 | Grapefruit: | | | |
| 1923..... | 130,000 | 100.00 | 13,000,000 | 1919..... | 203,000 | | |
| 1924..... | 139,000 | 110.00 | 15,290,000 | 1920..... | 304,000 | | |
| 1925..... | 140,000 | 110.00 | 15,400,000 | 1921..... | 300,000 | | |
| Plums:¹ | | | | 1922..... | 304,000 | | |
| 1919..... | 42,000 | 60.00 | 2,520,000 | 1923..... | 353,000 | | |
| 1920..... | 35,000 | 90.00 | 3,150,000 | 1924..... | 357,000 | | |
| 1921..... | 42,000 | 53.00 | 2,226,000 | 1925..... | 400,000 | | |
| 1922..... | 48,000 | 50.00 | 2,400,000 | Lemons:¹ | | | |
| 1923..... | 69,000 | 30.00 | 2,070,000 | 1919..... | 3,949,000 | 2.00 | 7,898,000 |
| 1924..... | 39,000 | 45.00 | 1,755,000 | 1920..... | 5,255,000 | 2.92 | 15,345,000 |
| 1925..... | 51,000 | 45.00 | 2,295,000 | 1921..... | 4,172,000 | 3.45 | 14,393,000 |
| Cherries: | | | | 1922..... | 3,492,000 | 3.30 | 11,524,000 |
| 1919..... | 12,400 | 150.00 | 1,860,000 | 1923..... | 6,840,000 | 1.60 | 10,944,000 |
| 1920..... | 17,500 | 200.00 | 3,500,000 | 1924..... | 5,125,000 | 2.40 | 12,300,000 |
| 1921..... | 13,000 | 125.00 | 1,625,000 | 1925..... | 6,000,000 | 3.00 | 18,000,000 |
| 1922..... | 14,000 | 180.00 | 2,520,000 | Figs: | <i>Tons</i> | | |
| 1923..... | 17,000 | 100.00 | 1,700,000 | 1919..... | 12,000 | 150.00 | 1,800,000 |
| 1924..... | 13,500 | 140.00 | 1,890,000 | 1920..... | 12,300 | 90.00 | 1,107,000 |
| 1925..... | 11,000 | 100.00 | 1,100,000 | 1921..... | 9,600 | 145.00 | 1,392,000 |
| Grapes (all): | | | | 1922..... | 11,000 | 120.00 | 1,320,000 |
| 1922..... | 1,801,000 | 41.00 | 73,841,000 | 1923..... | 9,500 | 90.00 | 855,000 |
| 1923..... | 2,030,000 | 26.00 | 52,780,000 | 1924..... | 8,500 | 100.00 | 850,000 |
| 1924..... | 1,535,000 | 36.00 | 55,220,000 | 1925..... | 8,500 | 110.00 | 935,000 |
| 1925..... | 1,817,000 | 30.00 | 54,510,000 | | | | |

¹ To calculate the production of pears, peaches, apricots, and plums in bushels, multiply the production in tons by 2,000 (the number of pounds in a ton) and divide by 48, the usual number of pounds in a bushel.

² Dried basis. To calculate in terms of fresh fruit multiply the quantity of dried prunes produced by 2½.

³ The production shown includes a small quantity of prune varieties shipped fresh, but does not include prunes dried.

⁴ Dried basis. To calculate the approximate quantity of fresh grapes used for raisins multiply the production of raisins by 4.

⁵ For years prior to 1923 the quantity of raisins marketed fresh was small and has been included with other table grapes.

⁶ Representing the commercial crop year beginning Nov. 1 of the year shown; the numbers for 1925, for instance, represent the fruit that set during the season of 1925 and will be picked and marketed from Nov. 1, 1925, to Oct. 31, 1926.

TABLE 194.—Fruits and nuts: Production and value in California, 1919-1925—Continued

| Crop and year | Production | Farm value | | Crop and year | Production | Farm value | |
|-----------------|-------------|------------|-------------|---------------------|-------------|------------|-------------|
| | | Per unit | Total | | | Per unit | Total |
| Olive: | <i>Tons</i> | | | Almonds—Con. | <i>Tons</i> | | |
| 1919..... | 8,800 | \$160.00 | \$1,408,000 | 1923..... | 11,000 | \$260.00 | \$2,860,000 |
| 1920..... | 8,000 | 95.00 | 760,000 | 1924..... | 8,000 | 300.00 | 2,400,000 |
| 1921..... | 8,200 | 90.00 | 738,000 | 1925..... | 7,500 | 400.00 | 3,000,000 |
| 1922..... | 10,000 | 125.00 | 1,250,000 | Walnuts: | | | |
| 1923..... | 17,000 | 65.00 | 1,105,000 | 1919..... | 28,100 | 550.00 | 15,455,000 |
| 1924..... | 6,500 | 92.00 | 598,000 | 1920..... | 21,000 | 400.00 | 8,400,000 |
| 1925..... | 14,000 | 60.00 | 840,000 | 1921..... | 19,500 | 400.00 | 7,800,000 |
| Almonds: | | | | 1922..... | 27,000 | 360.00 | 9,720,000 |
| 1919..... | 7,250 | 440.00 | 3,190,000 | 1923..... | 25,000 | 400.00 | 10,000,000 |
| 1920..... | 5,500 | 350.00 | 1,980,000 | 1924..... | 22,500 | 420.00 | 9,450,000 |
| 1921..... | 6,000 | 320.00 | 1,920,000 | 1925..... | 30,500 | 440.00 | 13,420,000 |
| 1922..... | 8,500 | 200.00 | 2,465,000 | | | | |

Division of Crop and Livestock Estimates; California estimates in cooperation with California Department of Agriculture. 1925 estimates are preliminary.

TABLE 195.—Fruit: Shipments and value in Florida, 1919-1925

| Crop and year | Shipments | Farm value Dec. 1 | | Crop and year | Shipments | Farm value Dec. 1 | |
|---------------------|--------------|-------------------|--------------|-------------------------|---------------|-------------------|----------|
| | | Per unit | Total | | | Per unit | Total |
| Oranges: | <i>Boxes</i> | | | Limes: | <i>Boxes</i> | | |
| 1919..... | 7,000,000 | \$2.50 | \$17,500,000 | 1919..... | 28,000 | \$3.45 | \$97,000 |
| 1920..... | 8,100,000 | 2.20 | 17,820,000 | 1920..... | 26,000 | 3.10 | 81,000 |
| 1921..... | 7,300,000 | 2.00 | 14,600,000 | 1921..... | 33,000 | 2.75 | 91,000 |
| 1922..... | 9,700,000 | 2.30 | 22,310,000 | 1922..... | 35,000 | 2.90 | 102,000 |
| 1923..... | 12,400,000 | 1.35 | 16,740,000 | 1923..... | 40,000 | 3.00 | 120,000 |
| 1924..... | 11,000,000 | 1.35 | 14,850,000 | 1924..... | 36,000 | 3.25 | 117,000 |
| 1925..... | 8,500,000 | 2.75 | 23,375,000 | 1925 ¹ | | | |
| Grape fruit: | | | | Pineapples: | <i>Crates</i> | | |
| 1919..... | 5,500,000 | 1.85 | 10,175,000 | 1919..... | 26,000 | 4.25 | 111,000 |
| 1920..... | 5,100,000 | 2.30 | 11,730,000 | 1920..... | 47,000 | 4.30 | 202,000 |
| 1921..... | 6,000,000 | 1.70 | 10,200,000 | 1921..... | 11,000 | 5.90 | 65,000 |
| 1922..... | 7,200,000 | 1.90 | 13,680,000 | 1922..... | 22,000 | 4.75 | 105,000 |
| 1923..... | 8,000,000 | 1.20 | 9,600,000 | 1923..... | 57,000 | 4.00 | 228,000 |
| 1924..... | 8,200,000 | 1.30 | 10,660,000 | 1924..... | 90,000 | 2.50 | 225,000 |
| 1925..... | 8,800,000 | 2.00 | 11,000,000 | 1925 ¹ | | | |

Division of Crop and Livestock Estimates; 1925 estimates are preliminary.

¹ No data.

CRANBERRIES

TABLE 196.—Cranberries: Production and farm value, United States, 1914-1925

| Year | Production, thousands of barrels | Price per barrel received by producers, Dec. 1 | Farm value, thousands of dollars | Year | Production, thousands of barrels | Price per barrel received by producers, Dec. 1 | Farm value, thousands of dollars |
|-----------|----------------------------------|--|----------------------------------|-------------------------|----------------------------------|--|----------------------------------|
| 1914..... | 697 | \$3.97 | 2,766 | 1920..... | 449 | \$12.28 | 5,514 |
| 1915..... | 441 | 6.59 | 2,908 | 1921..... | 384 | 16.99 | 6,526 |
| 1916..... | 471 | 7.32 | 3,449 | 1922..... | 560 | 10.18 | 5,702 |
| 1917..... | 249 | 10.24 | 2,560 | 1923..... | 652 | 7.15 | 4,664 |
| 1918..... | 352 | 10.77 | 3,791 | 1924..... | 562 | 9.86 | 5,544 |
| 1919..... | 549 | 8.37 | 4,597 | 1925 ¹ | 630 | 9.88 | 6,238 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 197.—*Cranberries: Production and total farm value, by States, 1924 and 1925*

| State | Production, thousands of barrels | | Price per barrel received by producers, Dec. 1 | | Farm value, thousands of dollars | |
|--------------------|----------------------------------|-------------------|--|--------|----------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Massachusetts..... | 305 | 390 | \$10.00 | \$9.50 | 3,050 | 3,705 |
| New Jersey..... | 215 | 115 | 9.50 | 10.50 | 2,042 | 1,208 |
| Wisconsin..... | 42 | 25 | 10.75 | 13.00 | 452 | 325 |
| Total..... | 562 | 530 | 9.86 | 9.88 | 5,544 | 5,238 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

GRAPES

TABLE 198.—*Grapes: Estimated production, by States, 1924 and 1925*

| State | 1924 | 1925 ¹ | State | 1924 | 1925 ¹ |
|--------------------|-------------|-------------------|---------------------|-------------|-------------------|
| | <i>Tons</i> | <i>Tons</i> | | <i>Tons</i> | <i>Tons</i> |
| Maine..... | 38 | 48 | North Carolina..... | 6,600 | 4,950 |
| New Hampshire..... | 84 | 95 | South Carolina..... | 1,425 | 1,078 |
| Vermont..... | 37 | 49 | Georgia..... | 1,638 | 1,470 |
| Massachusetts..... | 440 | 473 | Kentucky..... | 1,004 | 972 |
| Rhode Island..... | 289 | 300 | Tennessee..... | 1,496 | 1,278 |
| Connecticut..... | 1,075 | 1,063 | Alabama..... | 825 | 880 |
| New York..... | 80,000 | 51,840 | Mississippi..... | 281 | 285 |
| New Jersey..... | 2,338 | 2,200 | Arkansas..... | 2,460 | 4,400 |
| Pennsylvania..... | 19,750 | 11,180 | Louisiana..... | 36 | 42 |
| Ohio..... | 20,400 | 13,750 | Oklahoma..... | 1,875 | 1,750 |
| Indiana..... | 3,185 | 2,450 | Texas..... | 1,320 | 940 |
| Illinois..... | 4,900 | 3,360 | Idaho..... | 240 | 270 |
| Michigan..... | 51,000 | 22,100 | Colorado..... | 280 | 260 |
| Wisconsin..... | 279 | 248 | New Mexico..... | 520 | 475 |
| Minnesota..... | 88 | 30 | Arizona..... | 350 | 419 |
| Iowa..... | 4,658 | 2,835 | Utah..... | 615 | 675 |
| Missouri..... | 5,840 | 5,760 | Nevada..... | 170 | 180 |
| Nebraska..... | 1,068 | 770 | Washington..... | 1,732 | 3,100 |
| Kansas..... | 2,925 | 2,216 | Oregon..... | 1,333 | 1,500 |
| Delaware..... | 1,400 | 1,275 | California..... | 1,535,000 | 1,817,000 |
| Maryland..... | 770 | 781 | United States..... | 1,763,742 | 1,967,160 |
| Virginia..... | 2,349 | 1,653 | | | |
| West Virginia..... | 1,539 | 760 | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 199.—*Grapes: Car-lot shipments, by State of origin, June, 1920, to December, 1925*

| State | Crop movement season ¹ | | | | | |
|-------------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York..... | 5,904 | 2,535 | 7,720 | 4,312 | 5,641 | 3,413 |
| Pennsylvania..... | 1,223 | 390 | 1,558 | 847 | 1,166 | 571 |
| Ohio..... | 62 | 72 | 80 | 92 | 29 | 8 |
| Michigan..... | 5,046 | 1,202 | 6,020 | 4,202 | 4,680 | 366 |
| Iowa..... | 104 | 77 | 237 | 217 | 79 | 49 |
| Missouri..... | 27 | 4 | 128 | 58 | 101 | 165 |
| Washington..... | 8 | 64 | 47 | 62 | 83 | 190 |
| California ³ | 28,832 | 33,344 | 43,952 | 55,348 | 57,695 | 75,021 |
| Other States..... | 104 | 39 | 177 | 108 | 459 | 638 |
| Total ¹ | 41,310 | 37,817 | 59,919 | 65,336 | 69,933 | 80,421 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from June 1 through December of a given year.

² Preliminary.

³ Figures for California include shipments in January of succeeding crop years as follows: 1920, 1 car; 1921, 2 cars; 1922, 7 cars; 1923, 13 cars; 1924, 8 cars; 1925, 35 cars.

TABLE 200.—*Grapes, fresh: International trade, average 1909-1913, annual 1922-1924*

[Thousand pounds—i. e., 000 omitted]

| Country | Year ended December 31 | | | | | | | |
|--------------------------------------|--------------------------------|------------------|----------|------------------|----------|------------------|------------------|------------------|
| | Average 1909-1913 ¹ | | 1922 | | 1923 | | 1924 preliminary | |
| | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria ¹ | | 34,451 | | 9,592 | 1 | 11,380 | 1 | 5,949 |
| Argentina..... | 1,816 | | 1,248 | | 92 | 1,203 | 116 | 905 |
| Austria-Hungary ² | 11,238 | 52 | | | | | | |
| Belgium..... | 99 | 1,574 | 242 | 2,775 | 409 | 3,766 | 422 | 4,823 |
| Cyprus ¹ | | 1,187 | | 590 | | 1,233 | | |
| France..... | 19,459 | 50,578 | 11,665 | 5,816 | 11,423 | 10,902 | 9,318 | 59,384 |
| Greece..... | | 710 | 33 | 4,181 | 120 | 7,690 | 173 | 6,835 |
| Hungary ¹ | 1,338 | 17,610 | 111 | 6,679 | | 2,062 | | 722 |
| Italy..... | 1,195 | 64,192 | 45 | 12,172 | 41 | 29,378 | 167 | 88,576 |
| Netherlands..... | 959 | 541 | 509 | 3,071 | 1,721 | 2,418 | 1,157 | 5,152 |
| Portugal ¹ | 3 | 15,008 | 1 | 11,773 | 37 | 11,609 | | |
| Rumania ¹ | 4,104 | 2 | | 110 | 12 | 957 | 6 | 4,675 |
| Spain..... | | 97,819 | 6,533 | 80,978 | 6 | 100,565 | 10 | 1205 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | 1,579 | 817 | 614 | 14 | 10,297 | | 19,323 | 157 |
| Brazil..... | 3,923 | | 2,962 | | 2,047 | | | |
| Canada..... | 5,539 | (³) | 7,623 | (³) | 10,957 | (³) | 11,225 | (³) |
| Cuba..... | 903 | | 2,235 | | 1,807 | | 1,656 | |
| Denmark..... | 742 | (³) | 1,715 | (³) | 1,610 | | 2,070 | 1 |
| Egypt..... | 17,123 | | 13,828 | 15 | 20,760 | 12 | 17,581 | 16 |
| Germany..... | 70,517 | 218 | 598 | 41 | 3,637 | 1 | 110,140 | 120 |
| Irish Free State ¹ | 1,675 | | 3,191 | | 3,443 | | 2,181 | |
| Norway..... | 3,396 | | | | | | 3,042 | |
| Sweden..... | 754 | | 1,232 | | 1,248 | | 1,409 | |
| Switzerland..... | 9,175 | 89 | 13,209 | 8 | 16,375 | 1 | 17,859 | 14 |
| United Kingdom..... | 68,651 | | 72,064 | | 75,101 | | 84,216 | |
| United States..... | 36,643 | | 35,217 | 13,825 | 21,585 | 19,856 | 2,804 | 20,576 |
| Uruguay ¹ | 347 | 54 | 129 | | 987 | | 1,289 | |
| Other countries..... | 2,200 | 63 | 702 | 301 | 2,045 | 736 | 11,006 | 206 |
| Total..... | 267,738 | 284,965 | 174,764 | 157,940 | 185,781 | 203,776 | 297,951 | 198,219 |

Division of Statistical and Historical Research. Official sources except where otherwise noted.

¹ International Institute of Agriculture.

² Four-year average.

³ Six months.

⁴ Not separately stated.

⁵ Less than 500 pounds.

⁶ Two-year average.

PEACHES

TABLE 201.—*Peaches: Production, United States, 1909-1925*

| Year | Production | Year | Production | Year | Production |
|-----------|----------------|-----------|----------------|-------------------------|----------------|
| | <i>Bushels</i> | | <i>Bushels</i> | | <i>Bushels</i> |
| 1909..... | 35,470,000 | 1915..... | 64,097,000 | 1921..... | 32,602,000 |
| 1910..... | 48,171,000 | 1916..... | 37,505,000 | 1922..... | 55,852,000 |
| 1911..... | 34,880,000 | 1917..... | 48,765,000 | 1923..... | 45,382,000 |
| 1912..... | 53,343,000 | 1918..... | 33,094,000 | 1924..... | 54,119,000 |
| 1913..... | 39,707,000 | 1919..... | 53,178,000 | 1925 ¹ | 46,565,000 |
| 1914..... | 54,109,000 | 1920..... | 45,620,000 | | |

Division of Crop and Livestock Estimates. Census figures in italics.

¹ Preliminary.TABLE 202.—*Peaches: Production, by States, 1916-1925*

[Thousand bushels—i. e., 000 omitted]

| State | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------|
| New Hampshire..... | 24 | 46 | ----- | 39 | ----- | 29 | 32 | 40 | ----- | 34 |
| Massachusetts..... | 66 | 144 | ----- | 213 | 4 | 185 | 200 | 205 | 50 | 218 |
| Rhode Island..... | 14 | ----- | ----- | 29 | 3 | 9 | 28 | 31 | 29 | 30 |
| Connecticut..... | 134 | 390 | ----- | 195 | 10 | 290 | 262 | 232 | 220 | 210 |
| New York..... | 1,238 | 4,823 | 700 | 1,262 | 2,600 | 1,700 | 3,400 | 1,700 | 2,178 | 1,920 |
| New Jersey..... | 689 | 990 | 823 | 1,653 | 2,134 | 347 | 2,000 | 2,642 | 2,550 | 1,740 |
| Pennsylvania..... | 1,069 | 1,848 | 720 | 1,100 | 2,000 | 370 | 1,560 | 1,907 | 1,715 | 600 |
| Ohio..... | 1,350 | 341 | 174 | 618 | 3,238 | 335 | 1,584 | 1,380 | 840 | 1,100 |
| Indiana..... | 1,888 | 518 | ----- | 82 | 405 | 26 | 650 | 445 | 310 | 380 |
| Illinois..... | 780 | 461 | ----- | 450 | 770 | 76 | 1,100 | 675 | 900 | 600 |
| Michigan..... | 2,010 | 744 | 85 | 448 | 1,500 | 358 | 1,440 | 1,125 | 464 | 562 |
| Iowa..... | 64 | ----- | ----- | 2 | 100 | 30 | 200 | 40 | 2 | 12 |
| Missouri..... | 1,050 | 728 | ----- | 1,263 | 1,427 | ----- | 2,300 | 1,040 | 860 | 870 |
| Nebraska..... | 30 | ----- | ----- | ----- | 5 | ----- | 81 | 45 | ----- | 33 |
| Kansas..... | 150 | ----- | ----- | 214 | 187 | 24 | 630 | 78 | 231 | 371 |
| Delaware..... | 346 | 324 | 136 | 227 | 203 | 7 | 330 | 225 | 370 | 155 |
| Maryland..... | 600 | 1,038 | 235 | 564 | 692 | 59 | 495 | 631 | 675 | 240 |
| Virginia..... | 660 | 928 | 510 | 682 | 1,092 | 52 | 764 | 504 | 1,500 | 362 |
| West Virginia..... | 520 | 900 | 630 | 760 | 992 | 48 | 715 | 526 | 937 | 100 |
| North Carolina..... | 897 | 1,978 | 1,150 | 675 | 1,539 | 644 | 1,010 | 260 | 2,500 | 1,509 |
| South Carolina..... | 545 | 1,030 | 998 | 390 | 832 | 566 | 845 | 550 | 800 | 740 |
| Georgia..... | 3,510 | 3,608 | 6,092 | 5,696 | 3,799 | 6,550 | 4,900 | 5,248 | 8,342 | 7,304 |
| Florida..... | 119 | ----- | ----- | 146 | 150 | 130 | 130 | 120 | 127 | 115 |
| Kentucky..... | 880 | 1,100 | 110 | 460 | 988 | 80 | 1,218 | 450 | 1,900 | 570 |
| Tennessee..... | 900 | 595 | 833 | 1,285 | 1,500 | 320 | 2,002 | 460 | 2,450 | 1,415 |
| Alabama..... | 1,110 | 1,281 | 2,440 | 1,083 | 974 | 1,230 | 810 | 779 | 1,230 | 1,312 |
| Mississippi..... | 400 | ----- | ----- | 776 | 412 | 322 | 375 | 290 | 700 | 712 |
| Arkansas..... | 750 | 1,824 | 217 | 3,340 | 117 | 435 | 2,040 | 1,116 | 2,700 | 2,200 |
| Louisiana..... | 587 | ----- | ----- | 382 | 269 | 264 | 180 | 175 | 230 | 275 |
| Oklahoma..... | 230 | 798 | 167 | 2,024 | 180 | 360 | 2,070 | 1,032 | 1,861 | 950 |
| Texas..... | 2,860 | 1,728 | 2,333 | 4,621 | 800 | 2,200 | 1,920 | 1,700 | 1,900 | 1,750 |
| Idaho..... | 25 | 211 | 51 | 293 | 42 | 150 | 244 | 282 | 102 | 23 |
| Colorado..... | 405 | 1,096 | 950 | 722 | 670 | 810 | 900 | 750 | 920 | 450 |
| New Mexico..... | 40 | 124 | 34 | 204 | 6 | 8 | 98 | 189 | 65 | 158 |
| Arizona..... | 56 | ----- | ----- | 140 | 48 | 54 | 128 | 70 | 80 | 65 |
| Utah..... | 84 | 1,365 | 1,050 | 884 | 471 | 763 | 585 | 802 | 750 | 119 |
| Nevada..... | 1 | ----- | ----- | 6 | 6 | 4 | 6 | 5 | 1 | 8 |
| Washington..... | 415 | 1,747 | 575 | 1,545 | 155 | 772 | 950 | 1,333 | 420 | 870 |
| Oregon..... | 276 | 273 | 93 | 104 | 109 | 105 | 300 | 500 | 189 | 222 |
| California..... | 11,733 | 15,724 | 11,920 | 17,200 | 15,209 | 12,910 | 17,080 | 15,830 | 13,751 | 16,251 |
| United States..... | 37,505 | 48,765 | 33,094 | 53,178 | 45,620 | 32,602 | 55,852 | 45,382 | 54,119 | 46,565 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 203.—Peaches: Car-lot shipments by State of origin, May, 1920–October, 1925

| State | Crop movement season ¹ | | | | | |
|---------------------|-----------------------------------|-------------|-------------|-------------|----------------------|----------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York..... | 4, 035 | 2, 967 | 6, 862 | 2, 777 | ³ 3, 436 | ³ 3, 038 |
| New Jersey..... | 1, 022 | 5 | 1, 595 | 1, 790 | 1, 461 | 1, 047 |
| Pennsylvania..... | 307 | 59 | 268 | 615 | 448 | 208 |
| Ohio..... | 1, 025 | 88 | 620 | 625 | 14 | 509 |
| Indiana..... | 120 | 39 | 364 | 235 | 25 | 19 |
| Illinois..... | 557 | 35 | 1, 683 | 390 | 860 | 579 |
| Michigan..... | ⁴ 2, 358 | 176 | 1, 650 | 1, 067 | 105 | 263 |
| Delaware..... | 168 | 2 | 422 | 258 | 635 | 148 |
| Maryland..... | 488 | 1 | 422 | 864 | 637 | 68 |
| Virginia..... | 280 | ----- | 256 | 69 | 530 | 39 |
| West Virginia..... | 436 | ----- | 19 | 170 | 326 | 2 |
| North Carolina..... | 379 | 594 | 1, 452 | 215 | 1, 657 | 1, 933 |
| Georgia..... | 5, 987 | 10, 330 | 7, 370 | 8, 701 | 13, 504 | 13, 522 |
| Tennessee..... | 154 | 217 | 248 | 53 | 752 | 605 |
| Arkansas..... | 56 | 607 | 1, 503 | 724 | 2, 785 | 2, 293 |
| Oklahoma..... | ----- | 28 | 155 | 93 | 336 | 93 |
| Texas..... | 76 | 1, 024 | 32 | 102 | 793 | 1, 071 |
| Idaho..... | 189 | 105 | 124 | 392 | 47 | 2 |
| Colorado..... | 1, 091 | 1, 223 | 1, 428 | 1, 254 | 1, 772 | 747 |
| Utah..... | 366 | 805 | 1, 261 | 1, 203 | 1, 109 | 95 |
| Washington..... | 221 | 1, 117 | 990 | 1, 645 | 412 | 988 |
| California..... | 7, 889 | 7, 676 | 9, 139 | 10, 212 | 7, 264 | 12, 748 |
| Other States..... | 285 | 236 | 472 | 110 | 517 | 569 |
| Total..... | ⁴ 28, 179 | 27, 334 | 38, 405 | 33, 525 | ³ 39, 395 | ⁴ 40, 584 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from May 1 through October of a given year.

² Preliminary.

³ Includes one car in November.

⁴ Includes three cars in November.

TABLE 204.—Peaches: Estimated price per bushel, received by producers, United States, 1910–1925

| Year | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Weighted average | Year | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Weighted average |
|-----------|-------------|-------------|-------------|-------------|-------------|------------------|-----------|-------------|-------------|-------------|-------------|-------------|------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1910..... | ----- | ----- | ----- | ----- | ----- | 113. 3 | 1918..... | 165. 1 | 169. 4 | 178. 9 | 185. 3 | 193. 2 | 176. 6 |
| 1911..... | 135. 0 | 151. 0 | 138. 0 | 129. 0 | 131. 0 | 138. 2 | 1919..... | 191. 1 | 201. 6 | 199. 6 | 205. 7 | 211. 7 | 200. 9 |
| 1912..... | 119. 2 | 112. 1 | 108. 3 | 110. 0 | 105. 0 | 111. 2 | 1920..... | 236. 8 | 226. 9 | 235. 0 | 219. 8 | 244. 2 | 228. 9 |
| 1913..... | ----- | 130. 5 | 126. 2 | 136. 3 | 145. 0 | 131. 3 | 1921..... | 189. 3 | 205. 3 | 216. 3 | 227. 5 | 244. 3 | 213. 5 |
| 1914..... | ----- | 120. 4 | 105. 0 | 102. 2 | 105. 3 | 108. 7 | 1922..... | 172. 0 | 161. 4 | 143. 7 | 143. 5 | 150. 4 | 152. 3 |
| 1915..... | ----- | 99. 5 | 85. 4 | 81. 1 | 85. 2 | 88. 2 | 1923..... | 178. 6 | 181. 4 | 171. 8 | 173. 0 | 183. 0 | 175. 8 |
| 1916..... | 119. 6 | 109. 1 | 114. 9 | 118. 3 | 112. 1 | 115. 0 | 1924..... | 182. 0 | 149. 7 | 152. 0 | 144. 1 | 173. 8 | 153. 7 |
| 1917..... | 170. 3 | 144. 8 | 143. 3 | 143. 8 | 160. 6 | 148. 0 | 1925..... | 169. 0 | 188. 9 | 173. 8 | 177. 0 | 201. 4 | 178. 4 |

Division of Crop and Livestock Estimates.

TABLE 205.—Peaches: Car-lot shipments by State of origin, 1920-1925

| State and year | Crop movement season ¹ | | | | | | |
|--------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | May | June | July | Aug. | Sept. | Oct. | Total |
| New York: | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| 1920..... | ----- | ----- | ----- | 15 | 3,452 | 1,168 | 4,635 |
| 1921..... | ----- | ----- | 4 | 1,712 | 1,233 | 18 | 2,967 |
| 1922..... | ----- | ----- | 3 | 106 | 5,953 | 800 | 6,862 |
| 1923..... | ----- | ----- | ----- | 10 | 2,166 | 601 | 2,777 |
| 1924..... | ----- | ----- | ----- | 1 | 2,312 | 1,123 | 3,436 |
| 1925 ² | ----- | ----- | ----- | 39 | 2,828 | 171 | 3,038 |
| New Jersey: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | ----- | 27 | 526 | 469 | ----- | 1,022 |
| 1921..... | ----- | ----- | 1 | 4 | ----- | ----- | 5 |
| 1922..... | ----- | ----- | 234 | 1,341 | 20 | ----- | 1,595 |
| 1923..... | ----- | ----- | 85 | 1,285 | 420 | ----- | 1,790 |
| 1924..... | ----- | ----- | 21 | 504 | 913 | 23 | 1,461 |
| 1925 ³ | ----- | ----- | 77 | 909 | 61 | ----- | 1,047 |
| Michigan: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | ----- | ----- | 37 | 2,175 | 146 | 2,358 |
| 1921..... | ----- | ----- | ----- | 105 | 71 | ----- | 176 |
| 1922..... | ----- | ----- | 3 | 850 | 775 | 22 | 1,650 |
| 1923..... | ----- | ----- | ----- | 28 | 1,049 | 10 | 1,087 |
| 1924..... | ----- | ----- | ----- | 3 | 55 | 47 | 105 |
| 1925 ⁴ | ----- | ----- | ----- | 14 | 243 | 6 | 263 |
| Georgia: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | 1,807 | 3,948 | 166 | 2 | ----- | 5,987 |
| 1921..... | 1,286 | 3,630 | 5,399 | 15 | ----- | ----- | 10,330 |
| 1922..... | 682 | 3,003 | 3,682 | 3 | ----- | ----- | 7,370 |
| 1923..... | 1 | 2,238 | 5,808 | 564 | ----- | ----- | 8,701 |
| 1924..... | 25 | 1,714 | 10,418 | 1,331 | 13 | 3 | 13,504 |
| 1925 ⁵ | 312 | 4,567 | 8,486 | 150 | 7 | ----- | 13,622 |
| Arkansas: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | 4 | 31 | 21 | ----- | ----- | 56 |
| 1921..... | 2 | 9 | 574 | 22 | ----- | ----- | 607 |
| 1922..... | ----- | 5 | 1,306 | 252 | ----- | ----- | 1,563 |
| 1923..... | ----- | 2 | 198 | 524 | ----- | ----- | 724 |
| 1924..... | ----- | 9 | 319 | 2,456 | 1 | ----- | 2,785 |
| 1925 ⁶ | ----- | 1 | 2,120 | 172 | ----- | ----- | 2,293 |
| Texas: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | ----- | 76 | ----- | ----- | ----- | 76 |
| 1921..... | ----- | 219 | 802 | 3 | ----- | ----- | 1,024 |
| 1922..... | ----- | 5 | 27 | ----- | ----- | ----- | 32 |
| 1923..... | ----- | ----- | 47 | 55 | ----- | ----- | 102 |
| 1924..... | ----- | ----- | 456 | 307 | ----- | ----- | 763 |
| 1925 ⁷ | 2 | 20 | 1,040 | 9 | ----- | ----- | 1,071 |
| Colorado: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | ----- | ----- | 62 | 1,025 | 4 | 1,091 |
| 1921..... | ----- | ----- | ----- | 559 | 658 | 6 | 1,223 |
| 1922..... | ----- | ----- | ----- | 455 | 965 | 8 | 1,428 |
| 1923..... | ----- | ----- | ----- | 572 | 681 | 1 | 1,254 |
| 1924..... | ----- | ----- | ----- | 484 | 1,282 | 6 | 1,772 |
| 1925 ⁸ | ----- | ----- | 8 | 582 | 212 | ----- | 747 |
| Utah: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | ----- | ----- | ----- | 366 | ----- | 366 |
| 1921..... | ----- | ----- | ----- | 230 | 573 | 2 | 806 |
| 1922..... | ----- | ----- | ----- | 5 | 1,256 | ----- | 1,261 |
| 1923..... | ----- | ----- | ----- | ----- | 1,203 | ----- | 1,203 |
| 1924..... | ----- | 1 | 264 | 844 | ----- | ----- | 1,109 |
| 1925 ⁹ | ----- | 7 | 56 | 27 | ----- | 1 | 96 |
| Washington: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | ----- | 6 | 26 | 187 | 2 | 221 |
| 1921..... | ----- | ----- | 7 | 415 | 689 | 6 | 1,117 |
| 1922..... | ----- | ----- | ----- | 159 | 823 | 8 | 990 |
| 1923..... | ----- | ----- | 3 | 802 | 822 | 18 | 1,645 |
| 1924..... | ----- | ----- | 6 | 341 | 65 | ----- | 412 |
| 1925 ¹⁰ | ----- | 18 | 767 | 198 | ----- | 5 | 988 |
| California: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | 2 | 210 | 2,736 | 3,332 | 1,601 | 8 | 7,880 |
| 1921..... | ----- | 44 | 1,970 | 4,075 | 1,582 | 5 | 7,076 |
| 1922..... | ----- | 64 | 138 | 5,300 | 3,353 | 284 | 9,139 |
| 1923..... | ----- | 110 | 4,473 | 3,875 | 1,705 | 40 | 10,212 |
| 1924..... | 3 | 65 | 2,720 | 3,276 | 1,157 | 43 | 7,294 |
| 1925 ¹¹ | ----- | 102 | 4,185 | 5,123 | 3,334 | 4 | 12,748 |
| Other States: | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920..... | ----- | 77 | 378 | 2,141 | 1,606 | 276 | 4,478 |
| 1921..... | 37 | 103 | 787 | 241 | 229 | 7 | 1,404 |
| 1922..... | 13 | 112 | 2,306 | 3,437 | 634 | 94 | 6,415 |
| 1923..... | ----- | 84 | 239 | 2,062 | 1,608 | 87 | 4,030 |
| 1924..... | ----- | 84 | 659 | 4,716 | 1,247 | 78 | 6,784 |
| 1925 ¹² | 15 | 256 | 1,890 | 2,039 | 470 | 102 | 4,772 |

¹ Crop movement season extends from May 1 through October of a given year.² Includes one car in November.³ Preliminary.⁴ Includes three cars in November.

TABLE 205.—Peaches: Car-lot shipments by State of origin, 1920-1925—Contd.

| State and year | Crop movement season ¹ | | | | | | |
|-------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | May | June | July | Aug. | Sept. | Oct. | Total |
| Total: | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| 1920..... | 66 | 2,098 | 7,202 | 6,326 | 10,883 | 1,604 | 28,179 |
| 1921..... | 1,325 | 4,005 | 9,544 | 7,381 | 5,035 | 44 | 27,334 |
| 1922..... | 695 | 3,189 | 7,598 | 11,928 | 13,779 | 1,216 | 38,405 |
| 1923..... | 1 | 2,384 | 10,963 | 9,757 | 9,654 | 766 | 33,525 |
| 1924..... | 28 | 1,873 | 14,599 | 13,683 | 7,899 | 1,323 | 39,395 |
| 1925 ² | 329 | 4,953 | 17,823 | 9,810 | 7,380 | 289 | 40,584 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from May 1 through October of a given year.

² Includes one car in November.

³ Preliminary.

⁴ Includes three cars in November.

TABLE 206.—Peaches: Average l. c. l. price to jobbers at nine markets, 1921-1925

| Market Season beginning May | Six-basket carrier | | | Bushel basket | | | | |
|--------------------------------|--------------------|----------------|-------------------|-------------------|----------------|-------------------|----------------|-------------------|
| | June ¹ | July | Aug. ¹ | June ¹ | July | Aug. ¹ | Sept. | Oct. ² |
| New York: | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| 1921..... | 3.34 | 3.04 | 5.00 | 2.62 | 2.29 | 1.90 | 1.78 | 1.43 |
| 1922..... | 3.05 | 2.57 | 2.16 | 2.29 | 2.18 | 2.16 | 2.48 | 1.94 |
| 1923..... | 3.31 | 2.10 | 2.03 | 2.18 | 2.18 | 2.18 | 2.09 | 2.46 |
| 1924..... | 2.97 | 2.25 | 2.81 | 1.74 | 2.22 | 2.18 | 2.74 | 2.46 |
| 1925..... | 3.43 | 2.24 | 2.23 | 3.38 | 2.22 | 2.18 | 2.74 | 2.46 |
| Chicago: | | | | | | | | |
| 1921..... | 2.47 | 2.95 | 4.23 | 2.74 | 3.20 | 2.51 | 1.91 | 1.88 |
| 1922..... | 2.72 | 2.65 | 2.50 | 2.76 | 2.51 | 3.06 | 2.11 | 2.25 |
| 1923..... | 2.79 | 1.88 | 2.07 | 1.84 | 1.86 | 2.30 | 2.91 | 2.17 |
| 1924..... | 1.98 | 2.35 | 3.01 | 3.08 | 2.45 | 3.16 | 2.72 | 2.88 |
| 1925..... | 3.11 | 2.35 | 3.01 | 3.08 | 2.45 | 3.16 | 2.72 | 2.88 |
| Philadelphia: | | | | | | | | |
| 1921..... | 2.73 | 2.86 | 4.28 | 2.07 | 2.07 | 1.88 | 1.60 | 1.67 |
| 1922..... | 2.65 | 2.44 | 2.14 | 2.07 | 2.07 | 2.12 | 2.08 | 2.18 |
| 1923..... | 2.98 | 2.24 | 2.70 | 2.07 | 2.07 | 2.12 | 2.08 | 1.87 |
| 1924..... | 2.56 | 1.04 | 2.41 | 1.57 | 2.41 | 2.22 | 2.81 | 2.81 |
| 1925..... | 3.43 | 2.42 | 2.10 | 2.41 | 2.22 | 2.22 | 2.81 | 2.81 |
| Pittsburgh: | | | | | | | | |
| 1921..... | 2.59 | 2.87 | 4.29 | 3.38 | 3.38 | 2.47 | 1.62 | 1.84 |
| 1922..... | 2.78 | 2.58 | 2.20 | 2.89 | 2.89 | 2.79 | 2.01 | 2.09 |
| 1923..... | 3.15 | 2.22 | 2.75 | 2.32 | 2.32 | 2.41 | 2.42 | 1.82 |
| 1924..... | 2.45 | 1.87 | 2.32 | 2.31 | 1.69 | 3.07 | 2.92 | 2.19 |
| 1925..... | 3.07 | 2.35 | 2.91 | 3.10 | 2.47 | 3.07 | 2.92 | 2.19 |
| St. Louis: | | | | | | | | |
| 1921..... | 2.84 | 3.12 | 4.74 | 3.27 | 3.27 | 1.89 | 1.95 | 1.54 |
| 1922..... | 2.74 | 2.48 | 3.01 | 2.50 | 2.50 | 3.39 | 2.46 | 2.25 |
| 1923..... | 2.35 | 2.17 | 2.11 | 2.11 | 1.82 | 2.32 | 2.76 | 2.13 |
| 1924..... | 2.14 | 1.86 | 2.63 | 2.63 | 2.41 | 3.19 | 3.18 | 2.29 |
| 1925..... | 2.96 | 2.11 | 2.63 | 2.63 | 2.41 | 3.19 | 3.18 | 2.29 |
| Cincinnati: | | | | | | | | |
| 1921..... | 2.27 | 2.78 | 2.42 | 3.02 | 3.02 | 2.17 | 1.69 | 1.90 |
| 1922..... | 2.21 | 2.13 | 2.05 | 2.59 | 2.59 | 3.21 | 2.35 | 2.31 |
| 1923..... | 2.55 | 1.96 | 2.20 | 2.28 | 2.28 | 2.42 | 2.75 | 1.78 |
| 1924..... | 2.05 | 1.49 | 1.50 | 1.68 | 1.64 | 3.16 | 2.90 | 2.90 |
| 1925..... | 2.49 | 2.11 | 2.51 | 2.51 | 2.16 | 3.16 | 2.90 | 2.90 |
| Minneapolis: | | | | | | | | |
| 1921..... | 2.49 | 2.49 | 2.25 | 2.25 | 2.25 | 2.21 | 1.99 | 1.58 |
| 1922..... | 2.49 | 2.49 | 2.25 | 2.25 | 2.25 | 2.53 | 2.53 | 2.20 |
| 1923..... | 2.49 | 2.49 | 2.25 | 2.25 | 2.25 | 2.53 | 2.53 | 2.20 |
| 1924..... | 2.49 | 2.49 | 2.25 | 2.25 | 2.25 | 2.53 | 2.53 | 2.20 |
| 1925..... | 2.49 | 2.49 | 2.25 | 2.25 | 2.25 | 2.53 | 2.53 | 2.20 |
| Kansas City: | | | | | | | | |
| 1921..... | 2.59 | 2.58 | 4.04 | 3.29 | 3.29 | 2.15 | 1.99 | 1.01 |
| 1922..... | 2.60 | 2.55 | 2.55 | 2.48 | 2.48 | 3.24 | 2.25 | 1.98 |
| 1923..... | 2.55 | 2.17 | 2.17 | 2.17 | 2.17 | 1.94 | 2.45 | 3.04 |
| 1924..... | 3.12 | 2.45 | 3.32 | 3.32 | 2.42 | 2.96 | 3.49 | 3.04 |
| 1925..... | 3.12 | 2.45 | 3.32 | 3.32 | 2.42 | 2.96 | 3.49 | 3.04 |
| Washington: | | | | | | | | |
| 1921..... | 2.90 | 2.11 | 2.27 | 2.15 | 2.15 | 2.34 | 2.50 | 1.87 |
| 1922..... | 3.47 | 2.48 | 2.60 | 2.75 | 2.75 | 2.99 | 2.97 | 1.88 |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division.

Average prices as shown are based on stock of good merchantable quality and condition; they are simple averages of daily range of selling prices.

¹ Quotations began June 3, 1921; May 25, 1922; June 5, 1923; June 3, 1924; June 1, 1925.

² Last reported quotations of season Aug. 9, 1921; Oct. 11, 1922; Oct. 13, 1923 and 1924; Oct. 3, 1925.

PEARS

TABLE 207.—*Pears: Production, United States, 1909-1925*

| Year | Production | Year | Production | Year | Production |
|-----------|----------------|-----------|----------------|-------------------------|----------------|
| | <i>Bushels</i> | | <i>Bushels</i> | | <i>Bushels</i> |
| 1909..... | 6,847,000 | 1915..... | 11,216,000 | 1921..... | 11,297,000 |
| 1910..... | 10,431,000 | 1916..... | 11,874,000 | 1922..... | 20,705,000 |
| 1911..... | 17,450,000 | 1917..... | 13,281,000 | 1923..... | 17,845,000 |
| 1912..... | 11,843,000 | 1918..... | 13,362,000 | 1924..... | 18,868,000 |
| 1913..... | 10,108,000 | 1919..... | 15,006,000 | 1925 ¹ | 19,820,000 |
| 1914..... | 12,086,000 | 1920..... | 16,805,000 | | |

Division of Crop and Livestock Estimates. Census figures in italics.

¹ Preliminary.TABLE 208.—*Pears: Production, by States, 1916-1925.*

[Thousand bushels—i. e., 000 omitted]

| State | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------|
| Maine..... | 36 | 24 | 20 | 14 | 19 | 15 | 14 | 7 | 12 | 13 |
| New Hampshire..... | 25 | 19 | 15 | 17 | 18 | 17 | 24 | 12 | 17 | 19 |
| Vermont..... | 24 | 14 | 13 | 10 | 10 | 6 | 10 | 6 | 12 | 12 |
| Massachusetts..... | 114 | 71 | 77 | 84 | 83 | 45 | 84 | 58 | 84 | 90 |
| Rhode Island..... | 14 | 7 | 10 | 11 | 11 | 6 | 12 | 10 | 12 | 13 |
| Connecticut..... | 46 | 29 | 34 | 57 | 61 | 50 | 60 | 37 | 62 | 60 |
| New York..... | 1,675 | 1,708 | 1,352 | 1,830 | 2,700 | 1,650 | 3,200 | 1,000 | 2,100 | 3,045 |
| New Jersey..... | 687 | 590 | 650 | 402 | 660 | 185 | 405 | 662 | 624 | 512 |
| Pennsylvania..... | 509 | 448 | 518 | 421 | 845 | 220 | 576 | 612 | 620 | 498 |
| Ohio..... | 376 | 354 | 304 | 157 | 478 | 126 | 450 | 332 | 326 | 354 |
| Indiana..... | 351 | 410 | 260 | 107 | 375 | 70 | 300 | 334 | 180 | 209 |
| Illinois..... | 354 | 456 | 302 | 375 | 603 | 100 | 510 | 307 | 560 | 510 |
| Michigan..... | 1,007 | 1,080 | 704 | 405 | 1,044 | 532 | 1,500 | 1,005 | 810 | 450 |
| Wisconsin..... | 26 | | | 20 | 24 | 1 | 19 | 16 | 15 | 15 |
| Iowa..... | 63 | 82 | 32 | 30 | 90 | 5 | 75 | 62 | 40 | 45 |
| Missouri..... | 104 | 265 | 112 | 431 | 418 | 4 | 450 | 475 | 375 | 342 |
| Nebraska..... | 10 | 14 | 6 | 25 | 22 | 2 | 27 | 24 | 30 | 18 |
| Kansas..... | 106 | 140 | 38 | 221 | 41 | 7 | 243 | 134 | 262 | 165 |
| Delaware..... | 164 | 294 | 238 | 98 | 140 | 9 | 158 | 370 | 328 | 180 |
| Maryland..... | 378 | 525 | 455 | 267 | 421 | 35 | 256 | 374 | 335 | 280 |
| Virginia..... | 122 | 194 | 119 | 288 | 438 | 30 | 270 | 200 | 430 | 135 |
| West Virginia..... | 42 | 33 | 33 | 40 | 66 | 2 | 38 | 41 | 84 | 34 |
| North Carolina..... | 75 | 150 | 108 | 120 | 208 | 100 | 110 | 65 | 273 | 158 |
| South Carolina..... | 56 | 100 | 98 | 99 | 120 | 115 | 104 | 88 | 114 | 87 |
| Georgia..... | 135 | 140 | 188 | 178 | 173 | 171 | 202 | 192 | 232 | 155 |
| Florida..... | 54 | 46 | 132 | 43 | 24 | 40 | 50 | 35 | 55 | 54 |
| Kentucky..... | 160 | 204 | 140 | 55 | 132 | 4 | 150 | 70 | 117 | 85 |
| Tennessee..... | 59 | 75 | 112 | 115 | 200 | 65 | 180 | 83 | 250 | 148 |
| Alabama..... | 90 | 80 | 152 | 163 | 158 | 180 | 176 | 174 | 224 | 157 |
| Mississippi..... | 50 | 30 | 136 | 125 | 167 | 167 | 190 | 90 | 187 | 189 |
| Arkansas..... | 68 | 102 | 64 | 123 | 42 | 39 | 100 | 45 | 124 | 89 |
| Louisiana..... | 48 | 52 | 52 | 59 | 47 | 38 | 48 | 45 | 65 | 74 |
| Oklahoma..... | 11 | 45 | 38 | 250 | 42 | 36 | 197 | 100 | 235 | 146 |
| Texas..... | 322 | 260 | 246 | 637 | 338 | 408 | 390 | 340 | 483 | 386 |
| Montana..... | 6 | 11 | 6 | 6 | 6 | 7 | 8 | 8 | | |
| Idaho..... | 50 | 70 | 60 | 49 | 58 | 55 | 72 | 72 | 60 | 39 |
| Colorado..... | 99 | 220 | 194 | 345 | 386 | 502 | 519 | 400 | 550 | 510 |
| New Mexico..... | 36 | 46 | 56 | 67 | 32 | 24 | 18 | 49 | 28 | 56 |
| Arizona..... | 19 | 21 | 19 | 20 | 12 | 16 | 18 | 18 | 11 | 14 |
| Utah..... | 12 | 48 | 51 | 76 | 87 | 81 | 98 | 64 | 70 | 30 |
| Nevada..... | 2 | 6 | 5 | 4 | 5 | 3 | 4 | 7 | 6 | 7 |
| Washington..... | 551 | 595 | 1,300 | 1,781 | 1,140 | 1,710 | 1,740 | 2,700 | 1,750 | 2,300 |
| Oregon..... | 555 | 600 | 672 | 761 | 760 | 838 | 1,400 | 1,580 | 1,225 | 1,500 |
| California..... | 3,124 | 3,523 | 4,249 | 4,600 | 4,080 | 3,670 | 6,250 | 5,542 | 5,542 | 6,667 |
| United States..... | 11,574 | 13,281 | 13,362 | 15,006 | 16,805 | 11,207 | 20,705 | 17,845 | 18,868 | 19,820 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 209.—Pears: Car-lot shipments by State of origin, June, 1920–May, 1925

| State | Crop movement season ¹ | | | | |
|-------------------|-----------------------------------|-------------|-------------|-------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York..... | 3,979 | 2,893 | 5,461 | 1,701 | 2,978 |
| New Jersey..... | 74 | 23 | 40 | 76 | 60 |
| Ohio..... | 64 | 17 | 96 | 33 | 47 |
| Indiana..... | 71 | — | 41 | 39 | 61 |
| Illinois..... | 1,179 | 33 | 468 | 315 | 595 |
| Michigan..... | 1,294 | 653 | 1,860 | 543 | 394 |
| Delaware..... | 290 | — | 151 | 541 | 273 |
| Maryland..... | 54 | 3 | 36 | 63 | 30 |
| Texas..... | 96 | 115 | 59 | 99 | 129 |
| Colorado..... | 654 | 745 | 774 | 696 | 955 |
| Utah..... | 88 | 33 | 82 | 65 | 81 |
| Washington..... | 1,902 | 2,903 | 2,678 | 4,274 | 2,456 |
| Oregon..... | 1,006 | 985 | 1,862 | 2,575 | 1,443 |
| California..... | 5,016 | 4,500 | 6,465 | 7,143 | 6,312 |
| Other States..... | 202 | 150 | 314 | 423 | 392 |
| Total..... | 15,941 | 13,053 | 20,381 | 18,589 | 16,246 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from June 1 of one year through May of the following year.

² Preliminary.

TABLE 210.—Pears: Estimated price per bushel received by producers, United States, 1910–1925

| Year | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Weighted average. | Year | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Weighted average. |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1910..... | 100.9 | 98.6 | 100.8 | 122.1 | 100.9 | 100.9 | 1918..... | 168.4 | 157.8 | 147.5 | 140.1 | 156.6 | 161.1 |
| 1911..... | 118.0 | 103.8 | 97.2 | 85.1 | 111.0 | 109.4 | 1919..... | 188.4 | 183.0 | 181.3 | 182.0 | 219.5 | 185.7 |
| 1912..... | 106.3 | 100.0 | 83.1 | 79.3 | 92.8 | 100.4 | 1920..... | 166.5 | 197.9 | 184.2 | 170.1 | 164.5 | 194.1 |
| 1913..... | 109.9 | 119.3 | 95.6 | 93.0 | 97.9 | 111.2 | 1921..... | 165.2 | 175.1 | 180.4 | 164.9 | 198.7 | 172.2 |
| 1914..... | 96.8 | 92.8 | 80.4 | 77.5 | 82.5 | 93.7 | 1922..... | 147.1 | 116.2 | 119.8 | 118.7 | 139.7 | 139.7 |
| 1915..... | 80.8 | 83.8 | 82.7 | 89.8 | 89.7 | 82.5 | 1923..... | 168.3 | 172.5 | 165.1 | 150.2 | 133.0 | 165.5 |
| 1916..... | 109.0 | 102.7 | 96.9 | 93.3 | 105.6 | 104.8 | 1924..... | 175.2 | 157.8 | 155.0 | 141.0 | ----- | 165.4 |
| 1917..... | 132.2 | 125.0 | 118.2 | 116.1 | ----- | 127.4 | 1925..... | 172.6 | 165.2 | 164.2 | 149.7 | 162.6 | 163.2 |

Division of Crop and Livestock Estimates.

STRAWBERRIES

TABLE 211.—*Strawberries, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis-average price per season | | |
|-------------------------------|----------------|----------------|----------------|---------------------|---------------------|---------------------|---|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 quarts</i> | <i>1,000 quarts</i> | <i>1,000 quarts</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Alabama..... | 3,660 | 3,960 | 3,440 | 7,686 | 5,544 | 5,504 | 1,076 | 832 | 771 |
| Florida..... | 3,810 | 3,100 | 3,170 | 8,382 | 5,735 | 6,023 | 1,509 | 1,606 | 1,626 |
| Louisiana..... | 14,350 | 14,600 | 10,340 | 18,655 | 17,885 | 10,340 | 4,664 | 4,471 | 3,516 |
| Mississippi..... | 970 | 1,190 | 1,180 | 1,649 | 1,428 | 1,298 | 297 | 243 | 247 |
| Texas..... | 900 | 1,070 | 980 | 1,350 | 1,284 | 1,078 | 256 | 282 | 194 |
| Second early: | | | | | | | | | |
| Arkansas..... | 16,960 | 15,200 | 14,860 | 16,960 | 22,800 | 10,402 | 2,544 | 3,192 | 1,560 |
| California (S. district)..... | 1,580 | 2,350 | 1,020 | 3,950 | 15,275 | 4,488 | 1,066 | 1,833 | 808 |
| North Carolina..... | 5,320 | 5,690 | 5,040 | 13,300 | 15,363 | 12,096 | 2,261 | 2,151 | 1,814 |
| South Carolina..... | 460 | 540 | 430 | 1,030 | 1,210 | 1,032 | 237 | 133 | 155 |
| Tennessee..... | 21,210 | 21,170 | 16,100 | 33,936 | 28,452 | 19,392 | 3,054 | 3,414 | 2,715 |
| Virginia..... | 6,500 | 10,700 | 8,300 | 14,300 | 22,470 | 23,240 | 1,144 | 1,798 | 3,021 |
| Intermediate: | | | | | | | | | |
| California (other)..... | 2,120 | 1,620 | 1,530 | 6,960 | 5,033 | 7,650 | 1,253 | 856 | 1,454 |
| Delaware..... | 6,100 | 6,100 | 5,600 | 14,640 | 14,640 | 8,960 | 1,903 | 1,464 | 1,344 |
| Illinois..... | 3,410 | 3,250 | 3,530 | 5,456 | 6,500 | 4,942 | 709 | 780 | 791 |
| Indiana..... | 2,000 | 1,980 | 1,800 | 3,800 | 3,960 | 2,160 | 418 | 436 | 410 |
| Iowa..... | 3,300 | 3,330 | 3,200 | 7,590 | 5,661 | 4,160 | 1,214 | 736 | 832 |
| Kansas..... | 280 | 460 | 540 | 560 | 1,012 | 648 | 101 | 101 | 110 |
| Kentucky..... | 5,080 | 4,370 | 3,980 | 9,921 | 5,454 | 3,184 | 1,389 | 764 | 573 |
| Maryland..... | 10,320 | 10,200 | 9,200 | 20,640 | 22,440 | 17,480 | 3,096 | 2,244 | 2,447 |
| Missouri..... | 10,560 | 11,000 | 13,000 | 10,560 | 17,600 | 27,300 | 1,584 | 2,640 | 5,187 |
| New Jersey..... | 5,500 | 5,400 | 4,000 | 7,700 | 12,096 | 8,840 | 1,155 | 1,331 | 538 |
| Late: | | | | | | | | | |
| Michigan..... | 6,000 | 5,580 | 4,960 | 8,400 | 11,160 | 2,480 | 1,092 | 1,562 | 422 |
| New York..... | 3,900 | 3,940 | 3,850 | 10,530 | 8,274 | 11,935 | 1,790 | 1,168 | 2,148 |
| Ohio..... | 2,800 | 2,660 | 2,600 | 5,600 | 5,320 | 2,340 | 840 | 692 | 538 |
| Oregon..... | 3,500 | 3,640 | 3,460 | 5,600 | 5,824 | 7,612 | 392 | 815 | 990 |
| Pennsylvania..... | 3,200 | 3,250 | 3,100 | 7,360 | 5,200 | 3,720 | 1,398 | 780 | 818 |
| Washington..... | 3,770 | 3,940 | 3,880 | 8,294 | 7,092 | 5,432 | 1,576 | 780 | 923 |
| Wisconsin..... | 800 | 940 | 850 | 1,600 | 1,880 | 850 | 240 | 226 | 153 |
| Total..... | 148,360 | 151,230 | 134,000 | 256,409 | 276,592 | 200,586 | 38,258 | 37,320 | 36,105 |

Division of Crop and Livestock Estimates.

TABLE 212.—*Strawberries, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per quart ¹ | | | | | | |
|-------------------------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | <i>Qts.</i> | <i>Qts.</i> | <i>Qts.</i> | <i>Qts.</i> | <i>Qts.</i> | <i>Qts.</i> | <i>Qts.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Alabama..... | 1,992 | 1,440 | 2,016 | 2,088 | 2,100 | 1,400 | 1,600 | 0.20 | 0.18 | 0.18 | 0.17 | 0.14 | 0.15 | .14 |
| Florida..... | 1,856 | 1,984 | 1,440 | 1,984 | 2,200 | 1,850 | 1,900 | .27 | .24 | .28 | .28 | .18 | .28 | .27 |
| Louisiana..... | 2,088 | 1,680 | 2,040 | 1,824 | 1,300 | 1,225 | 1,000 | .26 | .28 | .27 | .18 | .25 | .25 | .34 |
| Mississippi..... | 1,800 | 1,824 | 1,440 | 2,016 | 1,700 | 1,200 | 1,100 | .14 | .14 | .18 | .17 | .18 | .17 | .19 |
| Texas..... | 1,200 | 1,560 | 1,440 | 1,560 | 1,500 | 1,200 | 1,100 | .12 | .13 | .29 | .23 | .19 | .22 | .18 |
| Second early: | | | | | | | | | | | | | | |
| Arkansas..... | 1,800 | 1,560 | 1,440 | 1,680 | 1,000 | 1,500 | 700 | .19 | .18 | .15 | .11 | .15 | .14 | .15 |
| California (S. district)..... | 2,520 | 2,400 | 2,440 | 2,352 | 2,500 | 6,500 | 4,400 | .16 | .16 | .16 | .17 | .27 | .12 | .18 |
| North Carolina..... | 1,920 | 2,080 | 2,240 | 2,720 | 2,500 | 2,700 | 2,400 | .19 | .18 | .26 | .20 | .17 | .14 | .15 |
| South Carolina..... | 1,920 | 1,920 | 1,920 | 2,240 | 2,240 | 2,240 | 2,400 | .30 | .28 | .23 | .25 | .23 | .11 | .15 |
| Tennessee..... | 1,680 | 1,680 | 1,680 | 2,160 | 1,600 | 1,344 | 1,200 | .17 | .17 | .20 | .10 | .09 | .12 | .14 |
| Virginia..... | 1,792 | 1,792 | 2,496 | 2,880 | 2,200 | 2,100 | 2,800 | .19 | .20 | .20 | .16 | .08 | .08 | .13 |
| Intermediate: | | | | | | | | | | | | | | |
| California (other)..... | 2,349 | 2,066 | 2,651 | 2,559 | 3,283 | 3,107 | 5,000 | .15 | .16 | .26 | .16 | .18 | .17 | .19 |
| Delaware..... | 1,920 | 1,664 | 1,920 | 2,080 | 2,400 | 2,400 | 1,600 | .18 | .16 | .14 | .19 | .13 | .10 | .15 |
| Illinois..... | 1,680 | 1,440 | 1,200 | 1,680 | 1,600 | 2,000 | 1,400 | .19 | .20 | .16 | .11 | .13 | .12 | .16 |
| Indiana..... | 1,440 | 1,824 | 1,200 | 1,800 | 1,900 | 2,000 | 1,200 | .15 | .20 | .22 | .12 | .11 | .11 | .19 |
| Iowa..... | 1,920 | 1,776 | 1,440 | 1,680 | 2,300 | 1,700 | 1,300 | .16 | .17 | .21 | .22 | .16 | .13 | .20 |
| Kansas..... | 1,920 | 1,872 | 1,200 | 1,680 | 2,000 | 2,200 | 1,200 | .19 | .18 | .17 | .11 | .18 | .10 | .17 |
| Kentucky..... | 1,080 | 1,560 | 1,800 | 2,040 | 1,953 | 1,248 | 800 | .24 | .21 | .20 | .16 | .14 | .14 | .18 |
| Maryland..... | 1,600 | 1,600 | 1,856 | 1,920 | 2,000 | 2,200 | 1,900 | .19 | .18 | .16 | .16 | .15 | .10 | .14 |
| Missouri..... | 1,992 | 1,488 | 1,440 | 1,872 | 1,000 | 1,600 | 2,100 | .23 | .24 | .17 | .12 | .16 | .15 | .19 |
| New Jersey..... | 1,920 | 1,600 | 1,600 | 1,600 | 1,400 | 2,240 | 900 | .22 | .22 | .22 | .15 | .15 | .11 | .14 |
| Late: | | | | | | | | | | | | | | |
| Michigan..... | 1,920 | 1,680 | 1,200 | 1,680 | 1,400 | 2,000 | 500 | .23 | .24 | .15 | .11 | .13 | .14 | .17 |
| New York..... | 1,920 | 1,600 | 1,920 | 2,080 | 2,700 | 2,100 | 3,100 | .19 | .23 | .23 | .25 | .17 | .14 | .18 |
| Ohio..... | 1,800 | 1,752 | 1,728 | 1,632 | 2,000 | 2,000 | 900 | .17 | .18 | .25 | .10 | .15 | .13 | .23 |
| Oregon..... | 1,400 | 1,728 | 2,160 | 1,920 | 1,600 | 1,600 | 2,200 | .27 | .36 | .20 | .10 | .07 | .14 | .13 |
| Pennsylvania..... | 1,440 | 1,560 | 1,920 | 1,800 | 2,300 | 1,600 | 1,200 | .25 | .23 | .25 | .20 | .19 | .15 | .22 |
| Washington..... | 1,680 | 1,704 | 2,280 | 2,160 | 2,200 | 1,800 | 1,400 | .28 | .28 | .17 | .20 | .19 | .11 | .17 |
| Wisconsin..... | 1,920 | 1,872 | 1,320 | 1,800 | 2,000 | 2,000 | 1,000 | .16 | .18 | .15 | .12 | .15 | .12 | .18 |
| Average..... | 1,793 | 1,666 | 1,731 | 1,961 | 1,728 | 1,829 | 1,564 | .20 | .21 | .20 | .15 | .15 | .13 | .17 |

Division of Crop and Livestock Estimates.

¹ Average for season.TABLE 213.—*Strawberries: Car-load shipments by State of origin, 1920-1925*

| State | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---------------------|--------------|---------------|---------------|---------------|---------------|-------------------|
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York..... | 257 | 243 | 325 | 301 | 345 | 202 |
| New Jersey..... | 363 | 363 | 274 | 187 | 402 | 126 |
| Illinois..... | 112 | 73 | 260 | 224 | 367 | 295 |
| Michigan..... | 446 | 454 | 640 | 408 | 554 | 39 |
| Missouri..... | 245 | 451 | 1,963 | 872 | 990 | 1,497 |
| Delaware..... | 652 | 866 | 940 | 924 | 1,307 | 471 |
| Maryland..... | 793 | 1,132 | 1,634 | 1,916 | 2,155 | 1,088 |
| Virginia..... | 270 | 679 | 1,691 | 1,193 | 1,919 | 1,249 |
| North Carolina..... | 303 | 503 | 1,101 | 1,668 | 2,046 | 1,634 |
| Florida..... | 190 | 142 | 322 | 1,038 | 587 | 668 |
| Kentucky..... | 265 | 395 | 772 | 827 | 467 | 312 |
| Tennessee..... | 1,150 | 1,839 | 3,634 | 3,279 | 2,902 | 1,637 |
| Alabama..... | 139 | 285 | 460 | 693 | 408 | 421 |
| Arkansas..... | 650 | 1,067 | 2,165 | 1,342 | 1,613 | 1,004 |
| Louisiana..... | 626 | 1,625 | 1,576 | 1,678 | 1,865 | 1,076 |
| California..... | 258 | 292 | 301 | 226 | 191 | 130 |
| Other States..... | 428 | 528 | 803 | 1,028 | 855 | 406 |
| Total..... | 7,207 | 10,857 | 18,761 | 17,804 | 18,973 | 12,256 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-load basis.

¹ Preliminary.

TABLE 214.—*Strawberries: Average l. c. l. price per quart to jobbers at nine markets, 1921-1925*

| Market. Season beginning March | Mar. ¹ | Apr. | May | June ² | Market. Season beginning March | Mar. ¹ | Apr. | May | June ² |
|--------------------------------------|-------------------|--------------|--------------|-------------------|--------------------------------------|-------------------|--------------|--------------|-------------------|
| New York: | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | Cincinnati: | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1921..... | 47 | 41 | 27 | 20 | 1921..... | 33 | 27 | 23 | ----- |
| 1922..... | 60 | 37 | 21 | 16 | 1922..... | 53 | 18 | 12 | ----- |
| 1923..... | 65 | 43 | 20 | 18 | 1923..... | 48 | 30 | 15 | 10 |
| 1924..... | ----- | 41 | 20 | 13 | 1924..... | 40 | 17 | 15 | ----- |
| 1925..... | 42 | 37 | 21 | 23 | 1925..... | 38 | 27 | 17 | ----- |
| Chicago: | ----- | ----- | ----- | ----- | Minneapolis: | ----- | ----- | ----- | ----- |
| 1921..... | 31 | 37 | 24 | 14 | 1921..... | 37 | 41 | 31 | 24 |
| 1922..... | 45 | 29 | 14 | 12 | 1922..... | ----- | 29 | 18 | 14 |
| 1923..... | 45 | 41 | 20 | 15 | 1923..... | 58 | 45 | 26 | 19 |
| 1924..... | ----- | 46 | 22 | 17 | 1924..... | ----- | 45 | 27 | 19 |
| 1925..... | 50 | 43 | 21 | 25 | 1925..... | 51 | 48 | 24 | 30 |
| Philadelphia: | ----- | ----- | ----- | ----- | Kansas City: | ----- | ----- | ----- | ----- |
| 1921..... | 33 | 34 | 22 | 13 | 1921..... | 33 | 36 | 23 | 20 |
| 1922..... | 58 | 32 | 18 | 17 | 1922..... | ----- | 31 | 16 | 18 |
| 1923..... | 55 | 40 | 18 | 15 | 1923..... | 46 | 40 | 21 | 16 |
| 1924..... | ----- | 41 | 19 | 10 | 1924..... | ----- | 40 | 22 | 15 |
| 1925..... | 39 | 24 | 17 | 16 | 1925..... | 46 | 42 | 21 | ----- |
| Pittsburgh: | ----- | ----- | ----- | ----- | Washington: | ----- | ----- | ----- | ----- |
| 1921..... | 34 | 34 | 26 | 20 | 1921..... | ----- | 31 | 17 | 12 |
| 1922..... | 50 | 34 | 17 | 18 | 1922..... | ----- | 27 | 15 | ----- |
| 1923..... | 62 | 41 | 22 | 16 | ----- | ----- | ----- | ----- | ----- |
| 1924..... | ----- | 49 | 24 | 16 | ----- | ----- | ----- | ----- | ----- |
| 1925..... | 46 | 45 | 23 | 28 | ----- | ----- | ----- | ----- | ----- |
| St. Louis: | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1921..... | 31 | 33 | 23 | 14 | ----- | ----- | ----- | ----- | ----- |
| 1922..... | 54 | 26 | 14 | 16 | ----- | ----- | ----- | ----- | ----- |
| 1923..... | 49 | 40 | 18 | ----- | ----- | ----- | ----- | ----- | ----- |
| 1924..... | ----- | 44 | 20 | 11 | ----- | ----- | ----- | ----- | ----- |
| 1925..... | 45 | 37 | 18 | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division.

Average prices as shown are based on stock of good merchantable quality and condition; they are simple averages of daily range of selling prices. In some cases conversions have been made from larger to smaller units or vice versa, in order to obtain comparability.

¹ Quotations began Mar. 17, 1921; Mar. 23, 1922; Mar. 28, 1923; Mar. 31, 1924; Mar. 19, 1925.

² Last reported quotations of season June 3, 1921; June 6, 1922; June 13, 1923; June 17, 1924; June 9, 1925.

ASPARAGUS

TABLE 215.—*Asparagus for consumption fresh, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis average price for season | | |
|---------------------|---------------|------------------|------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|--------------------------|--------------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 crates¹</i> | <i>1,000 crates¹</i> | <i>1,000 crates¹</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| California..... | 8,100 | 6,710 | 8,000 | 1,555 | 1,188 | 1,216 | 8,055 | 3,922 | 2,928 |
| Georgia..... | 2,020 | 2,660 | 2,820 | 111 | 32 | 54 | 467 | 144 | 174 |
| South Carolina..... | 2,090 | 3,500 | 4,500 | 125 | 105 | 166 | 410 | 392 | 511 |
| Late: | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Delaware..... | 510 | 720 | 1,050 | 41 | 50 | 50 | 191 | 192 | 153 |
| Illinois..... | 2,440 | 2,640 | 2,700 | 220 | 211 | 224 | 521 | 490 | 414 |
| Iowa..... | 140 | 140 | 140 | 10 | 10 | 9 | 20 | 19 | 15 |
| Maryland..... | 440 | 1,200 | 1,600 | 25 | 84 | 115 | 62 | 143 | 214 |
| Michigan..... | 190 | 290 | 320 | 17 | 15 | 24 | 52 | 41 | 63 |
| New Jersey..... | 4,290 | 5,800 | 7,000 | 399 | 383 | 504 | 994 | 1,157 | 1,688 |
| New York..... | 140 | (²) | (²) | 8 | (²) | (²) | 44 | (²) | (²) |
| Pennsylvania..... | 750 | 800 | 1,060 | 49 | 58 | 55 | 210 | 276 | 211 |
| Washington..... | 450 | 520 | 720 | 36 | 30 | 58 | 114 | 55 | 106 |
| Total..... | 21,460 | 24,970 | 29,850 | 2,596 | 2,168 | 2,475 | 11,140 | 6,901 | 7,427 |

Division of Crop and Livestock Estimates.

¹ 24-pound crates.

² Not reported.

TABLE 216.—*Asparagus for consumption fresh, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per crate ¹ | | | | | | |
|---------------------|----------------|--------------|--------------|--------------|--------------|------------------|------------------|------------------------------|--------------|--------------|--------------|--------------|------------------|------------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| California..... | 150 | 150 | 165 | 170 | 192 | 177 | 182 | 2.19 | 2.12 | 1.95 | 4.29 | 5.18 | 3.86 | 3.23 |
| Georgia..... | 56 | 40 | 60 | 62 | 55 | 12 | 19 | 2.68 | 2.84 | 2.51 | 3.62 | 4.21 | 4.50 | 3.23 |
| South Carolina..... | 76 | 81 | 79 | 68 | 60 | 30 | 37 | 2.60 | 2.25 | 2.87 | 3.28 | 3.28 | 3.73 | 3.06 |
| Late: | | | | | | | | | | | | | | |
| Delaware..... | 62 | 66 | 68 | 64 | 80 | 70 | 48 | 3.42 | 3.67 | 4.12 | 4.70 | 4.67 | 3.84 | 3.06 |
| Illinois..... | 98 | 99 | 98 | 77 | 90 | 80 | 83 | 1.96 | 2.27 | 2.10 | 2.00 | 2.37 | 2.32 | 1.85 |
| Iowa..... | 70 | 72 | 76 | 76 | 75 | 70 | 64 | 1.80 | 1.20 | 2.00 | 1.77 | 2.00 | 1.93 | 1.70 |
| Maryland..... | 57 | 57 | 59 | 55 | 56 | 70 | 72 | 3.50 | 3.00 | 2.88 | 2.69 | 2.48 | 1.70 | 1.80 |
| Michigan..... | 65 | 68 | 68 | 80 | 90 | 85 | 75 | 3.84 | 2.88 | 3.12 | 2.50 | 3.06 | 2.72 | 2.63 |
| New Jersey..... | 68 | 76 | 70 | 75 | 95 | 66 | 72 | 1.90 | 2.46 | 5.54 | 5.41 | 2.49 | 3.02 | 3.25 |
| New York..... | 79 | 72 | 79 | 52 | 69 | (²) | (²) | 4.32 | 4.80 | 3.00 | 5.41 | 5.50 | (²) | (²) |
| Pennsylvania..... | 74 | 70 | 68 | 78 | 65 | 72 | 55 | 6.50 | 7.50 | 4.25 | 7.20 | 4.28 | 4.75 | 3.83 |
| Washington..... | | | | | 80 | 58 | 80 | | | | | 3.16 | 1.82 | 1.82 |
| Average..... | 95 | 97 | 104 | 106 | 121 | 87 | 83 | 2.39 | 2.48 | 2.76 | 4.19 | 4.29 | 3.19 | 3.00 |

Division of Crop and Livestock Estimates.

¹ Average for season.

² Not reported.

TABLE 217.—*Asparagus for canning, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-----------------|--------------|--------------|--------------|-------------|-------------|-------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| California..... | 20,480 | 23,200 | 26,400 | 38,900 | 48,700 | 47,500 | 3,902 | 4,807 | 3,770 |
| New York..... | 110 | 130 | 130 | 200 | 200 | 100 | 89 | 42 | 25 |
| Total..... | 20,590 | 23,330 | 26,530 | 39,100 | 48,900 | 47,600 | 3,941 | 4,849 | 3,795 |

Division of Crop and Livestock Estimates.

TABLE 218.—*Asparagus for canning, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per ton | | | | | | |
|-----------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| California..... | 1.7 | 1.5 | 1.2 | 1.7 | 1.9 | 2.1 | 1.8 | 85.58 | 106.00 | 70.00 | 83.30 | 100.30 | 98.70 | 79.36 |
| New York..... | 1.8 | 1.8 | 1.8 | 1.3 | 1.5 | 1.7 | .9 | 164.75 | 190.00 | 160.00 | 187.50 | 195.00 | 208.00 | 249.00 |
| Average..... | 1.7 | 1.5 | 1.2 | 1.7 | 1.9 | 2.1 | 1.8 | 85.92 | 106.38 | 70.94 | 83.69 | 100.79 | 99.16 | 79.73 |

Division of Crop and Livestock Estimates.

TABLE 219.—*Asparagus: Car-lot shipments, by State of origin, March, 1920–July, 1925*

| State | Crop movement season ¹ | | | | | |
|---------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New Jersey..... | 465 | 237 | 154 | 64 | 156 | 150 |
| Illinois..... | 164 | 170 | 161 | 98 | 157 | 165 |
| South Carolina..... | 89 | 129 | 143 | 154 | 185 | 263 |
| Washington..... | 1 | 2 | 5 | 10 | 10 | 31 |
| California..... | 502 | 362 | 304 | 458 | 718 | 1,281 |
| Other States..... | 5 | 2 | — | 6 | 9 | 18 |
| Total..... | 1,226 | 902 | 767 | 785 | 1,235 | 1,908 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from March 1 through July of a given year.

² Preliminary.

³ Includes 6 cars in February.

⁴ Includes 10 cars in February.

BEANS

TABLE 220.—*Beans, snap, for table consumption, commercial crop: Acreage, production, and total value, by States, 1923–1925*

| State | Acreage | | | Production | | | Total value, average price for season | | |
|---------------------|--------------|--------------|--------------|------------------------------------|------------------------------------|------------------------------------|---------------------------------------|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 ham-pers ¹</i> | <i>1,000 ham-pers ¹</i> | <i>1,000 ham-pers ¹</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Alabama..... | 700 | 1,060 | 680 | 54 | 52 | 45 | 82 | 109 | 88 |
| California..... | 1,980 | 2,000 | 2,000 | 697 | 450 | 430 | 2,697 | 472 | 752 |
| Florida..... | 14,460 | 19,780 | 20,530 | 1,865 | 1,484 | 1,063 | 3,581 | 3,651 | 4,922 |
| Georgia..... | 650 | 1,850 | 1,260 | 68 | 104 | 60 | 112 | 128 | 108 |
| Louisiana..... | 1,840 | 4,800 | 7,000 | 129 | 422 | 525 | 330 | 1,156 | 662 |
| Mississippi..... | 2,540 | 2,800 | 2,120 | 147 | 157 | 142 | 184 | 279 | 227 |
| North Carolina..... | 2,140 | 2,630 | 3,290 | 340 | 316 | 329 | 456 | 228 | 457 |
| South Carolina..... | 4,600 | 4,490 | 3,540 | 511 | 364 | 304 | 1,175 | 517 | 669 |
| Texas..... | 3,210 | 3,030 | 4,730 | 302 | 361 | 364 | 806 | 892 | 553 |
| Virginia..... | 3,100 | 3,720 | 3,720 | 223 | 480 | 424 | 502 | 888 | 738 |
| Late: | | | | | | | | | |
| Illinois..... | 580 | 600 | 550 | 82 | 48 | 37 | 63 | 77 | 65 |
| Maryland..... | 3,830 | 2,550 | 2,750 | 306 | 178 | 275 | 398 | 230 | 228 |
| New Jersey..... | 4,520 | 8,400 | 10,000 | 755 | 1,062 | 1,150 | 1,178 | 1,889 | 1,242 |
| Tennessee..... | 720 | 2,260 | 1,400 | 50 | 264 | 147 | 62 | 248 | 206 |
| Total..... | 44,870 | 59,970 | 63,660 | 5,499 | 5,772 | 5,901 | 11,686 | 10,773 | 10,897 |

Division of Crop and Livestock Estimates.

¹ 1-bushel hampers.

TABLE 221.—*Beans, snap, for table consumption, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per hamper ¹ | | | | | | | |
|------------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | |
| Early: | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | |
| Alabama..... | 112 | 95 | 89 | 144 | 77 | 49 | 66 | 2.30 | 2.75 | 1.95 | 1.51 | 1.71 | 2.10 | 1.62 | |
| California..... | 267 | 308 | 358 | 175 | 352 | 225 | 215 | 1.60 | 1.60 | 1.54 | 2.88 | 3.87 | 1.05 | 1.75 | |
| Florida..... | 106 | 105 | 125 | 102 | 129 | 75 | 81 | 2.00 | 1.88 | 2.05 | 2.26 | 1.92 | 2.46 | 2.96 | |
| Georgia..... | 120 | 100 | 120 | 150 | 105 | 56 | 62 | 1.30 | 1.42 | 1.50 | 1.50 | 2.38 | 1.23 | 1.63 | |
| Louisiana..... | 163 | 178 | 165 | 78 | 70 | 88 | 74 | 2.36 | 2.23 | 2.75 | 1.58 | 2.56 | 2.74 | 1.26 | |
| Mississippi..... | 90 | 74 | 76 | 109 | 58 | 56 | 67 | 1.04 | 1.40 | 1.93 | 1.05 | 1.25 | 1.78 | 1.60 | |
| N. Carolina..... | 178 | 180 | 128 | 93 | 159 | 120 | 100 | 1.58 | 1.85 | 1.02 | 1.50 | 1.34 | .72 | 1.39 | |
| S. Carolina..... | 96 | 82 | 128 | 125 | 111 | 81 | 86 | 1.77 | 2.07 | 2.28 | 1.79 | 2.30 | 1.42 | 2.20 | |
| Texas..... | 198 | 138 | 170 | 58 | 94 | 119 | 77 | 2.38 | 2.50 | 1.75 | 1.00 | 2.67 | 2.47 | 1.52 | |
| Virginia..... | 178 | 182 | 175 | 198 | 72 | 129 | 114 | 2.04 | 2.12 | 1.81 | 1.00 | 2.25 | 1.85 | 1.74 | |
| Late: | | | | | | | | | | | | | | | |
| Illinois..... | | | | | 90 | 80 | 67 | | | | | 1.21 | 1.61 | 1.76 | |
| Maryland..... | 144 | 205 | 142 | 142 | 80 | 70 | 100 | 1.50 | 1.39 | 1.56 | 1.50 | 1.30 | 1.24 | .83 | |
| New Jersey..... | 144 | 181 | 121 | 120 | 167 | 130 | 115 | 1.39 | 1.45 | 1.40 | 2.18 | 1.56 | 1.73 | 1.08 | |
| Tennessee..... | 70 | 100 | 110 | 100 | 70 | 117 | 105 | 1.65 | 1.85 | 1.80 | .88 | 1.25 | .94 | 1.40 | |
| Average... | 137 | 154 | 149 | 113 | 123 | 96 | 93 | 1.76 | 1.74 | 1.85 | 1.88 | 2.13 | 1.87 | 1.85 | |

Division of Crop and Livestock Estimates.

¹ Average for season.

TABLE 222.—*Beans, snap, for canning, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|---------------------|--------------|--------------|--------------|-------------|-------------|-------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Arkansas..... | (1) | 660 | 1,020 | | 1,300 | 2,400 | | 65 | 120 |
| California..... | 1,060 | 620 | 700 | 3,700 | 1,700 | 1,400 | 247 | 106 | 112 |
| Colorado..... | 750 | 1,200 | 1,650 | 2,600 | 3,600 | 5,000 | 156 | 216 | 233 |
| Delaware..... | (1) | 240 | 870 | | 500 | 1,300 | | 22 | 63 |
| Indiana..... | (1) | 600 | 1,130 | | 600 | 2,700 | | 37 | 135 |
| Louisiana..... | 460 | 590 | 720 | 500 | 500 | 1,400 | 25 | 25 | 73 |
| Maine..... | 460 | 950 | 1,210 | 900 | 2,100 | 2,500 | 45 | 126 | 150 |
| Maryland..... | 950 | 2,600 | 2,950 | 2,500 | 2,800 | 4,400 | 130 | 170 | 264 |
| Michigan..... | 1,290 | 1,990 | 3,000 | 1,000 | 2,200 | 4,500 | 62 | 125 | 266 |
| Mississippi..... | (1) | 1,120 | 1,360 | | 1,100 | 1,400 | | 55 | 74 |
| New York..... | 4,570 | 5,900 | 6,370 | 9,100 | 13,000 | 15,900 | 741 | 1,110 | 1,359 |
| Oregon..... | 750 | 1,040 | 1,200 | 1,900 | 3,100 | 4,500 | 119 | 194 | 289 |
| Pennsylvania..... | 430 | 480 | 710 | 900 | 1,200 | 1,400 | 36 | 54 | 63 |
| South Carolina..... | (1) | 890 | 1,160 | | 1,100 | 2,900 | | 84 | 128 |
| Tennessee..... | 390 | 670 | 780 | 600 | 1,600 | 1,400 | 26 | 80 | 78 |
| Utah..... | 290 | 360 | 380 | 600 | 1,000 | 1,000 | 28 | 50 | 55 |
| Washington..... | 280 | 400 | 460 | 900 | 1,100 | 1,800 | 58 | 59 | 84 |
| Wisconsin..... | 2,830 | 3,400 | 3,610 | 5,700 | 3,700 | 7,200 | 358 | 263 | 527 |
| Other States..... | 1,900 | 1,420 | 1,700 | 3,400 | 2,100 | 2,600 | 175 | 114 | 136 |
| Total..... | 16,410 | 25,030 | 30,980 | 34,300 | 44,300 | 66,000 | 2,206 | 2,925 | 4,269 |

Division of Crop and Livestock Estimates.

¹ Included in other States.

TABLE 223.—*Beans, snap, for canning, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per ton | | | | | | |
|-----------------------------------|----------------|------|------|------|------|------|------|---------------|-------|-------|-------|-------|-------|-------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | Tons | Tons | Tons | Tons | Tons | Tons | Tons | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| Arkansas ¹ | | | | | | 2.0 | 2.4 | | | | | | 50.00 | 50.00 |
| California..... | 4.8 | 3.7 | 4.3 | 4.5 | 3.5 | 2.8 | 2.0 | 59.29 | 55.58 | 50.00 | 62.50 | 66.67 | 62.50 | 80.00 |
| Colorado..... | 4.1 | 2.4 | 3.3 | 2.5 | 3.5 | 3.0 | 3.0 | 53.33 | 65.00 | 50.00 | 56.67 | 60.00 | 60.00 | 56.67 |
| Delaware ¹ | | | | | | 2.2 | 1.5 | | | | | | 44.33 | 52.50 |
| Indiana ¹ | | | | | | 1.0 | 2.4 | | | | | | 61.33 | 50.00 |
| Louisiana..... | 3.0 | 1.8 | 2.0 | 2.0 | 1.0 | .8 | 2.0 | 40.00 | 40.00 | 48.00 | 45.00 | 50.00 | 50.00 | 52.50 |
| Maine..... | 2.3 | 1.4 | 2.0 | 2.0 | 2.0 | 2.2 | 2.1 | 61.67 | 60.00 | 50.00 | 50.00 | 50.00 | 60.00 | 60.00 |
| Maryland..... | 2.2 | 2.7 | 2.5 | 2.0 | 2.6 | 1.1 | 1.5 | 58.70 | 60.83 | 60.00 | 52.50 | 52.12 | 50.62 | 59.91 |
| Michigan..... | 1.0 | 1.0 | .8 | 1.2 | .8 | 1.1 | 1.5 | 74.17 | 64.38 | 70.00 | 55.50 | 62.50 | 57.00 | 59.00 |
| Mississippi ¹ | | | | | | 1.0 | 1.0 | | | | | | 50.00 | 52.50 |
| New York..... | 2.2 | 2.0 | 2.4 | 2.0 | 2.0 | 2.2 | 2.5 | 51.54 | 67.00 | 67.23 | 72.00 | 81.39 | 85.41 | 85.46 |
| Oregon..... | 3.3 | 2.6 | 3.2 | 2.5 | 2.5 | 3.0 | 4.0 | 53.33 | 58.96 | 56.67 | 61.67 | 62.50 | 62.50 | 60.18 |
| Pennsylvania..... | 2.4 | 1.4 | 2.2 | 2.0 | 2.0 | 2.6 | 2.0 | 57.09 | 57.49 | 57.43 | 40.00 | 40.00 | 45.00 | 48.75 |
| South Carolina ¹ | | | | | | 1.2 | 2.5 | | | | | | 49.38 | 44.00 |
| Tennessee..... | 2.2 | 2.8 | 2.0 | 2.0 | 1.6 | 2.4 | 1.8 | 46.60 | 56.06 | 55.00 | 37.78 | 43.33 | 50.00 | 50.00 |
| Utah..... | 3.5 | 3.2 | 3.0 | 2.0 | 2.0 | 2.9 | 2.5 | 53.33 | 60.00 | 55.00 | 47.50 | 46.88 | 50.00 | 54.62 |
| Washington..... | 3.1 | 2.6 | 3.0 | 4.3 | 3.3 | 2.7 | 4.0 | 55.00 | 45.00 | 60.00 | 51.67 | 64.17 | 54.00 | 46.67 |
| Wisconsin..... | 2.4 | 1.9 | 1.9 | 3.0 | 2.0 | 1.1 | 2.0 | 57.09 | 74.17 | 73.00 | 55.00 | 62.86 | 71.00 | 73.19 |
| Other States..... | 3.0 | 1.8 | 2.0 | 2.0 | 1.8 | 1.5 | 1.5 | 50.98 | 53.89 | 53.80 | 54.04 | 51.35 | 54.44 | 52.17 |
| Average..... | 2.5 | 2.0 | 2.3 | 2.4 | 2.1 | 1.8 | 2.1 | 55.32 | 62.87 | 60.79 | 58.74 | 64.31 | 66.03 | 64.68 |

Division of Crop and Livestock Estimates.

¹ Included in other States previous to 1924.TABLE 224.—*Beans, snap: Car-lot shipments by State of origin, 1920-1925*

| State | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---------------------|-------|-------|-------|-------|-------|-------------------|
| | Cars | Cars | Cars | Cars | Cars | Cars |
| New York..... | 43 | 28 | 11 | 33 | 81 | 68 |
| New Jersey..... | 90 | 111 | 68 | 15 | 100 | 47 |
| Maryland..... | 159 | 22 | 149 | 49 | 136 | 128 |
| Virginia..... | 155 | 79 | 268 | 101 | 899 | 626 |
| North Carolina..... | 133 | 128 | 219 | 261 | 559 | 480 |
| South Carolina..... | 142 | 331 | 508 | 585 | 517 | 311 |
| Florida..... | 547 | 407 | 750 | 1,848 | 1,063 | 1,952 |
| Tennessee..... | 20 | 23 | 63 | 81 | 248 | 84 |
| Mississippi..... | 105 | 79 | 252 | 47 | 85 | 88 |
| Louisiana..... | 35 | 202 | 90 | 107 | 439 | 679 |
| Texas..... | 7 | 39 | 26 | 86 | 210 | 417 |
| Other States..... | 37 | 151 | 232 | 113 | 251 | 241 |
| Total..... | 1,473 | 1,600 | 2,631 | 3,328 | 4,618 | 5,121 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Preliminary.

CABBAGE

TABLE 225.—Cabbage, commercial crop: Acreage, production, and total value, by States, 1923-1925¹

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|---|--------------|--------------|--------------|-------------|-------------|-------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Early: | | | | | | | | | |
| California..... | 5,300 | 5,070 | 6,000 | 37,100 | 35,200 | 42,000 | 1,581 | 1,361 | 788 |
| Florida..... | 2,050 | 4,920 | 4,610 | 16,400 | 41,800 | 29,500 | 764 | 1,590 | 920 |
| Louisiana..... | 1,640 | 2,480 | 3,880 | 7,400 | 12,300 | 21,900 | 414 | 637 | 512 |
| Texas..... | 4,440 | 10,720 | 14,460 | 22,200 | 107,200 | 76,600 | 710 | 2,344 | 915 |
| Second early: | | | | | | | | | |
| Alabama..... | 2,250 | 1,200 | 3,000 | 16,900 | 7,800 | 15,000 | 841 | 303 | 408 |
| Georgia..... | 220 | 220 | 210 | 1,200 | 1,300 | 1,200 | 43 | 40 | 25 |
| Mississippi..... | 4,770 | 8,380 | 2,820 | 16,700 | 14,500 | 11,000 | 812 | 762 | 301 |
| North Carolina..... | 440 | 640 | 620 | 3,300 | 3,200 | 5,000 | 99 | 193 | 128 |
| South Carolina..... | 3,450 | 2,610 | 3,600 | 29,700 | 15,700 | 34,200 | 2,300 | 628 | 787 |
| Virginia (Eastern Shore and Norfolk)..... | 3,750 | 4,000 | 3,700 | 22,500 | 32,000 | 27,400 | 622 | 1,177 | 855 |
| Intermediate: | | | | | | | | | |
| Illinois..... | 1,400 | 1,400 | 1,400 | 7,000 | 11,200 | 8,400 | 118 | 190 | 420 |
| Iowa..... | 1,200 | 1,080 | 780 | 6,000 | 8,100 | 3,900 | 110 | 87 | 124 |
| Kentucky..... | 800 | 360 | 240 | 1,500 | 2,300 | 1,700 | 45 | 58 | 76 |
| Maryland..... | 2,050 | 890 | 800 | 12,300 | 7,100 | 4,800 | 402 | 176 | 175 |
| Missouri..... | 800 | 750 | 750 | 4,800 | 4,800 | 5,000 | 135 | 136 | 294 |
| New Jersey..... | 4,100 | 4,000 | 3,000 | 22,600 | 20,600 | 15,600 | 888 | 639 | 624 |
| New Mexico..... | 300 | 200 | 120 | 2,100 | 1,200 | 800 | 105 | 46 | 33 |
| New York (Long Island)..... | 4,200 | 4,200 | 3,160 | 29,400 | 29,400 | 26,500 | 486 | 644 | 727 |
| Ohio (Washington County)..... | 550 | 700 | 650 | 4,100 | 4,900 | 5,200 | 132 | 122 | 234 |
| Tennessee..... | 1,200 | 800 | 820 | 8,400 | 6,400 | 4,900 | 218 | 111 | 102 |
| Virginia (southwest)..... | 2,620 | 2,750 | 3,000 | 18,300 | 21,700 | 15,000 | 413 | 310 | 1,041 |
| Washington..... | 800 | 1,060 | 1,120 | 7,100 | 8,500 | 12,800 | 414 | 377 | 552 |
| Late: | | | | | | | | | |
| Colorado..... | 5,270 | 4,010 | 2,000 | 75,400 | 44,100 | 23,000 | 558 | 419 | 542 |
| Indiana..... | 1,300 | 1,780 | 1,320 | 13,000 | 13,700 | 9,500 | 177 | 88 | 78 |
| Michigan..... | 2,250 | 8,290 | 2,610 | 32,200 | 32,500 | 24,600 | 800 | 243 | 289 |
| Minnesota..... | 3,840 | 2,720 | 3,890 | 25,100 | 25,800 | 26,800 | 304 | 196 | 552 |
| New York (except Long Island)..... | 22,680 | 28,880 | 22,220 | 170,100 | 266,500 | 233,300 | 2,826 | 1,564 | 2,977 |
| Ohio (except Washington County)..... | 4,020 | 4,060 | 3,000 | 36,200 | 39,800 | 27,000 | 370 | 534 | 280 |
| Oregon..... | 830 | 920 | 920 | 4,200 | 6,000 | 3,700 | 148 | 150 | 92 |
| Pennsylvania..... | 2,760 | 920 | 900 | 18,800 | 8,300 | 9,000 | 329 | 76 | 256 |
| Wisconsin..... | 13,480 | 12,630 | 12,800 | 128,100 | 119,100 | 125,400 | 1,266 | 1,060 | 1,292 |
| Total..... | 104,880 | 108,670 | 107,960 | 805,700 | 961,700 | 851,800 | 17,939 | 16,349 | 16,390 |

Division of Crop and Livestock Estimates.

¹ Includes sauerkraut.

TABLE 226.—Cabbage for sauerkraut, commercial crop: Acreage, production, and total value, by States, 1923-1925

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-------------------|--------------|--------------|--------------|-------------|-------------|-------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>1,000 Dollars</i> | <i>1,000 Dollars</i> | <i>1,000 Dollars</i> |
| Colorado..... | 380 | 90 | 100 | 5,800 | 1,000 | 1,800 | 46 | 8 | 10 |
| Illinois..... | 490 | 730 | 420 | 5,900 | 5,800 | 3,400 | 55 | 41 | 26 |
| Indiana..... | 1,120 | 460 | 220 | 12,300 | 3,700 | 1,500 | 100 | 26 | 10 |
| Michigan..... | 1,970 | 1,810 | 1,180 | 20,700 | 13,000 | 11,900 | 178 | 82 | 78 |
| Minnesota..... | 410 | 460 | 420 | 3,000 | 5,000 | 4,200 | 21 | 25 | 29 |
| New York..... | 5,000 | 3,060 | 2,170 | 43,500 | 44,400 | 26,700 | 499 | 370 | 172 |
| Ohio..... | 3,060 | 1,810 | 1,410 | 28,700 | 18,100 | 12,700 | 305 | 136 | 104 |
| Washington..... | 300 | 280 | 830 | 3,100 | 2,300 | 4,000 | 37 | 31 | 40 |
| Wisconsin..... | *3,680 | 2,840 | 1,970 | 37,600 | 23,900 | 19,700 | 816 | 212 | 133 |
| Other States..... | 1,060 | 460 | 460 | 6,100 | 4,000 | 4,400 | 55 | 37 | 58 |
| Total..... | 17,610 | 11,210 | 8,690 | 166,600 | 121,200 | 89,800 | 1,582 | 858 | 660 |

Division of Crop and Livestock Estimates.

TABLE 227.—Cabbage, commercial crop: Yield per acre and price, 1919-1925¹

| State | Yield per acre | | | | | | | Price per ton ² | | | | | | |
|---|----------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| California..... | 4.0 | 7.1 | 7.0 | 6.0 | 7.0 | 6.2 | 7.0 | 36.00 | 18.47 | 13.84 | 26.33 | 42.62 | 38.60 | 18.76 |
| Florida..... | 6.0 | 6.8 | 6.0 | 7.0 | 8.0 | 8.5 | 6.4 | 35.20 | 42.40 | 28.60 | 21.96 | 46.57 | 38.03 | 31.20 |
| Louisiana..... | 4.0 | 8.2 | 6.4 | 6.0 | 4.5 | 5.0 | 5.5 | 52.50 | 40.20 | 13.42 | 20.00 | 55.96 | 51.76 | 23.40 |
| Texas..... | 5.0 | 4.8 | 4.0 | 8.0 | 5.0 | 10.0 | 5.3 | 41.73 | 29.70 | 7.21 | 9.72 | 31.99 | 21.87 | 11.94 |
| Second early: | | | | | | | | | | | | | | |
| Alabama..... | 7.0 | 7.8 | 8.0 | 8.5 | 7.5 | 6.5 | 5.0 | 37.00 | 39.00 | 27.76 | 22.20 | 49.76 | 50.34 | 27.20 |
| Georgia..... | 7.0 | 7.8 | 7.0 | 6.0 | 5.5 | 6.0 | 5.7 | 47.00 | 37.33 | 35.50 | 25.28 | 35.87 | 30.76 | 20.99 |
| Mississippi..... | 5.5 | 8.4 | 0.0 | 6.0 | 3.5 | 4.3 | 3.9 | 37.20 | 34.20 | 39.47 | 20.00 | 48.60 | 52.57 | 27.40 |
| North Carolina..... | 3.5 | 7.5 | 6.5 | 6.0 | 7.5 | 5.0 | 8.1 | 80.00 | 60.00 | 30.00 | 34.40 | 30.00 | 60.46 | 25.60 |
| South Carolina..... | 7.5 | 7.4 | 9.7 | 7.5 | 11.5 | 6.0 | 9.5 | 71.45 | 53.82 | 24.00 | 23.47 | 57.93 | 40.00 | 23.00 |
| Virginia (East- ern Shore and Norfolk)..... | 6.5 | 5.8 | 8.8 | 8.0 | 6.0 | 8.0 | 7.4 | 32.42 | 40.44 | 35.10 | 29.21 | 27.66 | 36.79 | 31.20 |
| Intermediate: | | | | | | | | | | | | | | |
| Illinois..... | 5.0 | 8.1 | 5.0 | 8.0 | 8.0 | 8.0 | 6.0 | 19.10 | 18.15 | 26.64 | 6.39 | 16.92 | 17.76 | 50.00 |
| Iowa..... | 4.5 | 8.0 | 5.0 | 8.0 | 5.5 | 7.5 | 5.0 | 36.00 | 34.00 | 37.19 | 9.36 | 16.69 | 10.70 | 31.81 |
| Kentucky..... | 8.0 | 6.6 | 6.0 | 6.0 | 6.0 | 6.5 | 7.0 | 25.00 | 25.00 | 21.99 | 21.00 | 30.00 | 25.00 | 45.00 |
| Maryland..... | 8.0 | 5.8 | 4.8 | 5.0 | 6.0 | 8.0 | 6.0 | 26.00 | 18.00 | 24.70 | 14.67 | 32.71 | 24.83 | 36.53 |
| Missouri..... | 8.0 | 8.0 | 8.1 | 7.0 | 6.0 | 6.0 | 8.0 | 41.67 | 43.57 | 44.79 | 30.00 | 28.12 | 28.10 | 49.00 |
| New Jersey..... | 7.5 | 8.1 | 6.5 | 8.0 | 8.5 | 7.4 | 5.2 | 29.37 | 21.27 | 18.65 | 21.80 | 39.75 | 21.60 | 40.00 |
| New Mexico..... | 7.0 | 6.0 | 8.0 | 9.0 | 7.0 | 6.0 | 7.0 | 20.00 | 26.00 | 28.00 | 22.57 | 50.22 | 38.64 | 41.25 |
| New York (Long Island)..... | 7.5 | 9.0 | 7.8 | 9.2 | 7.0 | 7.0 | 8.4 | 20.10 | 17.16 | 31.80 | 15.51 | 16.53 | 21.89 | 27.45 |
| Ohio (Washing- ton County)..... | 7.0 | 8.0 | 9.0 | 8.2 | 7.5 | 7.0 | 8.0 | 50.00 | 65.00 | 45.00 | 20.50 | 32.22 | 25.00 | 45.00 |
| Tennessee..... | 6.0 | 4.0 | 6.1 | 7.0 | 7.0 | 8.0 | 6.0 | 26.20 | 37.40 | 32.00 | 19.60 | 25.97 | 17.34 | 20.74 |
| Virginia (south- west)..... | 7.5 | 12.2 | 6.0 | 9.0 | 7.0 | 7.9 | 5.2 | 31.71 | 18.54 | 42.50 | 17.59 | 22.58 | 14.29 | 66.73 |
| Washington..... | 10.0 | 10.2 | 8.0 | 9.0 | 8.0 | 8.0 | 11.0 | 53.33 | 22.40 | 44.27 | 24.07 | 58.27 | 44.34 | 44.87 |
| Late: | | | | | | | | | | | | | | |
| Colorado..... | 10.0 | 15.1 | 11.7 | 12.0 | 14.3 | 11.0 | 11.5 | 20.00 | 9.04 | 24.55 | 4.27 | 7.40 | 9.50 | 23.57 |
| Indiana..... | 6.3 | 9.8 | 6.0 | 7.0 | 10.0 | 7.9 | 7.2 | 25.80 | 25.75 | 32.89 | 10.21 | 13.61 | 6.42 | 8.21 |
| Michigan..... | 6.8 | 10.7 | 6.5 | 11.0 | 9.8 | 9.6 | 9.8 | 15.00 | 14.78 | 22.73 | 5.65 | 9.33 | 7.48 | 11.75 |
| Minnesota..... | 8.0 | 8.9 | 8.0 | 9.0 | 7.5 | 9.5 | 7.9 | 19.74 | 21.19 | 22.50 | 5.75 | 12.12 | 7.56 | 20.60 |
| New York (ex- cept Long Island)..... | 6.5 | 11.6 | 6.5 | 9.0 | 7.5 | 11.4 | 10.5 | 16.75 | 8.67 | 25.24 | 6.44 | 16.61 | 5.87 | 12.76 |
| Ohio (except Washington County)..... | 7.0 | 9.9 | 5.7 | 8.3 | 9.0 | 9.8 | 9.0 | 22.67 | 20.00 | 18.33 | 15.14 | 10.21 | 13.42 | 10.37 |
| Oregon..... | 11.0 | 7.7 | 9.5 | 7.0 | 5.0 | 6.5 | 4.0 | 32.50 | 20.00 | 30.00 | 25.00 | 35.18 | 25.00 | 24.86 |
| Pennsylvania..... | 8.0 | 10.3 | 6.0 | 8.0 | 5.0 | 9.0 | 10.0 | 20.00 | 12.00 | 31.55 | 15.22 | 23.94 | 9.16 | 28.44 |
| Wisconsin..... | 7.2 | 10.0 | 6.0 | 11.0 | 9.5 | 8.8 | 9.8 | 18.57 | 8.51 | 23.61 | 4.97 | 9.88 | 8.90 | 10.30 |
| Average..... | 6.7 | 8.9 | 6.6 | 8.1 | 7.7 | 8.8 | 7.9 | 25.48 | 17.90 | 24.60 | 12.20 | 22.27 | 17.00 | 19.25 |

Division of Crop and Livestock Estimates.

¹ Includes sauerkraut.² Average for season.

TABLE 228.—Cabbage for sauerkraut, commercial crop: Yield per acre and price per ton, 1919-1925

| State | Yield per acre | | | | | | | Price per ton | | | | | | |
|-------------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Colorado..... | 11.4 | 14.2 | 11.7 | 12.0 | 15.3 | 11.0 | 13.0 | 15.00 | 8.00 | 13.00 | 12.65 | 8.00 | 8.00 | 8.00 |
| Illinois..... | 4.3 | 7.0 | 4.8 | 7.7 | 12.0 | 8.0 | 8.0 | 14.62 | 15.69 | 20.83 | 7.45 | 9.33 | 7.00 | 7.75 |
| Indiana..... | 6.0 | 7.0 | 8.0 | 11.0 | 8.0 | 7.0 | 8.0 | 7.50 | 6.90 | 8.12 | 7.00 | 7.00 | 7.00 | 7.00 |
| Michigan..... | 5.7 | 8.0 | 10.0 | 12.0 | 10.5 | 9.9 | 10.0 | 8.78 | 7.65 | 12.45 | 6.41 | 8.58 | 6.33 | 6.58 |
| Minnesota..... | 6.2 | 4.9 | 7.0 | 10.0 | 7.4 | 10.8 | 10.0 | 10.50 | 10.00 | 7.16 | 7.00 | 7.00 | 5.00 | 7.00 |
| New York..... | 6.1 | 8.8 | 8.0 | 10.0 | 8.7 | 14.5 | 12.3 | 12.00 | 10.46 | 13.64 | 7.05 | 10.79 | 6.07 | 6.45 |
| Ohio..... | 5.6 | 7.5 | 8.3 | 11.0 | 9.3 | 10.0 | 9.0 | 12.83 | 8.36 | 14.34 | 5.29 | 10.61 | 7.50 | 8.20 |
| Washington..... | 11.2 | 11.3 | 8.0 | 14.5 | 8.0 | 8.0 | 12.0 | 15.15 | 12.00 | 16.00 | 10.00 | 12.00 | 9.00 | 10.00 |
| Wisconsin..... | 7.3 | 8.6 | 10.6 | 11.0 | 10.2 | 9.4 | 10.0 | 9.59 | 7.64 | 14.31 | 5.30 | 8.43 | 8.89 | 6.75 |
| Other States..... | 7.2 | 6.6 | 11.4 | 8.2 | 6.5 | 8.7 | 9.5 | 11.30 | 14.50 | 16.76 | 9.75 | 9.75 | 9.33 | 13.24 |
| Average..... | 6.1 | 8.1 | 9.0 | 10.3 | 9.5 | 10.8 | 10.3 | 11.27 | 9.49 | 13.51 | 6.60 | 9.50 | 7.08 | 7.95 |

Division of Crop and Livestock Estimates.

TABLE 229.—Cabbage: Car-lot shipments by State of origin, January, 1920–April, 1925

| State | Crop movement season ¹ | | | | |
|-----------------------------------|-----------------------------------|-------------|---------------------|-------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York..... | 9,511 | 9,310 | ³ 10,274 | 9,086 | 11,816 |
| Pennsylvania..... | 239 | 301 | 406 | 317 | 409 |
| Ohio..... | 524 | 318 | 589 | 538 | 658 |
| Illinois..... | 156 | 167 | 144 | 289 | 279 |
| Michigan..... | 698 | 477 | 908 | 732 | 644 |
| Wisconsin..... | 4,766 | 2,908 | 5,875 | 6,415 | 4,955 |
| Minnesota..... | 895 | 592 | 1,192 | 989 | 1,552 |
| Iowa..... | 373 | 150 | 566 | 390 | 541 |
| Maryland..... | 219 | 325 | 448 | 220 | 509 |
| Virginia..... | 1,542 | 3,541 | 2,946 | 3,343 | 3,390 |
| North Carolina..... | 49 | 251 | 213 | 364 | 263 |
| South Carolina ⁴ | 904 | 3,247 | 3,235 | 4,299 | 1,530 |
| Florida ⁴ | 4,579 | 1,619 | 2,998 | 1,172 | 3,842 |
| Kentucky..... | 112 | 103 | 73 | 85 | 107 |
| Tennessee..... | 136 | 181 | 563 | 270 | 348 |
| Alabama ⁴ | 379 | 1,001 | 1,364 | 1,564 | 908 |
| Mississippi..... | 878 | 509 | 1,629 | 1,134 | 605 |
| Louisiana ⁴ | 254 | 313 | 334 | 456 | 103 |
| Texas ⁴ | 5,180 | 1,847 | 4,049 | 1,356 | 7,281 |
| Colorado..... | 1,832 | 2,523 | 1,964 | 3,174 | 1,473 |
| Washington..... | 114 | 170 | 104 | 155 | 52 |
| California..... | 1,424 | 882 | 738 | 683 | 370 |
| Other States..... | 303 | 358 | 520 | 474 | 429 |
| Total ⁴ | 35,027 | 31,033 | ⁴ 41,132 | 37,505 | 42,064 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season for cabbage becomes important in the South in January and continues for 16 months ending in April with final shipments from northern points.

² Preliminary.

³ New York includes 1 car in May, 1923.

⁴ Figures for certain States include in the January shipments, cars moved in preceding calendar year as follows—1920: Florida, 10 cars in December; Louisiana, 4 cars in December; Texas, 2 cars in November, 23 in December. 1921: Florida, 1 car in October, 1 in November, 13 in December; South Carolina, 2 cars in December; Texas, 25 cars in December. 1922: Alabama, 1 car in December; Florida, 15 cars in December; South Carolina, 1 car in November, 32 in December; Texas, 4 cars in November, 110 in December. 1923: Alabama, 3 cars in December; Florida, 19 cars in December; Louisiana, 2 cars in November, 13 in December; South Carolina, 11 cars in November, 152 in December; Texas, 22 cars in November, 39 in December. 1924: Florida, 72 cars in December; Louisiana, 1 car in November, 7 in December; South Carolina, 24 cars in November, 167 in December; Texas, 9 cars in November, 64 in December.

TABLE 230.—Cabbage, Danish: Monthly range and average l. c. l. price per ion¹ to jobbers at eight markets, 1918-1925

| Market. Season beginning October: ² | October | | November | | December | | January | | February | | March | |
|---|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
| | Range | Average | Range | Average | Range | Average | Range | Average | Range | Average | Range | Average |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Chicago: | | | | | | | | | | | | |
| 1918. | 22-30 | 25.82 | 25-35 | 33.64 | 60-80 | 68.00 | 18-42 | 28.00 | 20-46 | 28.48 | 35-50 | 41.72 |
| 1919. | 8-13 | 11.15 | 8-15 | 11.09 | 12-17 | 14.15 | 75-115 | 96.56 | 50-110 | 70.17 | 11-16 | 14.10 |
| 1920. | 40-45 | 41.86 | 40-45 | 47.03 | 45-60 | 52.43 | 12-25 | 18.25 | 8-17 | 14.07 | | |
| 1921. | | | | | | | 28-55 | 44.20 | 30-43 | 36.60 | | |
| 1922. | 15-22 | 16.60 | 20-26 | 24.20 | 20-26 | 22.60 | 22-40 | 30.20 | 38-75 | 48.00 | 34-70 | 60.20 |
| 1923. | | | 10-24 | 17.00 | 20-20 | 22.60 | 28-40 | 33.20 | 27-40 | 32.00 | | |
| 1924. | | | | | 25-40 | 30.20 | 30-33 | 30.85 | 25-30 | 28.00 | | |
| 1925. | 20-25 | 22.40 | 35-55 | 40.00 | 35-50 | 42.25 | | | | | 20-30 | 25.68 |
| Cincinnati: | | | | | | | | | | | | |
| 1918. | 30-50 | 40.55 | 35-55 | 45.00 | 60-85 | 75.67 | 20-40 | 32.42 | 27-40 | 34.14 | 40-70 | 46.16 |
| 1919. | 10-25 | 18.78 | 10-28 | 19.23 | 8-18 | 12.83 | 12-30 | 19.25 | 65-125 | 99.62 | | |
| 1920. | 30-50 | 43.10 | 28-53 | 42.74 | 50-60 | 55.12 | 30-65 | 51.80 | 17-25 | 20.30 | 7-25 | 16.62 |
| 1921. | 19-28 | 24.20 | 10-20 | 14.20 | 18-30 | 26.20 | 17-40 | 25.20 | 35-50 | 46.40 | | |
| 1922. | 25-38 | 31.60 | 18-30 | 23.20 | 16-35 | 27.90 | 25-45 | 36.00 | 37-70 | 46.20 | 50-75 | 63.60 |
| 1923. | 18-25 | 22.30 | 10-30 | 18.60 | 17-32 | 22.00 | 22-35 | 25.20 | 35-60 | 40.40 | 30-80 | 51.00 |
| 1924. | | | 25-40 | 32.92 | 30-55 | 39.69 | | | 15-30 | 25.00 | 12-25 | 18.40 |
| 1925. | | | | | | | | | | | | |
| Kansas City: | | | | | | | | | | | | |
| 1918. | 1.50-2.35 | 1.97 | 1.50-3.00 | 1.92 | 2.50-4.50 | 3.90 | 1.00-3.00 | 2.09 | 1.25-2.50 | 1.84 | 2.50-5.00 | 3.13 |
| 1919. | 1.00-2.00 | 1.42 | 1.75-1.00 | .84 | 2.75-1.25 | 1.00 | 2.50-1.75 | 3.39 | 4.00-1.50 | 4.18 | | |
| 1920. | 1.50-2.50 | 2.06 | 1.75-3.25 | 2.61 | 2.00-3.50 | 3.10 | 2.00-3.00 | 3.35 | 2.75-2.75 | 2.75 | .50-1.00 | .78 |
| 1921. | 60-1.25 | 1.06 | .60-.85 | .73 | 1.75-1.50 | 1.22 | 1.25-5.00 | 1.62 | 2.00-4.00 | 2.83 | | |
| 1922. | .90-1.50 | 1.13 | .90-1.50 | 1.17 | 1.00-1.50 | 1.24 | 1.25-5.00 | 2.22 | 1.50-2.25 | 1.89 | 3.25-5.00 | 3.84 |
| 1923. | | | .75-1.25 | 1.01 | 1.25-1.75 | 1.37 | 1.50-1.75 | 1.71 | 1.60-1.75 | 1.68 | 1.50-2.25 | 1.97 |
| 1924. | | | 1.75-2.00 | 1.79 | 1.75-3.00 | 2.51 | | | | | 1.60-1.75 | 1.66 |
| 1925. | | | | | | | | | | | | |
| New York: | | | | | | | | | | | | |
| 1918. | 1918 | 37.94 | 1918 | 71.67 | 1918 | 108.67 | 15-40 | 27.73 | 18-45 | 27.07 | 35-65 | 42.36 |
| 1919. | 1919 | 15.64 | 1919 | 15.21 | 1919 | 15.21 | 15-40 | 16.67 | 75-115 | 87.40 | 90-110 | 98.33 |
| 1920. | 1920 | 15.64 | 1920 | 15.21 | 1920 | 15.21 | 14-25 | 18.67 | 12-18 | 14.50 | 12-20 | 15.06 |
| 1921. | 1921 | 15.64 | 1921 | 15.21 | 1921 | 15.21 | 45-58 | 42.00 | 35-45 | 40.40 | 35-50 | 42.40 |
| 1922. | 1922 | 15.64 | 1922 | 15.21 | 1922 | 15.21 | 20-33 | 26.69 | 32-60 | 41.60 | 45-70 | 63.20 |
| 1923. | 1923 | 15.64 | 1923 | 15.21 | 1923 | 15.21 | 22-35 | 33.20 | 28-75 | 39.40 | 35-75 | 48.80 |
| 1924. | 1924 | 15.64 | 1924 | 15.21 | 1924 | 15.21 | 22-35 | 28.80 | 8-38 | 22.60 | 10-25 | 15.40 |
| 1925. | 1925 | 15.64 | 1925 | 15.21 | 1925 | 15.21 | | | | | | |
| Philadelphia: | | | | | | | | | | | | |
| 1918. | 1918 | 33.05 | 1918 | 74.00 | 1918 | 108.67 | 15-40 | 27.73 | 18-45 | 27.07 | 35-65 | 42.36 |
| 1919. | 1919 | 15.64 | 1919 | 15.21 | 1919 | 15.21 | 14-25 | 18.67 | 75-115 | 87.40 | 90-110 | 98.33 |
| 1920. | 1920 | 15.64 | 1920 | 15.21 | 1920 | 15.21 | 14-25 | 18.67 | 12-18 | 14.50 | 12-20 | 15.06 |
| 1921. | 1921 | 15.64 | 1921 | 15.21 | 1921 | 15.21 | 45-58 | 42.00 | 35-45 | 40.40 | 35-50 | 42.40 |
| 1922. | 1922 | 15.64 | 1922 | 15.21 | 1922 | 15.21 | 20-33 | 26.69 | 32-60 | 41.60 | 45-70 | 63.20 |
| 1923. | 1923 | 15.64 | 1923 | 15.21 | 1923 | 15.21 | 22-35 | 33.20 | 28-75 | 39.40 | 35-75 | 48.80 |
| 1924. | 1924 | 15.64 | 1924 | 15.21 | 1924 | 15.21 | 22-35 | 28.80 | 8-38 | 22.60 | 10-25 | 15.40 |
| 1925. | 1925 | 15.64 | 1925 | 15.21 | 1925 | 15.21 | | | | | | |

| | | | | | | | | | | | | |
|-------------|---------|-------|---------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| 1923. | 20-38 | 22.40 | 15-25 | 10.00 | 15-25 | 25.40 | 25-43 | 32.80 | 25-55 | 42.80 | 35-65 | 50.40 |
| 1924. | 10-20 | 13.40 | 8-23 | 14.60 | 12-25 | 17.20 | 15-40 | 26.60 | 10-40 | 22.00 | 8-16 | 12.20 |
| 1925. | 12-26 | 19.67 | 16-35 | 26.77 | 28-50 | 33.50 | | | | | | |
| Pittsburgh: | | | | | | | | | | | | |
| 1918. | | | | | | | | | | | | |
| 1919. | 15-27 | 22.50 | 12-30 | 18.69 | 12-17 | 16.00 | 60-120 | 113.24 | 720-35 | 128.14 | 125-60 | 138.64 |
| 1920. | 7 28-37 | 18.21 | 7 30-33 | 14.07 | 12-17 | 14.00 | 16-30 | 20.67 | 60-110 | 96.60 | | |
| 1921. | 18-30 | 22.28 | 8-20 | 15.40 | 45-55 | 52.91 | 45-63 | 61.60 | 13-20 | 15.92 | 10-16 | 13.11 |
| 1922. | 28-40 | 30.20 | 15-28 | 22.00 | 19-50 | 21.40 | 16-30 | 23.00 | 33-65 | 44.20 | 35-55 | 47.20 |
| 1923. | 12-22 | 17.00 | 11-22 | 16.40 | 22-32 | 26.80 | 25-40 | 31.60 | 25-70 | 41.20 | 50-90 | 63.20 |
| 1924. | 15-26 | 21.50 | 22-35 | 26.76 | 12-25 | 17.60 | 20-35 | 26.20 | 25-80 | 42.80 | 35-80 | 48.00 |
| 1925. | | | | | 25-50 | 33.41 | | | 13-35 | 24.60 | 40-38 | 27.60 |
| St. Louis: | | | | | | | | | | | | |
| 1918. | | | | | | | | | | | | |
| 1919. | 28-44 | 34.50 | 24-40 | 23.94 | 50-75 | 68.00 | 18-60 | 36.24 | 15-40 | 27.75 | 25-65 | 43.80 |
| 1920. | 13-40 | 24.87 | 8-20 | 16.68 | 10-23 | 18.17 | 90-125 | 112.86 | 80-120 | 102.92 | | |
| 1921. | 32-53 | 43.94 | 35-50 | 44.70 | 45-60 | 53.97 | 10-40 | 22.14 | 15-25 | 19.60 | | |
| 1922. | | | | | 17-35 | 26.00 | 46-60 | 51.40 | | | | |
| 1923. | 13-30 | 20.00 | 12-30 | 21.60 | 20-30 | 27.80 | 20-35 | 27.40 | 40-85 | 56.80 | 35-90 | 60.40 |
| 1924. | 15-30 | 21.64 | 10-25 | 17.80 | 15-40 | 24.00 | 26-60 | 42.80 | 30-65 | 41.20 | 35-60 | 45.20 |
| 1925. | | | 25-50 | 34.80 | 30-60 | 43.11 | 25-35 | 30.60 | 20-35 | 28.80 | 25-30 | 27.60 |
| Washington: | | | | | | | | | | | | |
| 1923. | 35-40 | 37.60 | 25-40 | 28.90 | 20-25 | 33.00 | 30-45 | 38.60 | 40-45 | 41.20 | | |
| 1924. | 25-30 | 26.60 | 16-25 | 20.40 | 25-50 | 26.80 | 35-50 | 40.20 | 30-35 | 33.60 | | |
| 1925. | 25-35 | 31.24 | 30-40 | 35.00 | 40-60 | 43.72 | | | | | | |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division. Average prices as shown are based on stock of good merchantable quality and condition; they are simple averages of daily range of selling prices. In some cases conversions have been made from larger to smaller units or vice versa, in order to obtain comparability.

- † Unless otherwise stated, quotations are on bulk per ton sales.
- ‡ The season during which Danish cabbage prices are obtainable usually runs from October to March of the following year.
- § Sacked per ton delivered.
- ¶ Converted from hundredweight prices.
- * Bulk per hundredweight.
- Converted from ton prices.
- † Quar-lot sales.

TABLE 231.—*Cabbage: Estimated price per 100 pounds, received by producers, of United States, 1910-1925*

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted average |
|---------------------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|---------|------------------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1910..... | 2.27 | 1.89 | 1.94 | 1.58 | 1.36 | 1.49 | 1.56 | 1.48 | 1.26 | 1.33 | 1.38 | 2.46 | 1.67 |
| 1911..... | 2.93 | 2.47 | 1.94 | 1.58 | 1.51 | 1.83 | 1.89 | 2.24 | 2.88 | 3.17 | 2.98 | 2.67 | 2.23 |
| 1912..... | 2.29 | 1.88 | 1.25 | 1.08 | 1.04 | 1.16 | 1.26 | 1.19 | 1.03 | 1.16 | 1.58 | 2.18 | 1.28 |
| 1913..... | 2.64 | 2.16 | 1.79 | 1.69 | 1.68 | 1.75 | 1.87 | 2.07 | 2.03 | 2.24 | 2.06 | 2.61 | 1.95 |
| Av. 1910-1913..... | 2.53 | 2.10 | 1.73 | 1.48 | 1.37 | 1.56 | 1.64 | 1.74 | 1.80 | 1.97 | 2.00 | 2.48 | 1.76 |
| 1914..... | 2.66 | 1.74 | 1.50 | 1.31 | 1.14 | 1.20 | 1.36 | 1.41 | 1.38 | 1.99 | 2.53 | 2.34 | 1.60 |
| 1915..... | 1.95 | 1.61 | 1.24 | 1.00 | .97 | 1.07 | 1.17 | 1.21 | 1.38 | 1.50 | 1.93 | 2.27 | 1.33 |
| 1916..... | 2.15 | 2.26 | 2.17 | 2.40 | 2.61 | 3.04 | 3.95 | 5.65 | 6.77 | 7.61 | 7.53 | 5.10 | 4.45 |
| 1917..... | 3.23 | 2.19 | 1.76 | 1.79 | 2.66 | 2.28 | 2.74 | 3.26 | 2.86 | 2.98 | 3.23 | 3.55 | 2.62 |
| 1918..... | 3.41 | 2.96 | 2.45 | 2.16 | 1.99 | 2.05 | 2.19 | 2.33 | 2.71 | 3.79 | 4.97 | 4.68 | 2.83 |
| 1919..... | 4.23 | 3.73 | 3.08 | 2.88 | 2.74 | 3.49 | 4.31 | 5.05 | 5.25 | 5.99 | 6.75 | 5.47 | 4.31 |
| 1920..... | 4.71 | 3.28 | 2.03 | 1.95 | 1.67 | 1.77 | 1.91 | 1.86 | 1.71 | 2.03 | 3.10 | 4.04 | 2.19 |
| Av. 1914-1920..... | 3.19 | 2.54 | 2.03 | 1.93 | 1.97 | 2.14 | 2.52 | 2.97 | 3.15 | 3.64 | 4.29 | 3.92 | 2.76 |
| 1921..... | 3.95 | 3.16 | 2.61 | 2.39 | 2.42 | 2.77 | 3.05 | 3.09 | 3.02 | 3.10 | 3.68 | 3.36 | 2.92 |
| 1922..... | 2.96 | 2.12 | 1.72 | 1.65 | 1.46 | 1.65 | 2.11 | 2.42 | 3.00 | 3.62 | 4.01 | 4.11 | 2.44 |
| 1923..... | 3.85 | 3.20 | 2.90 | 2.59 | 2.12 | 2.30 | 2.56 | 2.76 | 3.01 | 3.28 | 3.50 | 3.87 | 2.84 |
| 1924..... | 3.16 | 2.78 | 2.34 | 2.13 | 2.01 | 2.24 | 2.37 | 2.52 | 2.44 | 2.18 | 3.23 | 3.29 | 2.47 |
| 1925..... | 3.79 | 3.30 | 2.79 | 2.40 | 2.28 | 2.65 | | | | | | | |

Division of Crop and Livestock Estimates.

CANTALOUPE

TABLE 232.—*Cantaloupes, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-------------------------------------|---------|--------|--------|---------------------|---------------------|---------------------|--|---------|---------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | Acres | Acres | Acres | crates ¹ | crates ¹ | crates ¹ | dollars | dollars | dollars |
| California (Imperial)..... | 26,100 | 30,200 | 27,560 | 4,776 | 5,738 | 4,961 | 10,794 | 8,377 | 8,682 |
| Florida..... | 2,520 | 760 | 370 | 86 | 78 | 28 | 200 | 126 | 49 |
| Georgia..... | 5,070 | 2,680 | 610 | 223 | 289 | 67 | 446 | 329 | 119 |
| Texas (lower valley)..... | 1,100 | 1,050 | 750 | 151 | 105 | 26 | 486 | 233 | 119 |
| Intermediate: | | | | | | | | | |
| Arizona..... | 2,000 | 4,000 | 6,000 | 450 | 800 | 1,320 | 450 | 944 | 990 |
| Arkansas..... | 3,900 | 4,500 | 7,960 | 179 | 378 | 462 | 333 | 711 | 647 |
| California (Turlock and other)..... | 6,770 | 7,460 | 10,120 | 1,219 | 1,044 | 1,417 | 2,365 | 1,253 | 1,190 |
| Delaware..... | 3,200 | 3,300 | 3,450 | 464 | 317 | 414 | 770 | 539 | 373 |
| Illinois..... | 720 | 370 | 400 | 73 | 30 | 52 | 131 | 44 | 47 |
| Indiana..... | 3,550 | 3,280 | 3,600 | 327 | 495 | 468 | 458 | 886 | 613 |
| Maryland..... | 4,900 | 5,500 | 5,460 | 725 | 550 | 885 | 1,791 | 1,023 | 912 |
| Missouri..... | 260 | (?) | (?) | 26 | (?) | (?) | 29 | (?) | (?) |
| Nevada..... | 1,400 | 930 | 980 | 164 | 102 | 129 | 246 | 153 | 174 |
| North Carolina..... | 2,290 | 2,570 | 1,900 | 229 | 193 | 235 | 234 | 133 | 268 |
| Oklahoma..... | 100 | 150 | 350 | 4 | 15 | 41 | 6 | 16 | 46 |
| South Carolina..... | 1,070 | 500 | 360 | 77 | 52 | 33 | 115 | 45 | 43 |
| Texas (other)..... | 870 | 3,790 | 2,730 | 64 | 265 | 191 | 151 | 244 | 283 |
| Late: | | | | | | | | | |
| Colorado..... | 8,620 | 7,900 | 9,000 | 1,078 | 1,146 | 1,476 | 1,822 | 1,375 | 1,210 |
| Iowa..... | 930 | 900 | 1,000 | 83 | 54 | 46 | 83 | 65 | 41 |
| Kansas..... | 180 | 780 | 450 | 18 | 98 | 58 | 30 | 118 | 48 |
| Michigan..... | 1,700 | 1,600 | 1,200 | 223 | 104 | 200 | 301 | 170 | 314 |
| New Jersey..... | 3,860 | 4,200 | 4,000 | 594 | 727 | 760 | 1,307 | 1,970 | 1,330 |
| New Mexico..... | 1,400 | 2,100 | 2,600 | 234 | 420 | 390 | 316 | 496 | 546 |
| Tennessee..... | 880 | 360 | 660 | 132 | 65 | 79 | 317 | 68 | 87 |
| Washington..... | 770 | 1,330 | 1,510 | 146 | 262 | 275 | 320 | 403 | 352 |
| Total..... | 84,160 | 90,510 | 93,080 | 11,745 | 13,327 | 14,013 | 23,501 | 19,741 | 18,483 |

Division of Crop and Livestock Estimates.

¹ Standard crate.² Not reported.

TABLE 233.—*Cantaloupes, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per crate ¹ | | | | | | | |
|-------------------------------------|----------------|--------------|--------------|--------------|--------------|------------------|------------------|------------------------------|--------------|--------------|--------------|--------------|------------------|------------------|--|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | |
| Early: | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | |
| California (Imperial)..... | 209 | 182 | 173 | 140 | 183 | 190 | 180 | 2.17 | 1.83 | 1.63 | 3.61 | 2.26 | 1.46 | 1.75 | |
| Florida..... | 116 | 124 | 150 | 100 | 84 | 102 | 75 | 1.00 | .75 | 1.62 | 3.19 | 2.33 | 1.61 | 1.75 | |
| Georgia..... | 122 | 164 | 195 | 100 | 44 | 97 | 110 | 1.17 | 1.45 | 1.33 | 1.54 | 2.00 | 1.14 | 1.78 | |
| Texas (lower valley)..... | 146 | 162 | 98 | 150 | 137 | 100 | 35 | 5.00 | 3.00 | 2.00 | 1.37 | 3.22 | 2.41 | 4.56 | |
| Intermediate: | | | | | | | | | | | | | | | |
| Arizona..... | 160 | 170 | 172 | 180 | 225 | 200 | 220 | 1.75 | 1.75 | 1.25 | 1.35 | 1.00 | 1.18 | .75 | |
| Arkansas..... | 83 | 79 | 87 | 65 | 46 | 84 | 58 | 1.62 | 2.20 | 1.46 | 1.71 | 1.36 | 1.88 | 1.40 | |
| California (Turlock and other)..... | 162 | 170 | 156 | 126 | 180 | 140 | 140 | 1.21 | .93 | .90 | .85 | 1.64 | 1.20 | .84 | |
| Delaware..... | 118 | 111 | 96 | 155 | 145 | 96 | 120 | .93 | .90 | 1.18 | 1.54 | 1.66 | 1.70 | .90 | |
| Illinois..... | 156 | 160 | 165 | 160 | 102 | 80 | 130 | 1.08 | 1.25 | .86 | 1.71 | 1.80 | 1.47 | .91 | |
| Indiana..... | 152 | 140 | 125 | 110 | 92 | 151 | 130 | 1.56 | 1.24 | 1.48 | 1.73 | 1.40 | 1.79 | 1.31 | |
| Maryland..... | 174 | 135 | 154 | 160 | 148 | 100 | 162 | 1.25 | 1.28 | 1.12 | 1.99 | 2.47 | 1.86 | 1.03 | |
| Missouri..... | 166 | 150 | 147 | 100 | 100 | (²) | (²) | 2.25 | 2.00 | 1.62 | 2.01 | 1.11 | (²) | (²) | |
| Nevada..... | 145 | 146 | 80 | 90 | 117 | 110 | 132 | 1.70 | 1.65 | 1.35 | 1.75 | 1.60 | 1.50 | 1.35 | |
| North Carolina..... | 126 | 116 | 126 | 110 | 100 | 75 | 120 | 1.06 | 1.03 | 1.30 | 1.03 | 1.02 | .69 | 1.14 | |
| Oklahoma..... | — | — | 126 | 60 | 40 | 100 | 118 | — | — | 1.26 | 1.67 | 1.44 | 1.07 | 1.12 | |
| South Carolina..... | 110 | 100 | 90 | 100 | 72 | 104 | 92 | 1.00 | 1.16 | 1.38 | 1.28 | 1.49 | .87 | 1.31 | |
| Texas (other)..... | 146 | 162 | 60 | 65 | 74 | 70 | 70 | 1.45 | 1.62 | 1.08 | 1.44 | 2.36 | .92 | 1.48 | |
| Late: | | | | | | | | | | | | | | | |
| Colorado..... | 165 | 150 | 182 | 100 | 125 | 145 | 164 | 1.25 | 1.60 | .84 | 1.75 | 1.69 | 1.20 | .82 | |
| Iowa..... | 172 | 135 | 126 | 80 | 89 | 60 | 46 | 1.63 | 1.50 | 1.25 | 1.50 | 1.00 | 1.20 | .90 | |
| Kansas..... | — | — | — | 90 | 100 | 125 | 130 | — | — | — | 1.25 | 1.69 | 1.20 | .82 | |
| Michigan..... | 166 | 140 | 125 | 115 | 131 | 65 | 167 | 1.60 | 2.00 | 1.70 | 1.25 | 1.35 | 1.63 | 1.57 | |
| New Jersey..... | 158 | 160 | 174 | 182 | 154 | 173 | 190 | .73 | .84 | .97 | 1.41 | 2.20 | 2.71 | 1.75 | |
| New Mexico..... | 160 | 200 | 180 | 125 | 167 | 200 | 153 | 1.25 | 1.25 | .85 | 1.45 | 1.35 | 1.18 | 1.40 | |
| Tennessee..... | 150 | 158 | 175 | 140 | 160 | 180 | 120 | 1.12 | 1.38 | 1.25 | 1.50 | 2.40 | 1.05 | 1.10 | |
| Washington..... | 160 | 217 | 194 | 193 | 190 | 197 | 182 | 1.75 | 1.50 | 1.20 | 2.25 | 2.19 | 1.54 | 1.28 | |
| Average..... | 154 | 166 | 149 | 124 | 140 | 148 | 151 | 1.53 | 1.51 | 1.30 | 2.25 | 2.00 | 1.48 | 1.32 | |

Division of Crop and Livestock Estimates.

¹ Average for season.² Not reported.TABLE 234.—*Cantaloupes:*¹ *Car-lot shipments by State of origin, April, 1920-November, 1925*

| State | Crop movement season ¹ | | | | | |
|---------------------|-----------------------------------|---------------|---------------|---------------|---------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| Indiana..... | 632 | 644 | 894 | 681 | 822 | 1,097 |
| Michigan..... | 209 | 232 | 465 | 306 | 114 | 146 |
| Delaware..... | 600 | 942 | 843 | 818 | 511 | 657 |
| Maryland..... | 781 | 1,153 | 1,233 | 1,270 | 699 | 1,116 |
| North Carolina..... | 358 | 894 | 700 | 620 | 401 | 655 |
| South Carolina..... | 131 | 281 | 270 | 70 | 116 | 29 |
| Georgia..... | 387 | 619 | 1,632 | 217 | 586 | 117 |
| Arkansas..... | 998 | 1,554 | 1,002 | 337 | 1,052 | 1,203 |
| Texas..... | 169 | 156 | 186 | 387 | 456 | 500 |
| Colorado..... | 2,482 | 3,288 | 4,420 | 2,306 | 3,229 | 3,692 |
| New Mexico..... | 968 | 808 | 275 | 364 | 518 | 574 |
| Arizona..... | 1,159 | 1,504 | 1,558 | 1,208 | 2,145 | 3,829 |
| Washington..... | 380 | 208 | 371 | 207 | 268 | 226 |
| California..... | 13,251 | 13,166 | 15,804 | 16,456 | 19,632 | 18,717 |
| Other States..... | 460 | 666 | 777 | 646 | 617 | 1,080 |
| Total..... | 22,953 | 25,815 | 29,980 | 25,923 | 31,496 | 33,628 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Includes honeydews and other miscellaneous melons not separately reported until 1923. The shipments of melons, other than cantaloupes, amounted in 1923 to 1,152 cars; in 1924, to 2,565; and in 1925, to 3,665.² Crop-movement season extends from April 1 through November of a given year.³ Preliminary.⁴ Includes 1 car in December.⁵ Includes 17 cars in December.

CAULIFLOWER

TABLE 235.—*Cauliflower, commercial crop: Acreage, production, and total value, by States, year beginning October, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-------------------------------|--------------|--------------|--------------|---------------------|---------------------|---------------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 crates</i> | <i>1,000 crates</i> | <i>1,000 crates</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| California ¹ | 7,260 | 6,550 | 6,610 | 2,105 | 1,703 | 2,148 | 2,736 | 1,430 | 2,320 |
| Colorado..... | 260 | 400 | 1,000 | 72 | 64 | 180 | 131 | 115 | 163 |
| New Jersey..... | | 130 | 300 | | 18 | 39 | | 25 | 54 |
| New York..... | 3,500 | 4,350 | 5,550 | 1,015 | 652 | 771 | 2,223 | 1,206 | 1,079 |
| Oregon ¹ | 510 | 1,400 | 1,600 | 117 | 280 | 320 | 170 | 406 | 445 |
| Virginia..... | 50 | 70 | 70 | 13 | 18 | 14 | 24 | 36 | 20 |
| Total..... | 11,580 | 12,900 | 15,130 | 3,322 | 2,735 | 3,452 | 5,284 | 3,215 | 4,081 |

Division of Crops and Livestock Estimates.

¹ Season of California and Oregon begins in October of the previous year.TABLE 236.—*Cauliflower, commercial crop: Yield per acre and price, year beginning October, 1919-1925*

| State | Yield per acre | | | | | | Price per crate ¹ | | | | | |
|-----------------|----------------|--------------|--------------|--------------|--------------|--------------|------------------------------|--------------|--------------|--------------|--------------|--------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Crts.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| California..... | 273 | 298 | 300 | 290 | 260 | 325 | 1.25 | 1.00 | 1.97 | 1.30 | .84 | 1.08 |
| Colorado..... | | | | 275 | 160 | 160 | | | | 1.82 | 1.80 | 1.02 |
| New Jersey..... | | | | | 140 | 130 | | | | | 1.40 | 1.38 |
| New York..... | 253 | 274 | 231 | 290 | 150 | 139 | 1.84 | 2.00 | 2.79 | 2.19 | 1.85 | 1.40 |
| Oregon..... | 231 | 270 | 270 | 230 | 200 | 200 | 1.25 | 1.25 | 2.10 | 1.45 | 1.45 | 1.39 |
| Virginia..... | | | | 265 | 260 | 195 | | | | 1.85 | 2.00 | 1.40 |
| Average..... | 267 | 269 | 280 | 287 | 212 | 228 | 1.36 | 1.24 | 2.13 | 1.59 | 1.18 | 1.18 |

Division of Crop and Livestock Estimates.

¹ Average for season.TABLE 237.—*Cauliflower: Car-lot shipments by State of origin, July, 1920-June, 1925*

| State | Crop movement season ¹ | | | | |
|-------------------|-----------------------------------|-------------|-------------|-------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York..... | 781 | 567 | 683 | 653 | 734 |
| Michigan..... | 2 | 4 | 1 | 34 | 67 |
| Colorado..... | | 3 | 4 | 101 | 61 |
| Oregon..... | 76 | 134 | 263 | 374 | 109 |
| California..... | 2,957 | 3,629 | 3,604 | 3,064 | 3,404 |
| Other States..... | 37 | 26 | 34 | 87 | 80 |
| Total..... | 3,853 | 4,363 | 4,608 | 4,208 | 4,455 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from July 1 through June of the following year.² Preliminary.

CELERY

TABLE 238.—*Celery, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------------|-----------------------------|-----------------------------|--|-------------------------------|-------------------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: Florida..... | <i>Acres</i> 3,200 | <i>Acres</i> 4,000 | <i>Acres</i> 4,320 | <i>1,000 crts.</i> 1,680 | <i>1,000 crts.</i> 1,900 | <i>1,000 crts.</i> 2,000 | <i>1,000 dollars</i> 3,562 | <i>1,000 dollars</i> 4,693 | <i>1,000 dollars</i> 5,200 |
| Late: | | | | | | | | | |
| California..... | 6,170 | 6,330 | 5,800 | 1,164 | 1,386 | 1,290 | 2,250 | 2,065 | 2,270 |
| Colorado..... | 670 | 730 | 800 | 201 | 248 | 336 | 283 | 727 | 380 |
| Michigan..... | 4,120 | 4,110 | 3,860 | 639 | 645 | 780 | 920 | 1,226 | 1,319 |
| New Jersey..... | 840 | 1,370 | 1,510 | 420 | 522 | 569 | 592 | 611 | 984 |
| New York..... | 4,000 | 4,790 | 4,780 | 1,048 | 1,676 | 1,386 | 1,803 | 2,363 | 1,719 |
| Ohio..... | 800 | 710 | 680 | 157 | 124 | 160 | 232 | 182 | 204 |
| Oregon..... | 150 | 300 | 380 | 62 | 112 | 124 | 129 | 218 | 184 |
| Pennsylvania..... | 400 | 380 | 380 | 116 | 128 | 112 | 177 | 308 | 172 |
| Total..... | 20,350 | 22,710 | 22,600 | 5,477 | 6,741 | 6,757 | 9,948 | 12,493 | 12,491 |

Division of Crop and Livestock Estimates.

TABLE 239.—*Celery, commercial crop: Yield per acre and price, 1910-1925*

| State | Yield per acre | | | | | | | Price per crate ¹ | | | | | | |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | 1910 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1910 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: Florida..... | <i>Crts.</i> 516 | <i>Crts.</i> 528 | <i>Crts.</i> 576 | <i>Crts.</i> 487 | <i>Crts.</i> 525 | <i>Crts.</i> 475 | <i>Crts.</i> 463 | <i>Dols.</i> 8.45 | <i>Dols.</i> 6.75 | <i>Dols.</i> 4.27 | <i>Dols.</i> 2.95 | <i>Dols.</i> 2.12 | <i>Dols.</i> 2.47 | <i>Dols.</i> 2.60 |
| Late: | | | | | | | | | | | | | | |
| California..... | 240 | 255 | 255 | 210 | 187 | 219 | 219 | 2.72 | 2.86 | 2.06 | 2.63 | 1.95 | 1.49 | 1.76 |
| Colorado..... | 330 | 300 | 330 | 300 | 300 | 345 | 420 | 2.00 | 1.67 | 1.33 | 1.91 | 1.41 | 2.93 | 1.13 |
| Michigan..... | 170 | 181 | 168 | 180 | 155 | 157 | 202 | 1.00 | 1.16 | 1.62 | 1.42 | 1.44 | 2.01 | 1.09 |
| New Jersey..... | 300 | 345 | 375 | 315 | 500 | 381 | 377 | 1.75 | 1.28 | 1.67 | 2.01 | 1.41 | 1.17 | 1.73 |
| New York..... | 800 | 345 | 328 | 260 | 262 | 350 | 290 | 1.56 | 1.43 | 1.67 | 1.15 | 1.72 | 1.41 | 1.24 |
| Ohio..... | 249 | 208 | 202 | 202 | 196 | 174 | 265 | 2.06 | 2.34 | 1.63 | 2.01 | 1.48 | 1.47 | 1.05 |
| Oregon..... | | | 435 | 375 | 413 | 375 | 327 | | | 2.10 | 2.67 | 2.08 | 2.21 | 1.48 |
| Pennsylvania..... | 200 | 330 | 267 | 315 | 290 | 337 | 294 | 3.33 | 4.00 | 3.00 | 2.21 | 1.53 | 2.41 | 1.54 |
| A average..... | 279 | 290 | 305 | 262 | 269 | 297 | 299 | 3.46 | 3.00 | 2.52 | 2.20 | 1.82 | 1.85 | 1.85 |

Division of Crop and Livestock Estimates.

¹ Average for season.

TABLE 240.—*Celery: Car-lot shipments by State of origin, June, 1920-May, 1925*

| State | Crop movement season ¹ | | | | |
|-------------------|-----------------------------------|----------------------|----------------------|----------------------|----------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 ² |
| New York..... | <i>Cars</i> 3,110 | <i>Cars</i> 3,047 | <i>Cars</i> 3,248 | <i>Cars</i> 3,741 | <i>Cars</i> 4,520 |
| New Jersey..... | 94 | 219 | 115 | 219 | 177 |
| Pennsylvania..... | 186 | 224 | 212 | 223 | 225 |
| Ohio..... | 46 | 67 | 76 | 55 | 54 |
| Michigan..... | 954 | 1,031 | 1,626 | 1,486 | 1,332 |
| Florida..... | 4,218 | 4,954 | 6,398 | 7,219 | 7,953 |
| Colorado..... | 305 | 211 | 222 | 125 | 197 |
| Oregon..... | 16 | 53 | 82 | 205 | 363 |
| California..... | 3,472 | 2,617 | 4,337 | 4,693 | 4,415 |
| Other States..... | 23 | ³ 19 | 52 | 76 | 84 |
| Total..... | 12,424 | ³ 12,442 | 16,368 | 18,042 | 19,339 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from June 1 of one year through May of the following year, except in Florida, where the season extends through June.

² Preliminary.

³ Texas includes 1 car in May, 1921.

CORN

TABLE 241.—*Corn, sweet, for canning, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|--------------------|--------------|--------------|--------------|-------------|-------------|-------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Delaware..... | 4,200 | 4,400 | 3,800 | 11,800 | 8,400 | 10,300 | 118 | 101 | 185 |
| Illinois..... | 46,000 | 60,860 | 70,000 | 119,600 | 103,000 | 168,000 | 1,447 | 1,399 | 2,401 |
| Indiana..... | 19,670 | 21,000 | 31,000 | 47,200 | 35,700 | 74,400 | 519 | 526 | 1,103 |
| Iowa..... | 45,610 | 55,500 | 70,000 | 118,600 | 83,200 | 175,000 | 1,059 | 795 | 1,950 |
| Maine..... | 13,000 | 13,390 | 15,630 | 39,000 | 36,200 | 43,800 | 1,073 | 1,053 | 1,303 |
| Maryland..... | 32,000 | 32,500 | 33,500 | 73,600 | 58,500 | 90,400 | 967 | 859 | 1,597 |
| Michigan..... | 8,200 | 11,000 | 17,500 | 13,100 | 13,200 | 43,800 | 163 | 195 | 626 |
| Minnesota..... | 15,600 | 21,000 | 26,000 | 40,600 | 52,500 | 52,000 | 395 | 497 | 535 |
| Nebraska..... | 5,000 | 7,000 | 10,000 | 10,000 | 12,600 | 22,000 | 89 | 116 | 241 |
| New Hampshire..... | 960 | 1,200 | 1,600 | 2,800 | 3,400 | 4,200 | 64 | 83 | 105 |
| New York..... | 20,840 | 26,000 | 30,000 | 29,200 | 46,800 | 63,000 | 565 | 917 | 1,307 |
| Ohio..... | 23,430 | 27,450 | 32,000 | 56,200 | 38,400 | 102,400 | 599 | 409 | 1,394 |
| Pennsylvania..... | 2,580 | 3,200 | 4,500 | 4,900 | 6,400 | 10,200 | 56 | 113 | 307 |
| Vermont..... | 2,700 | 2,500 | 3,100 | 7,300 | 7,000 | 8,100 | 110 | 140 | 162 |
| Wisconsin..... | 11,000 | 13,720 | 18,000 | 24,200 | 17,800 | 45,000 | 253 | 212 | 555 |
| Other States..... | 1,800 | 2,370 | 3,750 | 5,200 | 4,700 | 8,600 | 86 | 63 | 120 |
| Total..... | 252,590 | 302,790 | 370,380 | 603,300 | 527,800 | 927,200 | 7,563 | 7,478 | 13,891 |

Division of Crop and Livestock Estimates.

TABLE 242.—*Corn, sweet, for canning, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per ton | | | | | | |
|--------------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Delaware..... | 2.0 | 1.8 | 2.0 | 2.7 | 2.8 | 1.9 | 2.7 | 16.80 | 15.60 | 9.00 | 10.00 | 10.00 | 12.00 | 18.00 |
| Illinois..... | 2.2 | 2.2 | 2.6 | 2.2 | 2.6 | 1.7 | 2.4 | 13.80 | 19.75 | 12.67 | 9.79 | 12.10 | 13.58 | 14.29 |
| Indiana..... | 2.4 | 2.5 | 2.9 | 2.5 | 2.4 | 1.7 | 2.4 | 14.93 | 18.50 | 12.00 | 10.00 | 11.00 | 14.74 | 14.83 |
| Iowa..... | 2.6 | 2.3 | 2.8 | 3.0 | 2.6 | 1.5 | 2.5 | 13.27 | 15.60 | 8.60 | 7.20 | 8.93 | 9.55 | 11.14 |
| Maine..... | 3.5 | 3.1 | 3.2 | 2.5 | 3.0 | 2.7 | 2.8 | 34.62 | 30.00 | 27.60 | 27.50 | 27.61 | 29.10 | 29.76 |
| Maryland..... | 2.0 | 2.6 | 2.5 | 2.5 | 2.3 | 1.8 | 2.7 | 21.88 | 23.00 | 11.70 | 10.00 | 13.14 | 14.69 | 17.67 |
| Michigan..... | 2.0 | 2.0 | 2.2 | 2.0 | 1.6 | 1.2 | 2.5 | 16.96 | 14.46 | 15.00 | 11.41 | 12.42 | 14.76 | 14.30 |
| Minnesota..... | 2.4 | 2.5 | 2.8 | 2.0 | 2.6 | 2.5 | 2.0 | 14.19 | 15.00 | 10.40 | 9.14 | 9.73 | 9.46 | 10.28 |
| Nebraska..... | 1.5 | 2.0 | 2.9 | 2.6 | 2.0 | 1.8 | 2.2 | 11.06 | 12.33 | 15.00 | 8.33 | 8.88 | 9.18 | 10.94 |
| New Hampshire..... | 3.0 | 2.8 | 2.9 | 2.2 | 2.9 | 2.8 | 2.6 | 29.12 | 25.00 | 22.85 | 22.70 | 22.73 | 24.40 | 25.00 |
| New York..... | 2.0 | 2.0 | 2.3 | 2.0 | 1.4 | 1.8 | 2.1 | 19.11 | 22.28 | 18.29 | 17.82 | 19.36 | 19.59 | 20.74 |
| Ohio..... | 2.5 | 2.0 | 2.5 | 2.2 | 2.4 | 1.4 | 3.2 | 16.37 | 18.67 | 10.29 | 8.70 | 10.66 | 10.64 | 13.61 |
| Pennsylvania..... | 2.2 | 2.2 | 2.7 | 2.4 | 1.9 | 2.0 | 3.6 | 18.50 | 17.00 | 14.00 | 10.00 | 11.33 | 17.72 | 18.53 |
| Vermont..... | 2.5 | 2.2 | 2.3 | 2.0 | 2.7 | 2.8 | 2.6 | 20.00 | 20.00 | 15.00 | 15.00 | 15.00 | 20.00 | 19.94 |
| Wisconsin..... | 2.4 | 2.0 | 2.8 | 2.5 | 2.2 | 1.3 | 2.5 | 14.41 | 15.50 | 11.22 | 10.54 | 10.46 | 11.93 | 12.33 |
| Other States..... | 2.1 | 2.6 | 2.9 | 2.7 | 2.9 | 2.0 | 2.3 | 16.17 | 15.91 | 13.59 | 13.98 | 18.47 | 13.50 | 14.00 |
| Average..... | 2.3 | 2.3 | 2.6 | 2.4 | 2.4 | 1.7 | 2.5 | 17.69 | 19.32 | 13.50 | 10.99 | 12.64 | 14.17 | 14.98 |

Division of Crop and Livestock Estimates.

TABLE 243.—*Corn, canned: Production in the United States, 1917-1925*

(Thousand cases 1—1. e., 000 omitted)

| State | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|--------|--------|--------|--------|-------|--------|--------|--------|--------|
| Maine..... | 567 | 1,113 | 1,652 | 1,588 | 911 | 1,066 | 923 | 1,294 | 1,693 |
| New York..... | 257 | 489 | 1,014 | 829 | 564 | 616 | 434 | 740 | 1,311 |
| Ohio..... | 1,200 | 1,584 | 1,360 | 1,544 | 850 | 1,073 | 1,390 | 787 | 2,375 |
| Indiana..... | 742 | 513 | 586 | 861 | 709 | 665 | 1,208 | 846 | 2,223 |
| Illinois..... | 2,422 | 2,199 | 2,225 | 2,271 | 1,711 | 1,939 | 2,833 | 2,310 | 4,030 |
| Wisconsin..... | 166 | 373 | 635 | 590 | 576 | 625 | 648 | 388 | 1,148 |
| Minnesota..... | 202 | 309 | 456 | 643 | 573 | 508 | 898 | 1,199 | 1,541 |
| Iowa..... | 2,280 | 2,300 | 2,496 | 3,246 | 1,190 | 1,959 | 2,382 | 1,764 | 4,105 |
| Maryland..... | 2,002 | 2,033 | 2,081 | 2,217 | 1,130 | 1,944 | 2,256 | 1,707 | 3,678 |
| Other States..... | 965 | 809 | 1,045 | 1,251 | 629 | 934 | 1,134 | 1,087 | 2,216 |
| United States..... | 10,803 | 11,722 | 13,550 | 15,040 | 8,843 | 11,419 | 14,106 | 12,131 | 24,320 |

Division of Statistical and Historical Research. Compiled from National Canners' Association data.

1 Stated in cases of 24 No. 2 cans.

CUCUMBERS

TABLE 244.—*Cucumbers for consumption fresh, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-------------------------------------|--------------|--------------|--------------|----------------------|----------------------|----------------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Alabama..... | 1,380 | 2,540 | 2,220 | 220 | 432 | 413 | 530 | 445 | 607 |
| Florida..... | 10,760 | 12,370 | 10,830 | 1,463 | 1,002 | 1,256 | 4,535 | 3,697 | 3,366 |
| Georgia..... | 600 | 2,260 | 570 | 48 | 120 | 66 | 96 | 134 | 75 |
| Louisiana..... | 250 | 540 | 690 | 32 | 108 | 53 | 32 | 190 | 82 |
| South Carolina..... | 2,780 | 3,560 | 2,900 | 473 | 605 | 458 | 970 | 484 | 705 |
| Texas (southern district)..... | 1,720 | 950 | 980 | 165 | 163 | 66 | 282 | 302 | 127 |
| Virginia..... | 840 | 1,730 | 1,560 | 130 | 200 | 257 | 195 | 206 | 193 |
| Second early: | | | | | | | | | |
| California (southern district)..... | 450 | (?) | (?) | 72 | (?) | (?) | 95 | (?) | (?) |
| North Carolina..... | 2,650 | 3,580 | 5,310 | 610 | 890 | 860 | 976 | 730 | 1,127 |
| Intermediate: | | | | | | | | | |
| Arkansas..... | 500 | 1,370 | 500 | 115 | 50 | 147 | 208 | 64 | 225 |
| Delaware..... | 640 | 740 | 900 | 73 | 118 | 102 | 183 | 80 | 98 |
| Illinois (southern)..... | 440 | 530 | 740 | 73 | 104 | 130 | 104 | 185 | 212 |
| Maryland..... | 1,250 | 1,420 | 2,080 | 231 | 220 | 416 | 434 | 310 | 212 |
| New Jersey..... | 1,660 | 1,800 | 2,000 | 382 | 308 | 400 | 657 | 477 | 208 |
| Late: | | | | | | | | | |
| New York..... | 2,080 | 3,400 | 4,490 | 343 | 544 | 516 | 539 | 832 | 356 |
| Total..... | 27,480 | 35,890 | 36,640 | 4,357 | 4,924 | 5,140 | 9,653 | 8,241 | 7,521 |

Division of Crop and Livestock Estimates.

1 Bushel hamper.

2 Not reported.

TABLE 245.—*Cucumbers for consumption fresh, commercial crop: Yield per acre and price, 1919–1925*

| State | Yield per acre | | | | | | | Price per hamper ¹ | | | | | | |
|-------------------------------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Hamp.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Alabama..... | 152 | 158 | 150 | 180 | 162 | 170 | 186 | 1.61 | 1.16 | 0.70 | 1.40 | 2.41 | 1.03 | 1.47 |
| Florida..... | 310 | 276 | 280 | 208 | 136 | 81 | 116 | 3.67 | 3.16 | 2.49 | 1.93 | 3.10 | 3.69 | 2.68 |
| Georgia..... | | | | 180 | 80 | 53 | 115 | | | | 2.17 | 2.00 | 1.12 | 1.14 |
| Louisiana..... | | | | | 130 | 200 | 77 | | | | | 1.90 | 1.76 | 1.55 |
| South Carolina..... | | | | | | | | | | | | | | |
| Texas (southern district)..... | 280 | 234 | 203 | 115 | 170 | 170 | 158 | 1.39 | 1.65 | 1.83 | .69 | 2.05 | .80 | 1.54 |
| Virginia..... | 124 | 124 | 105 | 110 | 96 | 172 | 67 | 1.62 | 1.18 | .85 | .93 | 1.71 | 1.85 | 1.93 |
| Second Early: | 205 | 136 | 160 | 150 | 155 | 150 | 166 | 2.50 | 2.50 | 2.00 | 1.00 | 1.50 | .80 | .75 |
| California (southern district)..... | 180 | 176 | 168 | 135 | 160 | (?) | (?) | 1.50 | 1.30 | 1.25 | 1.80 | 1.32 | (?) | (?) |
| North Carolina..... | 276 | 255 | 226 | 180 | 230 | 250 | 162 | .79 | .68 | .93 | .88 | 1.60 | .82 | 1.31 |
| Intermediate: | | | | | | | | | | | | | | |
| Arkansas..... | | | | | | 100 | 107 | | | | | | 1.28 | 1.53 |
| Delaware..... | 164 | 180 | 105 | 150 | 180 | 160 | 113 | .84 | .75 | .70 | .59 | 1.81 | 1.55 | .78 |
| Illinois..... | | | | | | | | | | | | | | |
| Illinois (southern) | 164 | 184 | 250 | 160 | 165 | 200 | 175 | .90 | 1.00 | .98 | 1.92 | 1.42 | 1.78 | .75 |
| Maryland..... | 202 | 182 | 103 | 209 | 185 | 155 | 200 | 1.01 | .83 | 1.14 | 1.87 | 1.88 | 1.41 | .51 |
| New Jersey..... | 319 | 206 | 285 | 304 | 230 | 171 | 200 | 1.25 | 1.40 | 1.10 | 1.08 | 1.72 | 1.55 | .67 |
| Late: | | | | | | | | | | | | | | |
| New York..... | 160 | 152 | 150 | 184 | 165 | 160 | 115 | 1.32 | 1.68 | 1.21 | 1.30 | 1.57 | 1.53 | .09 |
| Average..... | 262 | 216 | 216 | 213 | 159 | 137 | 140 | 2.32 | 2.08 | 1.72 | 1.51 | 2.22 | 1.67 | 1.46 |

Division of Crop and Livestock Estimates.

¹ Average for season.² Not reported.TABLE 246.—*Cucumbers for pickles, commercial crop: Acreage, production, and total value, by States, 1923–1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-------------------|--------------|--------------|--------------|----------------------|----------------------|----------------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| California..... | 2,033 | 2,150 | 3,210 | 268 | 245 | 491 | 230 | 245 | 535 |
| Colorado..... | 3,250 | 2,800 | 3,340 | 254 | 98 | 341 | 394 | 98 | 341 |
| Illinois..... | 1,410 | 1,310 | 1,630 | 73 | 87 | 114 | 104 | 51 | 158 |
| Indiana..... | 7,390 | 7,240 | 8,430 | 377 | 198 | 430 | 475 | 244 | 477 |
| Iowa..... | 3,530 | 2,250 | 2,850 | 191 | 45 | 177 | 172 | 48 | 193 |
| Michigan..... | 20,840 | 25,440 | 26,810 | 1,154 | 851 | 2,025 | 1,816 | 962 | 2,248 |
| Minnesota..... | 1,330 | 3,940 | 4,340 | 72 | 67 | 195 | 72 | 84 | 201 |
| Missouri..... | 400 | 330 | 960 | 19 | 13 | 56 | 13 | 18 | 51 |
| New York..... | 1,420 | 1,530 | 1,320 | 70 | 50 | 152 | 88 | 62 | 152 |
| Ohio..... | 700 | 1,560 | 1,600 | 32 | 50 | 115 | 34 | 74 | 145 |
| Washington..... | 480 | 430 | 670 | 66 | 13 | 97 | 66 | 13 | 97 |
| Wisconsin..... | 12,130 | 17,990 | 20,960 | 606 | 504 | 1,216 | 733 | 504 | 1,252 |
| Other States..... | 3,570 | 8,440 | 13,110 | 132 | 388 | 1,337 | 132 | 501 | 1,043 |
| Total..... | 64,480 | 85,410 | 99,230 | 3,314 | 2,549 | 6,746 | 3,829 | 2,904 | 6,893 |

Division of Crop and Livestock Estimates.

TABLE 247.—*Cucumbers for pickles, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per bushel | | | | | | |
|-------------------|----------------|------------|------------|------------|------------|------------|------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Bu.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| California..... | 64 | 86 | 100 | 125 | 132 | 114 | 153 | 1.23 | 1.20 | 1.24 | 1.00 | 0.86 | 1.60 | 1.00 |
| Colorado..... | 69 | 81 | 75 | 65 | 78 | 35 | 102 | .70 | 1.00 | 1.15 | 1.45 | 1.55 | 1.00 | 1.00 |
| Illinois..... | 57 | 15 | 80 | 45 | 52 | 28 | 70 | 1.07 | 1.26 | 1.26 | 1.17 | 1.43 | 1.39 | 1.39 |
| Indiana..... | 50 | 24 | 70 | 40 | 51 | 26 | 51 | .94 | 1.30 | .87 | .98 | 1.26 | 1.30 | 1.11 |
| Iowa..... | 47 | 22 | 70 | 30 | 54 | 20 | 62 | .94 | 1.00 | 1.63 | 1.00 | .90 | 1.07 | 1.09 |
| Michigan..... | 57 | 34 | 70 | 40 | 43 | 24 | 55 | .79 | .83 | 1.04 | .87 | 1.14 | 1.13 | 1.11 |
| Minnesota..... | 63 | 20 | 60 | 50 | 54 | 17 | 45 | .79 | 1.06 | 1.25 | 1.00 | 1.00 | 1.25 | 1.03 |
| Missouri..... | 45 | 45 | 70 | 60 | 48 | 40 | 58 | .88 | .80 | 1.00 | .60 | .70 | 1.42 | .91 |
| New York..... | 70 | 96 | 80 | 75 | 49 | 33 | 115 | 1.00 | 1.00 | .95 | 1.00 | 1.25 | 1.25 | 1.00 |
| Ohio..... | 55 | 47 | 80 | 75 | 45 | 32 | 72 | 1.09 | 1.25 | 1.25 | 1.00 | 1.05 | 1.48 | 1.26 |
| Washington..... | 59 | 110 | 80 | 125 | 138 | 30 | 145 | 1.25 | 1.00 | 1.00 | .71 | 1.00 | 1.00 | 1.00 |
| Wisconsin..... | 69 | 28 | 65 | 50 | 50 | 28 | 58 | 1.03 | .79 | .92 | .83 | 1.21 | 1.00 | 1.03 |
| Other States..... | 46 | 51 | 73 | 62 | 37 | 46 | 102 | 1.00 | .96 | .98 | .74 | 1.00 | 1.29 | .78 |
| Average..... | 59 | 38 | 71 | 50 | 51 | 30 | 68 | .89 | .98 | 1.04 | .93 | 1.16 | 1.14 | 1.04 |

Division of Crop and Livestock Estimates.

TABLE 248.—*Cucumbers: Car-lot shipments by State of origin, 1920-1925*

| State | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------------|
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York..... | 312 | 540 | 395 | 283 | 604 | 664 |
| New Jersey..... | 287 | 271 | 164 | 258 | 276 | 437 |
| Ohio..... | 52 | 118 | 124 | 68 | 111 | 89 |
| Illinois..... | 142 | 164 | 68 | 15 | 77 | 246 |
| Delaware..... | 256 | 137 | 191 | 225 | 240 | 302 |
| Maryland..... | 297 | 343 | 368 | 446 | 311 | 598 |
| Virginia..... | 83 | 19 | 221 | 84 | 387 | 443 |
| North Carolina..... | 408 | 641 | 687 | 1,175 | 1,639 | 1,562 |
| South Carolina..... | 523 | 664 | 887 | 720 | 918 | 793 |
| Georgia..... | 1 | 3 | 211 | 45 | 154 | 72 |
| Florida..... | 835 | 1,414 | 2,034 | 1,647 | 1,381 | 1,948 |
| Alabama..... | 259 | 109 | 702 | 367 | 576 | 706 |
| Texas..... | 95 | 94 | 119 | 46 | 147 | 72 |
| California..... | 89 | 68 | 68 | 125 | 23 | 114 |
| Other States..... | 137 | 256 | 110 | 96 | 248 | 348 |
| Total..... | 3,689 | 4,832 | 6,349 | 5,700 | 7,182 | 8,464 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Preliminary.

LETTUCE

TABLE 249.—*Lettuce, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per crate ¹ | | | | | | |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | <i>Crts.²</i> | <i>Crts.²</i> | <i>Crts.²</i> | <i>Crts.²</i> | <i>Crts.²</i> | <i>Crts.²</i> | <i>Crts.²</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Arizona..... | 234 | 255 | 246 | 285 | 260 | 225 | 225 | 1.88 | .72 | 1.35 | .93 | 1.40 | 1.06 | 1.19 |
| California..... | 249 | 258 | 238 | 176 | 226 | 200 | 189 | 1.44 | .97 | 1.33 | 2.02 | 1.43 | 1.49 | 1.41 |
| Imperial..... | ----- | ----- | 190 | 150 | 185 | 185 | 200 | ----- | ----- | 1.42 | 2.15 | 1.52 | 1.75 | 1.74 |
| Other..... | ----- | ----- | 278 | 214 | 281 | 217 | 177 | ----- | ----- | 1.28 | 1.88 | 1.36 | 1.23 | 1.03 |
| Florida..... | 350 | 352 | 410 | 412 | 270 | 262 | 225 | 1.47 | 1.59 | 1.76 | 1.73 | 1.64 | 1.07 | 1.72 |
| North Carolina..... | 231 | 231 | 230 | 225 | 195 | 169 | 270 | 4.35 | 4.15 | 3.33 | 3.48 | 1.96 | 1.33 | 1.32 |
| South Carolina..... | 220 | 200 | 225 | 169 | 109 | 135 | 167 | 3.49 | 3.65 | 2.48 | 3.43 | 2.00 | 1.53 | 1.64 |
| Texas..... | 243 | 243 | 224 | 185 | 198 | 175 | 100 | 1.31 | 1.19 | .74 | .89 | 1.20 | .55 | .76 |
| Virginia..... | 186 | 205 | 234 | 188 | 131 | 121 | 130 | 3.13 | 3.40 | 2.67 | 2.33 | 1.96 | 1.33 | 2.07 |
| Late: | | | | | | | | | | | | | | |
| Colorado..... | 235 | 250 | 270 | 180 | 145 | 85 | 133 | 3.00 | 1.80 | 1.50 | 1.71 | 1.60 | 2.09 | 1.54 |
| Idaho..... | ----- | 230 | 250 | 170 | 138 | 135 | 120 | ----- | 1.80 | 1.75 | 2.00 | 1.53 | 1.32 | 2.00 |
| Michigan..... | 180 | 108 | 150 | 125 | 120 | 125 | 130 | 2.24 | 2.02 | 2.50 | 3.00 | 3.20 | 2.24 | 1.60 |
| Minnesota..... | 180 | 130 | 133 | 135 | 100 | 140 | 150 | 3.50 | 3.00 | 2.00 | 2.00 | 2.18 | 2.19 | 3.00 |
| New Jersey..... | 158 | 156 | 163 | 167 | 160 | 265 | 257 | 2.94 | 3.50 | 3.52 | 1.88 | 2.48 | 2.84 | 3.04 |
| New Mexico..... | ----- | ----- | ----- | ----- | 225 | 200 | ----- | ----- | ----- | ----- | ----- | 1.05 | 1.20 | 1.20 |
| New York..... | 150 | 172 | 192 | 150 | 162 | 177 | 194 | 2.52 | 2.58 | 3.22 | 1.84 | 2.00 | 2.00 | 1.08 |
| Oregon..... | ----- | ----- | ----- | 150 | 138 | 160 | 150 | ----- | ----- | ----- | 2.12 | 1.35 | 1.50 | 1.80 |
| Pennsylvania..... | 132 | 132 | 192 | 162 | 150 | 75 | 152 | 3.84 | 3.08 | 4.46 | 1.80 | 2.00 | 2.38 | 1.94 |
| Utah..... | ----- | ----- | ----- | 260 | 250 | 265 | 374 | ----- | ----- | ----- | 1.35 | 1.45 | 1.13 | 1.60 |
| Washington..... | 235 | 245 | 375 | 325 | 280 | 225 | 200 | 2.50 | 1.75 | 2.00 | 1.30 | 1.43 | 1.16 | 2.38 |
| Wyoming..... | ----- | ----- | ----- | 230 | 225 | 260 | 142 | ----- | ----- | ----- | 1.25 | 1.48 | 1.85 | 1.50 |
| Average..... | 232 | 248 | 248 | 197 | 201 | 191 | 187 | 1.87 | 1.43 | 1.87 | 1.89 | 1.58 | 1.54 | 1.53 |

Division of Crop and Livestock Estimates.

¹ Average for season.² Crates of 4 dozen heads each.³ Year beginning October of previous year.TABLE 250.—*Lettuce, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value basis, average price for season | | |
|---------------------|--------------|--------------|--------------|---------------------------------|---------------------------------|---------------------------------|---|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 crates¹</i> | <i>1,000 crates¹</i> | <i>1,000 crates¹</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Arizona..... | 2,900 | 4,800 | 4,400 | 754 | 1,080 | 990 | 1,056 | 1,145 | 1,178 |
| California..... | 24,700 | 33,020 | 49,320 | 5,584 | 6,589 | 9,305 | 8,012 | 9,837 | 13,134 |
| Imperial..... | 14,130 | 18,000 | 25,000 | 2,614 | 3,330 | 5,000 | 3,973 | 5,828 | 8,700 |
| Other..... | 10,570 | 15,020 | 24,320 | 2,970 | 3,259 | 4,305 | 4,039 | 4,009 | 4,434 |
| Florida..... | 3,780 | 3,490 | 3,400 | 1,021 | 914 | 765 | 1,674 | 978 | 1,316 |
| North Carolina..... | 1,230 | 1,540 | 1,730 | 240 | 260 | 467 | 470 | 346 | 616 |
| South Carolina..... | 1,980 | 1,120 | 1,480 | 216 | 151 | 247 | 432 | 281 | 405 |
| Texas..... | 1,140 | 760 | 680 | 226 | 133 | 68 | 271 | 73 | 52 |
| Virginia..... | 310 | 300 | 300 | 41 | 36 | 39 | 80 | 48 | 81 |
| Late: | | | | | | | | | |
| Colorado..... | 6,710 | 5,600 | 10,500 | 973 | 476 | 1,396 | 1,557 | 995 | 2,150 |
| Idaho..... | 3,150 | 1,420 | 1,500 | 435 | 192 | 180 | 666 | 253 | 360 |
| Michigan..... | 380 | 210 | 80 | 46 | 26 | 10 | 147 | 58 | 16 |
| Minnesota..... | 240 | 180 | 220 | 24 | 25 | 33 | 52 | 55 | 99 |
| New Jersey..... | 1,310 | 2,300 | 2,320 | 210 | 610 | 596 | 731 | 1,732 | 1,812 |
| New Mexico..... | ----- | 250 | 1,500 | ----- | 56 | 300 | ----- | 59 | 360 |
| New York..... | 7,150 | 6,290 | 6,520 | 1,158 | 1,113 | 1,265 | 2,316 | 2,225 | 2,125 |
| Oregon..... | 500 | 300 | 300 | 69 | 48 | 45 | 93 | 72 | 58 |
| Pennsylvania..... | 60 | 70 | 70 | 9 | 5 | 11 | 18 | 12 | 21 |
| Utah..... | 200 | 300 | 250 | 50 | 80 | 94 | 72 | 90 | 141 |
| Washington..... | 2,000 | 1,400 | 1,720 | 560 | 315 | 344 | 745 | 365 | 819 |
| Wyoming..... | 250 | 200 | 110 | 56 | 52 | 16 | 83 | 96 | 24 |
| Total..... | 57,990 | 63,550 | 86,400 | 11,672 | 12,161 | 16,171 | 18,475 | 18,671 | 24,797 |

Division of Crop and Livestock Estimates.

¹ Crates of 4 dozen heads each.² Crop year beginning October of previous year.

TABLE 251.—*Lettuce: Car-lot shipments by State of origin, 1920-1925*

| State | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------------|
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York..... | 1,775 | 3,240 | 3,167 | 3,817 | 3,698 | 3,819 |
| New Jersey..... | 208 | 469 | 571 | 456 | 417 | 469 |
| North Carolina..... | 207 | 445 | 622 | 718 | 714 | 537 |
| South Carolina..... | 121 | 716 | 987 | 577 | 423 | 700 |
| Florida..... | 2,940 | 2,267 | 3,323 | 3,146 | 2,267 | 1,510 |
| Idaho..... | 25 | 180 | 889 | 1,241 | 532 | 407 |
| Colorado..... | 129 | 234 | 812 | 1,436 | 1,036 | 3,061 |
| Arizona..... | 254 | 168 | 678 | 1,108 | 2,049 | 3,477 |
| Washington..... | 354 | 635 | 812 | 1,081 | 674 | 817 |
| California..... | 7,358 | 9,850 | 9,744 | 15,113 | 18,480 | 21,606 |
| Other States..... | 417 | 534 | 635 | 792 | 655 | 635 |
| Total..... | 13,788 | 18,738 | 22,240 | 29,485 | 30,935 | 37,040 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Preliminary.

ONIONS

TABLE 252.—*Onions, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price per season | | |
|-----------------------------|--------------|--------------|--------------|----------------------|----------------------|----------------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early (Bermuda and Creole): | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| California..... | 1,340 | 1,540 | 1,550 | 308 | 522 | 488 | 613 | 773 | 820 |
| Louisiana..... | 1,200 | 1,670 | 1,700 | 108 | 209 | 204 | 193 | 209 | 318 |
| Texas..... | 12,680 | 10,330 | 9,580 | 1,661 | 2,087 | 2,203 | 3,156 | 3,318 | 3,084 |
| Total..... | 15,220 | 13,540 | 12,830 | 2,167 | 2,818 | 2,895 | 3,962 | 4,300 | 4,222 |
| Intermediate (domestic): | | | | | | | | | |
| Iowa..... | 1,460 | 1,520 | 1,620 | 533 | 578 | 632 | 629 | 590 | 1,043 |
| Kentucky..... | 1,000 | 1,100 | 750 | 298 | 330 | 210 | 423 | 412 | 315 |
| New Jersey..... | 2,290 | 2,370 | 2,000 | 444 | 645 | 360 | 657 | 987 | 612 |
| Virginia..... | 1,290 | 1,000 | 800 | 328 | 200 | 180 | 387 | 210 | 329 |
| Washington..... | 1,500 | 1,760 | 1,510 | 675 | 484 | 340 | 500 | 465 | 282 |
| Late (domestic): | | | | | | | | | |
| California..... | 7,010 | 4,650 | 5,650 | 2,103 | 1,279 | 1,695 | 2,271 | 1,010 | 1,848 |
| Colorado..... | 2,620 | 3,140 | 3,520 | 655 | 848 | 1,144 | 707 | 517 | 1,018 |
| Idaho..... | 300 | 400 | 1,660 | 128 | 160 | 755 | 142 | 139 | 581 |
| Illinois..... | 990 | 830 | 840 | 286 | 187 | 218 | 323 | 150 | 177 |
| Indiana..... | 6,300 | 6,980 | 4,620 | 2,218 | 1,745 | 1,317 | 2,795 | 1,256 | 1,343 |
| Massachusetts..... | 3,360 | 3,190 | 3,820 | 1,284 | 1,244 | 1,494 | 1,913 | 1,232 | 1,778 |
| Michigan..... | 1,850 | 2,040 | 1,750 | 646 | 751 | 399 | 969 | 473 | 387 |
| Minnesota..... | 1,220 | 1,380 | 1,440 | 268 | 380 | 386 | 354 | 293 | 367 |
| New York..... | 7,550 | 7,640 | 8,680 | 3,156 | 3,208 | 3,842 | 4,387 | 2,599 | 3,609 |
| Ohio..... | 5,760 | 6,240 | 2,860 | 1,457 | 2,184 | 772 | 2,098 | 1,507 | 908 |
| Oregon..... | 600 | 650 | 1,050 | 192 | 323 | 369 | 230 | 245 | 258 |
| Pennsylvania..... | 280 | 250 | 190 | 56 | 81 | 53 | 80 | 108 | 85 |
| Utah..... | 400 | 320 | 400 | 150 | 147 | 240 | 202 | 147 | 180 |
| Wisconsin..... | 940 | 990 | 960 | 262 | 259 | 372 | 314 | 189 | 365 |
| Total..... | 46,720 | 46,720 | 44,120 | 15,139 | 15,034 | 14,278 | 19,381 | 12,529 | 15,480 |
| Grand total..... | 61,940 | 60,260 | 56,950 | 17,306 | 17,852 | 17,173 | 28,343 | 16,829 | 19,702 |

Division of Crop and Livestock Estimates.

TABLE 253.—Onions, commercial crop: Yield per acre and price, 1919–1925

| State | Yield per acre | | | | | | | Price per bushel ¹ | | | | | | |
|----------------------------------|----------------|----------|----------|----------|----------|----------|----------|-------------------------------|------------|------------|------------|------------|------------|------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early (Bermuda and Creole): | | | | | | | | | | | | | | |
| California..... | Bus. 312 | Bus. 298 | Bus. 245 | Bus. 320 | Bus. 297 | Bus. 339 | Bus. 315 | Dols. 2.20 | Dols. 1.53 | Dols. 1.28 | Dols. 1.42 | Dols. 1.54 | Dols. 1.48 | Dols. 1.68 |
| Louisiana..... | 160 | 158 | 206 | 300 | 90 | 125 | 120 | 2.85 | .86 | .95 | 1.51 | 1.79 | 1.00 | 1.56 |
| Texas..... | 267 | 256 | 207 | 197 | 131 | 202 | 230 | 2.01 | 1.42 | .83 | 1.91 | 1.90 | 1.59 | 1.40 |
| Bermuda and Creole, average..... | 259 | 251 | 213 | 227 | 142 | 208 | 226 | 2.09 | 1.42 | .92 | 1.75 | 1.83 | 1.63 | 1.46 |
| Intermediate (domestic): | | | | | | | | | | | | | | |
| Iowa..... | 300 | 350 | 205 | 380 | 365 | 380 | 390 | 1.53 | .60 | 1.20 | .75 | 1.18 | 1.02 | 1.65 |
| Kentucky..... | 300 | 370 | 300 | 225 | 298 | 300 | 280 | 2.05 | 1.05 | .70 | 1.27 | 1.42 | 1.25 | 1.50 |
| New Jersey..... | 250 | 240 | 250 | 250 | 194 | 272 | 180 | 1.72 | 1.25 | 1.15 | 1.25 | 1.48 | 1.53 | 1.70 |
| Virginia..... | 250 | 320 | 280 | 225 | 254 | 200 | 225 | 1.78 | 1.50 | 1.13 | .90 | 1.18 | 1.05 | 1.83 |
| Washington..... | 400 | 410 | 300 | 320 | 450 | 275 | 225 | 1.55 | .93 | 1.41 | .43 | .74 | .96 | .83 |
| Late (domestic): | | | | | | | | | | | | | | |
| California..... | 375 | 325 | 225 | 250 | 300 | 275 | 300 | 1.65 | .50 | 1.40 | .48 | 1.08 | .79 | 1.09 |
| Colorado..... | 250 | 340 | 300 | 280 | 250 | 270 | 325 | 1.62 | .72 | 1.53 | .52 | 1.08 | .61 | .89 |
| Idaho..... | 400 | 485 | 470 | 490 | 425 | 400 | 455 | 1.65 | .35 | 1.62 | .75 | 1.11 | .87 | .77 |
| Illinois..... | 200 | 350 | 210 | 300 | 289 | 225 | 260 | 1.32 | .81 | 1.28 | .82 | 1.13 | .80 | .81 |
| Indiana..... | 200 | 398 | 265 | 413 | 352 | 250 | 285 | 1.32 | .76 | 1.32 | .59 | 1.26 | .72 | 1.02 |
| Massachusetts..... | 340 | 450 | 280 | 275 | 382 | 390 | 391 | 1.09 | .64 | 1.44 | .70 | 1.49 | .99 | 1.19 |
| Michigan..... | 175 | 350 | 225 | 511 | 349 | 368 | 228 | 1.45 | .63 | 1.65 | .58 | 1.50 | .63 | .97 |
| Minnesota..... | 275 | 300 | 200 | 350 | 220 | 275 | 268 | 1.47 | .60 | 1.27 | .43 | 1.32 | .77 | .95 |
| New York..... | 265 | 340 | 300 | 270 | 418 | 420 | 385 | 1.84 | .69 | 1.60 | .67 | 1.39 | .81 | 1.08 |
| Ohio..... | 250 | 340 | 225 | 400 | 253 | 350 | 270 | 1.28 | .46 | 1.53 | .55 | 1.44 | .69 | 1.17 |
| Oregon..... | 300 | 370 | 300 | 300 | 320 | 340 | 351 | 1.83 | .70 | 1.07 | .55 | 1.20 | .76 | .70 |
| Pennsylvania..... | 300 | 350 | 270 | 380 | 200 | 325 | 278 | 1.62 | .32 | 2.00 | .68 | 1.42 | 1.33 | 1.60 |
| Utah..... | 500 | 480 | 440 | 400 | 375 | 460 | 600 | 1.62 | .72 | 1.60 | .49 | 1.35 | 1.00 | .75 |
| Wisconsin..... | 196 | 360 | 300 | 350 | 279 | 270 | 388 | .85 | .68 | 1.51 | .49 | 1.20 | .73 | .98 |
| Domestic average..... | 280 | 353 | 259 | 320 | 324 | 322 | 324 | 1.53 | .66 | 1.41 | .63 | 1.28 | .83 | 1.08 |
| Average..... | 277 | 329 | 248 | 296 | 279 | 296 | 302 | 1.61 | .81 | 1.31 | .85 | 1.35 | .94 | 1.15 |

Division of Crop and Livestock Estimates.

¹ Average for season.

TABLE 254.—Onions: Car-lot shipments by State of origin, March, 1920–June, 1925

| State | Crop movement season ¹ | | | | |
|--------------------|-----------------------------------|------------|------------|------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 ² |
| Massachusetts..... | Cars 3,914 | Cars 2,244 | Cars 1,912 | Cars 2,454 | Cars 2,481 |
| New York..... | 3,384 | 2,890 | 2,812 | 5,505 | 5,335 |
| New Jersey..... | 371 | 429 | 479 | 335 | 403 |
| Ohio..... | 3,239 | 1,749 | 4,493 | 2,714 | 4,492 |
| Indiana..... | 4,124 | 1,972 | 4,684 | 4,610 | 3,735 |
| Illinois..... | 409 | 251 | 487 | 378 | 241 |
| Michigan..... | 939 | 417 | 1,867 | 1,222 | 1,623 |
| Wisconsin..... | 409 | 90 | 330 | 273 | 212 |
| Minnesota..... | 287 | 169 | 500 | 189 | 487 |
| Iowa..... | 830 | 416 | 927 | 882 | 1,176 |
| Virginia..... | 139 | 280 | 371 | 274 | 345 |
| Kentucky..... | 304 | 882 | 258 | 263 | 286 |
| Texas..... | 4,957 | 4,200 | 4,630 | 3,027 | 3,918 |
| Idaho..... | 28 | 50 | 161 | 256 | 322 |
| Colorado..... | 150 | 447 | 651 | 928 | 1,064 |
| Utah..... | 9 | 54 | 170 | 177 | 216 |
| Washington..... | 810 | 702 | 765 | 1,126 | 1,016 |
| Oregon..... | 37 | 843 | 263 | 392 | 558 |
| California..... | 4,802 | 3,542 | 4,849 | 3,427 | 2,671 |
| Other States..... | 341 | 254 | 369 | 330 | 235 |
| Total..... | 29,473 | 20,890 | 30,478 | 28,762 | 30,796 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from March 1 of one year through June of the following year.² Preliminary.

TABLE 255.—Onions: Average l. c. l. price per 100 pounds to jobbers, at nine markets, 1920-1925

| Market. Season beginning August | Various common varieties | | | | | | | | Bermudas | | | | | |
|--|--------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------------------|----------------------|------------------------------|----------------------|------------------------------|
| | | | | | | | | | Apr. | | May ¹ | | June ¹ | |
| | Aug. ¹ | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Yel- low | Crys- tal White wax | Yel- low | Crys- tal White wax | Yel- low | Crys- tal White wax |
| New York: | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> | <i>Dol- lars</i> |
| 1920..... | 2.53 | 2.24 | 1.56 | 1.56 | 1.23 | 1.31 | 0.98 | 0.80 | 4.34 | 3.46 | 3.15 | 3.79 | 2.93 | 3.01 |
| 1921..... | 2.80 | 3.43 | 5.06 | 5.63 | 5.45 | 7.34 | 8.25 | 8.21 | 7.66 | 6.20 | 4.14 | 3.79 | 3.91 | 3.54 |
| 1922..... | 2.08 | 1.52 | 1.72 | 2.00 | 2.99 | 2.83 | 2.45 | 2.98 | ----- | ----- | 5.31 | 5.19 | ----- | ----- |
| 1923..... | 2.68 | 3.21 | 3.26 | 2.75 | 2.76 | 2.73 | 2.33 | 2.20 | ----- | ----- | 3.27 | ----- | ----- | ----- |
| 1924..... | 2.17 | 1.89 | 1.84 | 2.08 | 2.84 | 3.05 | 3.05 | 2.86 | 4.19 | 5.04 | 6.16 | 5.01 | 7.18 | ----- |
| 1925..... | 2.94 | 2.36 | 2.86 | 2.80 | 3.26 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Chicago: | | | | | | | | | | | | | | |
| 1920..... | 2.06 | 1.94 | 1.59 | 1.56 | 1.31 | 1.16 | .98 | .93 | 3.48 | 4.37 | 2.79 | 3.73 | 2.53 | 3.27 |
| 1921..... | 2.58 | 3.61 | 4.47 | 5.11 | 5.62 | 7.09 | 7.64 | 8.53 | 6.21 | 6.47 | 4.05 | 4.20 | 3.43 | 3.89 |
| 1922..... | 2.12 | 1.61 | 1.70 | 2.23 | 2.29 | 2.56 | 3.44 | 3.38 | 5.96 | ----- | 5.15 | 5.79 | ----- | ----- |
| 1923..... | 3.19 | 3.48 | 3.29 | 3.23 | 3.07 | 3.27 | 3.04 | 2.79 | 5.17 | ----- | 3.37 | 4.10 | ----- | ----- |
| 1924..... | 3.11 | 2.73 | 2.43 | 2.52 | 2.88 | 3.96 | 4.38 | 4.32 | 4.15 | 5.46 | 6.33 | 6.75 | 7.94 | 8.39 |
| 1925..... | 3.41 | 2.90 | 3.11 | 3.35 | 3.46 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Philadelphia: | | | | | | | | | | | | | | |
| 1920..... | ----- | 2.03 | 1.49 | 1.51 | 1.23 | 1.27 | .98 | .87 | 4.04 | 3.88 | 3.26 | 3.70 | 2.75 | 2.61 |
| 1921..... | 3.02 | 3.80 | 4.80 | 5.34 | 5.52 | 6.93 | 8.09 | 8.98 | 7.03 | 6.00 | 4.13 | 4.04 | 4.07 | ----- |
| 1922..... | 2.19 | 1.63 | 1.57 | 1.82 | 2.73 | 2.90 | 2.54 | 3.20 | 6.03 | ----- | ----- | ----- | ----- | ----- |
| 1923..... | 3.07 | 3.45 | 3.09 | 2.73 | 2.61 | 2.58 | 2.21 | 2.11 | 4.76 | ----- | 3.42 | ----- | ----- | ----- |
| 1924..... | 2.91 | 1.99 | 1.70 | 1.76 | 2.59 | 3.01 | 3.00 | 2.82 | 4.19 | ----- | 6.45 | ----- | 7.46 | ----- |
| 1925..... | 3.07 | 2.48 | 2.38 | 2.44 | 2.63 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Pittsburgh: | | | | | | | | | | | | | | |
| 1920..... | 2.34 | 2.30 | 1.74 | 1.65 | 1.05 | 1.26 | .89 | .90 | 4.03 | 4.58 | 3.22 | 3.91 | 2.95 | 3.35 |
| 1921..... | 3.05 | 3.82 | 4.86 | 5.44 | 5.57 | 6.73 | 7.89 | 8.89 | 6.81 | 7.17 | 4.52 | 5.29 | 3.54 | 3.88 |
| 1922..... | 2.36 | 1.56 | 1.52 | 1.63 | 2.74 | 2.95 | 2.70 | 3.33 | 6.95 | ----- | 5.49 | 5.98 | ----- | ----- |
| 1923..... | 2.96 | 3.50 | 3.34 | 2.73 | 2.46 | 2.34 | 2.08 | 2.13 | 5.77 | ----- | 3.40 | 4.31 | ----- | ----- |
| 1924..... | 3.12 | 1.98 | 1.70 | 1.59 | 2.45 | 2.96 | 2.75 | 2.74 | 4.55 | 5.65 | 6.58 | 7.05 | 7.75 | ----- |
| 1925..... | 3.55 | 2.73 | 2.43 | 2.40 | 2.45 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| St. Louis: | | | | | | | | | | | | | | |
| 1920..... | 2.40 | 1.67 | 1.55 | 1.55 | ----- | 1.17 | .91 | .70 | 3.30 | 4.40 | 2.83 | 3.47 | ----- | 3.20 |
| 1921..... | 2.95 | 3.70 | 4.88 | 5.45 | 5.68 | 6.97 | 7.90 | 8.52 | 5.95 | 5.67 | 3.17 | 4.19 | 3.37 | ----- |
| 1922..... | ----- | ----- | 1.89 | 2.20 | 2.30 | 2.92 | 2.62 | 3.14 | ----- | ----- | 5.05 | 5.20 | ----- | ----- |
| 1923..... | 2.55 | 3.45 | 3.45 | 3.23 | 3.05 | 3.45 | 3.39 | 2.90 | 4.11 | ----- | 2.94 | 3.73 | ----- | ----- |
| 1924..... | ----- | 2.23 | 1.70 | 1.96 | 2.79 | 3.82 | 3.78 | 3.58 | 3.86 | 4.65 | 5.97 | 6.29 | 7.40 | 8.29 |
| 1925..... | ----- | 2.64 | 2.67 | 2.98 | 2.96 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Cincinnati: | | | | | | | | | | | | | | |
| 1920..... | ----- | 1.76 | 1.48 | 1.45 | 1.33 | 1.25 | 1.13 | .85 | 3.43 | 4.49 | 3.17 | 3.95 | 2.72 | 3.73 |
| 1921..... | 2.92 | 3.74 | 5.19 | 5.59 | 5.45 | 6.90 | 8.29 | 8.63 | 5.93 | 6.44 | 4.67 | ----- | 3.40 | 3.76 |
| 1922..... | ----- | ----- | 1.78 | 1.96 | 2.87 | 3.08 | 2.93 | 3.94 | ----- | ----- | 5.38 | 5.71 | ----- | ----- |
| 1923..... | 2.94 | 3.43 | 3.04 | 2.90 | 2.56 | 2.60 | 2.23 | 1.95 | 4.47 | ----- | 3.53 | 4.53 | ----- | ----- |
| 1924..... | ----- | 1.85 | 1.64 | 1.69 | 2.42 | 2.90 | 2.83 | 2.68 | 4.72 | 5.20 | 6.64 | 6.73 | ----- | ----- |
| 1925..... | ----- | ----- | 2.85 | 2.96 | 2.80 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Minneapolis: | | | | | | | | | | | | | | |
| 1920..... | 2.17 | 2.12 | ----- | ----- | ----- | ----- | ----- | ----- | 4.02 | 4.66 | 3.38 | 4.11 | 2.49 | 4.05 |
| 1921..... | 2.70 | 3.34 | 4.76 | 4.81 | 4.60 | 6.62 | 8.11 | 8.83 | ----- | ----- | 4.62 | 4.86 | 3.17 | 3.55 |
| 1922..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 5.90 | 6.21 | ----- | ----- |
| 1923..... | 2.78 | 3.44 | 3.72 | 3.14 | 3.22 | 3.50 | 3.05 | 2.89 | 6.12 | ----- | 5.88 | 4.69 | ----- | ----- |
| 1924..... | 2.88 | 2.61 | ----- | ----- | ----- | ----- | 3.36 | 3.50 | 4.80 | 6.61 | 6.34 | 6.78 | 7.89 | ----- |
| 1925..... | ----- | ----- | ----- | 2.62 | 2.52 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Kansas City: | | | | | | | | | | | | | | |
| 1920..... | 2.62 | 1.98 | 1.68 | 1.67 | 1.52 | 1.35 | 1.13 | .66 | 3.60 | 4.27 | 2.78 | 3.46 | 2.39 | 3.41 |
| 1921..... | 2.97 | 3.60 | 4.38 | 5.40 | 5.42 | 6.94 | 8.06 | 8.50 | 6.66 | 6.92 | 3.91 | 4.46 | 2.76 | 3.20 |
| 1922..... | ----- | ----- | 2.12 | 2.02 | 2.56 | 3.25 | 3.45 | 3.22 | ----- | ----- | ----- | ----- | ----- | ----- |
| 1923..... | 2.62 | 3.48 | 3.65 | 3.30 | 2.96 | 3.32 | 3.30 | 3.00 | 5.48 | ----- | 3.29 | 4.17 | ----- | ----- |
| 1924..... | 3.09 | 2.89 | 2.13 | 2.36 | 2.82 | 4.20 | 3.99 | 4.25 | 4.74 | 5.12 | 6.12 | 6.55 | 7.44 | 7.98 |
| 1925..... | 3.97 | 2.68 | 3.19 | 3.07 | 2.87 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Washington: | | | | | | | | | | | | | | |
| 1920..... | 3.44 | 3.90 | 3.62 | 3.32 | 3.11 | 2.89 | 2.76 | 2.56 | ----- | ----- | 4.22 | ----- | ----- | ----- |
| 1921..... | 3.38 | 2.49 | 2.11 | 2.06 | 2.88 | 3.44 | 3.40 | 3.14 | 5.01 | ----- | 6.87 | ----- | 8.44 | ----- |
| 1922..... | 4.10 | 2.92 | 2.55 | 2.84 | 3.04 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division.

Average prices as shown are based on stock of U. S. No. 1 grade; they are simple averages of daily range of selling prices. In some cases conversions have been made from larger to smaller units or vice versa, in order to obtain comparability.

¹ Quotations began Aug. 23, 1920; Aug. 22, 1921; Aug. 7, 1922; Aug. 14, 1923; Aug. 23, 1924; July 23, 1925.

² Last reported quotations of season June 11, 1921; June 14, 1922; May 29, 1923; June 4, 1924; June 10, 1925.

TABLE 256.—Onions: Estimated price per bushel, received by producers, United States, 1910–1925

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted av. |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1910..... | 104.5 | 99.8 | 99.4 | 93.2 | 94.6 | 98.8 | 101.0 | 104.0 | 105.0 | 119.0 | 129.0 | 134.0 | 106.2 |
| 1911..... | 122.0 | 116.0 | 104.0 | 102.0 | 103.0 | 113.0 | 117.0 | 140.0 | 167.0 | 175.0 | 177.0 | 155.0 | 129.8 |
| 1912..... | 114.0 | 100.0 | 89.0 | 85.0 | 84.0 | 84.0 | 81.6 | 77.5 | 77.0 | 79.0 | 87.2 | 95.6 | 88.2 |
| 1913..... | 101.7 | 105.1 | 103.9 | 110.2 | 114.9 | 114.9 | 121.0 | 140.7 | 155.2 | 159.2 | 152.6 | 140.8 | 124.0 |
| A v. 1910–1913.... | 110.6 | 105.2 | 99.1 | 97.6 | 99.1 | 102.7 | 105.2 | 115.6 | 126.0 | 133.0 | 136.4 | 131.4 | 112.0 |
| 1914..... | 170.4 | 137.9 | 103.3 | 88.3 | 84.4 | 92.3 | 88.9 | 97.6 | 95.3 | 104.4 | 102.9 | 102.9 | 106.1 |
| 1915..... | 93.0 | 86.3 | 82.8 | 94.8 | 94.8 | 99.6 | 113.2 | 126.3 | 130.3 | 123.5 | 123.3 | 133.8 | 104.5 |
| 1916..... | 147.3 | 133.5 | 122.9 | 131.4 | 153.8 | 175.7 | 208.4 | 357.9 | 476.2 | 495.6 | 398.0 | 308.0 | 241.7 |
| 1917..... | 201.0 | 154.7 | 142.9 | 167.5 | 174.6 | 177.0 | 178.9 | 183.2 | 147.4 | 134.1 | 134.7 | 138.7 | 156.7 |
| 1918..... | 162.6 | 164.7 | 163.3 | 143.2 | 143.1 | 131.7 | 133.5 | 154.7 | 199.8 | 202.1 | 229.9 | 234.1 | 171.3 |
| 1919..... | 232.0 | 225.8 | 195.4 | 196.4 | 212.5 | 245.8 | 280.8 | 307.3 | 325.6 | 344.2 | 337.6 | 264.2 | 257.0 |
| 1920..... | 204.8 | 176.4 | 172.9 | 158.9 | 143.8 | 132.0 | 135.2 | 131.2 | 114.2 | 98.4 | 106.7 | 138.2 | 145.6 |
| A v. 1914–1920.... | 173.0 | 154.2 | 140.5 | 138.6 | 143.9 | 150.6 | 162.7 | 194.0 | 212.6 | 214.6 | 204.7 | 188.6 | 169.0 |
| 1921..... | 147.7 | 159.1 | 168.5 | 186.6 | 219.9 | 245.2 | 263.8 | 325.3 | 365.7 | 469.6 | 331.4 | 270.9 | 252.5 |
| 1922..... | 204.5 | 186.9 | 126.9 | 118.8 | 123.6 | 131.7 | 159.8 | 173.0 | 173.8 | 196.5 | 200.7 | 220.5 | 160.7 |
| 1923..... | 207.7 | 185.2 | 179.3 | 185.6 | 174.6 | 178.4 | 181.3 | 182.9 | 181.2 | 173.8 | 184.1 | 155.4 | 181.9 |
| 1924..... | 175.9 | 168.6 | 161.8 | 155.8 | 152.6 | 153.6 | 163.8 | 194.3 | 189.4 | 202.3 | 250.5 | 279.6 | 184.0 |
| 1925..... | 290.4 | 241.3 | 176.8 | 180.9 | 175.4 | 174.1 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Crop and Livestock Estimates.

PEAS

TABLE 257.—Peas, green, for consumption fresh; commercial crop: Acreage, production, and total value, by States, 1923–1925

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|----------------------------|--------------|--------------|--------------|--------------------------------|--------------------------------|--------------------------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 hamp.¹</i> | <i>1,000 hamp.¹</i> | <i>1,000 hamp.¹</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Arizona..... | 200 | 450 | 1,150 | 13 | 14 | 52 | 20 | 38 | 87 |
| California (Imperial)..... | 1,420 | 950 | 1,400 | 78 | 52 | 66 | 156 | 111 | 169 |
| Florida..... | 2,250 | 1,330 | 2,210 | 135 | 78 | 84 | 358 | 220 | 225 |
| Mississippi..... | 1,920 | 2,380 | 2,050 | 108 | 162 | 107 | 215 | 228 | 193 |
| North Carolina..... | 3,930 | 4,770 | 3,610 | 295 | 343 | 390 | 732 | 580 | 741 |
| South Carolina..... | 1,630 | 1,720 | 1,140 | 106 | 71 | 91 | 186 | 185 | 191 |
| Virginia (Norfolk)..... | 2,530 | 800 | 800 | 240 | 68 | 64 | 382 | 95 | 102 |
| Late: | | | | | | | | | |
| Colorado..... | 380 | 850 | 2,560 | 28 | 68 | 256 | 40 | 128 | 794 |
| New Jersey..... | 1,320 | 3,200 | 2,700 | 106 | 182 | 148 | 219 | 426 | 231 |
| New York..... | 1,800 | 4,920 | 6,650 | 153 | 492 | 485 | 301 | 851 | 1,091 |
| Total..... | 17,380 | 21,370 | 24,270 | 1,262 | 1,530 | 1,743 | 2,609 | 2,871 | 3,834 |

Division of Crop and Livestock Estimates.

¹ 1-bushel hampers.

TABLE 258.—*Peas, green, for consumption fresh; commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per hamper ¹ | | | | | | |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------------------------------|-------|-------|-------|-------|-------|-------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | Hamp. | Hamp. | Hamp. | Hamp. | Hamp. | Hamp. | Hamp. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| Arizona..... | | | | | 63 | 31 | 45 | | | | | 1.52 | 2.72 | 1.67 |
| California (Imperial)..... | 70 | 80 | 65 | 48 | 55 | 55 | 47 | 3.00 | 2.50 | 2.15 | 1.50 | 2.00 | 2.14 | 2.56 |
| Florida..... | 50 | 50 | 80 | 54 | 60 | 59 | 38 | 3.00 | 3.25 | 3.00 | 2.57 | 2.65 | 2.93 | 2.80 |
| Mississippi..... | 50 | 50 | 65 | 55 | 56 | 68 | 52 | 2.16 | 2.80 | 2.02 | 1.85 | 1.99 | 1.41 | 1.80 |
| North Carolina..... | 80 | 70 | 90 | 82 | 75 | 72 | 108 | 2.25 | 2.32 | 2.40 | 2.00 | 2.48 | 1.60 | 1.90 |
| South Carolina..... | 70 | 60 | 75 | 92 | 65 | 41 | 80 | 2.41 | 1.86 | 2.00 | 2.50 | 1.75 | 2.61 | 2.10 |
| Virginia (Norfolk)..... | 100 | 70 | 105 | 113 | 95 | 85 | 80 | 2.00 | 2.44 | 2.40 | 1.48 | 1.59 | 1.39 | 1.60 |
| Late: | | | | | | | | | | | | | | |
| Colorado..... | | | | 45 | 75 | 80 | 100 | | | | 1.55 | 1.44 | 1.88 | 3.10 |
| New Jersey..... | 65 | 60 | 65 | 76 | 80 | 57 | 55 | 2.20 | 2.03 | 1.95 | 1.95 | 2.07 | 2.34 | 1.56 |
| New York..... | 60 | 70 | 60 | 78 | 85 | 100 | 73 | 1.35 | 1.37 | 1.30 | 1.58 | 1.97 | 1.73 | 2.25 |
| Average..... | 68 | 64 | 72 | 79 | 73 | 72 | 72 | 2.22 | 2.19 | 2.05 | 1.81 | 2.07 | 1.88 | 2.20 |

Division of Crop and Livestock Estimates.

¹ Average for season.

TABLE 259.—*Peas, green, for canning; commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-------------------|---------|---------|---------|------------|---------|---------|--|---------------|---------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | Acres | Acres | Acres | Tons | Tons | Tons | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| California..... | 4,410 | 5,260 | 5,270 | 3,100 | 3,700 | 3,700 | 196 | 259 | 226 |
| Colorado..... | 3,680 | 3,140 | 3,520 | 1,800 | 2,500 | 3,200 | 124 | 131 | 192 |
| Delaware..... | 3,880 | 2,500 | 2,500 | 2,300 | 2,500 | 2,000 | 138 | 109 | 142 |
| Illinois..... | 10,190 | 10,790 | 9,760 | 6,100 | 8,600 | 6,800 | 398 | 666 | 546 |
| Indiana..... | 4,760 | 6,190 | 6,270 | 3,800 | 6,200 | 5,000 | 214 | 287 | 268 |
| Maine..... | 340 | 1,030 | 1,770 | 400 | 900 | 2,100 | 28 | 63 | 147 |
| Maryland..... | 8,050 | 9,530 | 8,480 | 4,800 | 9,500 | 7,600 | 305 | 653 | 508 |
| Michigan..... | 10,530 | 12,220 | 12,400 | 4,200 | 9,800 | 6,200 | 210 | 496 | 314 |
| Minnesota..... | 2,030 | 5,200 | 7,900 | 2,200 | 5,200 | 4,700 | 88 | 248 | 223 |
| New Jersey..... | 610 | 590 | 490 | 400 | 600 | 300 | 27 | 38 | 20 |
| New York..... | 33,460 | 38,080 | 38,000 | 30,100 | 38,000 | 34,200 | 1,922 | 2,456 | 2,176 |
| Ohio..... | 5,300 | 5,830 | 5,070 | 4,800 | 5,800 | 2,500 | 283 | 348 | 155 |
| Pennsylvania..... | 510 | 1,260 | 1,300 | 500 | 1,300 | 600 | 28 | 78 | 96 |
| Utah..... | 7,780 | 10,860 | 10,750 | 11,700 | 12,400 | 17,200 | 686 | 716 | 964 |
| Wisconsin..... | 91,160 | 108,876 | 111,710 | 82,000 | 131,800 | 111,700 | 4,767 | 7,643 | 6,387 |
| Other States..... | 3,140 | 4,770 | 6,640 | 2,500 | 5,200 | 6,600 | 164 | 242 | 336 |
| Total..... | 189,830 | 226,560 | 231,830 | 160,700 | 244,000 | 214,400 | 9,518 | 14,493 | 12,652 |

Division of Crop and Livestock Estimates.

TABLE 260.—*Peas, green, for canning; commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre [*] | | | | | | | Price per ton | | | | | | |
|-------------------|-----------------------------|------|------|------|------|------|------|---------------|--------|--------|--------|--------|--------|--------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | Tons | Tons | Tons | Tons | Tons | Tons | Tons | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. |
| California..... | 0.8 | 1.5 | 0.6 | 1.7 | 0.7 | 0.7 | 0.7 | 58.17 | 65.67 | 70.00 | 58.03 | 63.33 | 70.00 | 63.75 |
| Colorado..... | .6 | .9 | .8 | .7 | .5 | .8 | .9 | 60.00 | 68.00 | 70.00 | 65.00 | 69.00 | 52.54 | 60.00 |
| Delaware..... | .7 | 1.1 | 1.3 | .6 | .6 | 1.0 | .8 | 58.19 | 55.00 | 62.92 | 60.00 | 60.00 | 67.50 | 70.88 |
| Illinois..... | .9 | .8 | .7 | .6 | .6 | .8 | .7 | 65.68 | 63.75 | 68.90 | 61.00 | 65.17 | 77.48 | 80.34 |
| Indiana..... | .9 | .7 | 1.0 | .9 | .8 | 1.0 | .8 | 51.25 | 60.00 | 40.00 | 49.28 | 56.25 | 46.32 | 53.57 |
| Maine..... | | | | | 1.1 | .9 | 1.2 | | | | | 70.00 | 70.00 | 70.00 |
| Maryland..... | .8 | 1.1 | 1.0 | .7 | .6 | 1.0 | .9 | 72.00 | 77.50 | 62.40 | 50.83 | 63.57 | 68.70 | 66.84 |
| Michigan..... | 1.0 | .9 | .6 | .8 | .4 | .8 | .5 | 59.82 | 61.88 | 59.00 | 50.00 | 50.00 | 50.65 | 50.69 |
| Minnesota..... | 1.0 | .8 | .8 | .8 | 1.1 | 1.0 | .6 | 40.00 | 42.50 | 44.00 | 42.00 | 40.00 | 47.60 | 47.52 |
| New Jersey..... | .9 | 1.1 | 1.1 | .6 | .6 | 1.0 | .7 | 70.00 | 70.00 | 65.00 | 60.00 | 67.50 | 64.00 | 67.00 |
| New York..... | .7 | 1.2 | 1.1 | .9 | .9 | 1.0 | .9 | 63.57 | 71.20 | 61.70 | 62.50 | 63.84 | 64.64 | 63.63 |
| Ohio..... | .9 | .8 | .8 | .7 | .9 | 1.0 | .5 | 58.76 | 56.67 | 52.50 | 59.00 | 59.00 | 60.00 | 62.00 |
| Pennsylvania..... | 1.0 | .8 | 1.4 | .8 | 1.0 | 1.0 | .5 | 60.00 | 58.00 | 60.00 | 64.00 | 56.67 | 60.00 | 60.00 |
| Utah..... | 1.1 | 2.1 | 1.5 | 1.4 | 1.5 | 1.2 | 1.6 | 64.15 | 65.68 | 54.12 | 57.68 | 58.60 | 57.75 | 56.05 |
| Wisconsin..... | 1.0 | 1.2 | .9 | 1.2 | .9 | 1.2 | 1.0 | 59.02 | 64.66 | 56.96 | 56.16 | 57.40 | 57.99 | 57.18 |
| Other States..... | 1.0 | .8 | .8 | 1.0 | .8 | 1.1 | 1.0 | 69.74 | 70.00 | 68.56 | 65.56 | 65.75 | 46.84 | 51.15 |
| Average..... | .9 | 1.1 | .9 | 1.0 | .8 | 1.1 | .9 | 61.48 | 66.84 | 58.76 | 57.24 | 59.23 | 59.40 | 59.01 |

Division of Crop and Livestock Estimates.

TABLE 261.—*Peas, canned: Production in the United States, 1917-1925*[Thousand cases¹—i. e., 000 omitted]

| State | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|-------------------------------|-------|--------|-------|--------|-------|--------|--------|--------|--------|
| New York..... | 1,394 | 2,000 | 1,040 | 2,381 | 1,382 | 2,137 | 2,541 | 2,931 | 2,385 |
| New Jersey ¹ | 755 | 332 | 249 | 549 | 345 | 153 | 199 | 331 | 257 |
| Ohio..... | 322 | 442 | 306 | 282 | 241 | 225 | 384 | 430 | 232 |
| Indiana..... | 604 | 454 | 381 | 271 | 182 | 268 | 367 | 483 | 86 |
| Illinois..... | 576 | 978 | 433 | 460 | 331 | 516 | 586 | 697 | 357 |
| Michigan..... | 523 | 477 | 425 | 549 | 317 | 455 | 392 | 710 | 451 |
| Wisconsin..... | 3,569 | 4,520 | 4,317 | 5,804 | 4,063 | 7,042 | 6,961 | 10,390 | 10,003 |
| Minnesota ¹ | | | | | | | 254 | 470 | 432 |
| Maryland..... | 721 | 683 | 509 | 696 | 533 | 489 | 591 | 873 | 956 |
| Utah..... | 421 | 527 | 395 | 595 | 376 | 751 | 918 | 830 | 1,346 |
| California..... | 350 | 253 | 205 | 328 | 84 | 496 | 239 | 282 | 271 |
| Other States..... | 504 | 397 | 426 | 402 | 353 | 510 | 516 | 888 | 1,040 |
| United States..... | 9,829 | 11,063 | 8,685 | 12,317 | 8,207 | 13,042 | 13,948 | 19,315 | 17,816 |

Division of Statistical and Historical Research. Compiled from National Canners' Association data.

¹ Stated in cases of 24 No. 2 cans.² Includes Delaware.³ Previous to 1923, included in "Other States."

POTATOES

TABLE 262.—Potatoes: Acreage, production, value, exports, etc., United States, 1909-1925

| Year | Acreage | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Chicago cash price per hundredweight, fair to fancy ² | | | | Domestic exports, fiscal year beginning July 1 ³ | Imports, fiscal year beginning July 1 ³ |
|-------------------------|--------------------|------------------------|----------------------|---|----------------------|-----------------------------|--|-------------|---------------|-------------|---|--|
| | | | | | | | December | | Following May | | | |
| | | | | | | | Low | High | Low | High | | |
| | <i>1,000 acres</i> | <i>Bushels</i> | <i>1,000 bushels</i> | <i>Cents</i> | <i>1,000 dollars</i> | <i>Dollars</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Bushels</i> | <i>Bushels</i> |
| 1909..... | 3,669 | 107.5 | 394,563 | 54.2 | 213,679 | 58.24 | 33 | 97 | 27 | 57 | 999,476 | 353,208 |
| 1910..... | 3,720 | 93.8 | 349,032 | 55.7 | 194,568 | 52.30 | 60 | 80 | 58 | 125 | 2,383,887 | 218,964 |
| 1911..... | 3,619 | 80.9 | 292,737 | 79.9 | 233,778 | 64.60 | 117 | 167 | 160 | 333 | 1,237,276 | 13,734,695 |
| 1912..... | 3,711 | 113.4 | 420,647 | 50.5 | 212,550 | 57.28 | 67 | 108 | 55 | 117 | 2,028,261 | 337,230 |
| 1913..... | 3,668 | 90.4 | 331,525 | 68.7 | 227,903 | 62.13 | 83 | 117 | 100 | 150 | 1,794,073 | 2,645,903 |
| Average 1909-1913..... | 3,677 | 97.3 | 357,699 | 60.5 | 216,495 | 58.87 | 70 | 114 | 78 | 156 | 1,688,595 | 3,658,022 |
| 1914..... | 3,711 | 110.5 | 409,921 | 48.7 | 199,460 | 53.75 | 50 | 110 | 57 | 250 | 3,135,474 | 270,942 |
| 1915..... | 3,734 | 96.3 | 359,721 | 61.7 | 221,992 | 59.45 | 88 | 158 | 133 | 183 | 4,017,760 | 209,532 |
| 1916..... | 3,565 | 80.5 | 286,953 | 146.1 | 419,333 | 117.62 | 208 | 317 | 333 | 625 | 2,489,001 | 3,079,025 |
| 1917..... | 4,384 | 100.8 | 442,108 | 122.8 | 542,774 | 123.81 | 155 | 225 | 80 | 250 | 3,453,307 | 1,180,480 |
| 1918..... | 4,295 | 95.9 | 411,860 | 119.3 | 491,527 | 114.44 | 90 | 225 | 125 | 250 | 3,688,840 | 3,534,076 |
| 1919..... | 3,542 | 91.2 | 322,867 | 159.5 | 514,855 | 145.36 | 280 | 360 | 685 | 925 | 3,723,434 | 6,940,930 |
| 1920..... | 3,657 | 110.3 | 403,296 | 114.5 | 461,778 | 126.27 | 120 | 225 | 40 | 500 | 4,803,159 | 3,423,189 |
| Average 1914-1920..... | 3,841 | 98.1 | 376,675 | 108.2 | 407,388 | 106.06 | 142 | 231 | 208 | 426 | 3,615,854 | 2,662,596 |
| 1921..... | 3,941 | 91.8 | 361,659 | 110.1 | 398,362 | 101.08 | 100 | 245 | 190 | 235 | 2,327,147 | 2,109,537 |
| 1922..... | 4,307 | 105.3 | 453,396 | 58.1 | 253,355 | 61.15 | 75 | 175 | 90 | 700 | 2,979,951 | 572,147 |
| 1923..... | 3,816 | 109.0 | 416,105 | 78.1 | 324,889 | 55.13 | 80 | 200 | 105 | 525 | 3,074,946 | 564,046 |
| 1924..... | 3,348 | 127.0 | 425,283 | 62.6 | 266,047 | 79.46 | 80 | 220 | 312 | 515 | 3,652,972 | 477,554 |
| 1925 ⁴ | 3,113 | 103.8 | 323,243 | 187.2 | 605,327 | 194.45 | 325 | 450 | | | | |

Division of Crop and Livestock Estimates; figures in italics are census returns.

¹ Based on farm price Dec. 1.² Burbank to 1910.³ Compiled from Commerce and Navigation of United States 1909-1918 and June issues of Monthly Summaries of Foreign Commerce, 1919-1925.⁴ Preliminary.

TABLE 263.—Potatoes: Acreage, production, and total farm value, by States, 1924 and 1925

| State | Thousands of acres | | Production, thousands of bushels | | Total value, basis, Dec. 1, prices, thousands of dollars | | State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1, price, thousands of dollars | |
|-------------|--------------------|-------------------|----------------------------------|-------------------|--|-------------------|-------------|--------------------|-------------------|----------------------------------|-------------------|--|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| Me..... | 146 | 134 | 44,100 | 34,170 | 18,963 | 68,340 | N. C..... | 59 | 58 | 6,195 | 4,524 | 6,938 | 8,143 |
| N. H..... | 11 | 11 | 1,870 | 1,586 | 1,571 | 3,748 | S. C..... | 30 | 25 | 3,330 | 2,175 | 4,828 | 4,568 |
| Vt..... | 21 | 21 | 3,300 | 2,625 | 2,856 | 5,944 | Ga..... | 20 | 17 | 1,440 | 833 | 2,160 | 1,749 |
| Mass..... | 15 | 15 | 2,550 | 2,100 | 2,160 | 5,145 | Fla..... | 29 | 23 | 2,552 | 2,593 | 4,211 | 6,757 |
| R. I..... | 2 | 2 | 280 | 280 | 266 | 686 | Ky..... | 48 | 46 | 4,800 | 2,760 | 4,896 | 5,320 |
| Conn..... | 15 | 15 | 1,950 | 2,025 | 1,950 | 5,062 | Tenn..... | 35 | 37 | 2,800 | 2,072 | 3,136 | 4,040 |
| N. Y..... | 310 | 279 | 43,400 | 23,994 | 24,738 | 51,587 | Ala..... | 28 | 26 | 2,520 | 1,425 | 3,906 | 3,135 |
| N. J..... | 67 | 57 | 10,050 | 6,042 | 6,734 | 13,897 | Miss..... | 12 | 10 | 972 | 670 | 1,594 | 1,340 |
| Pa..... | 215 | 207 | 25,370 | 25,461 | 20,290 | 49,394 | Ark..... | 26 | 25 | 1,924 | 1,690 | 2,463 | 3,522 |
| Ohio..... | 108 | 113 | 9,504 | 11,978 | 8,459 | 23,956 | La..... | 28 | 30 | 1,904 | 1,800 | 2,856 | 3,780 |
| Ind..... | 52 | 50 | 5,148 | 4,150 | 4,118 | 8,964 | Okl..... | 37 | 39 | 2,240 | 2,808 | 2,912 | 6,318 |
| Ill..... | 80 | 76 | 8,800 | 4,560 | 6,900 | 10,716 | Tex..... | 25 | 26 | 2,975 | 1,378 | 2,848 | 3,307 |
| Mich..... | 260 | 237 | 33,800 | 24,411 | 11,830 | 39,546 | Mont..... | 34 | 35 | 2,992 | 3,780 | 2,603 | 6,048 |
| Wis..... | 242 | 211 | 31,460 | 23,632 | 11,318 | 40,174 | Idaho..... | 65 | 67 | 11,050 | 13,132 | 5,967 | 19,041 |
| Minn..... | 243 | 276 | 44,880 | 26,772 | 12,118 | 41,229 | Wyo..... | 16 | 14 | 1,425 | 1,680 | 1,240 | 2,688 |
| Iowa..... | 79 | 83 | 10,744 | 5,229 | 5,909 | 12,288 | Colo..... | 88 | 86 | 13,200 | 14,190 | 7,920 | 21,094 |
| Mo..... | 85 | 88 | 8,330 | 5,016 | 6,831 | 11,286 | N. Mex..... | 2 | 2 | 104 | 150 | 108 | 300 |
| N. Dak..... | 125 | 88 | 11,500 | 6,160 | 4,485 | 9,240 | Ariz..... | 3 | 3 | 162 | 171 | 243 | 393 |
| S. Dak..... | 70 | 61 | 5,740 | 3,965 | 2,785 | 7,137 | Utah..... | 14 | 15 | 1,904 | 2,700 | 1,409 | 3,591 |
| Nebr..... | 89 | 84 | 7,743 | 6,300 | 4,601 | 11,340 | Nev..... | 4 | 4 | 600 | 900 | 636 | 1,710 |
| Kans..... | 54 | 54 | 5,130 | 3,618 | 4,668 | 8,502 | Wash..... | 51 | 54 | 7,650 | 7,830 | 6,502 | 12,920 |
| Del..... | 7 | 6 | 630 | 384 | 504 | 768 | Oreg..... | 40 | 42 | 3,840 | 4,368 | 3,648 | 6,552 |
| Md..... | 42 | 44 | 3,930 | 3,212 | 2,624 | 6,231 | Calif..... | 46 | 42 | 7,860 | 6,510 | 6,624 | 13,020 |
| Va..... | 140 | 126 | 18,340 | 11,340 | 16,039 | 22,118 | U. S..... | 3,846 | 3,113 | 425,283 | 323,243 | 266,047 | 606,337 |
| W. Va..... | 45 | 47 | 4,273 | 4,089 | 4,190 | 7,892 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 264.—Potatoes: Yield per acre, by States, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | A. V. 1900- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | A. V. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | A. V. 1921- 1925 |
|---------------------|------|------|------|------|------|------------------------|------|------|------|------|------|------|------|------------------------|------|------|------|------|------|------------------------|
| | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. | Bu. |
| Maine..... | 225 | 220 | 180 | 168 | 120 | 179 | 260 | 179 | 204 | 125 | 200 | 230 | 177 | 196 | 268 | 187 | 258 | 315 | 255 | 263 |
| New Hampshire..... | 130 | 150 | 125 | 140 | 122 | 239 | 159 | 95 | 120 | 107 | 140 | 102 | 127 | 121 | 160 | 100 | 190 | 170 | 145 | 153 |
| Vermont..... | 155 | 130 | 105 | 140 | 127 | 131 | 168 | 108 | 112 | 100 | 130 | 100 | 130 | 121 | 150 | 120 | 200 | 160 | 125 | 151 |
| Massachusetts..... | 125 | 125 | 98 | 130 | 105 | 116 | 155 | 120 | 91 | 115 | 133 | 90 | 125 | 115 | 115 | 90 | 180 | 150 | 140 | 135 |
| Rhode Island..... | 125 | 136 | 110 | 113 | 130 | 123 | 165 | 110 | 74 | 135 | 130 | 100 | 110 | 118 | 115 | 90 | 165 | 140 | 140 | 130 |
| Connecticut..... | 120 | 125 | 85 | 107 | 92 | 108 | 140 | 95 | 95 | 110 | 95 | 75 | 115 | 104 | 103 | 140 | 160 | 130 | 135 | 134 |
| New York..... | 120 | 102 | 74 | 106 | 74 | 95 | 145 | 62 | 70 | 95 | 98 | 109 | 125 | 101 | 103 | 110 | 123 | 130 | 86 | 112 |
| New Jersey..... | 100 | 105 | 73 | 106 | 93 | 94 | 108 | 130 | 122 | 114 | 92 | 98 | 156 | 117 | 93 | 172 | 136 | 150 | 106 | 124 |
| Pennsylvania..... | 73 | 88 | 56 | 109 | 83 | 84 | 103 | 72 | 70 | 92 | 80 | 100 | 115 | 91 | 86 | 108 | 106 | 118 | 123 | 108 |
| Ohio..... | 96 | 82 | 63 | 112 | 64 | 83 | 95 | 82 | 45 | 100 | 69 | 61 | 100 | 79 | 58 | 96 | 98 | 98 | 106 | 88 |
| Indiana..... | 95 | 84 | 58 | 114 | 53 | 81 | 80 | 95 | 44 | 92 | 80 | 44 | 96 | 76 | 51 | 76 | 105 | 99 | 83 | 83 |
| Illinois..... | 91 | 75 | 50 | 101 | 46 | 73 | 60 | 110 | 53 | 90 | 72 | 52 | 65 | 72 | 53 | 63 | 92 | 110 | 60 | 76 |
| Michigan..... | 105 | 105 | 94 | 105 | 96 | 101 | 121 | 39 | 48 | 95 | 84 | 90 | 105 | 86 | 106 | 106 | 114 | 130 | 103 | 107 |
| Wisconsin..... | 102 | 95 | 116 | 120 | 109 | 108 | 124 | 87 | 47 | 114 | 110 | 94 | 108 | 98 | 68 | 124 | 96 | 130 | 112 | 106 |
| Minnesota..... | 115 | 61 | 115 | 135 | 110 | 107 | 114 | 106 | 60 | 112 | 105 | 87 | 99 | 98 | 75 | 90 | 102 | 132 | 97 | 99 |
| Iowa..... | 89 | 72 | 74 | 109 | 48 | 78 | 86 | 105 | 42 | 95 | 72 | 46 | 110 | 79 | 43 | 105 | 84 | 136 | 63 | 86 |
| Missouri..... | 85 | 86 | 27 | 84 | 38 | 64 | 45 | 98 | 60 | 87 | 61 | 75 | 82 | 73 | 58 | 90 | 100 | 98 | 57 | 75 |
| North Dakota..... | 110 | 41 | 128 | 128 | 85 | 97 | 109 | 90 | 93 | 43 | 99 | 63 | 79 | 82 | 96 | 90 | 83 | 92 | 70 | 86 |
| South Dakota..... | 80 | 44 | 72 | 105 | 78 | 76 | 90 | 115 | 66 | 90 | 91 | 50 | 105 | 83 | 61 | 78 | 88 | 82 | 65 | 75 |
| Nebraska..... | 78 | 60 | 52 | 80 | 48 | 64 | 80 | 105 | 73 | 85 | 86 | 55 | 99 | 87 | 80 | 84 | 80 | 87 | 75 | 81 |
| Kansas..... | 79 | 57 | 22 | 82 | 40 | 56 | 62 | 83 | 71 | 57 | 53 | 76 | 85 | 70 | 64 | 64 | 86 | 95 | 67 | 75 |
| Delaware..... | 96 | 103 | 60 | 100 | 87 | 89 | 80 | 95 | 90 | 95 | 87 | 83 | 106 | 92 | 50 | 96 | 80 | 90 | 95 | 74 |
| Maryland..... | 80 | 95 | 45 | 112 | 87 | 84 | 78 | 97 | 95 | 100 | 80 | 94 | 102 | 92 | 61 | 101 | 80 | 95 | 73 | 83 |
| Virginia..... | 92 | 98 | 45 | 87 | 94 | 83 | 65 | 125 | 130 | 99 | 94 | 114 | 120 | 107 | 108 | 107 | 93 | 131 | 90 | 106 |
| West Virginia..... | 98 | 92 | 45 | 112 | 83 | 86 | 54 | 117 | 88 | 115 | 87 | 90 | 120 | 96 | 95 | 99 | 120 | 95 | 87 | 97 |
| North Carolina..... | 74 | 89 | 48 | 85 | 80 | 75 | 52 | 90 | 95 | 90 | 95 | 80 | 91 | 85 | 88 | 94 | 86 | 105 | 78 | 90 |
| South Carolina..... | 85 | 90 | 70 | 90 | 80 | 83 | 70 | 80 | 75 | 96 | 102 | 85 | 100 | 87 | 85 | 76 | 103 | 111 | 87 | 92 |
| Georgia..... | 81 | 82 | 72 | 78 | 81 | 79 | 60 | 65 | 60 | 84 | 70 | 70 | 74 | 69 | 75 | 68 | 70 | 72 | 40 | 67 |
| Florida..... | 95 | 90 | 60 | 98 | 76 | 89 | 80 | 74 | 91 | 91 | 100 | 78 | 108 | 87 | 92 | 110 | 92 | 113 | 99 | 99 |
| Kentucky..... | 92 | 92 | 39 | 101 | 49 | 75 | 45 | 126 | 84 | 96 | 75 | 70 | 96 | 85 | 92 | 80 | 85 | 100 | 60 | 78 |
| Tennessee..... | 75 | 80 | 41 | 88 | 64 | 70 | 43 | 88 | 82 | 94 | 70 | 67 | 83 | 73 | 52 | 80 | 90 | 80 | 54 | 72 |
| Alabama..... | 80 | 80 | 78 | 81 | 84 | 81 | 79 | 80 | 90 | 92 | 80 | 80 | 87 | 78 | 75 | 80 | 80 | 90 | 57 | 76 |
| Mississippi..... | 85 | 85 | 83 | 89 | 80 | 85 | 80 | 90 | 65 | 78 | 80 | 85 | 87 | 81 | 68 | 85 | 74 | 81 | 67 | 75 |
| Arkansas..... | 87 | 87 | 84 | 70 | 72 | 70 | 60 | 90 | 60 | 80 | 50 | 73 | 78 | 71 | 68 | 88 | 59 | 74 | 60 | 86 |
| Louisiana..... | 75 | 35 | 69 | 73 | 70 | 68 | 70 | 51 | 65 | 64 | 79 | 64 | 65 | 65 | 67 | 66 | 63 | 68 | 60 | 65 |

| | | | | | | | | | | | | | | | | | | | | |
|--------------------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|-------|-------|-------|-------|
| Oklahoma..... | 70 | 60 | 18 | 60 | 60 | 54 | 70 | 85 | 53 | 69 | 34 | 75 | 74 | 66 | 58 | 68 | 66 | 70 | 72 | 67 |
| Texas..... | 50 | 51 | 57 | 63 | 52 | 55 | 61 | 65 | 50 | 60 | 55 | 73 | 62 | 59 | 56 | 62 | 55 | 67 | 53 | 50 |
| Montana..... | 180 | 150 | 150 | 165 | 140 | 151 | 140 | 155 | 125 | 95 | 135 | 60 | 110 | 117 | 115 | 126 | 110 | 88 | 108 | 100 |
| Idaho..... | 200 | 142 | 180 | 185 | 170 | 175 | 155 | 125 | 150 | 156 | 155 | 155 | 180 | 158 | 185 | 185 | 180 | 170 | 196 | 183 |
| Wyoming..... | 100 | 100 | 42 | 140 | 140 | 116 | 108 | 150 | 130 | 155 | 150 | 80 | 125 | 128 | 108 | 110 | 100 | 95 | 120 | 107 |
| Colorado..... | 160 | 100 | 35 | 95 | 115 | 101 | 120 | 135 | 138 | 160 | 160 | 115 | 130 | 137 | 132 | 130 | 123 | 150 | 165 | 140 |
| New Mexico..... | 85 | 47 | 80 | 100 | 68 | 76 | 100 | 100 | 102 | 116 | 100 | 58 | 75 | 93 | 60 | 50 | 50 | 52 | 75 | 57 |
| Arizona..... | 90 | 92 | 95 | 125 | 75 | 95 | 110 | 95 | 115 | 105 | 85 | 70 | 90 | 96 | 115 | 85 | 60 | 64 | 57 | 74 |
| Utah..... | 180 | 142 | 140 | 185 | 180 | 165 | 140 | 125 | 180 | 189 | 180 | 136 | 180 | 163 | 161 | 197 | 168 | 126 | 180 | 168 |
| Nevada..... | 180 | 150 | 160 | 178 | 160 | 166 | 130 | 172 | 190 | 207 | 171 | 135 | 135 | 163 | 148 | 174 | 174 | 150 | 225 | 174 |
| Washington..... | 170 | 131 | 160 | 167 | 123 | 150 | 128 | 135 | 165 | 125 | 132 | 125 | 155 | 138 | 135 | 145 | 155 | 150 | 145 | 146 |
| Oregon..... | 160 | 105 | 130 | 155 | 135 | 137 | 97 | 115 | 150 | 108 | 110 | 94 | 120 | 115 | 90 | 108 | 95 | 98 | 104 | 98 |
| California..... | 120 | 130 | 135 | 130 | 119 | 129 | 138 | 130 | 141 | 145 | 143 | 130 | 140 | 138 | 140 | 130 | 180 | 160 | 155 | 147 |
| United States..... | 107.5 | 93.8 | 80.9 | 113.4 | 90.4 | 97.2 | 110.5 | 96.3 | 80.5 | 100.8 | 95.9 | 91.2 | 110.3 | 97.9 | 91.8 | 105.3 | 108.0 | 127.0 | 103.8 | 107.4 |

Division of Crop and Livestock Estimates.

TABLE 265.—Potatoes, early and second early, commercial crop: Acreage, production, and total value, by States, 1923-1925

| State | Acreage | | | Production | | | Total value, basis, average price per season | | |
|----------------------------------|--------------|--------------|--------------|----------------------|----------------------|----------------------|--|----------------------|----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 bushels</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 *</i> |
| Alabama..... | 7,140 | 12,500 | 8,940 | 621 | 1,412 | 715 | 960 | 1,271 | 770 |
| California..... | 11,000 | 11,000 | 14,100 | 1,298 | 1,012 | 1,046 | 1,661 | 1,326 | 2,530 |
| Florida..... | 19,310 | 28,000 | 21,920 | 1,777 | 2,184 | 2,477 | 4,976 | 4,805 | 4,632 |
| Georgia..... | 2,730 | 2,630 | 2,010 | 273 | 274 | 86 | 521 | 400 | 135 |
| Louisiana..... | 11,000 | 15,510 | 15,630 | 990 | 1,241 | 1,047 | 1,426 | 1,477 | 1,550 |
| Mississippi..... | 1,200 | 1,300 | 1,240 | 101 | 104 | 68 | 88 | 90 | 116 |
| North Carolina..... | 16,340 | 26,000 | 22,100 | 1,765 | 3,640 | 2,144 | 2,277 | 3,458 | 2,873 |
| South Carolina..... | 15,520 | 20,000 | 14,860 | 2,142 | 2,780 | 1,828 | 3,963 | 3,036 | 2,376 |
| Texas..... | 10,230 | 10,000 | 10,710 | 512 | 680 | 932 | 1,126 | 850 | 1,426 |
| Virginia..... | 92,300 | 100,620 | 86,100 | 9,230 | 15,983 | 9,815 | 14,214 | 15,024 | 13,447 |
| Second early: | | | | | | | | | |
| Arkansas..... | 2,240 | 2,500 | 2,940 | 134 | 188 | 250 | 149 | 203 | 338 |
| Kansas (Kaw Valley)..... | 15,700 | 16,770 | 16,800 | 1,648 | 2,817 | 1,730 | 1,582 | 2,141 | 2,296 |
| Kentucky..... | 5,700 | 5,680 | 5,620 | 598 | 841 | 601 | 879 | 505 | 1,082 |
| Maryland..... | 15,300 | 16,000 | 14,500 | 1,469 | 1,520 | 1,247 | 2,262 | 1,155 | 1,634 |
| Missouri (Orrick)..... | 4,100 | 4,500 | 4,800 | 390 | 495 | 480 | 370 | 322 | 715 |
| Nebraska (Kearney district)..... | 5,250 | 3,000 | 1,800 | 357 | 225 | 207 | 357 | 160 | 298 |
| New Jersey..... | 41,100 | 37,700 | 31,000 | 2,466 | 5,881 | 2,821 | 4,168 | 4,764 | 3,806 |
| Oklahoma..... | 5,580 | 6,000 | 12,000 | 474 | 576 | 1,200 | 720 | 541 | 1,644 |
| Total..... | 281,740 | 319,610 | 287,070 | 26,245 | 41,833 | 29,594 | 41,689 | 41,528 | 41,649 |

Division of Crop and Livestock Estimates.

TABLE 266.—Potatoes, early and second early, commercial crop: Yield per acre and price, 1919-1925

| State | Yield per acre | | | | | | | Price per bushel ¹ | | | | | | |
|----------------------------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | <i>Bus.</i> | <i>Bus.</i> | <i>Bus.</i> | <i>Bus.</i> | <i>Bus.</i> | <i>Bus.</i> | <i>Bus.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Alabama..... | 82 | 96 | 110 | 110 | 87 | 113 | 80 | 1.56 | 2.68 | 1.20 | 1.28 | 1.63 | 0.90 | 1.09 |
| California..... | 124 | 124 | 124 | 132 | 118 | 92 | 138 | 2.28 | 3.48 | 1.08 | .80 | 1.28 | 1.31 | 1.30 |
| Florida..... | 82 | 96 | 96 | 110 | 92 | 78 | 113 | 2.04 | 3.08 | 2.20 | 1.98 | 2.80 | 2.20 | 1.87 |
| Georgia..... | 96 | 82 | 69 | 116 | 100 | 104 | 43 | 2.00 | 2.00 | 1.20 | 1.33 | 1.91 | 1.46 | 1.57 |
| Louisiana..... | 82 | 69 | 82 | 96 | 90 | 80 | 67 | .60 | 2.16 | 1.32 | 1.29 | 1.44 | 1.19 | 1.48 |
| Mississippi..... | 82 | 69 | 82 | 110 | 84 | 80 | 55 | 2.00 | 2.52 | 1.00 | 1.41 | .87 | .87 | 1.70 |
| North Carolina..... | 110 | 124 | 124 | 138 | 108 | 140 | 97 | 1.66 | 2.36 | 1.08 | 1.31 | 1.29 | .95 | 1.34 |
| South Carolina..... | 96 | 165 | 165 | 138 | 138 | 138 | 123 | 1.88 | 3.36 | 1.20 | 1.56 | 1.85 | 1.10 | 1.30 |
| Texas..... | 82 | 69 | 82 | 63 | 50 | 68 | 87 | 1.72 | 2.28 | 2.04 | 1.21 | 2.20 | 1.25 | 1.53 |
| Virginia..... | 124 | 110 | 124 | 110 | 100 | 159 | 114 | 1.80 | 2.88 | .88 | 1.23 | 1.64 | .94 | 1.37 |
| Second early: | | | | | | | | | | | | | | |
| Arkansas..... | 82 | 96 | 55 | 116 | 60 | 75 | 85 | 1.64 | 2.52 | 1.48 | 1.14 | 1.11 | 1.08 | 1.35 |
| Kansas (Kaw Valley)..... | 96 | 138 | 96 | 91 | 105 | 168 | 103 | 1.04 | 2.56 | .88 | .75 | .96 | .76 | 1.31 |
| Kentucky..... | 82 | 96 | 69 | 110 | 105 | 148 | 107 | 1.00 | 1.40 | 1.00 | 1.22 | 1.47 | .60 | 1.80 |
| Maryland..... | 110 | 138 | 124 | 138 | 96 | 95 | 86 | 1.40 | 2.28 | .92 | 1.01 | 1.64 | .76 | 1.81 |
| Missouri (Orrick)..... | 110 | 110 | 82 | 82 | 95 | 110 | 100 | 1.52 | 2.64 | .76 | 1.00 | .95 | .65 | 1.49 |
| Nebraska (Kearney District)..... | 110 | 120 | 94 | 108 | 68 | 75 | 115 | 1.74 | 3.43 | 1.35 | .82 | 1.00 | .71 | 1.44 |
| New Jersey..... | 124 | 138 | 124 | 155 | 60 | 156 | 91 | 1.52 | 1.72 | 1.32 | .69 | 1.69 | .81 | 1.85 |
| Oklahoma..... | 96 | 82 | 41 | 96 | 85 | 96 | 100 | 1.88 | 2.64 | 1.56 | 1.14 | 1.52 | .94 | 1.87 |
| Average..... | 109 | 114 | 114 | 116 | 93 | 131 | 103 | 1.67 | 2.57 | 1.13 | 1.17 | 1.59 | .99 | 1.41 |

Division of Crop and Livestock Estimates.

¹ Average for season.

TABLE 267.—Potatoes: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1909-1924

| Year | Adverse weather conditions | | | | | | | | | Plant diseases | Insect pests | Animal pests | Defective seed | Other and unknown causes | Total |
|--------|----------------------------|--------------------|------------|-----------------|------------|------------|------------|----------------|----------------|----------------|--------------|--------------|----------------|--------------------------|-------------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | |
| 1909.. | P. ct. 11.3 | P. ct. 2.8 | P. ct. 0.3 | P. ct. 1.8 | P. ct. 0.2 | P. ct. 0.2 | P. ct. (1) | P. ct. 0.1 | P. ct. 16.7 | P. ct. 1.7 | P. ct. 1.7 | P. ct. 0.1 | P. ct. 0.2 | P. ct. 0.9 | P. ct. 21.3 |
| 1910.. | 16.7 | 1.3 | .2 | 1.2 | .1 | .4 | (1) | .4 | 20.3 | 3.0 | 4.8 | .2 | .3 | .9 | 29.5 |
| 1911.. | 27.1 | 1.4 | ----- | 1.2 | .1 | 2.9 | (1) | .6 | 33.3 | 2.6 | 2.6 | .1 | .5 | 3.1 | 42.2 |
| 1912.. | 5.9 | 3.1 | .4 | .6 | .1 | .2 | .1 | .4 | 10.8 | 5.5 | 3.6 | .1 | .3 | 1.1 | 21.4 |
| 1913.. | 22.0 | 1.1 | .2 | 1.8 | .1 | .7 | (1) | .7 | 26.6 | 1.4 | 3.8 | .1 | .4 | 1.8 | 34.1 |
| 1914.. | 17.1 | 1.4 | .1 | .7 | .1 | .5 | (1) | .3 | 20.2 | 1.3 | 3.2 | ----- | .2 | 1.7 | 26.6 |
| 1915.. | 2.2 | 8.7 | .5 | 2.2 | .1 | .1 | .1 | .1 | 14.0 | 13.0 | 2.4 | (1) | .1 | .9 | 30.4 |
| 1916.. | 19.7 | 6.5 | .4 | 1.9 | .2 | 1.4 | .1 | 1.3 | 31.5 | 6.6 | 4.5 | (1) | .2 | 1.8 | 43.6 |
| 1917.. | 8.8 | 3.5 | .2 | 3.0 | .2 | .3 | (1) | .3 | 16.3 | 4.1 | 2.4 | (1) | .1 | .9 | 23.8 |
| 1918.. | 14.7 | 1.0 | .2 | 1.5 | .1 | .6 | (1) | .3 | 18.4 | 5.3 | 3.3 | (1) | .2 | 1.1 | 28.3 |
| 1919.. | 16.3 | 5.0 | .4 | .7 | .1 | .7 | .1 | .3 | 23.6 | 8.8 | 4.7 | (1) | .3 | .7 | 38.1 |
| 1920.. | 6.7 | 2.2 | .3 | .6 | .2 | .2 | (1) | ----- | 10.2 | 8.1 | 2.8 | .1 | .2 | .4 | 21.8 |
| 1921.. | 21.7 | 1.0 | .1 | 1.2 | .2 | 1.8 | (1) | .1 | 26.1 | 5.7 | 3.5 | .1 | .3 | .5 | 36.2 |
| 1922.. | 10.6 | 2.8 | .4 | .3 | .3 | .2 | (1) | .1 | 14.7 | 5.7 | 2.6 | (1) | .2 | .2 | 23.4 |
| 1923.. | 11.7 | 1.6 | .2 | 1.2 | .3 | .3 | (1) | .1 | 15.4 | 3.4 | 2.7 | (1) | .2 | .3 | 22.0 |
| 1924.. | 8.8 | 3.0 | .3 | 1.0 | .2 | .1 | (1) | (1) | 13.4 | 4.0 | 2.0 | .1 | .2 | .2 | 19.9 |

Division of Crop and Livestock Estimates.

1 Less than 0.05 per cent.

TABLE 268.—Potatoes: Acreage and yield per acre in specified countries, average 1909-1913, annual 1922-1925

| Country | Acreage | | | | | Yield per acre | | | | |
|--------------------------------|--------------------------------|-----------------|-----------------|-----------------|------------------|--------------------------------|-------------|-------------|-------------|------------------|
| | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMISPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| Canada..... | 1,000 acres 483 | 1,000 acres 694 | 1,000 acres 561 | 1,000 acres 562 | 1,000 acres 546 | Bush. 161.2 | Bush. 135.8 | Bush. 164.9 | Bush. 168.0 | Bush. 129.4 |
| United States..... | 3,677 | 4,307 | 3,816 | 3,348 | 3,113 | 97.3 | 105.3 | 109.0 | 127.0 | 103.8 |
| Total North America..... | 4,160 | 4,991 | 4,377 | 3,910 | 3,659 | ----- | ----- | ----- | ----- | ----- |
| EUROPE | | | | | | | | | | |
| United Kingdom: | | | | | | | | | | |
| England and Wales..... | 434 | 561 | 467 | 452 | 498 | 230.2 | 267.0 | 220.5 | 222.7 | 243.3 |
| Scotland..... | 144 | 157 | 137 | 138 | 142 | 240.8 | 283.2 | 223.7 | 228.6 | 267.5 |
| Ireland..... | 588 | 570 | 554 | 541 | ----- | 208.9 | 224.7 | 150.2 | 157.8 | ----- |
| Norway..... | 102 | 126 | 113 | 117 | 117 | 242.9 | 259.5 | 214.8 | 183.9 | 276.2 |
| Sweden..... | 377 | 400 | 392 | 390 | 398 | 152.7 | 177.2 | 152.8 | 131.9 | 179.7 |
| Denmark..... | 161 | 204 | 204 | 177 | 185 | 202.7 | 241.4 | 223.0 | 154.1 | 282.0 |
| Netherlands..... | 411 | 477 | 398 | 414 | 418 | 253.2 | 340.3 | 268.4 | 238.4 | 271.6 |
| Belgium..... | 404 | 445 | 377 | 392 | 394 | 274.3 | 324.6 | 275.1 | 268.6 | 241.5 |
| Luxembourg..... | 36 | 37 | 38 | 38 | 37 | 178.9 | 189.4 | 182.9 | 167.7 | 208.5 |
| France..... | 4,096 | 3,619 | 3,586 | 3,615 | 3,596 | 129.6 | 128.4 | 101.6 | 156.0 | 149.7 |
| Spain..... | 642 | 810 | 757 | 779 | ----- | 176.0 | 130.1 | 126.2 | 114.6 | ----- |
| Portugal..... | ----- | 51 | 61 | ----- | ----- | ----- | 130.0 | 129.9 | ----- | ----- |
| Italy..... | 759 | 861 | 860 | 860 | 865 | 89.0 | 62.4 | 76.7 | 83.7 | 93.6 |
| Switzerland..... | 115 | 112 | 110 | 111 | 111 | 214.5 | 231.6 | 211.7 | 205.3 | 245.4 |
| Germany..... | 6,775 | 6,724 | 6,738 | 6,821 | 6,941 | 202.7 | 222.2 | 177.7 | 196.1 | 220.8 |
| Austria..... | 436 | 403 | 373 | 414 | 416 | 122.4 | 127.5 | 140.5 | 146.2 | 197.0 |
| Czechoslovakia..... | 1,849 | 1,606 | 1,573 | 1,567 | 1,580 | 132.6 | 207.5 | 145.4 | 152.7 | 169.9 |
| Hungary..... | 619 | 635 | 646 | 612 | 633 | 114.9 | 76.4 | 75.9 | 92.2 | 133.8 |
| Yugoslavia..... | 458 | 532 | 526 | 538 | ----- | 101.1 | 58.5 | 81.1 | 70.2 | ----- |
| Bulgaria..... | 11 | 23 | 23 | 24 | 27 | 48.4 | 46.3 | 53.0 | 75.8 | 89.6 |
| Rumania (grown alone)..... | 343 | 355 | 480 | 466 | 460 | 122.1 | 106.2 | 158.0 | 121.9 | ----- |
| Rumania (grown with corn)..... | 55 | 149 | 150 | 175 | ----- | ----- | ----- | ----- | ----- | ----- |
| Poland..... | 5,093 | 5,409 | 5,632 | 5,760 | 5,872 | 156.2 | 225.7 | 172.8 | 171.4 | 183.1 |
| Lithuania..... | 408 | 326 | 353 | 436 | 408 | 101.4 | 208.3 | 109.7 | 139.7 | 144.1 |

1 Averages for countries having changed boundaries are estimates for territory within present boundaries.

2 Two-year average.

3 Three-year average.

4 Four-year average.

TABLE 268.—Potatoes: Acreage and yield per acre in specified countries, average 1909–1913, annual 1922–1925—Continued

| Country | Acreage | | | | | Yield per acre | | | | |
|---|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------------------|--------------|--------------|--------------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMISPHERE—Continued | | | | | | | | | | |
| EUROPE—continued | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> |
| Latvia..... | 209 | 171 | 196 | 185 | 196 | 120.7 | 145.1 | 108.4 | 134.2 | 158.4 |
| Estonia..... | 190 | 187 | 179 | 166 | 162 | 144.9 | 141.1 | 140.1 | 149.5 | 138.6 |
| Finland..... | * 181 | 167 | 167 | 166 | 167 | 101.9 | 115.6 | 101.7 | 140.4 | 131.4 |
| Russia (Territory in Europe)..... | 6,764 | 6,119 | 9,017 | 9,927 | 10,648 | 104.2 | 113.8 | 129.7 | 105.8 | 99.1 |
| Total Europe countries reporting all periods..... | 30,482 | 29,124 | 32,009 | 33,248 | 34,256 | | | | | |
| NORTH AFRICA | | | | | | | | | | |
| Algeria..... | 44 | 47 | 46 | 18 | 23 | 42.0 | 55.0 | 26.0 | 41.9 | 32.3 |
| Tunis..... | | 3 | 2 | 3 | 3 | | 55.0 | 73.5 | 47.0 | 49.0 |
| Total North Africa countries reporting all periods..... | 44 | 47 | 46 | 18 | 23 | | | | | |
| ASIA | | | | | | | | | | |
| Russia (territory in Asia)..... | 445 | * 230 | * 354 | 506 | * 478 | 79.3 | 95.0 | 110.0 | 114.7 | 134.4 |
| Japanese Empire: | | | | | | | | | | |
| Japan..... | 169 | 247 | 238 | | | 146.4 | 136.2 | 132.2 | | |
| Chosen..... | * 65 | 180 | 189 | 180 | | 107.1 | 98.8 | 78.7 | 78.3 | |
| Total Northern Hemisphere countries reporting all periods..... | 34,686 | 34,162 | 36,432 | 37,176 | 37,938 | | | | | |
| SOUTHERN HEMISPHERE | | | | | | | | | | |
| Brazil..... | | 80 | 74 | 111 | | | 95.7 | 118.4 | 76.9 | |
| Chile..... | 69 | 80 | 72 | 67 | | 123.3 | 141.5 | 135.8 | 155.0 | |
| Uruguay..... | | 8 | 12 | 12 | | | 24.6 | 28.8 | 34.8 | |
| Argentina..... | 217 | 361 | 402 | 291 | | 140.6 | 92.1 | 87.7 | 87.2 | |
| Union of South Africa..... | * 62 | 80 | 71 | | | 49.5 | 44.0 | 49.7 | | |
| Southern Rhodesia..... | | 2 | 2 | | | | 53.0 | 42.5 | | |
| Australia..... | 144 | 136 | 134 | | | 100.5 | 90.1 | 124.7 | | |
| New Zealand..... | 28 | 20 | 21 | 23 | | 205.8 | 212.4 | 187.6 | 198.3 | |
| Total Southern Hemisphere countries reporting all periods through 1924..... | 314 | 461 | 495 | 381 | | | | | | |
| Total all countries reporting for all periods through 1925..... | 34,686 | 34,162 | 36,432 | 37,176 | 37,938 | | | | | |

Division of Statistical and Historical Research. Official sources and the International Institute of Agriculture except as otherwise stated. Estimates given are for crops harvested during the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Averages for countries having changed boundaries are estimates for territory within present boundaries.

* Two-year average.

* One year only.

* Does not include Transcaucasia and Turkestan.

TABLE 269.—Potatoes: Production in specified countries, average 1909–1913, annual 1922–1925

[Thousand bushels—I. e., 000 omitted]

| Country | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 |
|----------------------------|--------------------------------|---------|---------|---------|---------|
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| Canada..... | 77,843 | 92,908 | 92,495 | 94,413 | 70,693 |
| United States..... | 357,609 | 453,896 | 416,105 | 425,283 | 323,243 |
| Mexico..... | * 540 | 927 | 962 | 1,029 | 943 |
| Total North America..... | 436,062 | 547,231 | 509,562 | 520,725 | 394,819 |

¹ Averages for countries having changed boundaries are estimates for territory within present boundaries.

* One year only.

TABLE 269.—Potatoes: Production in specified countries, average 1909-1913, annual 1922-1925—Continued

[Thousand bushels—1. e., 000 omitted]

| Country | Average 1909-1913 | 1922 | 1923 | 1924 | 1925 |
|--|----------------------|-----------|-----------|-----------|-----------|
| NORTHERN HEMISPHERE—Continued | | | | | |
| EUROPE | | | | | |
| United Kingdom: | | | | | |
| England and Wales | 96,893 | 149,781 | 102,965 | 100,651 | 119,952 |
| Scotland | 34,674 | 44,464 | 30,651 | 31,547 | 36,560 |
| Ireland | 119,874 | 128,091 | 88,219 | 85,344 | — |
| Norway | 24,780 | 32,699 | 24,269 | 21,517 | 32,319 |
| Sweden | 57,581 | 70,877 | 59,917 | 51,440 | 70,618 |
| Denmark | 52,642 | 49,249 | 45,496 | 27,271 | 52,176 |
| Netherlands | 104,051 | 162,328 | 106,839 | 98,716 | 113,539 |
| Belgium | 110,820 | 144,458 | 108,697 | 105,308 | 95,165 |
| Luxemburg | 6,439 | 7,007 | 6,952 | 6,372 | 7,716 |
| France | 526,793 | 464,661 | 364,446 | 564,020 | 538,459 |
| Spain | 112,967 | 105,351 | 95,496 | 89,269 | — |
| Portugal | — | 6,628 | 6,624 | 6,598 | — |
| Italy | 67,514 | 53,689 | 65,964 | 71,943 | 81,000 |
| Switzerland | 24,664 | 24,820 | 23,292 | 22,902 | 27,234 |
| Germany | 1,373,609 | 1,494,005 | 1,197,095 | 1,337,540 | 1,532,872 |
| Austria | 53,373 | 51,378 | 52,403 | 60,524 | 81,939 |
| Czechoslovakia | 245,210 | 333,231 | 228,701 | 239,358 | 268,367 |
| Hungary | 71,118 | 48,490 | 49,024 | 56,406 | 84,712 |
| Yugoslavia | 46,288 | 31,100 | 42,638 | 37,753 | — |
| Bulgaria | 532 | 1,065 | 1,220 | 1,819 | 2,418 |
| Rumania (grown alone) | 41,868 | 37,691 | 67,920 | 56,815 | — |
| Rumania (grown with corn) | 1,218 | 3,320 | 3,830 | 4,503 | — |
| Poland | 889,531 | 1,220,576 | 973,487 | 967,292 | 1,069,451 |
| Lithuania | 40,864 | 67,902 | 59,899 | 60,927 | 58,091 |
| Latvia | 25,217 | 24,806 | 21,253 | 24,828 | 31,038 |
| Estonia | 27,526 | 26,378 | 25,073 | 24,817 | 22,461 |
| Finland | 18,443 | 19,297 | 16,967 | 22,301 | 21,944 |
| Russia (territory in Europe) | 704,964 | 696,638 | 1,166,316 | 1,049,896 | 1,055,055 |
| Total Europe countries reporting all periods through 1925 | 4,540,278 | 5,187,794 | 4,728,966 | 4,968,393 | 5,403,066 |
| NORTH AFRICA | | | | | |
| Algeria | 1,847 | 2,587 | 1,194 | 755 | 744 |
| Tunis | — | 165 | 147 | 141 | 147 |
| Total North Africa, countries reporting all periods | 1,847 | 2,587 | 1,194 | 755 | 744 |
| ASIA | | | | | |
| Russia (Territory in Asia) | 35,296 | 21,855 | 38,944 | 58,051 | 71,962 |
| Japanese Empire: | | | | | |
| Japan | 24,738 | 33,634 | 31,469 | — | — |
| Chosen (Korea) | 6,960 | 18,385 | 14,874 | 14,093 | — |
| Total Northern Hemisphere countries reporting all periods | 4,978,207 | 5,737,612 | 5,239,722 | 5,489,863 | 5,798,649 |
| SOUTHERN HEMISPHERE | | | | | |
| Brazil | — | 7,658 | 8,762 | 8,532 | — |
| Chile | 8,510 | 11,320 | 9,778 | 10,386 | — |
| Uruguay | — | 197 | 345 | 418 | — |
| Argentina | 30,515 | 33,246 | 35,273 | 25,368 | — |
| Union of South Africa | 3,071 | 3,518 | 3,530 | — | — |
| Southern Rhodesia | — | 106 | 85 | — | — |
| Australia | 14,469 | 12,258 | 16,709 | — | — |
| New Zealand | 5,763 | 4,249 | 3,940 | 4,562 | — |
| Total Southern Hemisphere countries reporting all periods through 1924 | 44,788 | 48,815 | 48,991 | 40,316 | — |
| Total all countries reporting for all periods through 1925 | 4,978,207 | 5,737,612 | 5,239,722 | 5,489,863 | 5,798,649 |
| Estimated world total | 5,444,000 | 6,196,000 | 5,708,000 | 5,939,000 | — |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Estimates given are for the crops harvested during the calendar year. In the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

1 Averages for countries having changed boundaries are estimates for territory within present boundaries.

2 One year only.

3 Two-year average.

4 Four-year average.

5 Does not include Transcaucasia and Turkestan.

6 Excludes a few minor producing regions which do not enter into world trade in potatoes and for which production estimates are not available.

TABLE 270.—Potatoes: Car-lot shipments by State of origin, April, 1920–December, 1925

| State | Crop movement season ¹ | | | | | | | |
|---------------------|-----------------------------------|-------------|-------------|-------------|-------------|----------------------------|-------------|-------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | Quarters 1925 ² | | |
| | | | | | | Apr.-June | July-Sept. | Oct.-Dec. |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| Maine..... | 18,695 | 38,035 | 24,404 | 34,764 | 43,145 | ----- | 5,755 | 11,876 |
| New York..... | 17,340 | 18,960 | 19,292 | 18,634 | 20,130 | ----- | 3,894 | 3,765 |
| New Jersey..... | 10,878 | 10,367 | 18,335 | 6,352 | 8,637 | ----- | 5,202 | 128 |
| Pennsylvania..... | 0,723 | 3,554 | 5,751 | 4,092 | 3,948 | ----- | 1,140 | 3,179 |
| Michigan..... | 17,171 | 15,237 | 19,836 | 20,555 | 17,438 | ----- | 2,854 | 4,497 |
| Wisconsin..... | 19,832 | 11,051 | 21,788 | 17,137 | 16,035 | ----- | 2,922 | 5,759 |
| Minnesota..... | 23,879 | 29,579 | 28,931 | 33,602 | 31,695 | ----- | 6,734 | 6,907 |
| Iowa..... | 947 | 96 | 843 | 273 | 553 | ----- | 163 | 40 |
| North Dakota..... | 1,924 | 10,582 | 8,351 | 10,384 | 6,059 | ----- | 1,021 | 2,472 |
| South Dakota..... | 1,993 | 3,386 | 2,703 | 3,860 | 1,881 | ----- | 477 | 450 |
| Nebraska..... | 3,055 | 5,375 | 5,564 | 4,833 | 2,918 | ----- | 920 | 1,751 |
| Kansas..... | 1,994 | 2,349 | 2,433 | 3,565 | 4,797 | 75 | 2,630 | 9 |
| Maryland..... | 3,275 | 2,402 | 3,497 | 2,728 | 2,673 | 25 | 1,439 | 36 |
| Virginia..... | 15,877 | 17,698 | 19,023 | 15,923 | 23,608 | 7,574 | 8,245 | 18 |
| North Carolina..... | 2,644 | 3,089 | 4,194 | 3,478 | 6,568 | 3,774 | 264 | ----- |
| South Carolina..... | 2,437 | 2,446 | 4,345 | 4,210 | 5,266 | 3,676 | 3 | ----- |
| Florida..... | 3,441 | 2,391 | 5,047 | 3,499 | 4,377 | 5,125 | 2 | 3 |
| Kentucky..... | 1,233 | 643 | 496 | 1,241 | 1,593 | ----- | 714 | 4 |
| Alabama..... | 324 | 593 | 1,925 | 1,384 | 2,920 | 1,041 | 1 | 1 |
| Arkansas..... | 247 | 138 | 341 | 231 | 449 | 507 | 19 | ----- |
| Louisiana..... | 1,067 | 1,211 | 1,083 | 825 | 1,425 | 1,279 | 1 | ----- |
| Oklahoma..... | 580 | 287 | 1,000 | 1,034 | 1,263 | 2,291 | 33 | 7 |
| Texas..... | 822 | 1,135 | 1,499 | 801 | 1,425 | 1,413 | 1 | 11 |
| Montana..... | 968 | 1,845 | 1,412 | 757 | 423 | ----- | 34 | 622 |
| Idaho..... | 8,636 | 14,795 | 16,213 | 15,616 | 11,942 | ----- | 2,190 | 6,521 |
| Wyoming..... | 572 | 958 | 1,037 | 687 | 652 | ----- | 347 | 321 |
| Colorado..... | 11,229 | 17,697 | 15,468 | 13,869 | 12,413 | ----- | 4,045 | 4,820 |
| Utah..... | 617 | 1,078 | 2,037 | 1,017 | 727 | 9 | 719 | 219 |
| Nevada..... | 437 | 460 | 744 | 700 | 452 | ----- | 11 | 424 |
| Washington..... | 3,937 | 6,193 | 5,059 | 6,160 | 6,695 | ----- | 1,536 | 2,867 |
| Oregon..... | 1,759 | 1,368 | 1,842 | 1,615 | 927 | 6 | 199 | 713 |
| California..... | 10,953 | 9,301 | 7,766 | 5,724 | 6,588 | 715 | 2,833 | 1,200 |
| Other States..... | 1,400 | 1,675 | 2,086 | 2,577 | 2,980 | 501 | 1,404 | 767 |
| Total..... | 202,886 | 236,003 | 254,345 | 242,127 | 252,602 | 28,011 | 55,761 | 59,387 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from April 1 of one year through July of the following year, except in Florida where the season begins in March.

² Preliminary.

³ Includes 8 cars in August, 1923.

⁴ Includes 1 car in February, 1922.

⁵ Includes 28 cars in February, 1925.

⁶ Includes 32 cars in March, 1921.

⁷ Includes 11 cars in March, 1925.

⁸ Includes 1 car in February, 1922, and 8 in August, 1923.

⁹ Includes 28 cars in February and 11 in March, 1925.

TABLE 271.—Potatoes: Car-lot shipments by State of origin, April, 1920–December, 1925

| State and year | Crop movement season 1 | | | | | | | | | | | |
|----------------------|------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. |
| Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars |
| Maine: | | | | | | | | | | | | |
| 1920 | | | | | 313 | 1,172 | 2,262 | 2,109 | 1,704 | 2,497 | 2,080 | 2,546 |
| 1921 | | | | | 575 | 4,598 | 4,697 | 2,901 | 2,771 | 3,571 | 3,390 | 4,465 |
| 1922 | | | | | 198 | 1,778 | 3,077 | 2,673 | 2,361 | 2,782 | 3,513 | 4,465 |
| 1923 | | | | | 243 | 2,409 | 3,790 | 2,646 | 2,095 | 4,321 | 3,878 | 4,103 |
| 1924 | | | | | 107 | 2,767 | 3,855 | 4,051 | 3,908 | 4,999 | 5,244 | 5,105 |
| 1925 1 | | | | | 1,205 | 4,549 | 5,780 | 5,035 | 3,081 | | | |
| New York: | | | | | | | | | | | | |
| 1920 | | | | | 367 | 1,051 | 2,022 | 2,924 | 1,080 | 1,383 | 1,887 | 2,367 |
| 1921 | | | | 57 | 1,960 | 2,160 | 4,532 | 1,945 | 1,354 | 2,138 | 1,517 | 1,818 |
| 1922 | | | | 211 | 815 | 1,770 | 3,397 | 2,556 | 1,538 | 2,207 | 2,038 | 2,851 |
| 1923 | | | | 93 | 1,866 | 1,716 | 2,346 | 1,903 | 1,070 | 1,839 | 2,321 | 2,135 |
| 1924 | | | 6 | 65 | 465 | 1,419 | 2,867 | 2,709 | 1,732 | 2,771 | 2,262 | 2,539 |
| 1925 1 | | | | 582 | 1,094 | 1,618 | 2,263 | 643 | 829 | | | |
| New Jersey: | | | | | | | | | | | | |
| 1920 | | | | | 1,009 | 4,317 | 6,035 | 2,608 | 111 | 40 | 28 | 114 |
| 1921 | | | | | 2,031 | 5,825 | 1,637 | 367 | 49 | 23 | 55 | 75 |
| 1922 | | | | | 2,234 | 8,327 | 4,766 | 1,971 | 609 | 73 | 34 | 9 |
| 1923 | | | | | 86 | 3,869 | 1,708 | 343 | 184 | 15 | 13 | 18 |
| 1924 | | | | | 42 | 4,213 | 3,635 | 530 | 76 | 14 | 19 | 70 |
| 1925 1 | | | | | 290 | 2,733 | 170 | 64 | 6 | | | |
| Pennsylvania: | | | | | | | | | | | | |
| 1920 | | | | | 17 | 390 | 1,357 | 1,924 | 421 | 561 | 423 | 734 |
| 1921 | | | | 2 | 66 | 436 | 1,147 | 688 | 248 | 413 | 286 | 211 |
| 1922 | | | | | 124 | 893 | 1,432 | 1,176 | 444 | 492 | 290 | 496 |
| 1923 | | | | | 31 | 1,178 | 684 | 884 | 288 | 534 | 363 | 428 |
| 1924 | | | | | 5 | 372 | 745 | 707 | 351 | 450 | 483 | 329 |
| 1925 1 | | | | | 102 | 1,047 | 1,715 | 917 | 547 | | | |
| Michigan: | | | | | | | | | | | | |
| 1920 | | | | | 39 | 577 | 2,219 | 3,126 | 1,200 | 1,631 | 990 | 1,655 |
| 1921 | | | | 2 | 3 | 709 | 3,213 | 1,867 | 880 | 1,516 | 1,240 | 2,041 |
| 1922 | | | | | 76 | 46 | 2,600 | 2,457 | 1,380 | 1,474 | 1,419 | 2,024 |
| 1923 | | | | | 46 | 586 | 2,490 | 2,587 | 1,892 | 1,823 | 2,201 | 2,667 |
| 1924 | | | | | 37 | 1,443 | 2,250 | 1,964 | 1,132 | 1,876 | 1,768 | 2,110 |
| 1925 1 | | | | 5 | 949 | 1,900 | 2,654 | 1,088 | 1,665 | | | |
| Total | | | | | | | | | | | | |
| 1920 | | | | | | | | | | | | |
| 1921 | | | | | | | | | | | | |
| 1922 | | | | | | | | | | | | |
| 1923 | | | | | | | | | | | | |
| 1924 | | | | | | | | | | | | |
| 1925 1 | | | | | | | | | | | | |

1 Crop movement season extends from Apr. 1 of one year through July of the following year, except in Florida where the season begins in March.

2 Preliminary.

3 Includes 8 cars in August, 1923.

TABLE 271.—Potatoes: Carlot shipments by State of origin, April, 1920–December, 1925—Continued

| State and year | Crop movement season 1 | | | | | | | | | | | | | | | | |
|----------------|------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|---------|-------|
| | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Total |
| Wisconsin: | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars |
| | 1920 | 27 | 65 | 760 | 565 | 3,507 | 3,044 | 1,333 | 2,493 | 2,070 | 2,457 | 2,283 | 1,918 | 434 | 1 | 19,832 | |
| | 1921 | | | 205 | 1,760 | 2,128 | 725 | 628 | 1,367 | 1,201 | 1,963 | 1,166 | 755 | 290 | 3 | 11,051 | |
| | 1922 | | | 205 | 3,377 | 3,685 | 2,018 | 1,835 | 2,496 | 1,909 | 2,968 | 2,725 | 1,737 | 945 | 68 | 21,788 | |
| | 1923 | | | 189 | 1,295 | 2,633 | 1,481 | 1,102 | 1,936 | 2,209 | 2,014 | 1,917 | 1,785 | 605 | 8 | 17,137 | |
| | 1924 | | | 688 | 1,768 | 2,359 | 1,558 | 1,145 | 2,279 | 1,860 | 2,160 | 1,578 | 1,785 | 533 | 8 | 16,083 | |
| Minnesota: | | | 1 | | | | | | | | | | | | | | |
| 1920 | | | 65 | 1,427 | 2,869 | 7,065 | 3,423 | 931 | 1,520 | 1,774 | 2,331 | 1,137 | 849 | 220 | 8 | 23,879 | |
| 1921 | | | | 1,049 | 5,027 | 8,837 | 2,167 | 838 | 1,894 | 1,442 | 4,443 | 2,014 | 1,080 | 248 | | 29,579 | |
| 1922 | | | 508 | 1,432 | 6,167 | 7,062 | 2,486 | 659 | 1,724 | 1,532 | 3,274 | 1,390 | 481 | 21 | | 28,931 | |
| 1923 | | | 15 | 1,755 | 6,157 | 7,904 | 2,712 | 1,085 | 2,568 | 3,852 | 3,821 | 2,419 | 1,012 | 290 | 2 | 33,602 | |
| 1924 | | | 20 | 571 | 2,659 | 8,785 | 3,672 | 1,214 | 3,096 | 3,628 | 4,176 | 1,946 | 1,362 | 355 | 2 | 31,606 | |
| 1925 | | | 498 | 2,649 | 3,587 | 4,684 | 1,496 | | | | | | | | | | |
| North Dakota: | | | | | | | | | | | | | | | | | |
| 1920 | | | | | | 131 | 856 | 254 | 93 | 105 | 134 | 224 | 62 | 48 | 7 | 1,624 | |
| 1921 | | | | | 13 | 2,228 | 5,653 | 888 | 101 | 369 | 278 | 865 | 373 | 104 | 20 | 10,592 | |
| 1922 | | | | | 12 | 1,059 | 2,844 | 891 | 224 | 363 | 346 | 1,064 | 1,263 | 220 | 23 | 8,351 | |
| 1923 | | | | | 19 | 1,829 | 4,160 | 754 | 239 | 514 | 801 | 1,214 | 705 | 113 | 35 | 10,384 | |
| 1924 | | | | | 3 | 2,283 | 2,005 | 580 | 159 | 588 | 778 | 1,065 | 361 | 191 | 56 | 6,069 | |
| 1925 | | | 2 | | 16 | 1,003 | 1,987 | 355 | 130 | | | | | | | | |
| Nebraska: | | | | | | | | | | | | | | | | | |
| 1920 | | | 1 | 197 | 391 | 887 | 568 | 140 | 290 | 308 | 272 | 50 | 10 | 1 | | 3,055 | |
| 1921 | | 1 | 200 | 471 | 950 | 393 | 1,246 | 393 | 294 | 495 | 342 | 456 | 238 | 184 | 15 | 5,375 | |
| 1922 | | | 51 | 570 | 744 | 903 | 376 | 461 | 376 | 743 | 432 | 504 | 530 | 210 | 40 | 5,564 | |
| 1923 | | | 12 | 281 | 389 | 648 | 699 | 286 | 777 | 817 | 464 | 316 | 114 | 30 | | 4,833 | |
| 1924 | | | 6 | 175 | 314 | 414 | 207 | 676 | 683 | 455 | 269 | 95 | 64 | 11 | | 2,918 | |
| 1925 | | | 48 | 275 | 597 | 924 | 611 | 216 | | | | | | | | | |
| Kansas: | | | | | | | | | | | | | | | | | |
| 1920 | | 34 | 1,276 | 623 | 25 | 12 | 32 | 7 | 2 | 5 | 6 | 8 | 1 | | | * 1,994 | |
| 1921 | | 19 | 1,189 | 963 | 112 | 32 | 8 | 1 | 3 | 3 | 1 | 1 | | | | 2,349 | |
| 1922 | | 61 | 1,340 | 886 | 102 | 23 | 15 | 2 | 1 | | | 3 | | | | 2,483 | |
| 1923 | | | 1,662 | 11 | 53 | 7 | | | | 1 | 1 | | 2 | | | 3,565 | |
| 1924 | | 35 | 2,520 | 1,845 | 337 | 3 | | | | | 1 | 1 | | | | 4,797 | |
| 1925 | | 75 | 2,237 | | 2 | | | | | | | | | | | | |
| Virginia: | | | | | | | | | | | | | | | | | |
| 1920 | | 5,086 | 6,798 | 59 | 272 | 148 | 718 | 145 | 126 | 72 | 84 | 128 | 98 | 60 | | 15,877 | |
| 1921 | 400 | | 6,581 | 534 | 59 | 373 | 373 | 87 | 43 | 56 | 131 | 68 | 75 | 6 | | 17,668 | |
| 1922 | | 8,404 | 9,317 | 651 | 74 | 94 | 246 | 40 | 60 | 43 | 68 | 58 | 59 | 13 | | 19,023 | |
| 1923 | | 5,213 | 9,445 | 562 | 75 | 29 | 297 | 20 | 57 | 34 | 119 | 59 | 59 | 10 | | 15,928 | |
| 1924 | | 3,810 | 15,229 | 3,495 | 549 | 157 | 144 | 110 | 20 | 9 | 55 | 20 | 20 | 10 | | 23,608 | |
| 1925 | | 7,574 | 8,045 | | 19 | 4 | 5 | 9 | | | | | | | | | |

| North Carolina: | | | | | | | | | | | | | | |
|-------------------|-------|-------|-----|-----|----|----|---|-------|-------|-------|-------|-------|-------|----|
| 1920 | 2,375 | 123 | 10 | 2 | 23 | 22 | 1 | 2 | 7 | 1 | 7 | 1 | 2,644 | |
| 1921 | 2,215 | 415 | 106 | 10 | 1 | 6 | 1 | 2 | 7 | 1 | 7 | 1 | 3,080 | |
| 1922 | 2,525 | 356 | 41 | 1 | 14 | 6 | 1 | 2 | 7 | 1 | 7 | 1 | 4,104 | |
| 1923 | 2,525 | 215 | 71 | 10 | 4 | 5 | 1 | 12 | 1 | 3 | 3 | 2 | 5,478 | |
| 1924 | 3,141 | 1,276 | 157 | 100 | 13 | 5 | 1 | 1 | 6 | 6 | 6 | 2 | 6,568 | |
| 1925 ¹ | 3,253 | 207 | 57 | | | | | | | | | | | |
| South Carolina: | | | | | | | | | | | | | | |
| 1920 | 1,775 | 16 | | | | | | | | | | | 2,437 | |
| 1921 | 2,009 | 14 | 2 | | | | | 1 | 2 | | | | 2,446 | |
| 1922 | 2,293 | 4 | 1 | | | | 1 | 2 | | 6 | | | 4,345 | |
| 1923 | 2,347 | 11 | 1 | | 2 | | | 1 | | | | | 4,210 | |
| 1924 | 3,666 | 68 | 4 | | | | | | | | | | 5,266 | |
| 1925 ¹ | 3,621 | 3 | | | | | | | 1 | | | | | |
| Florida: | | | | | | | | | | | | | | |
| 1920 | 2,353 | 926 | | 1 | 2 | | | | | | | | 3,441 | |
| 1921 | 1,814 | 25 | | | | | | 2 | | | | | 2,391 | |
| 1922 | 2,713 | 113 | 3 | | 1 | | | 3 | | | | | 5,047 | |
| 1923 | 2,201 | 108 | | | | | 2 | 1 | | | | | 3,480 | |
| 1924 | 1,444 | 126 | 4 | | | | 1 | 1 | 4 | | | | 4,377 | |
| 1925 ¹ | 2,801 | 1 | 1 | | | | 1 | | | | | | | |
| Idaho: | | | | | | | | | | | | | | |
| 1920 | 1,817 | 12 | | | | | | | | | | | 8,636 | |
| 1921 | 1,814 | 37 | | | | | | 1,111 | 574 | 918 | 405 | 110 | 16 | |
| 1922 | 2,214 | 113 | | | | | | 1,069 | 939 | 1,713 | 2,874 | 1,087 | 166 | |
| 1923 | 2,201 | 108 | | | | | | 1,320 | 878 | 2,178 | 2,874 | 1,430 | 631 | 10 |
| 1924 | 1,444 | 126 | 4 | | | | | 1,441 | 1,430 | 2,204 | 1,244 | 1,740 | 83 | |
| 1925 ¹ | 2,801 | 1 | 1 | | | | | 1,766 | 1,141 | 2,204 | 1,244 | 1,740 | 83 | |
| Colorado: | | | | | | | | | | | | | | |
| 1920 | 1,817 | 12 | | | | | | 1,025 | 1,766 | 1,359 | 1,155 | 134 | 34 | |
| 1921 | 1,814 | 37 | | | | | | 1,313 | | | | | | |
| 1922 | 2,214 | 113 | | | | | | 1,813 | | | | | | |
| 1923 | 2,201 | 108 | | | | | | 688 | 912 | 702 | 510 | 109 | 13 | |
| 1924 | 1,444 | 126 | 4 | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1925 ¹ | 2,801 | 1 | 1 | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| Washington: | | | | | | | | | | | | | | |
| 1920 | 1,817 | 12 | | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1921 | 1,814 | 37 | | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1922 | 2,214 | 113 | | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1923 | 2,201 | 108 | | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1924 | 1,444 | 126 | 4 | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1925 ¹ | 2,801 | 1 | 1 | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| California: | | | | | | | | | | | | | | |
| 1920 | 1,817 | 12 | | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1921 | 1,814 | 37 | | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1922 | 2,214 | 113 | | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1923 | 2,201 | 108 | | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1924 | 1,444 | 126 | 4 | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |
| 1925 ¹ | 2,801 | 1 | 1 | | | | | 1,981 | 1,510 | 2,125 | 1,821 | 967 | 188 | 3 |

¹ Preliminary.
² Includes cars moved earlier as follows: 11 in March, 1920; 105 in March, 1921; 1 in February and 221 in March, 1922; 36 in March, 1923; 109 in March, 1924; 28 in February and 273 in March, 1925.

TABLE 271.—Potatoes: Car-lot shipments by State of origin, April, 1920–December, 1925—Continued

| State and year | Crop movement season ¹ | | | | | | | | | | | |
|-------------------|-----------------------------------|----------|------------|------------|------------|------------|------------|------------|----------|----------|----------|-------------|
| | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Total |
| Other States: | | | | | | | | | | | | |
| 1920 | Cars 116 | Cars 780 | Cars 2,324 | Cars 2,613 | Cars 1,180 | Cars 1,123 | Cars 2,324 | Cars 1,717 | Cars 522 | Cars 461 | Cars 461 | Cars 15,941 |
| 1921 | † 174 | † 897 | † 1,349 | † 2,467 | † 1,709 | † 1,974 | † 3,617 | † 3,903 | † 368 | † 590 | † 507 | † 17,264 |
| 1922 | † 68 | † 893 | † 3,553 | † 3,059 | † 1,701 | † 1,974 | † 3,403 | † 1,334 | † 437 | † 579 | † 399 | † 22,545 |
| 1923 | † 94 | † 948 | † 3,172 | † 3,618 | † 2,420 | † 1,436 | † 3,122 | † 1,065 | † 287 | † 511 | † 688 | † 19,780 |
| 1924 | † 232 | † 3,092 | † 3,111 | † 3,097 | † 2,966 | † 1,666 | † 2,940 | † 610 | † 195 | † 413 | † 436 | † 20,943 |
| 1925 ² | † 680 | † 2,632 | † 3,451 | † 3,554 | † 1,020 | † 958 | † 1,587 | † 1,368 | † 330 | ..... | ..... | ..... |
| Total | † 228 | 3,935 | 13,332 | 15,281 | 14,119 | 18,575 | 32,170 | 26,067 | 10,411 | 14,477 | 12,467 | ..... |
| 1920 | † 2,128 | 3,342 | 14,075 | 15,560 | 16,340 | 23,322 | 42,936 | 36,726 | 10,440 | 16,721 | 13,721 | ..... |
| 1921 | † 2,781 | 8,351 | 17,943 | 18,793 | 18,239 | 24,493 | 33,933 | 21,970 | 12,448 | 17,792 | 14,909 | ..... |
| 1922 | † 1,183 | 5,311 | 14,774 | 16,450 | 16,737 | 24,063 | 33,424 | 23,377 | 13,447 | 19,762 | 20,716 | ..... |
| 1923 | † 1,079 | 7,479 | 17,055 | 23,892 | 16,984 | 21,387 | 34,141 | 26,632 | 13,327 | 21,713 | 20,364 | ..... |
| 1924 | † 4,285 | 8,166 | 15,560 | 17,396 | 14,822 | 23,543 | 32,284 | 15,680 | 11,123 | ..... | ..... | ..... |
| 1925 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1920 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1921 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1922 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1923 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1924 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1925 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Preliminary.

² Includes 8 cars in August, 1925.

³ Includes cars moved earlier as follows: In March, 1920: 105 in March, 1921: 1 in February and 221 in March, 1922: 36 in March, 1923: 109 in March, 1924: 23 in February and 373 in March, 1925.

⁴ Includes 32 cars in March, 1921, and 11 in March, 1923.

⁵ Includes 137 cars in March, 1921.

⁶ Includes 1 car in February, 21 in March, 1922, and 8 in August, 1923.

⁷ Includes 26 cars in February and 384 cars in March, 1925.

TABLE 272.—Potatoes: International trade, average 1911-1918, annual 1922-1924
[Thousand bushels—L.e., 000 omitted]

| Country | Year ended December 31 | | | | | | | |
|--------------------------------------|------------------------|---------|---------|---------|---------|---------|------------------|---------|
| | Average 1911-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 1,337 | 543 | 113 | 1,243 | 81 | 1,179 | 55 | 2,557 |
| Belgium..... | 4,921 | 8,692 | 6,769 | 3,035 | 3,280 | 6,513 | 2,732 | 2,806 |
| Canada..... | 525 | 1,207 | 347 | 3,609 | 375 | 2,976 | 940 | 3,130 |
| China..... | 36 | 288 | | 468 | | 201 | | 320 |
| Czechoslovakia..... | | | 319 | 2,834 | 358 | 2,037 | 146 | 122 |
| Denmark..... | 40 | 928 | 121 | 2,244 | 213 | 506 | 175 | 324 |
| Estonia..... | | | | 1,712 | 2 | 537 | | 791 |
| Hungary..... | | | 404 | 4 | 131 | 1,060 | 17 | 626 |
| Italy..... | 242 | 3,975 | 3 | 4,526 | 39 | 6,114 | 69 | 6,791 |
| Japan..... | | 440 | | 237 | | 321 | | 303 |
| Netherlands..... | 1,962 | 16,451 | 785 | 11,538 | 747 | 18,399 | 506 | 15,344 |
| Norway..... | 216 | 80 | 398 | 77 | 8 | 15 | 1 | 102 |
| Poland..... | | | 62 | 5,252 | 17 | 6,068 | 33 | 10,972 |
| Portugal..... | 278 | 800 | 1,319 | 19 | 1,362 | 129 | 661 | |
| Russia..... | 309 | 7,762 | 179 | (*) | | | | |
| Spain..... | | 1,635 | | 1,846 | 1,325 | 1,624 | 170 | 867 |
| United States..... | 5,707 | 1,814 | 1,775 | 2,897 | 732 | 2,096 | 452 | 3,862 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 1,218 | 931 | 1,200 | 614 | 993 | 955 | 1,305 | 1,067 |
| Austria..... | | | 3,686 | 2 | 2,979 | 94 | 1,606 | 115 |
| Austria-Hungary..... | 4,070 | 1,451 | | | | | | |
| Brazil..... | 939 | (*) | 94 | 3 | 59 | 1 | | |
| British India..... | | | 874 | 12 | 1,193 | 23 | 421 | 12 |
| Cuba..... | 2,001 | 2 | 3,755 | 1 | 3,992 | | 4,880 | 3 |
| Egypt..... | 500 | 28 | 593 | 219 | 763 | 53 | 765 | 68 |
| Finland..... | 479 | 16 | 527 | 1 | 1,167 | (*) | 614 | |
| France..... | 7,148 | 8,663 | 13,635 | 5,145 | 10,880 | 8,094 | 5,840 | 10,288 |
| Germany..... | 29,180 | 12,412 | 6,148 | 2,468 | 6,394 | 743 | 10,652 | 2,317 |
| Philippine Islands..... | 334 | | 380 | | 322 | | 300 | |
| Sweden..... | 700 | 64 | 78 | 750 | 304 | 14 | 268 | 5 |
| Switzerland..... | 3,172 | 42 | 2,240 | 19 | 1,461 | 7 | 2,930 | 4 |
| Tunisia..... | 1,294 | 12 | 1,394 | | 1,394 | 11 | 365 | 3 |
| United Kingdom..... | 11,382 | 6,346 | 8,397 | 5,433 | 9,065 | 2,412 | 16,791 | 1,531 |
| Uruguay..... | 768 | 1 | 1,325 | | 1,304 | (*) | 1,234 | 11 |
| Other countries..... | 931 | 779 | 2,287 | 1,606 | 3,301 | 2,941 | 4,139 | 2,107 |
| Total..... | 78,767 | 75,151 | 55,519 | 57,318 | 53,241 | 56,983 | 57,736 | 60,338 |

Division of Statistical and Historical Research. Official sources except where otherwise noted.

1 International Institute of Agriculture.

2 Less than 500 bushels.

3 Six months.

4 Three months.

5 One year only.

6 Two-year average.

7 Eleven months.

TABLE 273.—Potatoes: Estimated price per bushel, received by producers, United States, 1909-1925

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted av. |
|----------------------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|---------|--------------|
| 1909..... | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1910..... | 85.0 | 78.3 | 87.9 | 81.0 | 86.0 | 85.0 | 83.1 | 85.4 | 81.0 | 42.9 | 37.9 | 38.8 | 57.9 |
| 1911..... | 82.5 | 83.9 | 70.4 | 82.3 | 84.9 | 85.2 | 85.4 | 85.2 | 85.4 | 56.0 | 62.9 | 79.8 | 61.3 |
| 1912..... | 104.2 | 124.8 | 101.0 | 82.3 | 79.1 | 82.2 | 89.4 | 98.2 | 109.6 | 122.2 | 123.5 | 111.6 | 99.6 |
| 1913..... | 98.0 | 75.8 | 88.0 | 48.3 | 48.0 | 50.6 | 51.8 | 52.6 | 51.2 | 49.2 | 51.7 | 62.6 | 55.6 |
| 1913..... | 89.5 | 72.2 | 74.6 | 71.8 | 69.2 | 68.6 | 69.0 | 70.2 | 70.4 | 70.7 | 71.4 | 76.4 | 70.6 |
| A. V. 1909-1913..... | 82.2 | 84.6 | 74.4 | 65.0 | 61.4 | 62.3 | 64.2 | 66.3 | 67.5 | 68.8 | 69.5 | 71.8 | 66.0 |
| 1914..... | 84.3 | 81.0 | 69.8 | 58.8 | 50.8 | 49.2 | 80.6 | 80.4 | 49.1 | 49.2 | 60.6 | 51.4 | 58.0 |
| 1915..... | 54.2 | 53.4 | 40.6 | 54.8 | 61.2 | 66.2 | 79.3 | 91.2 | 96.0 | 96.2 | 96.8 | 100.6 | 70.8 |
| 1916..... | 98.8 | 102.4 | 110.6 | 123.8 | 140.9 | 146.7 | 159.8 | 206.6 | 237.7 | 257.2 | 276.8 | 261.0 | 166.3 |
| 1917..... | 206.4 | 155.0 | 130.6 | 125.0 | 125.3 | 121.9 | 122.0 | 121.6 | 106.4 | 86.4 | 77.8 | 85.2 | 122.5 |
| 1918..... | 118.2 | 145.2 | 146.2 | 135.4 | 123.2 | 117.7 | 115.2 | 111.9 | 107.4 | 112.2 | 120.2 | 124.9 | 125.6 |
| 1919..... | 160.6 | 190.2 | 175.8 | 158.5 | 156.2 | 169.0 | 198.1 | 230.6 | 269.6 | 344.6 | 407.4 | 403.6 | 223.8 |
| 1920..... | 344.4 | 243.9 | 159.8 | 126.6 | 116.4 | 110.0 | 100.6 | 89.8 | 80.9 | 72.9 | 67.6 | 68.5 | 131.5 |
| A. V. 1914-1920..... | 152.8 | 138.7 | 120.3 | 111.8 | 110.6 | 111.5 | 117.9 | 128.9 | 135.3 | 145.5 | 156.7 | 150.5 | 128.4 |
| 1921..... | 103.4 | 152.8 | 153.1 | 130.6 | 116.8 | 109.4 | 112.0 | 116.6 | 116.7 | 109.0 | 104.2 | 103.7 | 121.3 |
| 1922..... | 109.0 | 101.4 | 78.8 | 66.2 | 60.5 | 68.8 | 62.0 | 64.2 | 68.6 | 77.4 | 79.0 | 79.8 | 73.9 |
| 1923..... | 102.9 | 120.8 | 106.6 | 91.4 | 82.5 | 81.5 | 86.4 | 88.1 | 87.8 | 91.1 | 91.8 | 100.7 | 94.2 |
| 1924..... | 109.0 | 111.3 | 81.0 | 68.8 | 63.5 | 64.1 | 70.2 | 72.8 | 71.4 | 70.5 | 70.6 | 84.4 | 76.5 |
| 1925..... | 125.5 | 155.4 | 121.1 | 125.6 | 108.4 | 201.5 | | | | | | | |

Division of Crop and Livestock Estimates. Mean of prices reported on 1st of month and 1st of succeeding month, July, 1909-December, 1923.

TABLE 274.—Potatoes: *Estimated price per bushel, received by producers, December 1, average 1909-1913, annual 1914-1925*

| State | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------------------|----------------------|------|------|-------|-------|-------|-------|-------|----------------------|-------|------|------|------|-------|----------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| Maine..... | 55 | 33 | 70 | 142 | 130 | 120 | 140 | 125 | 109 | 85 | 45 | 70 | 43 | 200 | 80 |
| New Hampshire..... | 69 | 60 | 95 | 166 | 167 | 145 | 175 | 155 | 138 | 135 | 105 | 115 | 84 | 235 | 135 |
| Vermont..... | 59 | 47 | 81 | 139 | 140 | 138 | 157 | 125 | 118 | 104 | 93 | 100 | 85 | 215 | 119 |
| Massachusetts..... | 81 | 71 | 94 | 175 | 175 | 170 | 190 | 150 | 146 | 152 | 95 | 135 | 96 | 245 | 145 |
| Rhode Island..... | 84 | 70 | 92 | 185 | 175 | 173 | 180 | 160 | 148 | 160 | 90 | 130 | 95 | 245 | 144 |
| Connecticut..... | 85 | 65 | 96 | 175 | 164 | 165 | 195 | 150 | 144 | 150 | 100 | 147 | 100 | 250 | 149 |
| New York..... | 65 | 44 | 82 | 158 | 130 | 122 | 145 | 118 | 114 | 106 | 60 | 95 | 57 | 215 | 107 |
| New Jersey..... | 80 | 61 | 75 | 155 | 141 | 170 | 169 | 125 | 128 | 142 | 72 | 110 | 67 | 230 | 124 |
| Pennsylvania..... | 69 | 58 | 75 | 148 | 135 | 151 | 154 | 124 | 121 | 133 | 75 | 165 | 80 | 164 | 117 |
| Ohio..... | 66 | 53 | 70 | 182 | 143 | 150 | 192 | 135 | 132 | 155 | 90 | 100 | 89 | 200 | 127 |
| Indiana..... | 65 | 56 | 56 | 177 | 139 | 135 | 195 | 133 | 127 | 145 | 84 | 86 | 80 | 216 | 122 |
| Illinois..... | 72 | 61 | 59 | 179 | 152 | 148 | 196 | 145 | 134 | 140 | 90 | 88 | 75 | 235 | 126 |
| Michigan..... | 46 | 30 | 56 | 160 | 105 | 89 | 135 | 92 | 95 | 95 | 34 | 44 | 35 | 162 | 74 |
| Wisconsin..... | 45 | 30 | 45 | 147 | 90 | 80 | 140 | 86 | 88 | 95 | 33 | 47 | 36 | 170 | 76 |
| Minnesota..... | 47 | 32 | 39 | 130 | 91 | 75 | 153 | 80 | 86 | 90 | 35 | 39 | 27 | 154 | 69 |
| Iowa..... | 63 | 59 | 54 | 175 | 131 | 133 | 192 | 122 | 124 | 140 | 67 | 77 | 55 | 235 | 115 |
| Missouri..... | 80 | 73 | 60 | 180 | 137 | 153 | 184 | 151 | 134 | 135 | 92 | 88 | 82 | 225 | 124 |
| North Dakota..... | 55 | 42 | 41 | 115 | 130 | 73 | 160 | 98 | 94 | 70 | 31 | 35 | 39 | 150 | 65 |
| South Dakota..... | 63 | 47 | 35 | 137 | 111 | 93 | 190 | 97 | 101 | 107 | 44 | 44 | 48 | 180 | 85 |
| Nebraska..... | 73 | 54 | 42 | 150 | 107 | 118 | 190 | 120 | 112 | 120 | 47 | 70 | 62 | 180 | 96 |
| Kansas..... | 88 | 77 | 74 | 165 | 152 | 144 | 190 | 150 | 136 | 135 | 92 | 99 | 91 | 235 | 130 |
| Delaware..... | 75 | 70 | 75 | 125 | 130 | 140 | 125 | 100 | 109 | 110 | 70 | 102 | 80 | 200 | 112 |
| Maryland..... | 67 | 60 | 62 | 133 | 119 | 120 | 130 | 95 | 103 | 110 | 60 | 100 | 81 | 194 | 109 |
| Virginia..... | 74 | 77 | 61 | 137 | 125 | 129 | 157 | 95 | 110 | 110 | 65 | 87 | 82 | 195 | 108 |
| West Virginia..... | 78 | 81 | 65 | 158 | 132 | 160 | 175 | 135 | 129 | 163 | 87 | 105 | 98 | 193 | 129 |
| North Carolina..... | 84 | 92 | 73 | 140 | 143 | 135 | 163 | 142 | 127 | 143 | 101 | 120 | 112 | 180 | 131 |
| South Carolina..... | 117 | 125 | 115 | 175 | 210 | 193 | 200 | 180 | 171 | 150 | 128 | 160 | 145 | 210 | 159 |
| Georgia..... | 101 | 103 | 99 | 175 | 195 | 185 | 217 | 208 | 169 | 165 | 140 | 160 | 150 | 210 | 165 |
| Florida..... | 118 | 113 | 115 | 200 | 205 | 200 | 210 | 200 | 178 | 190 | 175 | 190 | 165 | 260 | 196 |
| Kentucky..... | 80 | 84 | 55 | 142 | 140 | 165 | 210 | 150 | 135 | 165 | 100 | 120 | 102 | 200 | 137 |
| Tennessee..... | 82 | 91 | 63 | 149 | 126 | 165 | 172 | 160 | 132 | 165 | 110 | 112 | 112 | 195 | 139 |
| Alabama..... | 101 | 101 | 90 | 169 | 182 | 181 | 215 | 200 | 163 | 170 | 150 | 150 | 155 | 220 | 169 |
| Mississippi..... | 99 | 95 | 84 | 160 | 168 | 165 | 185 | 200 | 151 | 200 | 160 | 154 | 164 | 200 | 176 |
| Arkansas..... | 97 | 97 | 76 | 190 | 157 | 184 | 205 | 175 | 155 | 180 | 150 | 136 | 128 | 210 | 157 |
| Louisiana..... | 92 | 97 | 95 | 167 | 184 | 150 | 220 | 203 | 159 | 180 | 150 | 150 | 150 | 210 | 168 |
| Oklahoma..... | 103 | 90 | 84 | 195 | 180 | 195 | 205 | 180 | 161 | 185 | 123 | 128 | 130 | 225 | 158 |
| Texas..... | 112 | 104 | 105 | 190 | 210 | 200 | 210 | 220 | 177 | 190 | 160 | 160 | 170 | 240 | 184 |
| Montana..... | 63 | 64 | 50 | 120 | 102 | 80 | 100 | 105 | 97 | 80 | 40 | 65 | 87 | 160 | 86 |
| Idaho..... | 51 | 48 | 56 | 127 | 79 | 81 | 151 | 68 | 87 | 77 | 31 | 50 | 54 | 145 | 71 |
| Wyoming..... | 82 | 70 | 60 | 128 | 104 | 85 | 190 | 120 | 106 | 118 | 50 | 93 | 87 | 160 | 102 |
| Colorado..... | 63 | 50 | 55 | 135 | 91 | 99 | 170 | 80 | 97 | 73 | 37 | 53 | 60 | 155 | 76 |
| New Mexico..... | 102 | 95 | 95 | 175 | 165 | 160 | 190 | 210 | 156 | 180 | 145 | 160 | 104 | 200 | 158 |
| Arizona..... | 131 | 120 | 100 | 180 | 150 | 205 | 195 | 190 | 163 | 140 | 90 | 140 | 150 | 230 | 160 |
| Utah..... | 59 | 60 | 63 | 130 | 78 | 97 | 137 | 80 | 92 | 85 | 40 | 70 | 74 | 133 | 80 |
| Nevada..... | 77 | 70 | 70 | 130 | 120 | 123 | 150 | 156 | 117 | 120 | 60 | 105 | 106 | 190 | 116 |
| Washington..... | 57 | 55 | 53 | 98 | 92 | 101 | 145 | 95 | 91 | 99 | 45 | 70 | 85 | 165 | 93 |
| Oregon..... | 57 | 60 | 60 | 90 | 80 | 100 | 150 | 80 | 89 | 109 | 52 | 70 | 95 | 150 | 95 |
| California..... | 77 | 70 | 75 | 140 | 150 | 120 | 171 | 150 | 125 | 130 | 72 | 112 | 90 | 200 | 121 |
| United States..... | 61.8 | 48.7 | 61.7 | 146.1 | 122.8 | 119.3 | 159.5 | 114.5 | 110.4 | 110.1 | 58.1 | 78.1 | 62.6 | 187.2 | 99.2 |

Division of Crop and Livestock Estimates

TABLE 275.—Potatoes: Average l. c. l. price per 100 pounds, to jobbers, at nine markets, 1919-1925

| Market. Season beginning April ¹ | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| New York: | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1919 | 6.25 | 4.29 | 4.37 | 3.43 | 3.39 | 2.79 | 2.67 | 2.63 | 3.09 | 4.23 | 4.49 | 5.49 | 7.58 | 7.19 |
| 1920 | 9.03 | 0.93 | 0.93 | 5.54 | 2.55 | 1.83 | 1.93 | 1.96 | 1.82 | 1.80 | 1.31 | 1.51 | 1.28 | 1.22 |
| 1921 | 4.41 | 4.18 | 1.90 | 2.23 | 2.90 | 2.11 | 2.09 | 1.92 | 2.07 | 2.23 | 2.18 | 2.03 | 1.79 | 1.58 |
| 1922 | 4.07 | 3.27 | 3.03 | 1.81 | 1.04 | .95 | .96 | 1.22 | 1.36 | 1.39 | 1.44 | 1.87 | 2.09 | 1.76 |
| 1923 | 7.24 | 4.13 | 3.08 | 3.08 | 2.57 | 1.49 | 1.85 | 1.67 | 1.59 | 1.96 | 2.01 | 1.96 | 2.12 | 1.73 |
| 1924 | 5.92 | 4.12 | 2.24 | 1.48 | 1.41 | 1.37 | 1.33 | 1.22 | 1.26 | 1.46 | 1.56 | 1.21 | 1.20 | 1.36 |
| 1925 | 4.03 | 3.34 | 2.83 | 3.18 | 2.83 | 2.43 | 3.23 | 4.09 | 4.20 | | | | | |
| Chicago: | | | | | | | | | | | | | | |
| 1919 | 6.40 | 5.32 | 4.33 | 4.18 | 3.99 | 2.73 | 2.40 | 2.90 | 3.83 | 5.54 | 4.80 | 6.00 | 6.98 | 7.40 |
| 1920 | 9.14 | 8.38 | 6.44 | 3.42 | 2.40 | 1.85 | 2.13 | 1.58 | 1.29 | 1.15 | 1.25 | 1.98 | 1.87 | |
| 1921 | 4.83 | 4.50 | 2.42 | 2.33 | 3.11 | 2.65 | 2.00 | 1.75 | 1.83 | 1.98 | 1.96 | 1.80 | 1.69 | 1.70 |
| 1922 | 4.16 | 3.57 | 3.03 | 2.29 | 1.03 | 1.17 | 1.00 | 1.05 | 1.96 | 1.02 | 1.07 | 1.35 | 1.53 | 1.13 |
| 1923 | 4.80 | 3.15 | 2.76 | 2.18 | 1.70 | 1.14 | 1.24 | 1.27 | 1.58 | 1.71 | 1.75 | 1.79 | 1.79 | 1.60 |
| 1924 | 5.68 | 4.69 | 2.65 | 1.76 | 1.40 | 1.32 | .97 | 1.31 | 1.36 | 1.47 | 1.63 | 1.44 | 1.84 | 1.18 |
| 1925 | 4.75 | 3.00 | 2.96 | 3.28 | 2.68 | 2.00 | 2.67 | 3.47 | 3.64 | | | | | |
| Philadelphia: | | | | | | | | | | | | | | |
| 1919 | 5.31 | 4.77 | 4.11 | 3.61 | 3.48 | 2.51 | 2.48 | 2.64 | 3.25 | 4.07 | 4.35 | 5.24 | 6.74 | 7.13 |
| 1920 | 11.00 | 8.39 | 6.87 | 5.58 | 2.59 | 1.89 | 1.87 | 2.09 | 1.48 | 1.65 | 1.20 | 1.07 | 1.05 | 1.03 |
| 1921 | 3.96 | 4.14 | 1.93 | 2.11 | 3.07 | 2.41 | 2.19 | 2.01 | 2.00 | 2.20 | 2.23 | 1.98 | 1.69 | 1.39 |
| 1922 | 3.76 | 3.13 | 2.89 | 1.77 | 1.10 | 1.00 | 1.09 | 1.25 | 1.32 | 1.36 | 1.36 | 1.79 | 2.17 | 1.61 |
| 1923 | 7.21 | 4.03 | 3.02 | 3.24 | 2.84 | 2.06 | 1.96 | 1.66 | 1.73 | 1.98 | 2.00 | 1.86 | 1.92 | 1.79 |
| 1924 | 5.16 | 4.20 | 2.29 | 1.43 | 1.27 | 1.39 | 1.85 | 1.22 | 1.31 | 1.51 | 1.61 | 1.24 | 1.12 | 1.44 |
| 1925 | 4.09 | 3.51 | 2.89 | 3.26 | 2.95 | 2.16 | 2.84 | 3.99 | 4.14 | | | | | |
| Pittsburgh: | | | | | | | | | | | | | | |
| 1919 | 6.59 | 4.99 | 4.56 | 4.07 | 4.10 | 3.18 | 2.74 | 2.80 | 3.33 | 4.51 | 4.52 | 5.57 | 7.00 | 7.66 |
| 1920 | 9.54 | 7.48 | 5.98 | 3.01 | 2.31 | 2.33 | 2.48 | 1.84 | 1.80 | 1.86 | 1.48 | 1.11 | 1.08 | |
| 1921 | 4.50 | 4.37 | 2.28 | 2.73 | 3.43 | 2.71 | 2.30 | 2.10 | 2.20 | 2.26 | 2.13 | 2.01 | 1.85 | 1.61 |
| 1922 | 4.36 | 3.47 | 3.19 | 2.20 | 1.43 | 1.39 | 1.33 | 1.30 | 1.11 | 1.16 | 1.20 | 1.67 | 1.60 | 1.86 |
| 1923 | 7.30 | 4.44 | 3.35 | 3.44 | 3.13 | 2.38 | 1.67 | 1.46 | 1.33 | 1.67 | 1.65 | 1.60 | 1.74 | 1.55 |
| 1924 | 6.23 | 4.23 | 2.64 | 1.86 | 1.58 | 1.59 | 1.35 | 1.24 | 1.18 | 1.41 | 1.39 | 1.30 | 1.17 | 1.36 |
| 1925 | 4.55 | 3.73 | 3.24 | 3.65 | 3.20 | 2.22 | 2.75 | 3.81 | 3.92 | | | | | |
| St. Louis: | | | | | | | | | | | | | | |
| 1919 | 5.98 | 5.62 | 3.33 | 3.62 | 3.12 | 2.90 | 2.71 | 2.99 | ----- | 4.61 | 4.49 | ----- | 7.55 | 7.67 |
| 1920 | ----- | 10.75 | 8.35 | 6.60 | 3.69 | 2.71 | 2.25 | 2.33 | 1.87 | 1.68 | 1.39 | 1.48 | 1.23 | 1.22 |
| 1921 | 5.76 | 3.49 | 2.77 | 2.84 | 3.16 | 2.83 | 2.28 | 1.89 | 1.93 | 2.27 | 2.14 | 1.98 | 1.89 | 1.91 |
| 1922 | 5.67 | 3.81 | 2.96 | 2.49 | 1.73 | 1.53 | 1.26 | 1.20 | 1.10 | 1.16 | 1.18 | 1.44 | 1.59 | 1.45 |
| 1923 | 7.32 | 5.56 | 3.05 | ----- | ----- | 1.94 | 1.38 | 1.40 | 1.44 | 1.73 | 1.71 | 1.71 | 1.77 | 1.56 |
| 1924 | 5.60 | 3.91 | 2.48 | 1.86 | 1.31 | 1.54 | 1.27 | 1.25 | 1.38 | 1.55 | 1.56 | 1.42 | 1.08 | 1.48 |
| 1925 | 4.89 | 3.36 | 2.77 | 3.06 | 3.00 | 2.43 | 2.73 | 3.73 | 3.83 | | | | | |
| Cincinnati: | | | | | | | | | | | | | | |
| 1919 | 5.54 | 4.71 | 4.33 | 3.87 | 3.83 | 3.12 | 2.94 | 2.97 | 3.29 | 4.60 | 4.51 | 5.51 | 7.28 | 7.36 |
| 1920 | ----- | 8.65 | 7.59 | 6.49 | 3.41 | 2.57 | 2.19 | 2.60 | 1.92 | 1.68 | 1.58 | 1.77 | 1.22 | 1.13 |
| 1921 | 4.12 | 4.10 | 2.49 | 2.65 | 3.52 | 2.96 | 2.46 | 1.93 | 1.97 | 2.30 | 2.16 | 2.06 | 1.94 | 1.93 |
| 1922 | 3.96 | 3.28 | 3.01 | 2.44 | 1.74 | 1.48 | 1.30 | 1.17 | 1.15 | 1.20 | 1.21 | 1.46 | 1.46 | 1.27 |
| 1923 | 6.62 | 4.43 | 3.33 | ----- | ----- | 1.85 | 1.36 | 1.24 | 1.26 | 1.69 | 1.65 | 1.61 | 1.65 | 1.56 |
| 1924 | 5.35 | 3.93 | 2.48 | 1.97 | 1.58 | 1.59 | 1.24 | 1.19 | 1.29 | 1.49 | 1.61 | 1.52 | 1.30 | 1.24 |
| 1925 | 5.05 | 3.66 | 3.50 | 3.60 | 3.19 | 2.45 | 2.93 | 4.15 | 4.12 | | | | | |
| Minneapolis: | | | | | | | | | | | | | | |
| 1919 | ----- | ----- | ----- | 4.13 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920 | ----- | ----- | 9.02 | 8.29 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1921 | ----- | ----- | 3.05 | 2.90 | 3.43 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1922 | ----- | ----- | 3.30 | 2.86 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1923 | ----- | ----- | 3.37 | 3.04 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1924 | ----- | ----- | ----- | 2.52 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1925 | ----- | 3.77 | 3.38 | 3.38 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Kansas City: | | | | | | | | | | | | | | |
| 1919 | 8.11 | 7.01 | 3.32 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1920 | ----- | ----- | 8.77 | ----- | 2.81 | 2.69 | 2.06 | 2.27 | ----- | ----- | ----- | ----- | 1.37 | 1.29 |
| 1921 | 6.36 | 3.93 | 3.06 | ----- | 3.09 | 2.63 | 1.97 | 1.51 | 1.65 | 2.04 | 1.99 | 1.88 | 1.77 | 1.64 |
| 1922 | 6.62 | 3.93 | 2.87 | ----- | ----- | 1.23 | 1.12 | 1.07 | 1.03 | 1.05 | 1.07 | 1.24 | 1.21 | 1.06 |
| 1923 | ----- | 6.14 | 2.99 | ----- | 1.79 | 1.52 | 1.16 | 1.30 | 1.30 | 1.62 | 1.57 | 1.65 | 1.69 | 1.70 |
| 1924 | 5.99 | 4.50 | 2.55 | ----- | 1.40 | 1.05 | 1.10 | 1.10 | 1.43 | 1.35 | 1.34 | 1.32 | .97 | 1.32 |
| 1925 | 5.27 | 3.50 | 2.75 | ----- | 2.59 | 2.22 | 1.75 | 3.73 | 3.66 | | | | | |
| Washington: | | | | | | | | | | | | | | |
| 1919 | ----- | ----- | ----- | ----- | 2.43 | 1.83 | 1.54 | 1.70 | 2.04 | 1.95 | 1.84 | 1.89 | 1.84 | ----- |
| 1920 | 6.29 | 4.76 | 2.43 | 1.69 | 1.57 | 1.63 | 1.56 | 1.35 | 1.42 | 1.64 | 1.65 | 1.46 | 1.29 | 1.41 |
| 1921 | 4.53 | 3.77 | 2.92 | 3.60 | 3.38 | 2.53 | 2.92 | 4.21 | 4.23 | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division. Average prices as shown are based on stock of U. S. No. 1 grade; they are simple averages of daily range of selling prices. In some cases conversions have been made from larger to smaller units or vice versa, in order to obtain comparability.

¹Crop movement season extends from April of one year through May of the following year, with irregular quotations continuing through June and July.

²Car-lot sales.

³Eight-day average.

⁴Bulk only.

TABLE 276.—Potatoes, "Maine" and "New York State": Average l. c. l. price per bushel to jobbers at New York, 1900-1925

| Season beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1900..... | 0.50 | 0.45 | 0.46 | 0.56 | 0.56 | 0.52 | 0.48 | 0.48 | 0.61 |
| 1901..... | .76 | .72 | .76 | .78 | .76 | .75 | .84 | .85 | .75 |
| 1902..... | | .62 | .58 | .60 | .66 | .66 | .68 | .64 | .67 |
| 1903..... | .48 | .60 | .69 | .74 | .81 | .94 | .96 | 1.16 | 1.02 |
| 1904..... | .48 | .51 | .51 | .50 | .49 | .46 | .42 | .36 | .30 |
| 1905..... | .62 | .67 | .74 | .68 | .66 | .60 | .68 | .80 | .76 |
| 1906..... | .55 | .58 | .51 | .48 | .48 | .57 | .90 | .56 | .74 |
| 1907..... | .56 | .63 | .68 | .64 | .70 | .81 | .83 | .84 | .80 |
| 1908..... | .74 | .69 | .79 | .79 | .79 | .81 | .88 | .92 | .91 |
| 1909..... | .65 | .56 | .56 | .56 | .58 | .54 | .49 | .40 | .39 |
| 1910..... | .55 | .55 | .51 | .49 | .52 | .49 | .47 | .62 | .57 |
| 1911..... | .81 | .79 | .90 | .95 | 1.12 | 1.14 | 1.28 | 1.38 | 1.25 |
| 1912..... | .60 | .59 | .64 | .68 | .63 | .67 | .62 | .66 | .77 |
| 1913..... | .74 | .69 | .71 | .70 | .80 | .83 | .81 | .85 | .85 |
| Average 1909-1913..... | .67 | .64 | .66 | .68 | .73 | .73 | .73 | .78 | .77 |
| 1914..... | .62 | .56 | .54 | .51 | .51 | .48 | .47 | .50 | .46 |
| 1915..... | | .78 | .76 | .90 | 1.22 | 1.21 | 1.23 | 1.14 | 1.12 |
| 1916..... | 1.18 | 1.25 | 1.69 | 1.61 | 1.98 | 2.67 | 2.67 | 3.00 | 3.18 |
| 1917..... | 1.20 | 1.62 | 1.37 | 1.89 | 1.66 | 1.47 | 1.14 | 1.11 | .82 |
| 1918..... | 1.58 | 1.44 | 1.37 | 1.80 | 1.42 | 1.26 | 1.11 | 1.43 | 1.49 |
| 1919..... | 1.51 | 1.37 | 1.57 | 1.79 | 2.31 | 2.64 | 2.33 | 4.28 | 4.17 |
| 1920..... | | 1.25 | 1.38 | 1.27 | 1.16 | .88 | .88 | .78 | .66 |
| Average 1914-1920..... | ----- | 1.18 | 1.24 | 1.28 | 1.47 | 1.62 | 1.55 | 1.75 | 1.70 |
| 1921..... | 1.87 | 1.16 | 1.25 | 1.23 | 1.42 | 1.35 | 1.25 | 1.12 | .90 |
| 1922..... | .86 | .78 | .82 | .86 | .93 | .96 | 1.21 | 1.25 | 1.10 |
| 1923..... | 1.46 | 1.13 | 1.06 | 1.05 | 1.20 | 1.20 | 1.17 | 1.19 | 1.17 |
| 1924..... | .91 | .72 | .70 | .78 | .82 | .94 | .78 | .71 | .76 |
| 1925..... | 1.28 | 1.76 | 2.28 | 2.42 | | | | | |

Division of Statistical and Historical Research. Compiled from Friday or Saturday issues, New York Producers' Price Current, average of weekly range.

In earlier years New York "State" quotations were included in the general term "State and Western."

SPINACH

TABLE 277.—Spinach for consumption fresh, commercial crop: Acreage, production, and total value, by States, year beginning October, 1923-1925

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|---------------------|---------|------------------|------------------|------------|------------------|------------------|--|------------------|------------------|
| | 1922-23 | 1923-24 | 1924-25 | 1922-23 | 1923-24 | 1924-25 | 1922-23 | 1923-24 | 1924-25 |
| | Acres | Acres | Acres | bushels | bushels | bushels | dollars | dollars | dollars |
| California..... | 1,420 | 2,070 | 1,710 | 1,065 | 1,784 | 855 | 1,000 | 1,000 | 1,000 |
| Illinois..... | 400 | (¹) | (¹) | 150 | (¹) | (¹) | 362 | 571 | 239 |
| Maryland..... | 1,980 | 2,190 | 2,300 | 842 | 1,153 | 1,150 | 379 | 592 | 391 |
| Missouri..... | 640 | 820 | 1,000 | 234 | 287 | 360 | 105 | 103 | 112 |
| New Jersey..... | | 1,110 | 1,440 | | 544 | 626 | | 408 | 545 |
| New York..... | 50 | (¹) | (¹) | 11 | (¹) | (¹) | 10 | (¹) | (¹) |
| North Carolina..... | 150 | 200 | 200 | 58 | 80 | 78 | 44 | 58 | 53 |
| South Carolina..... | 1,200 | 1,500 | 1,000 | 480 | 384 | 480 | 475 | 173 | 566 |
| Texas..... | 9,440 | 8,700 | 14,100 | 2,549 | 2,749 | 4,639 | 1,274 | 2,192 | 2,876 |
| Virginia..... | 6,250 | 8,000 | 8,500 | 2,188 | 3,298 | 3,060 | 1,553 | 2,840 | 2,070 |
| Total..... | 21,530 | 24,590 | 30,250 | 7,577 | 10,298 | 11,248 | 4,344 | 6,437 | 6,802 |

Division of Crop and Livestock Estimates.

¹ Not reported.

TABLE 278.—*Spinach for consumption fresh, commercial crop: Yield per acre and price, year beginning October, 1919–1925*

| State | Yield per acre | | | | | | Price per bushel ¹ | | | | | |
|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | 1919-20 | 1920-21 | 1921-22 | 1922-23 | 1923-24 | 1924-25 | 1919-20 | 1920-21 | 1921-22 | 1922-23 | 1923-24 | 1924-25 |
| California..... | <i>Bus.</i> 817 | <i>Bus.</i> 893 | <i>Bus.</i> 800 | <i>Bus.</i> 750 | <i>Bus.</i> 862 | <i>Bus.</i> 500 | <i>Dols.</i> 0.49 | <i>Dols.</i> 0.46 | <i>Dols.</i> 0.51 | <i>Dols.</i> 0.34 | <i>Dols.</i> 0.32 | <i>Dols.</i> 0.28 |
| Illinois..... | | | | 375 | (²) | (²) | | | | .95 | (²) | (²) |
| Maryland..... | 844 | 481 | 407 | 425 | 540 | 500 | .60 | .70 | .42 | .45 | .50 | .34 |
| Missouri..... | | | | 365 | 350 | 360 | | | | .45 | .36 | .31 |
| New Jersey..... | | | | | 490 | 435 | | | | | .75 | .87 |
| New York..... | | | | 225 | (²) | (²) | | | | .87 | (²) | (²) |
| North Carolina..... | | | | 390 | 400 | 390 | | | | .75 | .73 | .68 |
| South Carolina..... | | 550 | 450 | 400 | 256 | 480 | 1.00 | 1.54 | .99 | .99 | .45 | 1.18 |
| Texas..... | 300 | 253 | 280 | 270 | 315 | 329 | .81 | .55 | .66 | .60 | .80 | .62 |
| Virginia..... | 482 | 378 | 329 | 350 | 412 | 360 | .80 | .68 | .86 | .71 | .71 | .66 |
| Average..... | 303 | 341 | 347 | 352 | 419 | 372 | .66 | .63 | .70 | .57 | .62 | .60 |

Division of Crop and Livestock Estimates.

¹ Average for season.

² Not reported.

TABLE 279.—*Spinach for canning, commercial crop: Acreage, production, and total value, by States, 1923–1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|-----------------------------|-----------------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| California..... | <i>Acres</i> 8,290 | <i>Acres</i> 8,290 | <i>Acres</i> 9,690 | <i>Tons</i> 48,100 | <i>Tons</i> 41,400 | <i>Tons</i> 29,100 | <i>1,000 dollars</i> 979 | <i>1,000 dollars</i> 729 | <i>1,000 dollars</i> 512 |
| Maryland..... | 730 | 1,460 | 1,500 | 2,200 | 4,700 | 4,500 | 84 | 226 | 169 |
| Total..... | 9,020 | 9,750 | 11,190 | 50,300 | 46,100 | 33,600 | 1,063 | 955 | 681 |

Division of Crop and Livestock Estimates.

TABLE 280.—*Spinach for canning, commercial crop: Yield per acre and price, 1919–1925*

| State | Yield per acre | | | | | | | Price per ton | | | | | | |
|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| California..... | <i>Tons</i> 4.9 | <i>Tons</i> 5.4 | <i>Tons</i> 4.5 | <i>Tons</i> 5.2 | <i>Tons</i> 5.8 | <i>Tons</i> 5.0 | <i>Tons</i> 3.0 | <i>Dols.</i> 23.45 | <i>Dols.</i> 24.92 | <i>Dols.</i> 19.71 | <i>Dols.</i> 19.56 | <i>Dols.</i> 20.35 | <i>Dols.</i> 17.61 | <i>Dols.</i> 17.64 |
| Maryland..... | 3.6 | 3.6 | 2.8 | 2.5 | 3.0 | 3.2 | 3.0 | 31.25 | 49.44 | 35.00 | 37.60 | 38.38 | 48.12 | 37.50 |
| Average..... | 4.3 | 4.5 | 3.9 | 4.5 | 5.6 | 4.7 | 3.0 | 26.45 | 34.59 | 23.40 | 22.00 | 21.13 | 20.72 | 20.27 |

Division of Crop and Livestock Estimates.

TABLE 281.—*Spinach: Car-lot shipments by State of origin, August, 1920–July, 1925*

| State | Crop movement season ¹ | | | | |
|---------------------|-----------------------------------|-------|-------|-------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 ² |
| | Cars | Cars | Cars | Cars | Cars |
| Missouri..... | 126 | 57 | 28 | 84 | 152 |
| Maryland..... | 391 | 372 | 663 | 818 | 846 |
| Virginia..... | 2,475 | 2,212 | 3,208 | 3,105 | 2,946 |
| South Carolina..... | | 161 | 422 | | 501 |
| Texas..... | 1,463 | 1,455 | 2,433 | 3,038 | 3,235 |
| California..... | 149 | 302 | 473 | 70 | 241 |
| Other States..... | 64 | 132 | 126 | 341 | 253 |
| Total..... | 4,668 | 4,691 | 7,353 | 7,617 | 8,174 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from Aug. 1 of one year through July of the following year.

² Preliminary.

SWEET POTATOES

TABLE 282.—*Sweet potatoes: Acreage, production, and value, United States, 1909–1925*

| Year | Acreage | Average yield per acre | Production | Price per bushel received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ |
|-------------------------|-------------|------------------------|---------------|---|-------------------|-----------------------------|
| | 1,000 acres | Bushels | 1,000 bushels | Cents | 1,000 dollars | Dollars |
| 1909..... | 641 | 90.1 | 57,764 | 68.5 | 39,585 | 61.76 |
| 1910..... | 641 | 93.5 | 59,938 | 67.1 | 40,216 | 62.74 |
| 1911..... | 605 | 90.1 | 54,538 | 75.5 | 41,202 | 68.10 |
| 1912..... | 583 | 95.2 | 55,479 | 72.6 | 40,264 | 69.06 |
| 1913..... | 625 | 94.5 | 59,057 | 72.6 | 42,884 | 68.61 |
| Average, 1909–1913..... | 619 | 92.7 | 57,355 | 71.2 | 40,830 | 65.96 |
| 1914..... | 603 | 93.8 | 56,574 | 73.0 | 41,264 | 68.48 |
| 1915..... | 731 | 103.5 | 75,639 | 62.1 | 46,980 | 64.27 |
| 1916..... | 774 | 91.7 | 70,955 | 84.8 | 60,141 | 77.70 |
| 1917..... | 919 | 91.2 | 83,822 | 110.8 | 92,916 | 101.11 |
| 1918..... | 940 | 93.5 | 87,924 | 135.2 | 118,863 | 126.45 |
| 1919..... | 941 | 103.2 | 97,126 | 134.4 | 130,514 | 138.70 |
| 1920..... | 992 | 104.8 | 103,925 | 113.4 | 117,834 | 118.78 |
| Average, 1914–1920..... | 843 | 97.6 | 82,281 | 105.7 | 86,935 | 103.14 |
| 1921..... | 1,096 | 92.5 | 98,654 | 88.1 | 86,894 | 81.61 |
| 1922..... | 1,117 | 97.9 | 109,394 | 77.1 | 84,295 | 75.47 |
| 1923..... | 993 | 97.9 | 97,177 | 97.9 | 95,091 | 95.76 |
| 1924..... | 691 | 79.0 | 54,664 | 129.2 | 70,500 | 102.03 |
| 1925 ² | 778 | 80.3 | 62,494 | 136.9 | 85,554 | 109.97 |

Division of Crop and Livestock Estimates.

¹ Based on farm price Dec. 1.

² Preliminary.

TABLE 283.—Sweet potatoes: Acreage, production, and total farm value, by States, 1924 and 1925

| State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | | State | Thousands of acres | | Production, thousands of bushels | | Total value, basis Dec. 1 price, thousands of dollars | |
|--------|--------------------|-------------------|----------------------------------|-------------------|---|-------------------|---------|--------------------|-------------------|----------------------------------|-------------------|---|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| N. J. | 17 | 18 | 2,380 | 2,106 | 3,689 | 5,054 | Fla. | 25 | 29 | 2,100 | 2,465 | 2,730 | 3,451 |
| Pa. | 2 | 2 | 234 | 230 | 351 | 483 | Ky. | 12 | 14 | 960 | 1,260 | 1,229 | 1,925 |
| Ohio. | 3 | 3 | 336 | 345 | 548 | 724 | Tenn. | 30 | 36 | 2,850 | 3,240 | 3,990 | 4,536 |
| Ind. | 2 | 2 | 230 | 216 | 327 | 410 | Ala. | 60 | 65 | 4,380 | 4,550 | 5,475 | 5,688 |
| Ill. | 8 | 8 | 864 | 704 | 1,201 | 1,338 | Miss. | 50 | 62 | 2,550 | 5,952 | 4,412 | 5,952 |
| Iowa. | 3 | 3 | 240 | 327 | 456 | 752 | Ark. | 27 | 36 | 2,187 | 3,060 | 2,777 | 3,825 |
| Mo. | 6 | 6 | 600 | 570 | 750 | 940 | La. | 60 | 72 | 3,000 | 5,790 | 4,740 | 6,624 |
| Kans. | 3 | 3 | 339 | 348 | 458 | 592 | Okla. | 18 | 20 | 1,566 | 1,880 | 2,349 | 2,538 |
| Del. | 10 | 11 | 1,300 | 1,210 | 1,638 | 2,299 | Tex. | 70 | 84 | 3,990 | 6,132 | 6,304 | 8,707 |
| Md. | 8 | 10 | 1,120 | 1,290 | 1,422 | 2,193 | N. Mex. | 1 | 1 | 120 | 140 | 306 | 231 |
| Va. | 35 | 37 | 4,200 | 3,996 | 4,620 | 5,195 | Ariz. | 2 | 2 | 250 | 260 | 595 | 546 |
| W. Va. | 3 | 3 | 330 | 276 | 465 | 552 | Calif. | 6 | 9 | 678 | 1,107 | 1,478 | 1,882 |
| N. C. | 80 | 80 | 7,360 | 7,040 | 7,654 | 8,448 | U. S. | 691 | 778 | 54,564 | 62,494 | 70,500 | 85,554 |
| S. C. | 50 | 52 | 3,400 | 2,860 | 3,536 | 4,204 | | | | | | | |
| Ga. | 100 | 110 | 7,000 | 5,170 | 7,000 | 6,462 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 284.—Sweet potatoes: Yield per acre, by States, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909-1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914-1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921-1925 |
|---------|---------|---------|---------|---------|---------|---------------|---------|---------|---------|---------|---------|---------|---------|---------------|---------|---------|---------|---------|---------|---------------|
| N. J. | Bu. 123 | Bu. 140 | Bu. 130 | Bu. 120 | Bu. 138 | Bu. 130 | Bu. 100 | Bu. 155 | Bu. 100 | Bu. 120 | Bu. 115 | Bu. 125 | Bu. 143 | Bu. 123 | Bu. 110 | Bu. 175 | Bu. 122 | Bu. 140 | Bu. 117 | Bu. 133 |
| Pa. | 88 | 105 | 121 | 120 | 110 | 109 | 105 | 105 | 100 | 110 | 120 | 140 | 138 | 117 | 124 | 140 | 130 | 117 | 115 | 125 |
| Ohio. | 110 | 98 | 113 | 118 | 90 | 106 | 110 | 95 | 99 | 95 | 96 | 100 | 103 | 100 | 107 | 120 | 112 | 112 | 115 | 113 |
| Ind. | 101 | 104 | 114 | 116 | 78 | 103 | 100 | 104 | 100 | 106 | 108 | 105 | 120 | 106 | 132 | 123 | 118 | 115 | 108 | 120 |
| Ill. | 110 | 110 | 89 | 98 | 70 | 95 | 84 | 110 | 90 | 97 | 82 | 95 | 97 | 94 | 110 | 95 | 110 | 108 | 88 | 102 |
| Iowa. | 110 | 98 | 105 | 90 | 80 | 97 | 100 | 95 | 91 | 90 | 93 | 67 | 104 | 91 | 104 | 78 | 70 | 80 | 109 | 88 |
| Mo. | 90 | 102 | 91 | 88 | 56 | 85 | 84 | 100 | 70 | 112 | 91 | 104 | 110 | 96 | 100 | 95 | 108 | 100 | 95 | 100 |
| Kans. | 96 | 101 | 75 | 99 | 50 | 84 | 110 | 110 | 92 | 92 | 80 | 109 | 135 | 104 | 125 | 104 | 107 | 113 | 116 | 113 |
| Del. | 125 | 115 | 140 | 120 | 135 | 127 | 120 | 135 | 125 | 112 | 120 | 138 | 128 | 125 | 100 | 156 | 112 | 130 | 110 | 122 |
| Md. | 115 | 110 | 115 | 125 | 141 | 121 | 125 | 130 | 128 | 118 | 130 | 140 | 126 | 128 | 100 | 153 | 130 | 140 | 129 | 130 |
| Va. | 100 | 100 | 90 | 90 | 108 | 98 | 92 | 110 | 130 | 104 | 120 | 140 | 127 | 118 | 95 | 135 | 120 | 120 | 108 | 116 |
| W. Va. | 100 | 101 | 110 | 115 | 91 | 103 | 92 | 110 | 140 | 140 | 106 | 115 | 119 | 117 | 115 | 134 | 130 | 110 | 92 | 116 |
| N. C. | 99 | 105 | 85 | 90 | 100 | 96 | 90 | 105 | 107 | 95 | 110 | 107 | 104 | 103 | 101 | 113 | 105 | 92 | 88 | 100 |
| S. C. | 95 | 91 | 84 | 105 | 92 | 93 | 85 | 105 | 86 | 95 | 95 | 90 | 105 | 94 | 95 | 92 | 97 | 68 | 55 | 81 |
| Ga. | 93 | 83 | 81 | 90 | 87 | 87 | 85 | 85 | 80 | 93 | 92 | 92 | 93 | 89 | 85 | 83 | 84 | 70 | 47 | 74 |
| Fla. | 105 | 108 | 108 | 112 | 110 | 109 | 120 | 112 | 100 | 95 | 110 | 100 | 95 | 105 | 85 | 85 | 98 | 84 | 85 | 87 |
| Ky. | 88 | 85 | 96 | 90 | 75 | 87 | 105 | 105 | 90 | 95 | 95 | 105 | 105 | 100 | 104 | 101 | 103 | 80 | 90 | 96 |
| Tenn. | 87 | 85 | 85 | 90 | 80 | 85 | 100 | 105 | 100 | 95 | 98 | 112 | 102 | 102 | 100 | 95 | 110 | 95 | 90 | 96 |
| Ala. | 80 | 85 | 97 | 100 | 95 | 91 | 93 | 90 | 74 | 90 | 96 | 94 | 97 | 91 | 90 | 95 | 104 | 73 | 70 | 88 |
| Miss. | 82 | 94 | 85 | 97 | 98 | 91 | 90 | 110 | 82 | 65 | 95 | 105 | 110 | 94 | 80 | 105 | 98 | 51 | 96 | 86 |
| Ark. | 58 | 98 | 92 | 88 | 90 | 85 | 95 | 130 | 91 | 110 | 90 | 100 | 105 | 103 | 105 | 80 | 95 | 81 | 85 | 89 |
| La. | 90 | 93 | 90 | 84 | 85 | 88 | 87 | 92 | 90 | 70 | 75 | 90 | 101 | 88 | 94 | 92 | 90 | 50 | 80 | 81 |
| Okla. | 70 | 70 | 75 | 92 | 64 | 74 | 102 | 115 | 74 | 90 | 65 | 110 | 115 | 96 | 98 | 76 | 90 | 87 | 94 | 89 |
| Tex. | 50 | 56 | 71 | 75 | 80 | 66 | 101 | 98 | 89 | 78 | 58 | 110 | 105 | 91 | 82 | 83 | 80 | 57 | 73 | 75 |
| N. Mex. | 180 | 100 | 150 | 141 | 125 | 139 | 143 | 160 | 125 | 118 | 125 | 120 | 118 | 130 | 120 | 112 | 134 | 120 | 140 | 126 |
| Ariz. | 163 | 120 | 200 | 140 | 135 | 152 | 200 | 150 | 160 | 150 | 135 | 150 | 125 | 163 | 125 | 150 | 170 | 125 | 130 | 140 |
| Calif. | 160 | 160 | 140 | 156 | 170 | 157 | 161 | 135 | 160 | 167 | 170 | 130 | 127 | 150 | 120 | 110 | 115 | 113 | 123 | 116 |
| U. S. | 90.1 | 93.5 | 90.1 | 95.2 | 94.5 | 92.7 | 93.8 | 103.5 | 91.7 | 91.2 | 93.5 | 103.2 | 104.8 | 97.4 | 92.5 | 97.9 | 97.9 | 79.0 | 80.3 | 92.5 |

Division of Crop and Livestock Estimates.

TABLE 285.—Sweet potatoes: Car lot shipments by States of origin, July, 1920–June, 1925

| State | Crop movement season ¹ | | | | |
|---------------------------------|-----------------------------------|-------------|-------------|-------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New Jersey ³ | 2,392 | 2,106 | 2,858 | 1,528 | 1,898 |
| Delaware..... | 1,877 | 1,722 | 2,632 | 1,540 | 1,750 |
| Maryland..... | 1,363 | 1,286 | 1,750 | 1,123 | 1,155 |
| Virginia..... | 4,839 | 5,300 | 6,633 | 5,374 | 5,213 |
| North Carolina..... | 823 | 1,022 | 679 | 563 | 816 |
| South Carolina..... | 56 | 135 | 235 | 155 | 120 |
| Georgia..... | 4,030 | 1,400 | 781 | 610 | 1,018 |
| Florida..... | 95 | 110 | 4 128 | 59 | 175 |
| Tennessee ⁴ | 924 | 1,578 | 1,495 | 726 | 1,137 |
| Alabama..... | 579 | 591 | 537 | 382 | 649 |
| Mississippi..... | 93 | 181 | 116 | 61 | 36 |
| Arkansas..... | 568 | 584 | 240 | 263 | 399 |
| Louisiana..... | 772 | 893 | 1,033 | 463 | 558 |
| Oklahoma..... | 91 | 147 | 85 | 110 | 107 |
| Texas..... | 632 | 759 | 974 | 535 | 221 |
| California..... | 856 | 1,000 | 982 | 684 | 466 |
| Other States ⁵ | 216 | 479 | 408 | 345 | 381 |
| Total ⁶ | 17,206 | 19,383 | 21,566 | 14,530 | 16,009 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from July 1 of one year through June of the following year.

² Preliminary.

³ Figures for certain States include shipments in July of succeeding crop year as follows: New Jersey—1920 15 cars; 1922, 4 cars; 1924, 4 cars, Arkansas—1921, 1 car; Kentucky—1921, 1 car; New Mexico—1921, 5 cars; Tennessee—1921, 17 cars; 1924, 3 cars.

⁴ Florida includes 2 cars in June, 1922.

TABLE 286.—Sweet potatoes: Estimated price per bushel, received by producers, United States, 1910–1925

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted av. |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1910..... | 73.5 | 82.9 | 79.5 | 75.7 | 67.8 | 70.9 | 79.1 | 81.6 | 87.3 | 95.0 | 103.6 | 93.8 | 78.7 |
| 1911..... | 104.1 | 107.4 | 97.9 | 85.6 | 76.2 | 79.0 | 86.9 | 93.5 | 102.4 | 117.4 | 118.6 | 111.4 | 92.2 |
| 1912..... | 113.0 | 102.5 | 88.9 | 79.9 | 73.7 | 77.2 | 83.7 | 87.0 | 90.8 | 94.3 | 93.2 | 90.8 | 85.6 |
| 1913..... | 89.4 | 98.8 | 89.8 | 78.0 | 73.4 | 75.8 | 82.6 | 86.1 | 87.3 | 91.9 | 92.7 | 92.5 | 84.0 |
| A. v. 1910–1913..... | 95.0 | 97.9 | 89.0 | 79.6 | 72.8 | 75.7 | 83.0 | 87.0 | 92.0 | 99.6 | 102.0 | 97.1 | 85.1 |
| 1914..... | 94.5 | 98.4 | 90.1 | 79.3 | 72.3 | 74.9 | 81.0 | 85.0 | 90.8 | 100.8 | 98.1 | 97.6 | 84.6 |
| 1915..... | 93.1 | 97.2 | 80.0 | 69.7 | 62.9 | 65.0 | 72.7 | 76.4 | 80.1 | 81.0 | 78.9 | 83.9 | 75.4 |
| 1916..... | 87.5 | 99.0 | 88.1 | 80.3 | 80.3 | 86.4 | 92.9 | 100.0 | 115.5 | 126.0 | 132.6 | 135.8 | 122.3 |
| 1917..... | 124.4 | 126.3 | 120.3 | 110.5 | 105.0 | 110.8 | 123.1 | 129.8 | 149.2 | 158.1 | 158.2 | 134.0 | 122.3 |
| 1918..... | 142.1 | 151.6 | 164.3 | 152.4 | 137.4 | 131.6 | 137.8 | 149.2 | 157.2 | 176.2 | 174.4 | 162.7 | 150.0 |
| 1919..... | 159.7 | 195.4 | 174.6 | 150.9 | 135.1 | 135.6 | 151.1 | 163.6 | 179.2 | 193.9 | 199.7 | 205.2 | 161.7 |
| 1920..... | 200.7 | 210.8 | 190.0 | 138.7 | 116.5 | 112.3 | 126.3 | 122.1 | 125.5 | 135.7 | 186.8 | 141.9 | 144.8 |
| A. v. 1914–1920..... | 128.9 | 139.8 | 129.6 | 111.7 | 101.4 | 102.4 | 112.1 | 118.0 | 128.2 | 138.8 | 139.8 | 137.3 | 118.8 |
| 1921..... | 151.2 | 164.2 | 118.2 | 104.0 | 91.6 | 95.3 | 102.3 | 106.9 | 114.3 | 116.0 | 117.1 | 120.7 | 110.9 |
| 1922..... | 125.3 | 127.5 | 106.0 | 90.4 | 79.0 | 84.8 | 92.5 | 96.9 | 100.1 | 103.8 | 107.9 | 107.4 | 97.4 |
| 1923..... | 112.1 | 151.3 | 133.6 | 114.8 | 101.0 | 103.8 | 112.6 | 123.7 | 129.0 | 140.4 | 189.2 | 138.9 | 121.7 |
| 1924..... | 130.7 | 151.4 | 157.0 | 145.1 | 130.3 | 140.1 | 145.5 | 160.2 | 180.8 | 196.2 | 180.1 | 170.2 | 152.4 |
| 1925..... | 198.7 | 196.3 | 177.4 | 169.4 | 144.4 | 141.5 | | | | | | | |

TABLE 287.—Sweet potatoes: Estimated price per bushel, received by producers, December 1, average 1909-1913, annual, 1914-1925

| State | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------------------|----------------------|------|------|------|-------|-------|-------|-------|----------------------|------|------|------|-------|-------|----------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| New Jersey..... | 80 | 95 | 70 | 120 | 160 | 190 | 220 | 155 | 144 | 170 | 72 | 145 | 155 | 240 | 156 |
| Pennsylvania..... | 87 | 86 | 75 | 135 | 140 | 185 | 180 | 155 | 137 | 180 | 111 | 140 | 160 | 210 | 158 |
| Ohio..... | 93 | 96 | 98 | 150 | 175 | 175 | 215 | 175 | 155 | 178 | 135 | 150 | 103 | 210 | 167 |
| Indiana..... | 91 | 90 | 90 | 150 | 165 | 195 | 215 | 160 | 152 | 150 | 120 | 125 | 142 | 190 | 145 |
| Illinois..... | 97 | 95 | 82 | 125 | 150 | 175 | 175 | 135 | 134 | 90 | 105 | 110 | 130 | 190 | 127 |
| Iowa..... | 113 | 127 | 108 | 192 | 210 | 210 | 250 | 247 | 192 | 175 | 140 | 150 | 190 | 230 | 177 |
| Missouri..... | 95 | 90 | 82 | 150 | 141 | 188 | 187 | 155 | 142 | 100 | 105 | 108 | 125 | 165 | 121 |
| Kansas..... | 111 | 100 | 100 | 150 | 160 | 222 | 185 | 160 | 155 | 115 | 105 | 125 | 135 | 170 | 130 |
| Delaware..... | 63 | 70 | 62 | 81 | 120 | 125 | 110 | 100 | 95 | 110 | 50 | 115 | 126 | 190 | 118 |
| Maryland..... | 65 | 70 | 70 | 88 | 100 | 150 | 133 | 115 | 104 | 140 | 50 | 115 | 127 | 170 | 120 |
| Virginia..... | 70 | 70 | 65 | 90 | 110 | 145 | 155 | 95 | 105 | 125 | 87 | 105 | 110 | 130 | 111 |
| West Virginia..... | 93 | 98 | 92 | 128 | 140 | 204 | 210 | 150 | 146 | 180 | 140 | 148 | 141 | 200 | 162 |
| North Carolina..... | 60 | 65 | 56 | 75 | 105 | 122 | 138 | 114 | 98 | 97 | 80 | 98 | 104 | 120 | 100 |
| South Carolina..... | 68 | 70 | 65 | 85 | 104 | 142 | 148 | 117 | 104 | 90 | 71 | 86 | 104 | 147 | 100 |
| Georgia..... | 67 | 69 | 61 | 81 | 105 | 125 | 110 | 97 | 98 | 63 | 61 | 76 | 100 | 125 | 85 |
| Florida..... | 75 | 80 | 68 | 88 | 115 | 125 | 140 | 120 | 105 | 96 | 94 | 110 | 130 | 140 | 115 |
| Kentucky..... | 83 | 77 | 70 | 100 | 125 | 175 | 160 | 150 | 122 | 115 | 110 | 120 | 128 | 153 | 125 |
| Tennessee..... | 73 | 69 | 59 | 87 | 105 | 136 | 117 | 123 | 90 | 95 | 78 | 100 | 140 | 140 | 111 |
| Alabama..... | 68 | 65 | 57 | 74 | 92 | 115 | 113 | 100 | 88 | 73 | 75 | 83 | 123 | 125 | 96 |
| Mississippi..... | 63 | 62 | 55 | 67 | 97 | 104 | 112 | 105 | 86 | 74 | 69 | 91 | 173 | 100 | 101 |
| Arkansas..... | 83 | 77 | 61 | 90 | 96 | 135 | 115 | 106 | 97 | 82 | 89 | 92 | 127 | 125 | 103 |
| Louisiana..... | 64 | 64 | 50 | 66 | 104 | 128 | 115 | 93 | 80 | 65 | 61 | 95 | 158 | 115 | 90 |
| Oklahoma..... | 112 | 89 | 73 | 135 | 160 | 220 | 180 | 132 | 141 | 106 | 118 | 113 | 150 | 135 | 124 |
| Texas..... | 102 | 87 | 70 | 90 | 140 | 175 | 150 | 130 | 120 | 85 | 85 | 114 | 158 | 142 | 117 |
| New Mexico..... | 123 | 113 | 120 | 180 | 205 | 250 | 225 | 220 | 198 | 260 | 200 | 200 | 255 | 165 | 216 |
| Arizona..... | 132 | 150 | 150 | 185 | 227 | 258 | 250 | 290 | 204 | 182 | 175 | 210 | 285 | 210 | 203 |
| California..... | 98 | 87 | 80 | 100 | 150 | 150 | 179 | 160 | 129 | 125 | 67 | 165 | 218 | 170 | 149 |
| United States.... | 71.7 | 73.0 | 62.1 | 84.8 | 110.8 | 135.2 | 134.4 | 113.4 | 102.0 | 88.1 | 77.1 | 97.9 | 129.2 | 136.9 | 105.8 |

Division of Crop and Livestock Estimates.

TABLE 288.—Sweet potatoes: Average l. c. l. price per bushel to jobbers at nine markets, 1920-1925

| Market. Season beginning August | August ¹ | | September ¹ | | Octo- ber average | Novem- ber average | Decem- ber average | January average | February average | March average | April ¹ | | May ¹ | |
|------------------------------------|---------------------|---------|------------------------|---------|-------------------------|--------------------------|--------------------------|--------------------|---------------------|------------------|--------------------|-----------|------------------|-------|
| | Range | Average | Range | Average | | | | | | | Range | Average | | Range | Average |
| New York: | | | | | | | | | | | | | | |
| 1920 | 2.31-3.08 | 2.70 | Dollars | 1.75 | Dollars | 1.23 | Dollars | 1.56 | Dollars | 1.76 | Dollars | 1.50-2.75 | Dollars | 2.73 |
| 1921 | 1.23-2.00 | 1.51 | 1.48 | 1.36 | 1.26 | 1.36 | 1.67 | 1.82 | 1.82 | 2.40 | 1.50-2.50 | 2.32 | 2.00-3.00 | 2.73 |
| 1922 | | | 1.49 | 1.26 | 1.70 | 1.73 | 1.96 | 1.93 | 1.93 | 1.92 | 1.50-2.50 | 2.27 | 1.25-2.50 | 2.23 |
| 1923 | | | 1.40 | 1.00 | 1.20 | 1.95 | 2.51 | 1.01 | 1.01 | 3.62 | 3.40-4.50 | 3.98 | | |
| 1924 | | | 1.16 | 1.16 | 1.20 | 1.88 | 2.47 | 2.94 | 3.38 | 2.63 | | | | |
| 1925 | 1.06-2.00 | 1.53 | 1.08 | 1.70 | 1.68 | 1.70 | 2.23 | 2.73 | 2.74 | | | | | |
| Chicago: | | | | | | | | | | | | | | |
| 1920 | 2.00-3.00 | 2.61 | Dollars | 2.05 | Dollars | 1.96 | Dollars | 2.21 | Dollars | 2.20 | Dollars | 1.75-3.25 | Dollars | 2.40 |
| 1921 | 1.14-2.75 | 2.01 | 1.70 | 1.70 | 1.57 | 1.48 | 1.65 | 1.81 | 1.80 | 1.93 | 1.00-2.50 | 1.69 | 1.75-2.40 | 2.13 |
| 1922 | | | 1.44 | 1.44 | 1.00 | 1.22 | 1.26 | 1.43 | 1.44 | 1.47 | 1.00-2.50 | 1.62 | | 1.20 |
| 1923 | | | 1.67 | 1.32 | 1.32 | 2.03 | 2.73 | 3.09 | 3.31 | 3.76 | 3.50-4.50 | 4.04 | | |
| 1924 | | | 2.28 | 1.83 | 1.33 | 2.33 | 2.80 | 2.92 | 3.26 | 2.04 | | | | |
| 1925 | 1.25-3.50 | 2.04 | 2.04 | 2.02 | 2.02 | 2.25 | 2.42 | | | | | | | |
| Philadelphia: | | | | | | | | | | | | | | |
| 1920 | 1.23-2.77 | 2.27 | Dollars | 1.40 | Dollars | .84 | Dollars | 1.35 | Dollars | 1.53 | Dollars | 1.25-2.00 | Dollars | 1.63 |
| 1921 | 1.15-1.50 | 1.33 | 1.14 | 1.14 | 1.02 | 1.03 | 1.43 | 1.51 | 1.51 | 1.72 | 1.00-1.80 | 1.42 | .80-1.90 | |
| 1922 | | | .68 | .57 | .41 | .68 | .65 | .58 | .58 | 3.65 | .60-1.00 | .76 | | |
| 1923 | | | .80 | .80 | .84 | 1.18 | 1.08 | 2.48 | 2.49 | | | | | |
| 1924 | | | 1.29 | 1.29 | .89 | 1.24 | 1.88 | 2.30 | 2.18 | 1.99 | | | | |
| 1925 | .85-1.50 | 1.26 | 1.32 | 1.32 | 1.32 | 1.25 | 1.83 | | | | | | | |
| Pittsburgh: | | | | | | | | | | | | | | |
| 1920 | 2.31 | 2.31 | Dollars | 1.95 | Dollars | 1.38 | Dollars | 1.95 | Dollars | 1.91 | Dollars | 1.40-2.15 | Dollars | 1.89 |
| 1921 | .75-2.50 | 1.55 | 1.62 | 1.62 | 1.49 | 1.50 | 1.69 | 1.88 | 1.84 | 1.82 | 1.25-2.00 | 1.71 | 1.50-2.15 | 1.92 |
| 1922 | | | .90 | .90 | .90 | .87 | .98 | 1.15 | 1.10 | .81 | .75-1.50 | 1.03 | .75-2.00 | 1.32 |
| 1923 | | | 1.45 | 1.45 | 1.43 | 1.94 | 2.47 | 2.55 | 2.75 | 3.15 | 2.75-3.75 | 3.31 | | |
| 1924 | | | 1.97 | 1.60 | 1.60 | 1.99 | 2.49 | 2.71 | 2.78 | 2.63 | | | | |
| 1925 | 1.15-2.75 | 1.65 | 1.70 | 1.88 | 2.04 | 2.04 | 2.17 | | | | | | | |
| St Louis: | | | | | | | | | | | | | | |
| 1920 | 1.75-2.75 | 2.25 | Dollars | 1.66 | Dollars | 1.61 | Dollars | 1.40 | Dollars | 1.85 | Dollars | 1.50-2.10 | Dollars | 1.81 |
| 1921 | 1.00-1.40 | 1.23 | 1.09 | 1.09 | .84 | .92 | 1.11 | 1.10 | 1.10 | 1.18 | .70-1.90 | 1.04 | 1.80-1.90 | 1.94 |
| 1922 | | | .87 | .87 | .84 | .92 | .98 | 1.03 | .97 | .96 | .90-1.50 | 1.12 | | |
| 1923 | | | 2.17 | 2.17 | 2.17 | 2.03 | 2.16 | 2.23 | 2.29 | 3.00 | 2.25-4.00 | 3.25 | | |
| 1924 | | | 1.43 | 1.38 | 1.38 | 1.57 | 1.90 | 2.54 | 2.56 | 2.61 | | | | |
| 1925 | 1.15-1.90 | 1.56 | 1.43 | | | 1.15 | 1.54 | 1.71 | 1.95 | 1.78 | | | | |
| Cincinnati: | | | | | | | | | | | | | | |
| 1920 | 1.77-2.35 | 1.98 | Dollars | 1.63 | Dollars | 1.15 | Dollars | 1.27 | Dollars | 1.95 | Dollars | 1.31-3.00 | Dollars | 1.80 |
| 1921 | .90-1.64 | 1.19 | 1.21 | 1.21 | .98 | .88 | 1.16 | 1.16 | 1.16 | 1.15 | .75-1.15 | 1.03 | 1.35-2.10 | 1.80 |
| 1922 | | | .84 | .84 | .66 | .65 | .88 | 1.05 | 1.02 | .96 | .90-1.35 | 1.12 | .40-1.15 | .80 |
| 1923 | | | 1.12 | 1.12 | 1.09 | 1.48 | 2.06 | 2.19 | 2.40 | 3.11 | 2.25-3.25 | 2.85 | | |
| 1924 | | | 1.85 | 1.85 | 1.46 | 1.60 | 2.15 | 2.42 | 2.71 | 2.68 | | | | |
| 1925 | 1.00-1.75 | 1.45 | 1.44 | 1.47 | 1.47 | 1.68 | 1.63 | | | | | | | |

| | | | | | | | | | | | |
|---------------------|-----------|------|-----------|------|------|------|------|------|------|------|------|
| Minneapolis: | | | | | | | | | | | |
| 1920 | 3.08-3.25 | 3.19 | 1.88-3.75 | 2.90 | 2.03 | 1.99 | 2.09 | 2.25 | 2.28 | 2.41 | 2.25 |
| 1921 | 2.15-3.25 | 2.47 | 1.62-2.75 | 2.24 | 1.89 | 1.85 | 2.07 | 2.19 | 1.55 | 2.08 | 1.76 |
| 1922 | --- | --- | 1.00-2.65 | 1.76 | 1.21 | 1.40 | 1.81 | 1.87 | 1.60 | 1.50 | 1.63 |
| 1923 | --- | --- | 1.38-2.50 | 1.92 | 1.65 | 2.09 | 2.96 | 2.91 | 2.96 | 3.42 | 3.50 |
| 1924 | --- | --- | 1.85-3.25 | 2.60 | 1.85 | 2.36 | 2.95 | 3.09 | --- | 2.86 | --- |
| 1925 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Kansas City: | | | | | | | | | | | |
| 1920 | 2.00-2.25 | 2.15 | --- | --- | --- | 1.62 | 1.48 | 1.59 | 1.64 | 1.66 | 1.92 |
| 1921 | 1.80-1.65 | 1.86 | 1.00-1.50 | 1.25 | 1.01 | 1.10 | 1.21 | 1.30 | 1.22 | 1.19 | 1.09 |
| 1922 | --- | --- | .75-1.00 | .89 | .78 | .62 | 1.04 | 1.12 | 1.12 | 1.13 | 1.09 |
| 1923 | --- | --- | --- | --- | --- | --- | 1.54 | 1.89 | 1.96 | 2.44 | 1.19 |
| 1924 | --- | --- | --- | --- | --- | 1.99 | 2.12 | 2.21 | --- | --- | 3.14 |
| 1925 | 1.75-2.00 | 1.79 | 1.25-1.75 | 1.53 | --- | 1.42 | 1.50 | --- | --- | --- | --- |
| Washington: | | | | | | | | | | | |
| 1920 | --- | --- | .77-1.38 | 1.06 | .95 | 1.19 | 1.87 | 2.14 | 2.28 | 2.24 | 2.31 |
| 1921 | --- | --- | 1.23-2.00 | 1.71 | 1.24 | 1.33 | 1.69 | 2.18 | 1.96 | 2.10 | --- |
| 1922 | --- | --- | .92-2.00 | 1.40 | 1.33 | 1.40 | 1.55 | --- | --- | --- | --- |
| 1923 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1924 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1925 | 1.23-1.54 | 1.36 | --- | --- | --- | --- | --- | --- | --- | --- | --- |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division.

Average prices as shown are based on stock of good merchantable quality and condition; they are simple averages of daily range of selling prices. In some cases conversions have been made from larger to smaller units or vice versa, in order to obtain comparability.

¹ Quotations began Aug. 23, 1920 and 1921; Sept. 1, 1922; Sept. 18, 1923; Sept. 2, 1924; Aug. 25, 1925.

² Last reported quotations of season May 26, 1921 and 1922; May 4, 1923; April 15, 1924; April 3, 1925.

TOMATOES

TABLE 289.—*Tomatoes for consumption fresh, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average for season | | |
|--|--------------------|------------------|------------------|--------------------------|-------------------------|-------------------------|--|--------------------------|--------------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | | | | | | | | | |
| California (Imperial County)..... | <i>Acres</i> 1,200 | <i>Acres</i> 800 | <i>Acres</i> 860 | <i>1,000 bushels</i> 226 | <i>1,000 bushels</i> 90 | <i>1,000 bushels</i> 64 | <i>1,000 dollars</i> 981 | <i>1,000 dollars</i> 391 | <i>1,000 dollars</i> 269 |
| Florida..... | 36,480 | 50,070 | 33,470 | 4,159 | 3,956 | 2,811 | 13,558 | 10,642 | 9,276 |
| Georgia..... | 460 | 2,000 | 530 | 37 | 66 | 38 | 67 | 107 | 107 |
| Mississippi..... | 11,190 | 15,300 | 10,800 | 940 | 1,683 | 1,274 | 1,861 | 3,181 | 4,153 |
| South Carolina..... | 1,600 | 2,000 | 2,650 | 163 | 182 | 217 | 235 | 264 | 501 |
| Texas..... | 6,000 | 9,400 | 10,780 | 574 | 870 | 884 | 1,401 | 1,684 | 2,316 |
| Intermediate: | | | | | | | | | |
| Illinois (Union County)..... | 480 | 1,750 | 2,000 | 60 | 228 | 168 | 173 | 591 | 375 |
| New Jersey..... | 10,730 | 11,000 | 12,000 | 1,953 | 2,552 | 8,000 | 3,476 | 4,900 | 2,550 |
| Ohio (Washington County)..... | 500 | 800 | 980 | 57 | 170 | 227 | 142 | 388 | 781 |
| Tennessee..... | 1,880 | 2,690 | 4,000 | 233 | 336 | 508 | 582 | 753 | 1,539 |
| Late: | | | | | | | | | |
| California (except Imperial County)..... | 11,900 | 11,140 | 11,020 | 3,403 | 1,437 | 2,358 | 8,882 | 3,090 | 4,575 |
| Colorado..... | 970 | 350 | 530 | 208 | 80 | 161 | 366 | 139 | 187 |
| Delaware..... | 3,090 | 2,000 | 2,110 | 550 | 264 | 399 | 962 | 848 | 239 |
| Illinois (except Union County)..... | 3,390 | 4,000 | 2,910 | 485 | 836 | 707 | 1,339 | 1,738 | 1,237 |
| Indiana..... | 3,470 | 6,560 | 8,000 | 618 | 896 | 1,512 | 742 | 1,134 | 2,434 |
| Iowa..... | 400 | 620 | 410 | 86 | 75 | 69 | 96 | 75 | 53 |
| Kentucky..... | 3,740 | 4,130 | 3,510 | 535 | 735 | 502 | 802 | 1,058 | 838 |
| Maryland..... | 4,910 | 7,620 | 2,740 | 702 | 932 | 468 | 1,523 | 1,219 | 370 |
| Michigan..... | 1,170 | 580 | 1,110 | 167 | 124 | 226 | 210 | 166 | 200 |
| Missouri..... | 2,250 | 6,750 | 5,470 | 241 | 643 | 684 | 402 | 1,464 | 903 |
| New York..... | 3,640 | 2,920 | 2,310 | 648 | 835 | 578 | 752 | 835 | 566 |
| Ohio (except Washington County)..... | 3,460 | 6,000 | 4,330 | 644 | 1,242 | 1,082 | 1,307 | 1,615 | 1,396 |
| Pennsylvania..... | 1,680 | 1,350 | 2,420 | 260 | 251 | 518 | 480 | 359 | 471 |
| Utah..... | | | 2,000 | | | 800 | | | 872 |
| Virginia..... | 3,130 | 1,300 | 3,080 | 448 | 229 | 355 | 748 | 568 | 716 |
| Total..... | 118,380 | 151,080 | 130,020 | 17,377 | 18,757 | 19,662 | 41,086 | 36,829 | 36,930 |

Division of Crop and Livestock Estimates.

TABLE 290.—*Tomatoes for manufacture, commercial crop: Acreage, production, and total value, by States, 1923-1925*

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|-------------------|----------------|----------------|----------------|------------------|------------------|------------------|--|---------------------|---------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>1,000 dolls.</i> | <i>1,000 dolls.</i> | <i>1,000 dolls.</i> |
| Arkansas..... | 6,100 | 13,400 | 18,400 | 14,600 | 53,600 | 55,200 | 159 | 670 | 753 |
| California..... | 28,300 | 28,000 | 29,000 | 175,400 | 148,200 | 174,000 | 2,564 | 2,496 | 2,834 |
| Colorado..... | 2,600 | 2,000 | 3,000 | 13,000 | 14,400 | 25,500 | 117 | 148 | 293 |
| Delaware..... | 17,800 | 18,000 | 19,000 | 97,900 | 54,000 | 100,700 | 1,442 | 968 | 1,638 |
| Illinois..... | 5,000 | 6,000 | 6,800 | 15,000 | 26,200 | 25,800 | 176 | 346 | 318 |
| Indiana..... | 54,000 | 59,000 | 72,000 | 156,600 | 200,600 | 324,000 | 1,615 | 2,489 | 4,144 |
| Iowa..... | 3,200 | 3,500 | 3,700 | 17,300 | 9,800 | 15,700 | 212 | 125 | 190 |
| Kentucky..... | 3,500 | 6,200 | 8,200 | 7,000 | 24,800 | 32,800 | 81 | 334 | 441 |
| Maryland..... | 43,000 | 43,200 | 43,000 | 236,500 | 142,600 | 215,000 | 3,601 | 2,781 | 3,434 |
| Michigan..... | 2,200 | 2,300 | 2,600 | 7,700 | 13,100 | 17,700 | 73 | 135 | 211 |
| Missouri..... | 21,000 | 27,000 | 31,000 | 50,400 | 67,500 | 108,500 | 571 | 881 | 1,467 |
| New Jersey..... | 21,600 | 22,800 | 28,000 | 99,400 | 79,800 | 188,000 | 1,544 | 1,625 | 2,695 |
| New York..... | 12,900 | 11,700 | 13,100 | 51,660 | 74,900 | 80,100 | 777 | 1,304 | 1,453 |
| Ohio..... | 10,000 | 9,000 | 13,000 | 46,000 | 48,600 | 78,000 | 840 | 862 | 1,021 |
| Pennsylvania..... | 3,300 | 2,500 | 4,500 | 15,800 | 11,600 | 24,300 | 201 | 172 | 389 |
| Tennessee..... | 6,300 | 8,500 | 12,000 | 13,980 | 26,400 | 24,000 | 180 | 369 | 369 |
| Utah..... | 4,600 | 4,800 | 7,000 | 40,580 | 30,700 | 126,000 | 405 | 307 | 1,509 |
| Virginia..... | 12,000 | 12,500 | 12,300 | 50,400 | 45,000 | 43,000 | 723 | 730 | 696 |
| Other States..... | 3,500 | 3,600 | 4,000 | 13,380 | 10,800 | 20,000 | 178 | 162 | 325 |
| Total..... | 260,900 | 282,000 | 330,600 | 1,122,400 | 1,081,800 | 1,865,380 | 15,182 | 16,324 | 24,199 |

Division of Crop and Livestock Estimates.

TABLE 291.—*Tomatoes for consumption fresh, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per bushel ¹ | | | | | | |
|--------------------------------------|----------------|------|------|------|------|------|------|-------------------------------|------|------|------|------|------|------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | | | | | | | | | | | | | | |
| California (Imperial County)..... | 145 | 160 | 150 | 103 | 188 | 150 | 75 | 8.15 | 3.05 | 3.00 | 3.20 | 4.84 | 4.34 | 4.20 |
| Florida..... | 115 | 103 | 144 | 116 | 114 | 79 | 84 | 1.88 | 1.92 | 2.26 | 2.52 | 3.26 | 2.69 | 3.30 |
| Georgia..... | 100 | 83 | 117 | 75 | 80 | 33 | 71 | 1.89 | 1.48 | 1.46 | 2.37 | 1.53 | 1.62 | 2.81 |
| Mississippi..... | 103 | 87 | 112 | 132 | 84 | 110 | 118 | 1.27 | 1.52 | 1.27 | 1.12 | 1.98 | 1.89 | 3.29 |
| South Carolina..... | 100 | 83 | 104 | 53 | 102 | 91 | 82 | 2.02 | 1.70 | 2.04 | 1.51 | 1.44 | 1.45 | 2.31 |
| Texas..... | 137 | 83 | 85 | 78 | 87 | 92 | 82 | 1.37 | 1.36 | 1.68 | 1.98 | 2.44 | 2.28 | 2.62 |
| Intermediate: | | | | | | | | | | | | | | |
| Illinois (Union County)..... | 120 | 131 | 117 | 130 | 125 | 130 | 84 | 1.65 | 1.80 | 1.86 | 1.59 | 2.88 | 2.89 | 2.23 |
| New Jersey..... | 107 | 128 | 178 | 189 | 182 | 232 | 250 | 1.34 | 1.39 | 1.27 | 1.89 | 1.78 | 1.92 | .85 |
| Ohio (Washington County)..... | 169 | 182 | 158 | 180 | 102 | 212 | 232 | 1.62 | 2.00 | 1.98 | 2.62 | 2.50 | 2.28 | 3.44 |
| Tennessee (Gibson County)..... | 110 | 106 | 89 | 131 | 124 | 125 | 127 | 2.21 | 2.14 | 1.98 | 2.60 | 2.50 | 2.24 | 3.03 |
| Late: | | | | | | | | | | | | | | |
| Calif. (except Imperial County)..... | 250 | 214 | 196 | 268 | 296 | 129 | 214 | 1.55 | 2.01 | 2.60 | 3.19 | 2.61 | 2.15 | 1.94 |
| Colorado..... | 321 | 250 | 250 | 303 | 214 | 228 | 303 | 1.29 | 1.60 | 1.65 | 1.29 | 1.76 | 1.74 | 1.16 |
| Delaware..... | 71 | 161 | 161 | 107 | 178 | 132 | 189 | 1.12 | 1.60 | 1.35 | 1.78 | 1.75 | 1.32 | .60 |
| Illinois (except Union County)..... | 129 | 178 | 125 | 178 | 143 | 214 | 243 | 1.50 | 1.69 | 1.34 | 1.88 | 2.76 | 2.03 | 1.75 |
| Indiana..... | 150 | 161 | 178 | 196 | 178 | 132 | 189 | 1.30 | 1.41 | 1.19 | 1.39 | 1.20 | 1.31 | 1.61 |
| Iowa..... | 161 | 178 | 125 | 178 | 214 | 121 | 143 | 1.50 | 1.58 | 1.38 | 1.29 | 1.12 | 1.00 | .90 |
| Kentucky..... | 161 | 150 | 125 | 143 | 143 | 178 | 143 | 1.51 | 1.42 | 1.69 | 1.06 | 1.60 | 1.44 | 1.67 |
| Maryland..... | 71 | 125 | 125 | 125 | 143 | 125 | 178 | .96 | 1.10 | 1.32 | 2.62 | 2.17 | 1.28 | .77 |
| Michigan..... | 143 | 196 | 200 | 178 | 143 | 214 | 214 | 1.20 | 1.31 | 1.02 | 1.21 | 1.31 | 1.50 | .84 |
| Missouri..... | 89 | 125 | 107 | 125 | 107 | 96 | 125 | 1.37 | 1.60 | 1.74 | 1.50 | 1.67 | 2.26 | 1.32 |
| New York..... | 268 | 303 | 296 | 296 | 178 | 289 | 250 | 1.39 | 1.96 | 1.44 | 1.74 | 1.16 | 1.00 | .98 |
| Ohio (except Washington County)..... | 196 | 214 | 196 | 214 | 196 | 207 | 250 | 1.25 | 1.45 | 1.55 | 1.60 | 2.03 | 1.20 | 1.29 |
| Pennsylvania..... | 129 | 178 | 178 | 214 | 143 | 186 | 214 | 1.41 | 1.69 | 1.09 | 1.76 | 2.00 | 1.43 | .91 |
| Utah..... | --- | --- | --- | --- | --- | --- | 400 | --- | --- | --- | --- | --- | --- | 1.09 |
| Virginia..... | 107 | 125 | 107 | 96 | 143 | 186 | 125 | 1.83 | 1.94 | 1.65 | 1.69 | 1.67 | 1.42 | 1.96 |
| Average..... | 136 | 154 | 146 | 148 | 147 | 124 | 151 | 1.51 | 1.67 | 1.76 | 2.06 | 2.36 | 1.96 | 1.88 |

Division of Crop and Livestock Estimates.

¹ Average for season.TABLE 292.—*Tomatoes for manufacture, commercial crop: Yield per acre and price, 1919-1925*

| State | Yield per acre | | | | | | | Price per ton | | | | | | |
|-------------------|----------------|------|------|------|------|------|------|---------------|-------|-------|-------|-------|-------|-------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | Tons | Tons | Tons | Tons | Tons | Tons | Tons | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| Arkansas..... | 2.8 | 3.3 | 3.3 | 4.0 | 2.4 | 4.0 | 3.0 | 14.57 | 16.80 | 16.96 | 10.75 | 10.92 | 12.50 | 13.95 |
| California..... | 7.0 | 6.5 | 5.4 | 6.8 | 6.2 | 8.7 | 6.0 | 16.85 | 20.00 | 12.88 | 15.12 | 14.55 | 16.94 | 16.29 |
| Colorado..... | 9.1 | 6.3 | 6.0 | 8.2 | 5.0 | 7.2 | 8.5 | 12.90 | 15.00 | 9.00 | 8.67 | 9.00 | 10.25 | 11.50 |
| Delaware..... | 1.6 | 4.5 | 5.0 | 4.0 | 5.5 | 3.0 | 5.3 | 24.08 | 21.98 | 18.63 | 14.23 | 14.73 | 18.30 | 16.27 |
| Illinois..... | 3.6 | 3.3 | 3.5 | 4.2 | 3.0 | 4.2 | 3.8 | 17.03 | 16.25 | 12.55 | 12.15 | 11.75 | 13.72 | 12.33 |
| Indiana..... | 4.5 | 4.5 | 5.0 | 5.8 | 2.9 | 3.4 | 4.5 | 15.88 | 16.01 | 9.68 | 10.48 | 10.31 | 12.41 | 12.79 |
| Iowa..... | 4.8 | 5.8 | 3.3 | 6.9 | 5.4 | 2.8 | 3.7 | 14.50 | 17.00 | 12.00 | 13.38 | 12.23 | 12.80 | 14.55 |
| Kentucky..... | 5.5 | 4.1 | 3.3 | 3.8 | 2.0 | 4.0 | 4.0 | 15.59 | 13.26 | 10.00 | 11.60 | 11.52 | 13.48 | 13.46 |
| Maryland..... | 1.6 | 3.6 | 4.2 | 3.6 | 5.6 | 3.3 | 5.0 | 25.90 | 21.98 | 12.15 | 14.68 | 15.24 | 19.99 | 15.97 |
| Michigan..... | 4.1 | 4.5 | 5.6 | 4.6 | 3.5 | 5.7 | 6.8 | 16.00 | 15.00 | 13.57 | 10.59 | 9.50 | 10.39 | 11.91 |
| Missouri..... | 2.0 | 3.5 | 2.9 | 3.1 | 2.4 | 2.5 | 3.5 | 15.30 | 16.89 | 11.92 | 11.09 | 11.33 | 13.05 | 13.52 |
| New Jersey..... | 3.0 | 4.9 | 5.0 | 5.2 | 4.6 | 3.5 | 6.0 | 24.78 | 25.37 | 11.20 | 14.79 | 15.83 | 20.36 | 16.94 |
| New York..... | 6.5 | 8.0 | 8.2 | 7.9 | 4.9 | 6.4 | 6.8 | 18.64 | 21.32 | 13.65 | 13.72 | 15.05 | 16.08 | 16.31 |
| Ohio..... | 6.0 | 6.0 | 5.5 | 5.2 | 4.0 | 5.4 | 6.0 | 16.31 | 15.83 | 11.00 | 11.00 | 11.73 | 11.57 | 13.09 |
| Pennsylvania..... | 3.6 | 6.9 | 4.8 | 5.4 | 4.8 | 4.6 | 5.4 | 20.86 | 23.20 | 11.83 | 11.20 | 12.74 | 14.98 | 16.00 |
| Tennessee..... | 3.3 | 3.2 | 3.0 | 3.5 | 2.2 | 3.1 | 2.9 | 19.12 | 20.05 | 11.36 | 14.18 | 12.92 | 13.99 | 15.39 |
| Utah..... | 9.5 | 9.6 | 12.4 | 10.9 | 8.6 | 6.4 | 18.0 | 13.71 | 16.69 | 8.69 | 8.69 | 10.00 | 10.99 | 11.98 |
| Virginia..... | 2.7 | 3.5 | 2.6 | 4.5 | 4.2 | 3.6 | 3.5 | 22.48 | 25.12 | 14.98 | 12.66 | 14.85 | 16.22 | 16.79 |
| Other States..... | 4.1 | 4.0 | 4.1 | 4.2 | 3.8 | 3.6 | 5.9 | 18.68 | 16.97 | 15.66 | 12.86 | 13.49 | 16.00 | 15.34 |
| Average..... | 3.8 | 4.7 | 4.9 | 5.1 | 4.3 | 4.6 | 5.6 | 16.14 | 19.71 | 11.46 | 12.59 | 13.56 | 15.26 | 14.51 |

Division of Crop and Livestock Estimates.

TABLE 293.—Tomatoes: Car-lot shipments by State of origin, 1920-1925

| State | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------------|
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| New York | 1,945 | 1,073 | 1,902 | 1,261 | 954 | 1,020 |
| New Jersey | 2,788 | 2,121 | 1,930 | 1,648 | 2,150 | 1,903 |
| Ohio | 450 | 411 | 558 | 956 | 1,035 | 1,277 |
| Indiana | 1,265 | 552 | 1,332 | 1,185 | 1,479 | 1,858 |
| Illinois | 450 | 155 | 229 | 250 | 230 | 536 |
| Delaware | 185 | 207 | 413 | 327 | 26 | 32 |
| Maryland | 194 | 110 | 242 | 271 | 66 | 313 |
| South Carolina | | 59 | 145 | 431 | 421 | 568 |
| Florida | 4,144 | 5,795 | 10,261 | 9,791 | 9,128 | 7,134 |
| Kentucky | 468 | 341 | 153 | 121 | 540 | 504 |
| Tennessee | 805 | 370 | 920 | 501 | 985 | 1,397 |
| Mississippi | 1,393 | 1,945 | 3,441 | 2,144 | 3,776 | 3,149 |
| Texas | 1,395 | 2,025 | 1,886 | 1,091 | 1,694 | 2,386 |
| Utah | 261 | 100 | 378 | 369 | 380 | 1,419 |
| California | 2,008 | 1,619 | 2,846 | 3,296 | 2,788 | 2,871 |
| Other States | 501 | 342 | 587 | 363 | 1,159 | 1,531 |
| Total | 18,352 | 17,425 | 26,723 | 24,005 | 26,817 | 27,898 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Preliminary.

TABLE 294.—Tomatoes: Monthly range and average l. c. l. price, per 4-basket carrier, to jobbers at nine markets, 1919-1925

| Market and season ¹ | June | | July | | Market and season ¹ | June | | July | |
|--------------------------------|----------------|----------------|----------------|----------------|--------------------------------|----------------|----------------|----------------|----------------|
| | Range | Average | Range | Average | | Range | Average | Range | Average |
| Chicago: | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | New York— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| 1919 | .75-2.50 | 1.53 | .75-2.25 | 1.56 | Continued | 40-2.65 | 1.25 | | |
| 1920 | 1.25-4.00 | 2.54 | .75-2.00 | 1.43 | 1923 | 2.00-3.00 | 2.35 | 1.00-2.00 | 1.50 |
| 1921 | .75-2.15 | 1.56 | .50-1.75 | 1.05 | 1924 | .60-1.35 | 1.03 | 1.25-2.15 | 1.55 |
| 1922 | .40-2.75 | 1.19 | | | 1925 | 1.10-2.00 | 1.53 | 1.25-1.90 | 1.63 |
| 1923 | 1.00-3.50 | 2.08 | .75-1.60 | 1.21 | Philadelphia: | | | | |
| 1924 | .50-1.25 | .91 | 1.00-2.15 | 1.64 | 1919 | 1.10-2.10 | 1.54 | | |
| 1925 | .75-2.25 | 1.51 | 1.25-1.75 | 1.65 | 1920 | 1.25-2.75 | 1.81 | 1.35-2.25 | 1.76 |
| Cincinnati: | | | | | 1921 | 1.00-2.25 | 1.58 | | |
| 1919 | 1.25-2.00 | 1.56 | 1.25-2.00 | 1.79 | 1922 | .35-2.25 | 1.08 | | |
| 1920 | 1.75-2.50 | 2.02 | .90-1.90 | 1.44 | 1923 | 1.75-2.75 | 2.14 | .65-1.50 | .98 |
| 1921 | 1.15-1.75 | 1.54 | .70-1.25 | 1.10 | 1924 | .50-1.50 | .94 | 1.25-1.90 | 1.58 |
| 1922 | .40-1.50 | .92 | | | 1925 | 1.25-2.00 | 1.58 | 1.25-2.00 | 1.50 |
| 1923 | 1.50-2.15 | 1.82 | 1.15-2.00 | 1.66 | Pittsburgh: | | | | |
| 1924 | .50-1.50 | .93 | 1.10-1.90 | 1.49 | 1919 | 1.00-2.60 | 1.61 | 1.00-2.25 | 1.68 |
| 1925 | 1.00-2.00 | 1.58 | 1.50-1.75 | 1.69 | 1920 | 1.25-3.50 | 2.15 | 1.00-2.00 | 1.52 |
| Kansas City: | | | | | 1921 | 1.00-2.75 | 1.66 | .90-1.50 | 1.22 |
| 1919 | 1.00-2.50 | 1.63 | 1.25-1.50 | 1.32 | 1922 | .50-2.15 | 1.18 | | |
| 1920 | 1.60-3.00 | 2.11 | 1.00-2.25 | 1.44 | 1923 | 1.40-3.00 | 2.16 | 1.40-2.00 | 1.76 |
| 1921 | .65-3.00 | 1.68 | .50- .80 | .67 | 1924 | .65-1.65 | .97 | .90-2.25 | 1.63 |
| 1922 | .60-3.50 | 1.52 | | | 1925 | 1.15-2.00 | 1.58 | 1.40-1.75 | 1.60 |
| 1923 | 1.50-4.00 | 2.35 | 1.50-1.50 | 1.50 | St. Louis: | | | | |
| 1924 | 1.00-2.00 | 1.50 | 1.00-1.85 | 1.38 | 1919 | 1.10-2.50 | 1.59 | 1.25-1.75 | 1.46 |
| 1925 | 1.25-2.00 | 1.54 | 2.50-3.50 | 3.00 | 1920 | 1.35-3.00 | 2.18 | .50-1.60 | 1.20 |
| Minneapolis: | | | | | 1921 | .90-2.50 | 1.68 | .50- .90 | .71 |
| 1921 | 1.75-2.25 | 1.93 | 1.75 | 1.75 | 1922 | .50-2.75 | 1.26 | | |
| 1922 | .85-2.00 | 1.32 | | | 1923 | 1.75-2.75 | 2.31 | 1.35-1.50 | 1.41 |
| 1923 | 1.90-2.75 | 2.26 | 2.00 | 2.00 | 1924 | .50-2.10 | 1.19 | .90-1.85 | 1.41 |
| 1924 | .85-1.50 | 1.08 | .85-2.10 | 1.27 | 1925 | 1.00-1.85 | 1.49 | 1.85-2.50 | 2.14 |
| 1925 | 1.10-2.75 | 1.79 | 1.35-2.00 | 1.73 | Washington: | | | | |
| New York: | | | | | 1924 | .75-1.40 | 1.03 | 1.10-2.25 | 1.63 |
| 1920 | 1.50-3.00 | 2.07 | 1.00-2.50 | 1.84 | 1925 | 1.40-2.15 | 1.76 | 1.50-1.85 | 1.66 |
| 1921 | 1.25-2.50 | 1.67 | .90-1.50 | 1.24 | | | | | |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division. Average prices as shown are based on stock of good merchantable quality and condition, fancy count; they are simple averages of daily range of selling prices.

¹ Quotations usually begin about June 1. Last reported quotations of season July 21, 1919; July 20, 1920; July 16, 1921; June 30, 1922; July 5, 1923; July 9, 1924; July 8, 1925.

TABLE 295.—*Tomatoes: Estimated price per bushel, received by producers, United States, 1913-1925*

| Month | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| July..... | 161.4 | 167.4 | 141.4 | 161.5 | 194.3 | 219.1 | 240.3 | 324.4 | 319.6 | 270.0 | 310.7 | 196.7 | 292.2 |
| August..... | 95.8 | 92.5 | 66.4 | 88.4 | 124.3 | 133.1 | 177.0 | 168.4 | 142.4 | 102.0 | 165.2 | 134.7 | 176.7 |
| September..... | 68.0 | 63.0 | 56.9 | 75.6 | 109.5 | 103.0 | 137.2 | 104.4 | 103.6 | 79.6 | 106.6 | 111.6 | 115.8 |
| October..... | 73.0 | 60.3 | 67.9 | 82.1 | 117.6 | 108.6 | 117.7 | 98.9 | 113.5 | 79.6 | 122.8 | 122.5 | 111.1 |

Division of Crop and Livestock Estimates.

TABLE 296.—*Tomatoes: Monthly range and average l. c. l. price, per 6-basket carrier, to jobbers at six markets, 1925*

| Market and season ¹ | March | | April | | May | | June | | July | |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Range | Average | Range | Average | Range | Average | Range | Average | Range | Average |
| | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> |
| Cincinnati..... | 4.00-5.25 | 4.60 | 4.25-6.00 | 5.16 | 3.25-5.00 | 4.18 | 2.75-4.25 | 3.49 | ----- | ----- |
| New York..... | 3.50-8.00 | 6.09 | 4.50-7.60 | 5.52 | 3.00-5.50 | 4.34 | 2.25-6.00 | 3.97 | 3.00-4.50 | 3.85 |
| Philadelphia..... | 3.50-7.00 | 5.43 | 3.50-7.60 | 5.45 | 2.75-5.50 | 4.22 | 2.00-5.00 | 3.91 | ----- | ----- |
| Pittsburgh..... | 3.50-7.00 | 5.82 | 5.00-6.50 | 5.76 | 2.50-5.25 | 4.18 | ----- | ----- | ----- | ----- |
| St. Louis..... | 5.00-6.00 | 5.28 | ----- | ----- | 3.25-5.00 | 4.04 | ----- | ----- | ----- | ----- |
| Washington..... | 5.00-6.00 | 5.32 | 4.00-6.50 | 5.79 | 3.50-5.50 | 4.46 | ----- | ----- | 3.50-4.50 | 3.94 |

Division of Statistical and Historical Research. Compiled from Daily Market Report of Fruit and Vegetable Division. Average prices as shown are based on stock of good merchantable quality and condition, fancy count; they are simple averages of daily range of selling prices.

¹ Quotations began December 18, 1924, but only occasional quotations were received until March, 1925. Last reported quotation of season July 8, 1925.

TABLE 297.—*Tomatoes, canned: Production in the United States, 1917-1925*

(Thousand cases ¹, i. e., 000 omitted)

| State | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|------------------------------|--------|--------|--------|--------|-------|--------|--------|--------|--------|
| New York..... | 553 | 396 | 437 | 515 | 214 | 340 | 266 | 325 | 389 |
| New Jersey..... | 380 | 667 | 60 | 517 | 116 | 337 | 412 | 186 | 418 |
| Pennsylvania..... | 488 | 441 | 384 | 680 | 186 | 644 | 258 | 150 | 338 |
| Ohio..... | 107 | 357 | 172 | 142 | 71 | 179 | 174 | 133 | 179 |
| Indiana..... | 398 | 968 | 876 | 778 | 530 | 1,312 | 717 | 1,050 | 1,955 |
| Missouri..... | 704 | 353 | 439 | 715 | 136 | 775 | 839 | 871 | 1,834 |
| Delaware..... | 1,381 | 879 | 189 | 553 | 176 | 590 | 1,216 | 803 | 1,272 |
| Maryland..... | 5,934 | 6,649 | 2,529 | 3,347 | 1,656 | 3,205 | 5,722 | 3,825 | 6,176 |
| Virginia ¹ | 1,170 | 1,547 | 953 | 1,162 | 217 | 891 | 963 | 1,116 | 1,138 |
| Kentucky ² | ----- | ----- | ----- | ----- | ----- | ----- | 59 | 136 | 275 |
| Tennessee ³ | ----- | ----- | ----- | ----- | ----- | ----- | 176 | 586 | 382 |
| Arkansas ⁴ | ----- | ----- | ----- | ----- | ----- | ----- | 270 | 768 | 1,168 |
| Colorado ⁵ | 213 | 306 | 290 | 218 | 62 | 168 | 182 | 180 | 308 |
| Utah..... | 513 | 953 | 594 | 444 | 132 | 664 | 584 | 417 | 1,353 |
| California..... | 2,603 | 1,790 | 3,052 | 1,773 | 339 | 1,701 | 2,397 | 1,767 | 1,839 |
| Other States..... | 632 | 576 | 835 | 524 | 182 | 732 | 437 | 406 | 744 |
| United States..... | 15,076 | 15,882 | 10,810 | 11,368 | 4,017 | 11,538 | 14,672 | 12,519 | 19,770 |

Division of Statistical and Historical Research. Compiled from National Cannery Association data.

¹ Stated in cases of 24 No. 3 cans.

² Previous to 1923, Pennsylvania, Kentucky, and Tennessee composed one group.

³ Includes West Virginia.

⁴ Previous to 1923, included in "other States."

⁵ Includes Washington.

WATERMELONS

TABLE 298.—Watermelons, commercial crop: Acreage, production, and total value, by States, 1923-1925

| State | Acreage | | | Production | | | Total value, basis, average price for season | | |
|----------------------------|----------------|----------------|----------------|--------------------------|--------------------------|--------------------------|--|----------------------|----------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| Early: | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Cars</i> ¹ | <i>Cars</i> ¹ | <i>Cars</i> ¹ | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Alabama..... | 7,130 | 8,500 | 7,650 | 1,697 | 2,465 | 1,997 | 180 | 301 | 339 |
| Arizona..... | 900 | 1,120 | 1,100 | 288 | 168 | 1,352 | 50 | 37 | 88 |
| California (Imperial)..... | 3,400 | 3,800 | 4,000 | 2,040 | 2,280 | 2,600 | 979 | 561 | 612 |
| Florida..... | 30,880 | 28,280 | 20,910 | 5,404 | 6,929 | 7,841 | 1,762 | 2,259 | 2,904 |
| Georgia..... | 42,410 | 46,890 | 42,960 | 7,978 | 16,750 | 14,843 | 1,818 | 2,094 | 3,518 |
| Mississippi..... | 750 | 800 | 810 | 202 | 212 | 304 | 40 | 40 | 68 |
| North Carolina..... | 4,730 | 4,850 | 3,080 | 1,745 | 728 | 960 | 879 | 104 | 198 |
| South Carolina..... | 11,200 | 11,680 | 9,710 | 4,200 | 5,198 | 4,117 | 886 | 431 | 889 |
| Texas..... | 24,920 | 30,900 | 32,020 | 9,195 | 6,930 | 5,636 | 2,161 | 1,040 | 1,330 |
| Late: | | | | | | | | | |
| Arkansas..... | 780 | 950 | 1,260 | 226 | 380 | 315 | 51 | 70 | 67 |
| California (central)..... | 5,080 | 5,070 | 5,530 | 2,032 | 2,429 | 2,212 | 534 | 459 | 221 |
| Colorado..... | 400 | 300 | 300 | 140 | 90 | 97 | 23 | 12 | 18 |
| Delaware..... | 920 | 1,180 | 1,200 | 350 | 330 | 440 | 64 | 54 | 73 |
| Idaho..... | 170 | (?) | (?) | 61 | (?) | (?) | 14 | (?) | (?) |
| Illinois..... | 1,870 | 1,630 | 1,750 | 720 | 408 | 608 | 168 | 58 | 94 |
| Indiana..... | 3,050 | 2,900 | 1,906 | 854 | 780 | 665 | 235 | 225 | 123 |
| Iowa..... | 2,200 | 2,670 | 1,880 | 660 | 734 | 658 | 116 | 174 | 127 |
| Maryland..... | 1,850 | 2,100 | 2,100 | 703 | 640 | 756 | 163 | 78 | 97 |
| Missouri..... | 6,430 | 6,580 | 9,020 | 1,926 | 1,640 | 3,247 | 466 | 331 | 300 |
| New Jersey..... | 1,100 | 1,650 | 1,400 | 454 | 652 | 700 | 179 | 141 | 150 |
| Oklahoma..... | 3,850 | 2,800 | 4,000 | 962 | 960 | 1,260 | 192 | 180 | 226 |
| Virginia..... | 2,180 | 3,040 | 3,100 | 662 | 608 | 976 | 149 | 111 | 159 |
| Washington..... | 800 | 820 | 840 | 240 | 287 | 294 | 45 | 43 | 43 |
| Total..... | 157,350 | 168,180 | 156,400 | 42,734 | 51,488 | 50,838 | 10,645 | 8,863 | 11,802 |

Division of Crop and Livestock Estimates.

¹ Cars of 1,000 melons.¹ Not reported.

TABLE 299.—Watermelons, commercial crop: Yield per acre and price, 1919-1925

| State | Yield per acre | | | | | | | Price per car ¹ | | | | | | |
|----------------------------|----------------|------------|------------|------------|------------|------------|------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Early: | <i>No.</i> | <i>No.</i> | <i>No.</i> | <i>No.</i> | <i>No.</i> | <i>No.</i> | <i>No.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Alabama..... | 292 | 283 | 328 | 310 | 238 | 290 | 261 | 114 | 123 | 156 | 108 | 106 | 122 | 170 |
| Arizona..... | 405 | 405 | 360 | 340 | 820 | 180 | 320 | 150 | 180 | 166 | 180 | 175 | 223 | 256 |
| California (Imperial)..... | 850 | 960 | 640 | 546 | 600 | 600 | 665 | 275 | 300 | 215 | 180 | 480 | 246 | 230 |
| Florida..... | 315 | 374 | 360 | 330 | 175 | 245 | 375 | 215 | 209 | 241 | 146 | 880 | 326 | 378 |
| Georgia..... | 326 | 473 | 499 | 318 | 385 | 346 | 129 | 141 | 221 | 166 | 828 | 126 | 227 | 227 |
| Mississippi..... | 310 | 350 | 375 | 335 | 270 | 285 | 375 | 175 | 179 | 150 | 165 | 890 | 187 | 223 |
| North Carolina..... | 324 | 400 | 364 | 320 | 369 | 158 | 818 | 131 | 145 | 177 | 166 | 217 | 143 | 206 |
| South Carolina..... | 468 | 665 | 500 | 309 | 375 | 445 | 424 | 108 | 119 | 107 | 173 | 211 | 83 | 216 |
| Texas..... | 270 | 364 | 278 | 335 | 369 | 225 | 176 | 211 | 240 | 198 | 126 | 235 | 150 | 236 |
| Late: | | | | | | | | | | | | | | |
| Arkansas..... | 279 | 350 | 330 | 310 | 290 | 400 | 350 | 261 | 187 | 125 | 181 | 225 | 185 | 214 |
| California (Central)..... | 480 | 500 | 410 | 420 | 400 | 479 | 400 | 250 | 250 | 233 | 184 | 203 | 189 | 100 |
| Colorado..... | 375 | 315 | 375 | 350 | 360 | 300 | 323 | 175 | 150 | 200 | 180 | 167 | 136 | 188 |
| Delaware..... | 480 | 431 | 416 | 250 | 380 | 280 | 367 | 200 | 206 | 167 | 176 | 184 | 164 | 165 |
| Idaho..... | 370 | 325 | 370 | 300 | 360 | (?) | (?) | 238 | 250 | 116 | 160 | 226 | (?) | (?) |
| Illinois..... | 274 | 249 | 375 | 325 | 385 | 250 | 250 | 155 | 189 | 188 | 120 | 228 | 142 | 186 |
| Indiana..... | 820 | 840 | 365 | 850 | 280 | 800 | 350 | 196 | 184 | 148 | 141 | 275 | 288 | 193 |
| Iowa..... | 362 | 860 | 392 | 850 | 360 | 275 | 250 | 125 | 112 | 199 | 146 | 176 | 287 | 193 |
| Maryland..... | 350 | 678 | 400 | 350 | 380 | 250 | 300 | 174 | 111 | 150 | 130 | 232 | 144 | 128 |
| Missouri..... | 382 | 407 | 385 | 310 | 300 | 250 | 360 | 144 | 160 | 180 | 171 | 242 | 202 | 120 |
| New Jersey..... | 480 | 430 | 400 | 425 | 391 | 995 | 590 | 250 | 150 | 260 | 175 | 875 | 216 | 215 |
| Oklahoma..... | 338 | 382 | 330 | 350 | 250 | 250 | 315 | 160 | 275 | 100 | 125 | 200 | 190 | 182 |
| Virginia..... | 364 | 366 | 375 | 350 | 267 | 200 | 315 | 233 | 216 | 150 | 170 | 226 | 182 | 193 |
| Washington..... | 425 | 406 | 850 | 400 | 800 | 850 | 850 | 75 | 138 | 125 | 171 | 188 | 151 | 146 |
| Average..... | 344 | 391 | 397 | 337 | 272 | 306 | 325 | 169 | 185 | 191 | 185 | 249 | 171 | 232 |

Division of Crop and Livestock Estimates.

¹ Average for season.¹ Not reported.

TABLE 300.—*Watermelons: Car-lot shipments by State of origin, April, 1920—December, 1925*

| State | Crop movement season ¹ | | | | | |
|---------------------|-----------------------------------|-------------|-------------|-------------|---------------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ² |
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| Indiana..... | 741 | 721 | 542 | 484 | 378 | 638 |
| Illinois..... | 278 | 477 | 289 | 433 | 188 | 334 |
| Iowa..... | 337 | 884 | 684 | 586 | 50 | 263 |
| Missouri..... | 2,789 | 3,157 | 2,752 | 1,783 | 1,432 | 3,333 |
| Delaware..... | 188 | 498 | 289 | 245 | 259 | 348 |
| Maryland..... | 463 | 741 | 379 | 596 | 427 | 531 |
| Virginia..... | 318 | 371 | 156 | 166 | 99 | 350 |
| North Carolina..... | 817 | 1,657 | 993 | 1,542 | 664 | 895 |
| South Carolina..... | 4,823 | 4,490 | 4,677 | 4,009 | 4,972 | 4,162 |
| Georgia..... | 9,980 | 15,041 | 13,418 | 7,222 | 16,347 | 14,758 |
| Florida..... | 5,175 | 5,963 | 11,341 | 4,317 | ³ 6,355 | 7,070 |
| Alabama..... | 1,332 | 1,475 | 1,941 | 1,256 | 2,278 | 1,808 |
| Arkansas..... | 300 | 605 | 325 | 190 | 352 | 349 |
| Oklahoma..... | 567 | 559 | 308 | 66 | 205 | 147 |
| Texas..... | 5,195 | 4,347 | 4,203 | 5,317 | 6,513 | 3,035 |
| Washington..... | 212 | 154 | 252 | 175 | 215 | 256 |
| California..... | 3,390 | 3,773 | 4,302 | 4,054 | 4,305 | 4,519 |
| Other States..... | 409 | 836 | 774 | 618 | 706 | 811 |
| Total..... | 37,314 | 45,749 | 47,625 | 33,929 | ³ 45,745 | 43,817 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Crop movement season extends from Apr. 1 through December of a given year.

² Preliminary.

³ Includes 2 cars in January.

TRUCK CROPS

TABLE 301.—*Truck crops, commercial crop: Acreage and production, United States, 1919-1925*

ACREAGE

| Crop | Number of States producing | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|-----------------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> |
| Asparagus..... | 12 | 28,290 | 31,440 | 32,140 | 32,860 | 42,060 | 46,300 | 56,380 |
| Beans (snap)..... | 30 | 38,590 | 34,550 | 34,830 | 49,550 | 61,280 | 85,000 | 94,640 |
| Cabbage..... | 28 | 92,020 | 119,210 | 104,580 | 133,820 | 104,880 | 108,670 | 107,890 |
| Cantaloupes..... | 23 | 72,950 | 74,530 | 77,450 | 103,300 | 84,160 | 90,510 | 93,080 |
| Carrots..... | 8 | | | | | 9,770 | 12,220 | 16,950 |
| Cauliflower..... | 5 | 8,640 | 8,200 | 8,510 | 9,250 | 11,580 | 12,900 | 15,130 |
| Celery..... | 10 | 13,760 | 15,790 | 14,880 | 19,190 | 20,350 | 22,710 | 22,600 |
| Corn (sweet)..... | 20 | 250,030 | 261,580 | 136,280 | 197,000 | 262,690 | 332,280 | 403,150 |
| Cucumbers..... | 29 | 64,810 | 66,450 | 80,610 | 82,209 | 91,969 | 121,909 | 135,870 |
| Eggplant..... | 3 | | | 2,420 | 2,210 | 2,470 | 2,600 | 2,490 |
| Lettuce..... | 14 | 18,360 | 31,930 | 31,240 | 44,900 | 57,960 | 68,560 | 86,400 |
| Onions..... | 22 | 52,520 | 64,940 | 57,070 | 63,290 | 61,940 | 60,260 | 56,950 |
| Peas (green)..... | 23 | 125,430 | 149,340 | 133,850 | 171,800 | 207,219 | 247,960 | 256,100 |
| Peppers..... | 4 | | | 7,530 | 7,800 | 8,690 | 10,900 | 12,330 |
| Potatoes (early Irish)..... | 19 | 225,460 | 262,750 | 265,920 | 311,938 | 281,740 | 319,610 | 287,070 |
| Spinach..... | 9 | | | 22,840 | 22,700 | 30,590 | 34,340 | 41,440 |
| Strawberries..... | 27 | 86,910 | 93,410 | 109,590 | 132,800 | 148,360 | 151,220 | 134,000 |
| Tomatoes..... | 33 | 376,260 | 333,560 | 160,010 | 345,420 | 379,280 | 433,080 | 456,020 |
| Watermelons..... | 22 | 122,310 | 149,640 | 155,660 | 211,000 | 187,300 | 188,150 | 156,400 |

TABLE 301.—*Truck crops, commercial crop: Acreage and production, United States, 1919-1925—Continued*

PRODUCTION

| Crop | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Asparagus.....crates.. | 3, 669, 000 | 3, 842, 000 | 3, 287, 000 | 4, 041, 000 | 5, 854, 000 | 6, 241, 000 | 6, 442, 000 |
| Beans (snap).....tons.. | 76, 500 | 64, 200 | 66, 800 | 79, 600 | 100, 300 | 113, 600 | 136, 800 |
| Cabbage.....do..... | 613, 800 | 1, 062, 300 | 687, 000 | 1, 089, 000 | 805, 700 | 961, 700 | 869, 200 |
| Cantaloupes.....crates.. | 10, 188, 000 | 10, 508, 000 | 11, 549, 000 | 12, 805, 000 | 11, 745, 000 | 13, 432, 000 | 14, 013, 000 |
| Carrots.....bushels.. | ----- | ----- | ----- | ----- | 3, 184, 000 | 4, 302, 000 | 4, 727, 000 |
| Cauliflower.....crates.. | 2, 245, 000 | 2, 190, 000 | 2, 293, 000 | 2, 589, 000 | 3, 322, 000 | 2, 735, 000 | 3, 452, 000 |
| Celery.....do..... | 3, 841, 000 | 4, 573, 000 | 4, 542, 000 | 5, 030, 000 | 5, 477, 000 | 6, 741, 000 | 6, 757, 000 |
| Corn (sweet).....tons.. | 587, 400 | 594, 900 | 360, 600 | 474, 700 | 603, 300 | 589, 500 | 993, 000 |
| Cucumbers.....bushels.. | 6, 629, 000 | 5, 385, 000 | 8, 267, 000 | 8, 867, 000 | 7, 671, 000 | 7, 473, 000 | 11, 886, 000 |
| Eggplant.....do..... | ----- | ----- | 882, 000 | 856, 000 | 850, 000 | 787, 000 | 694, 000 |
| Lettuce.....crates..... | 4, 316, 000 | 7, 928, 000 | 7, 799, 000 | 8, 837, 000 | 11, 672, 000 | 12, 161, 000 | 16, 171, 000 |
| Onions.....bushels..... | 14, 548, 000 | 21, 343, 000 | 14, 165, 000 | 18, 763, 000 | 17, 306, 000 | 17, 852, 000 | 17, 173, 000 |
| Peas (green).....tons.. | 124, 700 | 169, 300 | 125, 800 | 181, 700 | 180, 900 | 268, 500 | 242, 300 |
| Peppers.....bushels..... | ----- | ----- | 2, 874, 000 | 2, 654, 000 | 2, 953, 000 | 3, 613, 000 | 3, 172, 000 |
| Potatoes (early Irish).....bushels.. | 24, 667, 000 | 30, 056, 000 | 30, 193, 000 | 36, 198, 000 | 26, 245, 000 | 41, 833, 000 | 29, 594, 000 |
| Spinach.....tons..... | ----- | ----- | 61, 700 | 67, 900 | 95, 800 | 107, 900 | 101, 100 |
| Strawberries.....quarts.. | 155, 800, 000 | 155, 588, 000 | 189, 670, 000 | 260, 403, 000 | 258, 409, 000 | 276, 592, 000 | 209, 586, 000 |
| Tomatoes.....tons..... | 1, 436, 000 | 1, 532, 800 | 724, 200 | 1, 658, 000 | 1, 609, 000 | 1, 606, 700 | 2, 188, 200 |
| Watermelons.....number.. | 41, 354, 000 | 57, 521, 000 | 61, 774, 000 | 71, 128, 000 | 42, 734, 000 | 53, 488, 000 | 50, 838, 000 |

Division of Crop and Livestock Estimates.

FRUITS AND VEGETABLES

TABLE 302.—*Fruits and vegetables: Shipping-point inspections made by the United States Department of Agriculture, year ended June 30, 1923-1925*

| | 1923 | 1924 | 1925 | | 1923 | 1924 | 1925 |
|--------------------------------|---------|---------|---------|--|---------|----------|----------|
| IN COOPERATION WITH THE STATES | Cars | Cars | Cars | IN COOPERATION WITH THE STATES—continued | Cars | Cars | Cars |
| Alabama..... | ----- | 251 | ----- | Ohio..... | 78 | 169 | 662 |
| Arkansas..... | ----- | 88 | 528 | Oklahoma..... | ----- | ----- | 1, 038 |
| California..... | 17, 778 | 46, 424 | 37, 517 | Oregon..... | 387 | 4, 442 | 3, 686 |
| Colorado..... | 24, 815 | 10, 341 | 14, 086 | Oregon (Malheur County)..... | ----- | ----- | 442 |
| Delaware..... | ----- | 50 | 108 | Pennsylvania..... | ----- | 274 | 203 |
| Florida..... | 162 | 8, 370 | 10, 710 | South Carolina..... | 1, 091 | 1, 712 | 1, 082 |
| Georgia..... | 45 | 1, 392 | 7, 510 | South Dakota..... | 308 | 368 | 188 |
| Idaho..... | 13, 338 | 18, 403 | 11, 366 | Tennessee..... | 51 | 232 | 134 |
| Illinois..... | ----- | 208 | 269 | Texas..... | ----- | 6, 349 | 8, 289 |
| Indiana..... | ----- | ----- | 631 | Utah..... | 651 | 1, 642 | 1, 518 |
| Kansas..... | ----- | ----- | 1, 420 | Virginia..... | 4 | 526 | 2, 099 |
| Louisiana..... | ----- | 266 | 273 | Washington..... | 8, 917 | 15, 360 | 14, 980 |
| Maine..... | 384 | ----- | 105 | West Virginia..... | 39 | 232 | 317 |
| Maryland..... | ----- | ----- | 549 | Wisconsin..... | 1, 035 | 2, 305 | 1, 460 |
| Massachusetts..... | 67 | 7 | ----- | Total..... | 72, 466 | 129, 049 | 132, 622 |
| Michigan..... | ----- | ----- | 730 | STRAIGHT FEDERAL INSPECTION | ----- | ----- | ----- |
| Mississippi..... | ----- | 1, 709 | 336 | Arizona..... | ----- | 300 | 4 |
| Missouri..... | 36 | ----- | 584 | Indiana..... | ----- | 551 | ----- |
| Montana..... | 444 | 305 | 115 | Iowa..... | ----- | ----- | 229 |
| Nebraska..... | ----- | 4, 830 | 2, 835 | Kansas..... | ----- | 855 | ----- |
| Nevada..... | ----- | 34 | 23 | Missouri..... | ----- | 204 | ----- |
| New Jersey..... | 1, 499 | 719 | 699 | Total..... | ----- | 1, 910 | 233 |
| New York..... | 905 | 1, 475 | 1, 685 | Grand total..... | 72, 466 | 130, 959 | 132, 855 |
| North Carolina..... | ----- | 566 | 2, 707 | | | | |
| North Dakota..... | 432 | ----- | ----- | | | | |

Division of Fruits and Vegetables.

TABLE 303.—Fruits and vegetables: Receiving point inspections by markets, years ended June 30, 1918–1925

| Markets | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| Atlanta..... | 38 | 98 | 464 | 385 | 436 | 563 | 694 | 600 |
| Baltimore..... | 118 | 274 | 833 | 691 | 864 | 542 | 421 | 360 |
| Boston..... | 517 | 1,106 | 1,399 | 1,028 | 1,049 | 1,154 | 1,649 | 1,718 |
| Buffalo..... | 89 | 286 | 535 | 598 | 609 | 667 | 839 | 682 |
| Butte..... | 5 | 40 | | | | | | |
| Chicago..... | 1,124 | 2,302 | 4,115 | 2,671 | 4,120 | 3,257 | 2,967 | 3,172 |
| Cincinnati..... | 154 | 356 | 880 | 729 | 695 | 678 | 519 | 444 |
| Cleveland..... | 223 | 794 | 1,122 | 1,296 | 1,324 | 1,266 | 1,178 | 1,743 |
| Columbus..... | 43 | 70 | 297 | 187 | 253 | 449 | 665 | 345 |
| Denver..... | | 184 | 212 | | 16 | 103 | 171 | 141 |
| Des Moines..... | 23 | 124 | 62 | | | | | |
| Detroit..... | 78 | 694 | 781 | 561 | 1,061 | 1,222 | 1,109 | 1,417 |
| Eric..... | | | | | | 16 | | |
| Fargo..... | | 16 | | | | | | |
| Fort Worth and Dallas..... | 170 | 221 | 445 | 75 | 122 | 192 | 142 | 138 |
| Harrisburg..... | | | | | 27 | 46 | 25 | 25 |
| Houston and Galveston..... | 95 | 242 | 359 | 339 | 99 | 235 | 147 | 150 |
| Jacksonville..... | 64 | 72 | 7 | | | | | |
| Indianapolis..... | 44 | 358 | 474 | 510 | 456 | 450 | 333 | 318 |
| Kansas City..... | 363 | 727 | 1,347 | 865 | 835 | 791 | 980 | 953 |
| Los Angeles..... | | 39 | 5 | 36 | 26 | 30 | 25 | 12 |
| Louisville..... | | | | 9 | 80 | | | |
| Memphis..... | 104 | 276 | 422 | 321 | 452 | 441 | 363 | 452 |
| Millwaukee..... | 6 | 56 | 360 | 248 | 480 | 864 | 447 | 413 |
| Minneapolis and St. Paul..... | 164 | 500 | 577 | 558 | 1,035 | 770 | 629 | 655 |
| New Haven..... | | | | | | 25 | 514 | 480 |
| New Orleans..... | 99 | 294 | 654 | 744 | 684 | 949 | 1,292 | 1,411 |
| New York..... | 1,262 | 2,016 | 2,036 | 2,717 | 4,262 | 4,764 | 7,249 | 9,955 |
| Norfolk..... | | | | 12 | 146 | 243 | 454 | 1,179 |
| Omaha..... | 56 | 419 | 593 | 288 | 471 | 316 | 379 | 293 |
| Oklahoma City..... | 12 | 32 | | | | | | |
| Philadelphia..... | 247 | 429 | 1,740 | 3,351 | 5,196 | 3,358 | 1,087 | 1,086 |
| Pittsburgh..... | 492 | 1,236 | 3,894 | 4,412 | 4,375 | 2,227 | 1,981 | 1,730 |
| Portland..... | 6 | 46 | 8 | | | | 379 | 433 |
| Sacramento..... | | | | 4 | | | | |
| Salt Lake City..... | | | | | | | 13 | 29 |
| San Antonio..... | | | | | | | 55 | 21 |
| San Diego..... | | | | 3 | | | | 58 |
| San Francisco..... | 3 | 80 | 42 | 5 | 5 | 6 | 10 | 32 |
| Spokane..... | 4 | 25 | | | | | | |
| St. Louis..... | 312 | 932 | 1,329 | 786 | 1,357 | 1,879 | 1,952 | 1,375 |
| Washington..... | 154 | 158 | 496 | 448 | 536 | 558 | 486 | 342 |
| Wichita..... | | | | | | 52 | | |
| Wilkes-Barre..... | | | | | 136 | 156 | 159 | 172 |
| Total..... | 6,069 | 14,492 | 25,488 | 23,877 | 31,207 | 28,169 | 29,283 | 32,334 |

Division of Fruits and Vegetables.

TABLE 304.—Vegetables: Inspections at shipping points and receiving points, year ended June, 1925

| Commodity | Shipping point | Receiving point | Commodity | Shipping point | Receiving point | Commodity | Shipping point | Receiving point |
|------------------|----------------|-----------------|------------------|----------------|-----------------|-----------------------|----------------|-----------------|
| | <i>Cars</i> | <i>Cars</i> | | <i>Cars</i> | <i>Cars</i> | | <i>Cars</i> | <i>Cars</i> |
| Potatoes..... | 30,814 | 8,597 | Cabbage..... | 2,799 | 589 | Other vegetables..... | | |
| Lettuce..... | 7,731 | 859 | Celery..... | 2,432 | 554 | | 5,184 | 2,253 |
| Onions..... | 5,801 | 1,163 | Cauliflower..... | 1,340 | 218 | | | |
| Cantaloupes..... | 5,106 | 625 | Beans..... | 171 | 819 | Total..... | 66,379 | 17,406 |
| Tomatoes..... | 4,883 | 1,126 | Watermelons..... | 118 | 603 | | | |

Division of Fruits and Vegetables.

TABLE 305.—Fruit: Inspections at shipping points and receiving points, year ended June, 1925

| Commodity | Shipping point | Receiving point | Commodity | Shipping point | Receiving point | Commodity | Shipping point | Receiving point |
|--------------|----------------|-----------------|-------------------|----------------|-----------------|--------------------|----------------|-----------------|
| | <i>Cars</i> | <i>Cars</i> | | <i>Cars</i> | <i>Cars</i> | | <i>Cars</i> | <i>Cars</i> |
| Apples..... | 19,771 | 4,897 | Grapefruit..... | 2,272 | 1,089 | Mixed berries..... | 239 | 168 |
| Grapes..... | 19,670 | 1,571 | Plums and | | | Other fruits..... | 1,959 | 2,318 |
| Peaches..... | 12,625 | 908 | prunes..... | 1,115 | 370 | | | |
| Oranges..... | 3,886 | 680 | Strawberries..... | 633 | 1,317 | Total..... | 64,708 | 14,928 |
| Pears..... | 2,652 | 695 | Cherries..... | 277 | 915 | | | |

Division of Fruits and Vegetables.

TABLE 308.—*Vegetable seed: Imports into United States, 1910-1925*

[Thousand pounds—i. e., 1000 omitted]

| Kind of seed | Year ended June 30 | | | | | | | | | | Calendar year | | | | | |
|----------------------------|--------------------|--------|------------------|--------|------------------|--------|------------------|------------------|------------------|-------|------------------|------------------|-------|------------------|------------------|-------------------|
| | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
| Beet, sugar | 10,369 | 11,109 | 11,360 | 14,783 | 10,490 | 15,893 | 9,048 | 14,466 | 15,637 | 9,880 | 23,446 | 7,726 | 5,603 | 15,671 | 11,062 | 12,472 |
| Beet, all other | 624 | 639 | 572 | 987 | 1,077 | 991 | 786 | 483 | 448 | 161 | 238 | 257 | 272 | 335 | 423 | 421 |
| Cabbage | 162 | 261 | 311 | 273 | 255 | 425 | 278 | 108 | 83 | 169 | 391 | 253 | 181 | 181 | 210 | 321 |
| Carrot | 176 | 155 | 97 | 149 | 172 | 87 | 38 | 15 | 33 | 16 | 69 | 48 | 37 | 42 | 194 | 53 |
| Cauliflower | 6 | 10 | 7 | 9 | 11 | 13 | 9 | 8 | 8 | 12 | 17 | 12 | 13 | 14 | 14 | 18 |
| Collard | 1 | 1 | (²) | 2 | (²) | 9 | (²) | (²) | (²) | 1 | (²) | (²) | 2 | (²) | (²) | (²) |
| Corn salad | 7 | 10 | 8 | 6 | 6 | 5 | 5 | 4 | 2 | 8 | 14 | 3 | 1 | (²) | (²) | (²) |
| Eggplant | 3 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | (²) | (²) | (²) |
| Kale | 17 | 25 | 39 | 32 | 38 | 49 | 40 | 16 | 8 | 19 | 77 | 40 | 25 | 35 | 50 | 71 |
| Kohl-rabi | 50 | 17 | 11 | 14 | 16 | 16 | 10 | 9 | 17 | 17 | 23 | 14 | 10 | 16 | 13 | 22 |
| Mushroom spawn | 368 | 423 | 168 | 240 | 195 | 124 | 66 | 48 | 17 | 23 | 19 | 23 | 7 | 7 | 8 | (²) |
| Onions ¹ | 75 | 75 | 56 | 127 | 255 | 139 | 70 | 38 | 66 | 53 | 180 | 161 | 144 | 118 | 104 | 209 |
| Parsley | 89 | 57 | 53 | 117 | 130 | 100 | 100 | 65 | 7 | 44 | 17 | 57 | 40 | 48 | 147 | 376 |
| Parsnip | 16 | 16 | 18 | 10 | 12 | 15 | 15 | 5 | 22 | 6 | 2 | 9 | 4 | 19 | 68 | 44 |
| Pepper | | | | | | | | | | | | | | 3 | 3 | 4 |
| Radish | 470 | 581 | 373 | 504 | 527 | 550 | 309 | 119 | 103 | 112 | 320 | 213 | 272 | 360 | 631 | 738 |
| Spinach | 935 | 972 | 1,218 | 1,998 | 1,386 | 1,136 | 838 | 634 | 805 | 367 | 1,139 | 1,222 | 1,927 | 2,017 | 2,686 | 2,998 |
| Turnip | 1,231 | 1,759 | 2,968 | 1,233 | 1,581 | 2,112 | 1,816 | 1,096 | 2,151 | 1,810 | 1,647 | 2,242 | 1,269 | 776 | 1,350 | 1,435 |
| Rutabaga ¹ | | | | | | | | | | | | | | 152 | 201 | 335 |
| Mangel-wurzel ² | | | | | | | | | | | | | | 61 | 152 | 345 |
| | | | | | | | | | | | | | | 79 | 298 | |

Division of Statistical and Historical Research. Compiled from Foreign Commerce and Navigation of the United States, 1910-1924, and from official records of the Bureau of Foreign and Domestic Commerce, 1925.

¹ Preliminary.² Less than 500 pounds.³ Not shown separately prior to 1922.⁴ Included with turnip prior to 1922.⁵ Includes some rutabaga seed.

TABLE 307.—Vegetable seed: Average yearly import price, per pound, 1910-1925

| Kind of seed | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| Beet, garden..... | 9.4 | 10.3 | 16.4 | 15.7 | 15.0 | 11.0 | 12.0 | 17.2 | 49.2 | 67.2 | 21.1 | 14.2 | 18.0 | 17.7 | 18.0 | 15.8 |
| Beet, sugar..... | 6.5 | 6.6 | 9.7 | 7.7 | 7.6 | 8.8 | 11.2 | 11.9 | 26.0 | 21.7 | 22.2 | 19.6 | 10.7 | 8.8 | 9.8 | 10.4 |
| Cabbage..... | 22.9 | 34.1 | 37.6 | 47.6 | 49.0 | 35.0 | 42.2 | 44.4 | 170.8 | 211.8 | 76.6 | 57.0 | 61.0 | 46.7 | 43.7 | 47.2 |
| Carrot..... | 15.2 | 17.0 | 36.3 | 25.1 | 30.0 | 25.0 | 34.0 | 45.4 | 86.1 | 120.4 | 22.6 | 27.0 | 31.3 | 29.5 | 27.3 | 40.0 |
| Cauliflower..... | 534.0 | 400.0 | 562.0 | 537.0 | 381.0 | 343.0 | 524.0 | 001.0 | 453.7 | 382.2 | 820.9 | 813.4 | 688.2 | 645.0 | 606.0 | 648.0 |
| Collard..... | 19.6 | 12.4 | 14.3 | 13.1 | 17.0 | 13.4 | 24.0 | 77.0 | 88.2 | 175.0 | 26.0 | 23.1 | ----- | ----- | ----- | ----- |
| Corn salad..... | 15.6 | 12.7 | 20.7 | 14.6 | 12.6 | 13.5 | 15.0 | 16.8 | 38.1 | 49.1 | 44.9 | 47.3 | 32.1 | ----- | ----- | ----- |
| Eggplant..... | 78.6 | 71.9 | 61.1 | 80.8 | 80.6 | 80.5 | 86.2 | 68.7 | 157.1 | 219.7 | 187.6 | 143.5 | 118.8 | ----- | ----- | ----- |
| Kale..... | 22.9 | 15.5 | 14.8 | 19.3 | 25.8 | 20.9 | 17.3 | 27.1 | 75.3 | 63.9 | 26.7 | 29.2 | 29.2 | 27.2 | 19.7 | 19.8 |
| Kohl-rabi..... | 11.0 | 18.9 | 28.6 | 28.0 | 36.2 | 28.0 | 28.4 | 40.6 | 78.1 | 98.5 | 62.8 | 46.7 | 54.0 | 46.3 | 45.1 | 36.2 |
| Parsley..... | 8.5 | 9.0 | 19.2 | 28.1 | 18.6 | 11.0 | 12.2 | 14.4 | 19.7 | 39.8 | 11.9 | 12.5 | 12.7 | 13.8 | 12.3 | 13.4 |
| Parsnip..... | 7.2 | 7.6 | 10.4 | 8.6 | 8.2 | 7.0 | 8.1 | 8.4 | 49.2 | 60.4 | 21.9 | 13.2 | 27.0 | 18.7 | 15.8 | 14.2 |
| Pepper..... | 42.3 | 41.4 | 40.9 | 44.0 | 38.2 | 41.0 | 41.0 | 57.0 | 88.4 | 151.9 | 109.5 | 68.3 | 105.3 | 88.1 | 69.1 | 66.3 |
| Radish..... | 11.6 | 12.3 | 13.0 | 13.4 | 14.5 | 12.4 | 13.2 | 17.8 | 67.6 | 57.6 | 24.0 | 21.8 | 20.0 | 19.4 | 16.8 | 17.4 |
| Spinach..... | 46.0 | 5.0 | 5.7 | 5.2 | 4.6 | 4.8 | 8.0 | 12.6 | 33.2 | 21.9 | 11.6 | 9.7 | 9.2 | 8.1 | 8.4 | 8.6 |
| Turnip..... | 8.5 | 8.6 | 7.9 | 9.3 | 9.1 | 8.7 | 8.9 | 11.8 | 31.5 | 36.9 | 22.8 | 14.6 | 16.8 | 13.6 | 11.0 | 12.2 |
| Rutabaga ² | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 12.7 | 12.8 | 12.1 | 10.4 |
| Mangel-wurzel..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 74.9 | 11.8 | 11.4 | 12.1 |
| Onion ³ | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 13.9 | 108.0 | 100.1 | 115.4 |

Division of Statistical and Historical Research. Compiled from Foreign Commerce and Navigation of the United States, 1910-1924, and from official records of the Bureau of Foreign and Domestic Commerce, 1925. All prices are f. o. b. port of origin and not including duty.

¹ Preliminary.

² Included with turnip prior to 1922

³ Not segregated prior to 1922.

FRUITS AND VEGETABLES

TABLE 308.—Fruits and vegetables: Unloads of 10 commodities at 11 markets in car lots, 1920-1925

| Commodity and year | New York | Chicago | Philadel- phia | Pittsburgh | St. Louis | Cincinnati | Minneapolis | Kansas City | Washington | Cleveland | Detroit | Total |
|--------------------|----------|---------|-------------------|------------|-----------|------------|-------------|-------------|------------|-----------|---------|--------|
| | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars | Cars |
| Apples: | | | | | | | | | | | | |
| 1920..... | 10,528 | 7,081 | 3,199 | 2,792 | 1,975 | 1,617 | 464 | 1,006 | 561 | 1,686 | 963 | 31,883 |
| 1921..... | 11,984 | 6,534 | 3,416 | 2,808 | 1,856 | 1,810 | 422 | 1,002 | 369 | 1,184 | 1,080 | 32,565 |
| 1922..... | 12,764 | 6,575 | 2,539 | 3,020 | 2,111 | 1,257 | 712 | 775 | 454 | 1,901 | 1,402 | 33,610 |
| 1923..... | 15,638 | 10,364 | 3,211 | 3,005 | 2,736 | 1,659 | 681 | 1,507 | 674 | 1,861 | 1,782 | 43,018 |
| 1924..... | 14,290 | 6,605 | 2,996 | 2,799 | 1,900 | 1,531 | 748 | 701 | 556 | 1,614 | 1,234 | 35,024 |
| 1925..... | 13,761 | 7,774 | 2,510 | 3,670 | 1,950 | 1,295 | 873 | 1,421 | 537 | 1,570 | 2,126 | 36,407 |
| Cabbage: | | | | | | | | | | | | |
| 1920..... | 2,225 | 1,355 | 1,006 | 1,297 | 804 | 596 | 121 | 399 | 391 | 617 | 290 | 10,061 |
| 1921..... | 3,030 | 1,780 | 1,962 | 1,105 | 1,049 | 669 | 75 | 400 | 386 | 505 | 262 | 11,223 |
| 1922..... | 3,353 | 1,697 | 2,166 | 1,219 | 1,121 | 781 | 104 | 516 | 468 | 576 | 392 | 12,372 |
| 1923..... | 3,981 | 1,685 | 2,233 | 1,274 | 1,018 | 729 | 81 | 503 | 390 | 536 | 401 | 12,831 |
| 1924..... | 4,185 | 1,877 | 2,217 | 1,161 | 1,230 | 762 | 123 | 471 | 471 | 732 | 496 | 13,755 |
| 1925..... | 3,720 | 1,872 | 2,243 | 1,101 | 1,210 | 700 | 175 | 494 | 473 | 732 | 544 | 13,109 |
| Cantaloupes: | | | | | | | | | | | | |
| 1920..... | 3,788 | 2,061 | 1,065 | 1,275 | 452 | 554 | 94 | 396 | 232 | 657 | 557 | 11,126 |
| 1921..... | 4,781 | 2,308 | 1,258 | 1,322 | 539 | 640 | 166 | 452 | 242 | 733 | 552 | 12,968 |
| 1922..... | 5,535 | 2,800 | 1,542 | 1,244 | 618 | 676 | 214 | 422 | 306 | 912 | 584 | 14,853 |
| 1923..... | 4,521 | 2,237 | 1,226 | 1,203 | 512 | 461 | 199 | 309 | 253 | 749 | 538 | 12,206 |
| 1924..... | 5,742 | 2,508 | 1,416 | 1,203 | 728 | 813 | 260 | 408 | 306 | 906 | 686 | 14,976 |
| 1925..... | 6,908 | 2,973 | 1,434 | 1,392 | 784 | 678 | 297 | 470 | 356 | 1,086 | 969 | 17,297 |
| Celery: | | | | | | | | | | | | |
| 1920..... | 1,276 | 979 | 753 | 529 | 217 | 207 | 89 | 220 | 193 | 144 | 154 | 4,761 |
| 1921..... | 1,691 | 1,479 | 951 | 666 | 354 | 316 | 126 | 304 | 197 | 243 | 264 | 6,590 |
| 1922..... | 1,981 | 1,689 | 814 | 677 | 350 | 331 | 152 | 321 | 214 | 217 | 321 | 7,067 |
| 1923..... | 2,607 | 1,818 | 850 | 830 | 386 | 370 | 214 | 382 | 241 | 340 | 460 | 8,404 |
| 1924..... | 2,998 | 1,631 | 1,186 | 822 | 441 | 382 | 244 | 313 | 257 | 361 | 574 | 9,209 |
| 1925..... | 3,307 | 2,376 | 1,342 | 798 | 544 | 396 | 295 | 341 | 313 | 356 | 706 | 10,774 |
| Onions: | | | | | | | | | | | | |
| 1920..... | 3,723 | 1,236 | 1,554 | 1,115 | 687 | 283 | 107 | 426 | 223 | 593 | 654 | 10,601 |
| 1921..... | 4,420 | 1,545 | 1,432 | 922 | 559 | 314 | 91 | 345 | 196 | 496 | 558 | 10,939 |
| 1922..... | 4,933 | 1,673 | 1,698 | 951 | 672 | 400 | 115 | 453 | 235 | 648 | 675 | 12,353 |
| 1923..... | 8,338 | 1,951 | 1,700 | 941 | 664 | 394 | 95 | 454 | 247 | 662 | 732 | 16,268 |
| 1924..... | 8,118 | 1,955 | 2,067 | 1,023 | 785 | 480 | 142 | 537 | 292 | 745 | 795 | 16,942 |
| 1925..... | 8,363 | 2,042 | 2,110 | 922 | 770 | 453 | 140 | 473 | 310 | 800 | 979 | 17,368 |

TABLE 308.—Fruits and vegetables: Unloads of 10 commodities at 11 markets in car lots, 1920-1925—Continued

| Commodity and year | New York | Chicago | Philadelphia | Pittsburgh | St. Louis | Cincinnati | Minneapolis | Kansas City | Washington | Cleveland | Detroit | Total |
|--|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Peaches: | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> | <i>Cars</i> |
| 1920..... | 2,406 | 1,264 | 837 | 842 | 347 | 181 | 64 | 178 | 90 | 477 | 619 | 7,692 |
| 1921..... | 4,143 | 1,326 | 1,056 | 759 | 481 | 680 | 101 | 268 | 38 | 532 | 555 | 9,969 |
| 1922..... | 4,617 | 2,107 | 1,016 | 1,071 | 438 | 609 | 192 | 331 | 14 | 850 | 996 | 12,521 |
| 1923..... | 3,496 | 1,404 | 778 | 744 | 542 | 649 | 158 | 320 | 220 | 692 | 774 | 9,777 |
| 1924..... | 4,693 | 1,845 | 1,093 | 841 | 777 | 762 | 233 | 338 | 226 | 1,146 | 1,123 | 13,077 |
| 1925..... | 4,972 | 1,998 | 991 | 914 | 631 | 626 | 217 | 278 | 273 | 849 | 1,287 | 13,036 |
| Potatoes: | | | | | | | | | | | | |
| 1920..... | 15,078 | 11,299 | 7,130 | 5,614 | 2,512 | 2,189 | 756 | 2,145 | 874 | 3,109 | 2,695 | 53,401 |
| 1921..... | 17,986 | 13,077 | 7,460 | 5,306 | 3,592 | 2,857 | 845 | 2,267 | 1,153 | 3,175 | 2,203 | 60,001 |
| 1922..... | 20,100 | 13,912 | 8,023 | 5,009 | 4,290 | 3,447 | 717 | 2,433 | 1,623 | 3,506 | 2,948 | 66,008 |
| 1923..... | 21,330 | 14,436 | 8,519 | 4,906 | 3,012 | 2,942 | 735 | 2,417 | 1,646 | 3,105 | 2,818 | 65,866 |
| 1924..... | 22,726 | 15,664 | 8,272 | 4,033 | 2,905 | 2,698 | 520 | 2,512 | 1,784 | 3,499 | 2,466 | 67,078 |
| 1925..... | 23,002 | 14,768 | 8,698 | 3,897 | 3,096 | 3,188 | 707 | 3,125 | 1,859 | 2,872 | 3,381 | 69,193 |
| Strawberries: | | | | | | | | | | | | |
| 1920..... | 736 | 767 | 268 | 185 | 85 | 80 | 84 | 68 | 34 | 138 | 171 | 2,616 |
| 1921..... | 1,101 | 1,499 | 300 | 321 | 132 | 356 | 147 | 180 | 50 | 239 | 225 | 4,550 |
| 1922..... | 2,193 | 1,719 | 668 | 497 | 265 | 474 | 351 | 262 | 48 | 342 | 552 | 7,271 |
| 1923..... | 2,507 | 1,696 | 750 | 516 | 277 | 559 | 246 | 129 | 62 | 393 | 548 | 7,683 |
| 1924..... | 2,537 | 1,809 | 691 | 458 | 226 | 355 | 228 | 146 | 67 | 349 | 550 | 7,409 |
| 1925..... | 2,005 | 942 | 455 | 283 | 130 | 340 | 184 | 145 | 71 | 260 | 413 | 5,230 |
| Sweet potatoes: | | | | | | | | | | | | |
| 1920..... | 1,592 | 1,231 | 440 | 913 | 194 | 368 | 91 | 180 | 197 | 563 | 286 | 6,055 |
| 1921..... | 1,625 | 1,315 | 378 | 962 | 127 | 401 | 141 | 147 | 183 | 543 | 293 | 6,175 |
| 1922..... | 1,255 | 1,497 | 409 | 944 | 136 | 413 | 133 | 102 | 180 | 606 | 389 | 6,064 |
| 1923..... | 1,286 | 1,090 | 350 | 757 | 106 | 359 | 116 | 53 | 149 | 456 | 317 | 5,042 |
| 1924..... | 1,678 | 1,383 | 415 | 809 | 134 | 428 | 148 | 55 | 201 | 533 | 463 | 6,247 |
| Tomatoes: | | | | | | | | | | | | |
| 1920..... | 1,779 | 1,183 | 810 | 765 | 220 | 218 | 49 | 214 | 149 | 152 | 174 | 5,713 |
| 1921..... | 2,872 | 1,588 | 1,105 | 919 | 327 | 287 | 58 | 262 | 193 | 146 | 203 | 7,900 |
| 1922..... | 3,974 | 1,918 | 1,382 | 1,219 | 444 | 438 | 121 | 330 | 254 | 271 | 470 | 10,821 |
| 1923..... | 3,981 | 1,652 | 1,436 | 1,321 | 309 | 339 | 106 | 302 | 226 | 231 | 425 | 10,328 |
| 1924..... | 4,623 | 2,042 | 1,607 | 1,134 | 443 | 345 | 158 | 239 | 248 | 305 | 455 | 11,499 |
| 1925..... | 4,931 | 2,128 | 1,478 | 1,122 | 442 | 309 | 174 | 240 | 261 | 268 | 663 | 12,016 |
| Total (10 commodities):¹ | | | | | | | | | | | | |
| 1920..... | 48,295 | 27,225 | 17,521 | 14,421 | 7,359 | 6,225 | 1,828 | 5,032 | 2,847 | 7,585 | 6,272 | 144,610 |
| 1921..... | 59,107 | 32,497 | 19,430 | 15,130 | 9,083 | 8,217 | 2,122 | 5,650 | 3,131 | 7,818 | 6,193 | 168,348 |
| 1922..... | 67,448 | 35,405 | 20,126 | 15,869 | 10,436 | 8,874 | 2,819 | 5,989 | 4,079 | 9,666 | 6,633 | 189,344 |
| 1923..... | 73,293 | 38,740 | 21,202 | 15,684 | 9,592 | 8,515 | 2,648 | 6,425 | 4,139 | 9,175 | 8,571 | 198,284 |
| 1924..... | 75,963 | 37,032 | 21,795 | 14,261 | 9,607 | 8,487 | 2,772 | 5,718 | 4,343 | 10,113 | 8,695 | 198,786 |
| 1925..... | 76,378 | 38,256 | 21,676 | 13,810 | 10,303 | 8,413 | 3,210 | 6,962 | 4,674 | 9,166 | 11,531 | 204,399 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Unloads as shown in car lots include those by boat reduced to car-lot basis.

¹ The totals include l. c. l. unloads for New York, converted to car-lot equivalents: 6,756 cars in 1920; 5,498 in 1921; 6,393 in 1922; 5,839 in 1923; 4,775 in 1924; 3,722 in 1925.

STATISTICS OF FIELD CROPS OTHER THAN GRAIN

BEANS

TABLE 309.—*Beans, dry: Acreage, production, and total farm value, United States, 1914-1925*

| Year | Thousands of acres | Average yield in bushels per acre | Production, thousands of bushels | Price per bushel received by producers Dec. 1 | Farm value, thousands of dollars |
|-------------------------|--------------------|-----------------------------------|----------------------------------|---|----------------------------------|
| 1914..... | 875 | 13.2 | 11,585 | \$2.26 | 26,213 |
| 1915..... | 928 | 11.1 | 10,321 | 2.69 | 26,771 |
| 1916..... | 1,107 | 9.7 | 10,715 | 5.10 | 54,686 |
| 1917..... | 1,821 | 8.8 | 16,045 | 6.50 | 104,350 |
| 1918..... | 1,744 | 10.0 | 17,397 | 5.28 | 91,863 |
| 1919..... | 1,060 | 12.6 | 13,349 | 4.26 | 56,811 |
| 1920..... | 847 | 10.8 | 9,185 | 2.95 | 27,134 |
| 1921..... | 782 | 11.7 | 9,185 | 2.67 | 24,515 |
| 1922..... | 1,086 | 11.9 | 12,877 | 3.74 | 48,133 |
| 1923..... | 1,344 | 12.1 | 16,308 | 3.67 | 59,782 |
| 1924..... | 1,545 | 9.6 | 14,856 | 3.72 | 55,239 |
| 1925 ¹ | 1,579 | 12.1 | 19,100 | 3.27 | 62,388 |

Division of Crop and Livestock Estimates.

¹ Preliminary.TABLE 310.—*Beans, dry: Acreage, production, and total farm value, by States, 1924 and 1925*

| State | Thousands of acres | | Average yield in bushels per acre | | Production thousands of bushels | | Price per bushel received by producers Dec. 1 | | Farm value, thousands of dollars | |
|-----------------|--------------------|-------------------|-----------------------------------|------|---------------------------------|-------------------|---|---------------------|----------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Maine..... | 7 | 8 | 15.5 | 14.0 | 108 | 112 | \$4.90 | \$5.00 ¹ | 529 | 560 |
| Vermont..... | 4 | 4 | 15.0 | 11.0 | 60 | 44 | 4.00 | 4.50 | 240 | 198 |
| New York..... | 155 | 132 | 13.0 | 10.8 | 2,015 | 1,420 | 3.80 | 4.00 | 7,657 | 6,500 |
| Michigan..... | 614 | 614 | 10.5 | 13.5 | 6,447 | 8,289 | 3.15 | 2.95 | 20,308 | 24,453 |
| Wisconsin..... | 10 | 12 | 8.5 | 11.0 | 85 | 132 | 3.40 | 3.20 | 289 | 422 |
| Minnesota..... | 10 | 8 | 10.0 | 13.0 | 100 | 104 | 3.70 | 3.40 | 370 | 354 |
| Montana..... | 34 | 40 | 12.0 | 12.5 | 408 | 500 | 3.30 | 3.05 | 1,346 | 1,525 |
| Idaho..... | 65 | 72 | 19.5 | 22.0 | 1,268 | 1,584 | 4.10 | 2.70 | 5,199 | 4,277 |
| Wyoming..... | 8 | 10 | 12.0 | 15.0 | 96 | 150 | 3.55 | 3.00 | 341 | 450 |
| Colorado..... | 280 | 320 | 3.4 | 7.0 | 952 | 2,240 | 3.10 | 2.40 | 2,951 | 5,376 |
| New Mexico..... | 174 | 114 | 5.0 | 3.5 | 870 | 399 | 3.80 | 3.30 | 3,306 | 1,317 |
| Arizona..... | 5 | 5 | 6.0 | 8.0 | 30 | 40 | 4.50 | 4.20 | 135 | 168 |
| California..... | 179 | 240 | 13.5 | 17.0 | 2,417 | 4,080 | 5.20 | 4.10 | 12,568 | 16,728 |
| Total..... | 1,545 | 1,579 | 9.6 | 12.1 | 14,856 | 19,100 | 3.72 | 3.27 | 55,239 | 62,388 |

Division of Crop and Livestock Estimates.

¹ Preliminary.TABLE 311.—*Beans, dry: Car-lot shipments by State of origin, 1920-1925*

| State | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|-------------------|----------|------------|------------|------------|-------------------------|-------------------|
| New York..... | Cars 658 | Cars 1,327 | Cars 1,599 | Cars 1,775 | Cars 1,917 ¹ | Cars 1,525 |
| Michigan..... | 3,187 | 5,990 | 5,087 | 5,998 | 8,701 | 8,462 |
| Idaho..... | 185 | 146 | 395 | 604 | 1,095 | 1,788 |
| Colorado..... | 231 | 542 | 483 | 1,091 | 1,454 | 2,291 |
| New Mexico..... | 608 | 974 | 289 | 85 | 275 | 297 |
| California..... | 3,956 | 3,854 | 3,822 | 3,294 | 2,230 | 2,310 |
| Other States..... | 158 | 122 | 86 | 153 | 231 | 457 |
| Total..... | 8,981 | 12,955 | 11,761 | 12,990 | 15,903 | 17,125 |

Division of Statistical and Historical Research. Compiled from reports of Fruit and Vegetable Division. Shipments as shown in car lots include those by boat reduced to car-lot basis.

¹ Preliminary.

BEANS

TABLE 312.—*Beans, dry: Estimated price per bushel, received by producers, United States, 1910-1925*

| Year beginning September | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Weight- ed av. |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 2.26 | 2.25 | 2.14 | 2.20 | 2.20 | 2.23 | 2.17 | 2.20 | 2.17 | 2.19 | 2.23 | 2.20 | 2.21 |
| 1911..... | 2.26 | 2.27 | 2.34 | 2.42 | 2.38 | 2.38 | 2.42 | 2.37 | 2.52 | 2.62 | 2.47 | 2.40 | 2.37 |
| 1912..... | 2.38 | 2.31 | 2.25 | 2.31 | 2.26 | 2.19 | 2.10 | 2.11 | 2.18 | 2.23 | 2.22 | 2.11 | 2.25 |
| 1913..... | 2.08 | 2.25 | 2.20 | 2.12 | 2.17 | 2.09 | 2.05 | 2.11 | 2.31 | 2.28 | 2.22 | 2.54 | 2.17 |
| Av. 1910-1913..... | 2.25 | 2.28 | 2.23 | 2.26 | 2.25 | 2.22 | 2.18 | 2.20 | 2.30 | 2.32 | 2.28 | 2.31 | 2.25 |
| 1914..... | 2.46 | 2.17 | 2.28 | 2.40 | 2.63 | 3.02 | 2.89 | 2.81 | 2.93 | 2.87 | 2.75 | 2.67 | 2.86 |
| 1915..... | 2.70 | 2.93 | 3.03 | 3.30 | 3.47 | 3.43 | 3.34 | 3.42 | 3.56 | 3.72 | 5.09 | 4.69 | 3.27 |
| 1916..... | 4.60 | 4.47 | 5.53 | 5.77 | 5.71 | 6.07 | 6.40 | 7.37 | 8.94 | 8.90 | 8.07 | 7.29 | 5.92 |
| 1917..... | 6.69 | 7.48 | 7.33 | 7.00 | 7.00 | 7.08 | 6.95 | 6.95 | 6.67 | 6.88 | 5.88 | 6.11 | 7.04 |
| 1918..... | 5.67 | 5.52 | 5.46 | 4.86 | 4.98 | 4.52 | 4.40 | 4.44 | 4.19 | 4.39 | 4.25 | 4.30 | 4.08 |
| 1919..... | 4.36 | 4.27 | 4.42 | 4.41 | 4.70 | 4.47 | 4.32 | 4.41 | 4.36 | 4.49 | 4.47 | 4.17 | 4.41 |
| 1920..... | 3.83 | 3.46 | 3.27 | 2.99 | 2.95 | 2.85 | 2.89 | 2.69 | 2.73 | 2.82 | 2.75 | 2.83 | 3.12 |
| Av. 1914-1920..... | 4.33 | 4.33 | 4.47 | 4.39 | 4.49 | 4.49 | 4.47 | 4.58 | 4.77 | 4.79 | 4.75 | 4.57 | 4.47 |
| 1921..... | 2.90 | 2.87 | 2.85 | 2.83 | 2.86 | 3.04 | 3.64 | 3.77 | 4.02 | 4.48 | 4.29 | 4.09 | 3.18 |
| 1922..... | 3.22 | 3.36 | 3.71 | 3.91 | 4.24 | 4.42 | 4.30 | 4.32 | 4.20 | 4.05 | 3.94 | 3.62 | 3.88 |
| 1923..... | 3.78 | 3.87 | 3.83 | 3.44 | 3.49 | 3.56 | 3.47 | 3.50 | 3.48 | 3.38 | 3.28 | 3.52 | 3.63 |
| 1924..... | 3.72 | 3.72 | 3.81 | 3.91 | 4.08 | 4.27 | 3.91 | 3.84 | 3.91 | 4.28 | 3.98 | 4.00 | 3.91 |
| 1925..... | 3.87 | 3.69 | 3.67 | 3.74 | | | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 313.—*Beans: Wholesale price per 100 pounds, 1914-1925*

| Year | Boston, pea | | | Chicago, pea | | | San Francisco, small white | | |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------------------|--------------|--------------|
| | Low | High | Average | Low | High | Average | Low | High | Average |
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1914..... | 2.10 | 3.10 | 2.10 | 1.60 | 3.10 | 2.22 | 4.00 | 6.00 | 4.98 |
| 1915..... | 2.85 | 4.10 | 3.36 | 2.40 | 4.10 | 3.19 | 4.50 | 6.40 | 5.30 |
| 1916..... | 3.80 | 7.25 | 4.96 | 3.00 | 8.00 | 4.24 | 6.25 | 11.50 | 8.05 |
| 1917..... | 6.50 | 15.00 | 9.24 | 6.40 | 14.50 | 9.09 | 10.50 | 16.00 | 13.20 |
| 1918..... | 9.00 | 14.00 | 12.08 | 8.25 | 15.00 | 11.49 | 8.90 | 12.75 | 11.64 |
| 1919..... | 6.00 | 10.00 | 7.74 | 6.50 | 9.50 | 7.92 | 5.75 | 8.90 | 7.05 |
| 1920..... | 4.75 | 8.25 | 6.98 | 4.25 | 9.25 | 6.76 | 3.75 | 6.75 | 5.72 |
| Low, high and average, 1914-1920..... | 2.10 | 15.00 | 6.64 | 1.60 | 15.00 | 6.42 | 3.75 | 16.00 | 7.99 |
| 1921..... | 4.25 | 5.50 | 4.88 | 3.60 | 5.50 | 4.61 | 3.20 | 4.90 | 4.03 |
| 1922..... | 5.00 | 10.50 | 7.60 | 4.80 | 11.15 | 7.40 | 4.75 | 7.75 | 6.18 |
| 1923..... | 5.50 | 8.75 | 7.40 | 5.30 | 9.00 | 7.04 | 5.75 | 7.75 | 6.67 |
| 1924..... | 5.00 | 6.50 | 5.74 | 4.90 | 6.50 | 5.46 | 5.75 | 8.25 | 6.81 |
| 1925..... | 5.30 | 7.50 | 6.26 | 5.20 | 7.25 | 6.16 | 5.35 | 7.10 | 7.06 |
| Low, high and average, 1921-1925..... | 4.25 | 10.50 | 6.38 | 3.60 | 11.15 | 6.15 | 3.20 | 8.25 | 6.15 |
| 1925..... | | | | | | | | | |
| January..... | 6.50 | 7.50 | 6.94 | 5.50 | 7.25 | 6.64 | 7.00 | 7.65 | 7.22 |
| February..... | 7.00 | 7.50 | 7.20 | 5.50 | 6.65 | 6.37 | 7.40 | 7.90 | 7.71 |
| March..... | 6.75 | 7.00 | 6.91 | 6.25 | 6.75 | 6.39 | 7.40 | 7.75 | 7.14 |
| April..... | 6.25 | 6.75 | 6.60 | 6.25 | | 6.25 | 7.40 | 7.60 | 7.49 |
| May..... | 6.10 | 6.60 | 6.31 | 5.90 | 6.25 | 6.14 | 7.20 | 7.60 | 7.38 |
| June..... | 3.26 | 6.50 | 6.34 | 5.90 | 6.10 | 6.02 | 7.20 | 7.50 | 7.31 |
| July..... | 3.90 | 6.40 | 6.17 | | 6.10 | 6.10 | 7.35 | 7.50 | 7.42 |
| August..... | 5.75 | 6.00 | 5.89 | 5.25 | 6.60 | 6.08 | 7.25 | 7.50 | 7.42 |
| September..... | 5.60 | 5.65 | 5.50 | 6.50 | 7.00 | 6.69 | 7.25 | 7.40 | 7.32 |
| October..... | 5.40 | 5.50 | 5.49 | 5.20 | 7.99 | 6.11 | 5.85 | 7.40 | 6.20 |
| November..... | 5.60 | 6.00 | 5.85 | 5.65 | 5.75 | 5.70 | 5.35 | 6.25 | 5.71 |
| December..... | 5.75 | 6.00 | 5.90 | 5.30 | 5.60 | 5.45 | 5.75 | 6.10 | 5.98 |

Division of Statistical and Historical Research. Compiled from reports of the Boston Chamber of Commerce, average of weekly range; Chicago Daily Trade Bulletin and San Francisco Commercial news, average of daily range.

SOY BEANS

TABLE 314.—Soy beans: Estimated price per bushel, received by producers, United States, 1913-1925

| Year beginning October | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Weighted average |
|------------------------|----------------|----------------|----------------|----------------|----------------|------------------|
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| 1913..... | 1.96 | 1.57 | 1.72 | 1.96 | 1.80 | 1.75 |
| 1914..... | 2.08 | 2.15 | 2.24 | 2.35 | 2.26 | 2.18 |
| 1915..... | 1.88 | 2.08 | 2.23 | 2.31 | 2.39 | 2.11 |
| 1916..... | 2.13 | 2.13 | 2.18 | 2.30 | 2.45 | 2.16 |
| 1917..... | 2.73 | 2.86 | 3.33 | 3.47 | 3.82 | 3.05 |
| 1918..... | 3.36 | 3.20 | 3.20 | 3.00 | 3.00 | 3.23 |
| 1919..... | 3.34 | 3.35 | 3.44 | 3.76 | 4.05 | 3.45 |
| 1920..... | 3.41 | 3.00 | 2.28 | 2.18 | 2.17 | 2.80 |
| 1921..... | 2.30 | 2.22 | 2.08 | 2.11 | 2.16 | 2.17 |
| 1922..... | 1.89 | 2.06 | 1.97 | 2.07 | 2.13 | 2.00 |
| 1923..... | 2.09 | 2.11 | 2.11 | 2.23 | 2.26 | 2.12 |
| 1921..... | 2.23 | 2.16 | 2.36 | 2.59 | 2.64 | 2.29 |
| 1925..... | 2.27 | 2.18 | 2.17 | | | |

Division of Crop and Livestock Estimates.

TABLE 315.—Soy bean seed: Average wholesale selling price per 100 pounds at leading markets, 1920-1925

| Year | Baltimore | | | | | | Minneapolis | | | | | |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Jan. | Feb. | Mar. | Apr. | May | Av. | Jan. | Feb. | Mar. | Apr. | May | Av. |
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1920..... | 6.80 | 8.00 | 8.00 | 8.00 | 8.60 | 7.88 | 8.50 | 9.90 | 10.50 | 11.00 | 11.00 | 10.18 |
| 1921..... | 3.15 | 3.50 | 3.50 | 3.75 | 4.70 | 3.72 | 10.00 | 10.00 | 10.00 | 10.00 | 7.50 | 9.50 |
| 1922..... | 3.20 | 3.50 | 3.50 | 3.50 | 3.30 | 3.40 | 4.60 | 5.00 | 5.00 | 5.00 | 5.40 | 5.00 |
| 1923..... | 4.00 | 4.00 | 4.00 | 3.80 | 3.75 | 4.00 | 6.00 | 6.00 | 5.85 | 5.95 | 6.30 | 6.02 |
| 1924..... | 3.50 | 4.00 | 4.00 | 4.50 | 5.00 | 4.20 | 5.75 | 5.75 | 5.75 | 5.75 | 5.75 | 5.75 |
| 1925..... | 5.10 | 4.90 | 5.25 | 4.95 | 3.95 | 4.83 | 4.75 | 4.70 | 4.75 | 4.60 | 4.25 | 4.61 |
| Average 1921-1925..... | 3.98 | 4.06 | 4.10 | 4.14 | 4.14 | 4.14 | 6.22 | 6.29 | 6.27 | 6.26 | 5.84 | 6.18 |
| | Chicago | | | | | | Richmond | | | | | |
| 1920..... | 10.25 | 11.75 | 10.25 | 9.00 | 8.60 | 9.97 | 7.40 | 8.30 | 8.25 | 8.30 | 8.80 | 8.21 |
| 1921..... | 9.00 | 9.00 | 9.00 | 7.10 | 5.50 | 7.92 | 3.80 | 4.25 | 4.15 | 4.00 | 4.85 | 4.21 |
| 1922..... | 3.10 | 3.45 | 3.35 | 3.85 | 4.30 | 3.61 | 3.70 | 3.80 | 3.70 | 3.70 | 3.35 | 3.63 |
| 1923..... | 4.00 | 4.15 | 4.35 | 4.75 | 5.25 | 4.50 | 4.00 | 4.00 | 3.80 | 3.70 | 3.75 | 3.85 |
| 1924..... | 4.00 | 4.20 | 4.25 | 4.40 | 3.90 | 4.15 | 3.75 | 3.75 | 3.85 | 3.90 | 4.55 | 3.96 |
| 1925..... | 4.15 | 4.00 | 3.90 | 3.90 | 3.55 | 3.90 | 5.20 | 5.65 | 5.75 | 5.55 | 5.35 | 5.50 |
| Average 1921-1925..... | 4.85 | 4.96 | 4.97 | 4.80 | 4.50 | 4.82 | 4.09 | 4.29 | 4.25 | 4.17 | 4.37 | 4.23 |
| | Kansas City | | | | | | St. Louis | | | | | |
| 1920..... | 8.95 | 10.00 | 10.00 | 9.00 | 9.60 | 9.51 | 8.10 | 10.00 | 9.90 | 9.65 | 10.00 | 9.53 |
| 1921..... | 4.65 | 5.25 | 6.00 | 6.00 | 6.00 | 5.11 | 4.30 | 5.40 | 5.75 | 5.00 | 5.40 | 5.17 |
| 1922..... | 2.95 | 3.00 | 3.20 | 3.65 | 4.75 | 3.51 | 4.00 | 4.00 | 4.20 | 3.85 | 4.55 | 4.12 |
| 1923..... | 3.35 | 3.60 | 3.70 | 4.45 | 5.40 | 4.10 | 5.00 | 4.75 | 4.50 | 4.50 | 4.95 | 4.74 |
| 1924..... | 4.15 | 4.15 | 4.20 | 4.25 | 4.25 | 4.20 | 4.70 | 4.70 | 4.70 | 4.70 | 4.60 | 4.68 |
| 1925..... | 4.20 | 4.15 | 4.15 | 4.10 | 3.60 | 4.04 | 4.00 | 4.00 | 4.00 | 3.75 | 3.60 | 3.87 |
| Average 1921-1925..... | 3.91 | 4.10 | 4.49 | 4.80 | 4.80 | 4.80 | 4.40 | 4.57 | 4.63 | 4.36 | 4.62 | 4.52 |
| | Louisville | | | | | | Toledo | | | | | |
| 1920..... | 8.30 | 9.40 | 9.00 | 8.90 | 9.35 | 8.99 | 10.20 | 10.40 | 9.70 | 9.40 | 9.50 | 9.84 |
| 1921..... | 3.95 | 4.00 | 4.30 | 4.25 | 5.50 | 4.40 | 4.30 | 4.30 | 4.30 | 4.30 | 4.30 | 4.30 |
| 1922..... | 3.55 | 3.75 | 3.75 | 3.75 | 3.95 | 3.75 | 4.25 | 4.25 | 4.25 | 4.25 | 4.25 | 4.25 |
| 1923..... | 4.35 | 4.50 | 3.95 | 4.05 | 4.64 | 4.30 | 4.00 | 4.00 | 4.30 | 4.50 | 5.00 | 4.36 |
| 1924..... | 3.99 | 4.00 | 4.00 | 4.60 | 4.85 | 4.27 | 5.00 | 5.00 | 5.00 | 4.90 | 4.25 | 4.81 |
| 1925..... | 3.99 | 4.00 | 3.90 | 3.80 | 3.65 | 3.85 | 4.00 | 4.00 | 4.00 | 3.90 | 3.50 | 3.82 |
| Average 1921-1925..... | 3.93 | 4.06 | 3.98 | 4.09 | 4.52 | 4.11 | 4.40 | 4.40 | 4.40 | 4.73 | 4.70 | 4.40 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division. These prices are the average wholesale selling prices for high quality seed, as reported to the Hay, Feed, and Seed Division, weekly, by seedsmen in these markets.

COWPEAS

TABLE 316.—*Cowpeas: Estimated price per bushel, received by producers, United States, 1915-1925*

| Year beginning August | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Weighted average |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1915..... | 174.4 | 155.4 | 156.0 | 151.4 | 151.8 | 156.3 | 157.2 | 153.7 | 150.2 | 148.8 | 140.0 | 135.1 | 151.9 |
| 1916..... | 141.3 | 142.4 | 148.1 | 161.6 | 177.0 | 192.2 | 210.0 | 231.8 | 253.4 | 293.1 | 309.1 | 303.2 | 189.7 |
| 1917..... | 265.4 | 217.0 | 219.5 | 227.1 | 237.5 | 262.2 | 292.5 | 301.5 | 292.8 | 283.3 | 257.4 | 248.4 | 230.2 |
| 1918..... | 241.3 | 226.2 | 233.9 | 231.4 | 237.6 | 238.9 | 252.1 | 248.8 | 267.6 | 292.3 | 343.9 | 342.8 | 254.3 |
| 1919..... | 310.3 | 260.4 | 260.9 | 270.7 | 280.6 | 312.9 | 372.4 | 394.0 | 421.4 | 484.4 | 483.7 | 470.8 | 319.4 |
| 1920..... | 422.7 | 368.8 | 273.7 | 243.4 | 229.0 | 197.2 | 204.2 | 204.7 | 215.5 | 242.7 | 265.1 | 287.2 | 273.8 |
| 1921..... | 240.9 | 199.7 | 201.2 | 184.8 | 176.1 | 171.9 | 179.7 | 185.8 | 184.8 | 189.5 | 184.0 | 170.9 | 190.7 |
| 1922..... | 166.5 | 157.4 | 153.6 | 160.7 | 167.4 | 187.0 | 197.6 | 198.2 | 208.0 | 208.5 | 217.2 | 221.3 | 172.8 |
| 1923..... | 208.1 | 187.2 | 195.4 | 194.7 | 200.9 | 211.5 | 221.1 | 231.9 | 246.3 | 253.4 | 282.4 | 285.6 | 213.6 |
| 1924..... | 255.6 | 240.7 | 231.5 | 234.4 | 256.2 | 282.0 | 316.1 | 342.9 | 306.7 | 369.5 | 384.0 | 366.9 | 272.7 |
| 1925..... | 323.7 | 311.6 | 293.3 | 297.5 | 287.2 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Crop and Livestock Estimates.

TABLE 317.—*Cowpea seed: Average wholesale selling price per 100 pounds at leading markets, 1920-1925*

| Year | Baltimore | | | | | | Louisville | | | | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Jan. | Feb. | Mar. | Apr. | May | Av. | Jan. | Feb. | Mar. | Apr. | May | Av. |
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1920..... | 7.20 | 9.00 | 9.00 | 9.00 | 9.60 | 8.78 | 10.40 | 10.75 | 10.00 | 10.00 | 10.40 | 10.31 |
| 1921..... | 4.50 | 4.50 | 4.50 | 5.30 | 6.20 | 5.00 | 4.60 | 4.65 | 5.50 | 5.30 | 6.30 | 5.27 |
| 1922..... | 3.70 | 4.00 | 4.00 | 4.00 | 4.00 | 3.94 | 3.75 | 4.00 | 4.00 | 4.00 | 4.00 | 3.95 |
| 1923..... | 4.25 | 4.25 | 4.25 | 4.25 | 4.25 | 4.25 | 4.85 | 5.00 | 4.55 | 4.50 | 4.90 | 4.76 |
| 1924..... | 5.00 | 5.50 | 5.25 | 5.60 | 5.75 | 5.42 | 5.00 | 5.00 | 5.15 | 5.95 | 6.55 | 5.53 |
| 1925..... | 6.50 | 6.50 | 6.50 | 6.50 | 6.55 | 6.51 | 7.00 | 7.00 | 7.10 | 7.25 | 6.95 | 7.06 |
| Average, 1921-1925..... | 4.79 | 4.95 | 4.90 | 5.13 | 5.35 | 5.02 | 5.04 | 5.13 | 5.26 | 5.40 | 5.74 | 5.31 |
| | Chicago | | | | | | Richmond | | | | | |
| 1920..... | 8.20 | 9.50 | 10.00 | 10.15 | 10.50 | 9.67 | 8.50 | 10.00 | 9.80 | 9.25 | 10.20 | 9.55 |
| 1921..... | 4.65 | 4.75 | 4.50 | 5.65 | 6.00 | 5.11 | 5.05 | 5.15 | 4.80 | 5.30 | 6.45 | 5.35 |
| 1922..... | 3.10 | 3.50 | 3.50 | 4.00 | ----- | ----- | 4.50 | 4.40 | 4.40 | 4.30 | 4.00 | 4.32 |
| 1923..... | ----- | 4.80 | 4.35 | 4.30 | 4.50 | ----- | 4.50 | 4.65 | 4.55 | 4.35 | 4.40 | 4.49 |
| 1924..... | 4.00 | 4.00 | 6.20 | 6.50 | 6.50 | 5.44 | 5.00 | 5.20 | 5.20 | 5.30 | 6.00 | 5.34 |
| 1925..... | ----- | ----- | ----- | ----- | ----- | ----- | 7.20 | 7.60 | 7.50 | 7.50 | 7.75 | 7.51 |
| Average, 1921-1925..... | ----- | ----- | ----- | ----- | ----- | ----- | 5.25 | 5.40 | 5.29 | 5.35 | 5.72 | 5.40 |
| | Kansas City | | | | | | St. Louis | | | | | |
| 1920..... | 11.05 | 12.15 | 11.65 | 10.75 | 10.90 | 11.30 | 10.50 | 12.75 | 11.25 | 10.65 | 11.00 | 11.23 |
| 1921..... | 4.50 | 5.00 | 4.00 | 4.90 | 5.75 | ----- | 4.00 | 4.20 | 4.45 | 5.05 | 6.50 | 4.84 |
| 1922..... | 3.75 | 3.75 | 4.00 | 4.20 | 4.45 | 4.03 | 3.20 | 3.15 | 3.65 | 3.75 | 3.75 | 3.50 |
| 1923..... | 4.15 | 4.50 | 4.50 | 4.90 | 5.00 | 4.61 | 5.00 | 4.95 | 4.75 | 4.75 | 4.95 | 4.88 |
| 1924..... | 5.00 | 5.00 | 5.10 | 6.10 | 6.85 | 5.61 | 4.60 | 4.95 | 5.00 | 5.05 | 5.90 | 5.10 |
| 1925..... | 7.60 | 7.60 | 7.70 | 7.90 | 7.90 | 7.74 | 6.50 | 6.70 | 6.80 | 6.80 | 6.80 | 6.72 |
| Average, 1921-1925..... | ----- | 5.07 | 5.26 | 5.60 | 5.99 | ----- | 4.66 | 4.79 | 4.93 | 5.06 | 5.58 | 5.01 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division. These prices are the average wholesale selling prices for high quality seed, as reported to the Hay, Feed, and Seed Division weekly by seedsmen in these markets.

BROOMCORN

TABLE 318.—*Broomcorn: Acreage, production, and total farm value, United States, 1915-1925*

| Year | Acreage | Average yield per acre | Production | Price per ton received by producers Nov. 15 | Farm value |
|-------------------------|--------------|------------------------|-------------------|---|----------------------|
| | <i>Acres</i> | <i>Pounds</i> | <i>Short tons</i> | <i>Dollars</i> | <i>1,000 dollars</i> |
| 1915..... | 230,100 | 454.1 | 52,242 | 91.67 | 4,789 |
| 1916..... | 235,200 | 329.3 | 38,725 | 172.75 | 6,680 |
| 1917..... | 345,000 | 332.8 | 57,400 | 292.75 | 16,804 |
| 1918..... | 366,000 | 340.4 | 62,300 | 233.87 | 14,570 |
| 1919..... | 352,000 | 303.4 | 53,400 | 154.57 | 8,254 |
| 1920..... | 275,500 | 265.0 | 36,500 | 126.16 | 4,605 |
| 1921..... | 222,000 | 344.2 | 38,200 | 72.20 | 2,768 |
| 1922..... | 275,000 | 271.3 | 37,300 | 219.46 | 8,186 |
| 1923..... | 536,000 | 302.8 | 81,153 | 160.06 | 12,989 |
| 1924..... | 451,000 | 346.8 | 78,200 | 95.63 | 7,478 |
| 1925 ¹ | 200,000 | 289.0 | 28,900 | 140.17 | 4,061 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 319.—*Broomcorn: Acreage, production, and total farm value, by States, 1924 and 1925*

| State | Acreage | | Average yield per acre | | Production | | Price per ton received by producers Nov. 15 | | Farm value | |
|-----------------|--------------|-------------------|------------------------|---------------|-------------|-------------------|---|----------------|----------------------|----------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| | <i>Acres</i> | <i>Acres</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Tons</i> | <i>Tons</i> | <i>Dollars</i> | <i>Dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Illinois..... | 49 | 31 | 450 | 570 | 11,000 | 8,800 | 150 | 175 | 1,650 | 1,540 |
| Missouri..... | 4 | 4 | 300 | 322 | 600 | 600 | 160 | 200 | 96 | 120 |
| Kansas..... | 45 | 22 | 295 | 286 | 6,600 | 3,100 | 95 | 120 | 627 | 372 |
| Tennessee..... | 2 | 2 | 350 | 360 | 400 | 400 | 100 | 125 | 40 | 50 |
| Oklahoma..... | 246 | 94 | 369 | 200 | 45,400 | 9,400 | 85 | 136 | 3,859 | 1,278 |
| Texas..... | 23 | 11 | 418 | 318 | 4,800 | 1,700 | 100 | 140 | 480 | 238 |
| Colorado..... | 34 | 12 | 170 | 200 | 2,900 | 1,200 | 60 | 100 | 174 | 120 |
| New Mexico..... | 48 | 24 | 270 | 308 | 6,500 | 3,700 | 85 | 90 | 552 | 353 |
| United States.. | 451 | 200 | 346.8 | 289.0 | 78,200 | 28,900 | 95.63 | 140.17 | 7,478 | 4,051 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 320.—*Broomcorn: Estimated price per ton received by producers, United States, 1910-1925*

| Year. | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 190 | 197 | 200 | 204 | 199 | 151 | 180 | 142 | 139 | 108 | 96 | 93 |
| 1911..... | 81 | 80 | 78 | 74 | 81 | 69 | 68 | 72 | 92 | 121 | 124 | 108 |
| 1912..... | 100 | 86 | 99 | 101 | 83 | 79 | 85 | 83 | 77 | 70 | 69 | 57 |
| 1913..... | 49 | 56 | 57 | 58 | 53 | 61 | 57 | 91 | 106 | 102 | 100 | 92 |
| Av. 1910-1913.. | 105 | 105 | 108 | 109 | 104 | 90 | 98 | 97 | 104 | 100 | 97 | 88 |
| 1914..... | 94 | 95 | 91 | 89 | 85 | 88 | 88 | 91 | 77 | 67 | 66 | 58 |
| 1915..... | 66 | 78 | 68 | 71 | 76 | 77 | 79 | 83 | 75 | 86 | 92 | 101 |
| 1916..... | 104 | 104 | 104 | 96 | 101 | 102 | 103 | 120 | 129 | 168 | 173 | 172 |
| 1917..... | 184 | 201 | 212 | 227 | 252 | 223 | 194 | 308 | 240 | 270 | 296 | 250 |
| 1918..... | 249 | 254 | 242 | 222 | 206 | 222 | 235 | 232 | 300 | 265 | 265 | 172 |
| 1919..... | 169 | 141 | 174 | 149 | 152 | 106 | 119 | 124 | 154 | 162 | 161 | 163 |
| 1920..... | 163 | 123 | 130 | 145 | 145 | 145 | 113 | 142 | 125 | 126 | 123 | 68 |
| Av. 1914-1920.. | 147 | 142 | 146 | 143 | 145 | 138 | 133 | 157 | 157 | 163 | 159 | 148 |
| 1921..... | 70 | 71 | 72 | 69 | 66 | 76 | 75 | 67 | 68 | 72 | 68 | 66 |
| 1922..... | 71 | 88 | 80 | 78 | 82 | 87 | 84 | 122 | 175 | 193 | 217 | 238 |
| 1923..... | 229 | 256 | 242 | 254 | 223 | 233 | 214 | 195 | 169 | 197 | 161 | 172 |
| 1924..... | 131 | 114 | 110 | 106 | 107 | 107 | ----- | 171 | 156 | 139 | 94 | 94 |
| 1925..... | 92 | 83 | 82 | 96 | 80 | 79 | 99 | 134 | 139 | 150 | 157 | 126 |

Division of Crop and Livestock Estimates.

COTTON

TABLE 321.—Cotton: Acreage, production, value, exports, etc., United States, 1909–1925

| Year | Acre- age picked | Aver- age yield per acre | Pro- duc- tion | Price per pound received by pro- ducers Dec. 1 | Farm value, Dec. 1 | Value per acre. ¹ | New York closing prices per pound on middling up- land. | | | | Domestic ex- ports, fiscal year be- ginning July 1 ² | Im- ports, fiscal year be- ginning July 1 ³ |
|-------------------------|------------------------|--------------------------------------|----------------------|---|--------------------------|------------------------------------|--|-------|--------------------|-------|---|---|
| | | | | | | | Decem- ber | | Follow- ing May | | | |
| | | | | | | | Low | High | Low | High | | |
| | 1,000 acres | Lbs. | 1,000 bales | Cents | 1,000 dollars | Dol- lars | Cts. | Cts. | Cts. | Cts. | Bales ⁴ | Bales ⁵ |
| 1909..... | 30,928 | 154.3 | 10,006 | 13.9 | 897,681 | 22.55 | 14.65 | 16.15 | 14.50 | 16.05 | 6,413,416 | 172,075 |
| 1910..... | 32,403 | 170.7 | 11,606 | 14.1 | 820,407 | 25.32 | 14.80 | 15.25 | 15.35 | 16.15 | 8,007,882 | 227,537 |
| 1911..... | 36,045 | 207.7 | 15,595 | 8.8 | 687,888 | 19.08 | 9.20 | 9.65 | 11.30 | 11.90 | 11,070,251 | 219,560 |
| 1912..... | 34,283 | 190.9 | 13,705 | 11.9 | 617,056 | 23.82 | 12.75 | 13.20 | 11.80 | 12.10 | 9,124,594 | 243,704 |
| 1913..... | 37,089 | 182.0 | 14,156 | 12.2 | 862,708 | 23.26 | 12.50 | 12.50 | 12.90 | 14.50 | 9,521,881 | 246,694 |
| A v. 1909-1913 | 34,152 | 182.5 | 13,053 | 12.5 | 777,148 | 22.76 | 12.78 | 13.55 | 13.17 | 14.14 | 8,539,004 | 221,914 |
| 1914..... | 36,832 | 209.2 | 16,135 | 6.6 | 540,036 | 14.91 | 7.25 | 7.80 | 9.50 | 10.40 | 8,807,157 | 370,409 |
| 1915..... | 31,412 | 170.3 | 11,198 | 11.3 | 601,459 | 20.10 | 11.95 | 12.75 | 12.30 | 13.35 | 6,168,140 | 465,602 |
| 1916..... | 34,985 | 156.6 | 11,150 | 19.6 | 1,122,295 | 32.08 | 16.20 | 20.30 | 19.60 | 22.10 | 6,176,162 | 294,123 |
| 1917..... | 34,841 | 159.7 | 11,908 | 27.7 | 1,666,198 | 46.26 | 29.85 | 31.85 | 25.70 | 30.10 | 4,641,028 | 206,651 |
| 1918..... | 36,006 | 159.6 | 12,041 | 27.0 | 1,663,633 | 46.20 | 27.50 | 33.00 | 25.90 | 34.00 | 5,525,894 | 207,181 |
| 1919..... | 33,566 | 161.5 | 11,421 | 35.6 | 2,034,658 | 60.62 | 38.00 | 46.25 | 40.00 | 43.00 | 7,087,487 | 690,628 |
| 1920..... | 35,878 | 178.4 | 13,440 | 13.9 | 933,658 | 26.02 | 14.50 | 16.70 | 12.45 | 13.15 | 6,622,777 | 251,878 |
| A v. 1914-1920 | 34,646 | 171.6 | 12,486 | 20.4 | 1,214,420 | 35.05 | 20.76 | 23.24 | 20.78 | 23.73 | 6,289,806 | 355,211 |
| 1921..... | 30,509 | 124.5 | 7,954 | 16.2 | 643,933 | 21.11 | 17.50 | 19.45 | 18.95 | 21.80 | 6,717,757 | 358,330 |
| 1922..... | 33,036 | 141.3 | 9,762 | 23.8 | 1,160,968 | 35.14 | 24.55 | 26.80 | 25.30 | 28.90 | 6,253,464 | 472,185 |
| 1923..... | 37,123 | 130.6 | 10,140 | 31.0 | 1,571,823 | 42.34 | 34.35 | 37.65 | 30.05 | 32.85 | 6,898,713 | 292,047 |
| 1924..... | 41,360 | 157.6 | 13,668 | 22.6 | 1,540,884 | 37.26 | 23.15 | 24.90 | 22.20 | 24.40 | 8,439,071 | 310,185 |
| 1925 ⁶ | 46,053 | 167.2 | 16,106 | 18.2 | 1,464,187 | 31.79 | 19.15 | 21.10 | | | | |

Division of Crop and Livestock Estimates; figures in italics are census returns; acreage revised on census basis.

¹ Based on farm price Dec. 1.

² Compiled from Commerce and Navigation of United States, 1909-1918, and the June issue of Monthly Summaries of Foreign Commerce, 1919-1925.

³ Bales of 506 pounds gross weight.

⁴ Preliminary.

TABLE 322.—Cotton: Acreage harvested, by States, 1916-1925

(Thousand acres—i. e., 000 omitted)

| State | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Missouri..... | 133 | 163 | 143 | 125 | 136 | 103 | 198 | 355 | 493 | 520 |
| Virginia..... | 42 | 50 | 44 | 42 | 42 | 34 | 55 | 74 | 102 | 100 |
| North Carolina..... | 1,451 | 1,515 | 1,600 | 1,490 | 1,587 | 1,403 | 1,625 | 1,679 | 2,005 | 2,017 |
| South Carolina..... | 2,780 | 2,837 | 3,001 | 2,835 | 2,964 | 2,671 | 1,912 | 1,965 | 2,404 | 2,654 |
| Georgia..... | 5,277 | 5,195 | 5,341 | 5,220 | 4,900 | 4,172 | 3,418 | 3,421 | 3,046 | 3,569 |
| Florida..... | 191 | 183 | 167 | 103 | 100 | 55 | 118 | 147 | 80 | 101 |
| Tennessee..... | 887 | 882 | 902 | 758 | 840 | 634 | 965 | 1,172 | 996 | 1,173 |
| Alabama..... | 3,225 | 1,977 | 2,570 | 2,791 | 2,858 | 2,285 | 2,771 | 3,079 | 3,065 | 3,504 |
| Mississippi..... | 3,119 | 2,788 | 3,133 | 2,848 | 2,950 | 2,628 | 3,014 | 3,170 | 2,981 | 3,466 |
| Arkansas..... | 2,600 | 2,740 | 2,911 | 2,725 | 2,980 | 2,382 | 2,799 | 3,026 | 3,094 | 3,738 |
| Louisiana..... | 1,250 | 1,454 | 1,683 | 1,527 | 1,470 | 1,168 | 1,140 | 1,405 | 1,616 | 1,874 |
| Oklahoma..... | 2,362 | 2,783 | 2,998 | 2,424 | 2,749 | 2,206 | 2,915 | 3,197 | 3,861 | 5,214 |
| Texas..... | 11,400 | 11,092 | 11,233 | 10,476 | 11,838 | 10,745 | 11,874 | 14,180 | 17,175 | 17,608 |
| New Mexico..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 101 | 107 |
| Arizona..... | ..... | 41 | 95 | 107 | 230 | 90 | 101 | 127 | 180 | 102 |
| California..... | 52 | 126 | 85 | 85 | 160 | 55 | 67 | 83 | 130 | 160 |
| All other..... | 25 | 15 | 12 | 10 | 24 | 18 | 44 | 13 | 41 | 67 |
| United States..... | 34,965 | 33,841 | 36,008 | 33,566 | 35,878 | 30,509 | 33,036 | 37,123 | 41,360 | 46,053 |
| Lower Calif. (old Mex.)..... | ..... | ..... | 88 | 100 | 125 | 85 | 125 | 150 | 137 | 150 |

Division of Crop and Livestock Estimates.

TABLE 823.—Cotton: Yield per acre, by States, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Average 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Average 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Average 1921- 1925 |
|---------------------|-------|-------|-------|-------|-------|--------------------------|-------|-------|-------|-------|-------|-------|-------|--------------------------|-------|-------|-------|-------|-------|--------------------------|
| | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. |
| Missouri..... | 271 | 285 | 330 | 260 | 268 | 262 | 270 | 240 | 225 | 190 | 200 | 257 | 275 | 257 | 325 | 360 | 171 | 187 | 255 | 260 |
| Virginia..... | 190 | 212 | 330 | 250 | 244 | 244 | 265 | 225 | 310 | 180 | 270 | 355 | 230 | 237 | 220 | 230 | 325 | 181 | 255 | 243 |
| North Carolina..... | 210 | 227 | 315 | 267 | 239 | 232 | 290 | 260 | 215 | 194 | 268 | 364 | 276 | 263 | 264 | 260 | 240 | 196 | 255 | 251 |
| South Carolina..... | 210 | 216 | 240 | 209 | 235 | 220 | 255 | 213 | 100 | 208 | 230 | 240 | 200 | 200 | 140 | 123 | 187 | 160 | 152 | 152 |
| Georgia..... | 184 | 173 | 240 | 169 | 206 | 183 | 229 | 189 | 165 | 173 | 140 | 162 | 138 | 178 | 90 | 100 | 82 | 137 | 153 | 116 |
| Florida..... | 110 | 110 | 130 | 113 | 150 | 123 | 175 | 120 | 105 | 100 | 85 | 74 | 56 | 106 | 80 | 102 | 40 | 130 | 180 | 106 |
| Tennessee..... | 155 | 207 | 257 | 169 | 219 | 200 | 200 | 188 | 206 | 130 | 175 | 103 | 165 | 183 | 228 | 190 | 92 | 170 | 198 | 176 |
| Alabama..... | 142 | 160 | 204 | 172 | 190 | 174 | 209 | 146 | 79 | 125 | 149 | 122 | 111 | 124 | 194 | 142 | 61 | 154 | 180 | 138 |
| Mississippi..... | 157 | 182 | 173 | 173 | 204 | 178 | 195 | 167 | 125 | 155 | 187 | 160 | 145 | 162 | 148 | 157 | 91 | 176 | 268 | 187 |
| Arkansas..... | 153 | 175 | 190 | 160 | 205 | 183 | 196 | 180 | 200 | 170 | 138 | 155 | 195 | 180 | 160 | 173 | 98 | 169 | 198 | 159 |
| Louisiana..... | 130 | 120 | 170 | 183 | 170 | 157 | 165 | 165 | 170 | 210 | 167 | 93 | 196 | 157 | 114 | 144 | 125 | 146 | 238 | 152 |
| Oklahoma..... | 147 | 200 | 160 | 183 | 133 | 164 | 212 | 162 | 134 | 165 | 92 | 195 | 230 | 173 | 104 | 103 | 98 | 137 | 143 | 127 |
| Texas..... | 125 | 145 | 186 | 206 | 156 | 163 | 184 | 147 | 137 | 135 | 115 | 140 | 174 | 150 | 98 | 130 | 147 | 133 | 113 | 125 |
| New Mexico..... | | | | | | | | | | | | | | | | | 280 | 270 | 289 | |
| Arizona..... | | | | | | | | | | 285 | 280 | 270 | 224 | | 242 | 222 | 202 | 285 | 286 | 265 |
| California..... | | | | | | | 500 | 380 | 400 | 242 | 270 | 268 | 266 | 332 | 238 | 188 | 285 | 283 | 331 | 273 |
| United States..... | 154.3 | 170.7 | 207.7 | 190.9 | 183.0 | 181.1 | 208.2 | 170.3 | 156.6 | 159.7 | 159.6 | 161.5 | 178.4 | 170.8 | 124.5 | 141.3 | 130.6 | 157.6 | 162.5 | 143.3 |

Division of Crop and Livestock Estimates.

TABLE 324.—*Cotton: Production of lint (excluding linters) in 500-pound gross-weight bales, by States, year beginning August 1, 1916-1925*

[Thousand bales—i. e., 000 omitted]

| State | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---------------------|--------|--------|--------|--------|--------|-------|--------------------|------------------|--------------------|-------------------|
| Missouri..... | 63 | 61 | 62 | 64 | 79 | 70 | ² 149 | ² 127 | ² 193 | 260 |
| Virginia..... | 27 | 19 | 25 | 23 | 21 | 18 | 27 | 51 | 39 | 50 |
| North Carolina..... | 655 | 618 | 898 | 830 | 925 | 776 | 852 | 1,020 | 825 | 1,090 |
| South Carolina..... | 932 | 1,237 | 1,570 | 1,426 | 1,623 | 755 | 492 | 770 | 807 | 875 |
| Georgia..... | 1,821 | 1,884 | 2,122 | 1,660 | 1,415 | 787 | 715 | 588 | ² 1,002 | 1,150 |
| Florida..... | 41 | 38 | 29 | 16 | 18 | 11 | 25 | 12 | ² 22 | 40 |
| Tennessee..... | 382 | 241 | 330 | 310 | 325 | 302 | 391 | ² 226 | ² 354 | 490 |
| Alabama..... | 533 | 518 | 801 | 713 | 603 | 580 | 823 | 587 | ² 985 | 1,335 |
| Mississippi..... | 812 | 906 | 1,226 | 961 | 895 | 813 | 989 | 604 | 1,069 | 1,930 |
| Arkansas..... | 1,134 | 974 | 987 | 884 | 1,214 | 797 | ² 1,012 | ² 622 | ² 1,094 | 1,530 |
| Louisiana..... | 443 | 639 | 588 | 298 | 388 | 279 | 343 | 368 | 493 | 900 |
| Oklahoma..... | 824 | 959 | 577 | 1,016 | 1,336 | 481 | 627 | 656 | 1,511 | 1,550 |
| Texas..... | 3,726 | 3,125 | 2,697 | 3,009 | 4,345 | 2,198 | 3,222 | 4,340 | ² 4,949 | 4,100 |
| New Mexico..... | — | — | — | — | — | 6 | 12 | 30 | 57 | 61 |
| Arizona..... | — | 22 | 56 | 60 | 103 | 45 | 47 | 78 | 108 | 94 |
| California..... | 44 | 58 | 67 | 56 | 75 | 34 | 28 | 54 | 77 | 126 |
| All other..... | 14 | 6 | 6 | 5 | 13 | 3 | 7 | ² 6 | ² 14 | 22 |
| United States..... | 11,450 | 11,302 | 12,041 | 11,421 | 13,440 | 7,954 | 9,762 | 10,140 | 13,628 | 15,603 |

Division of Crop and Livestock Estimates. Compiled from reports of the Bureau of the Census.

¹ Preliminary estimate of the Department of Agriculture.² Slight differences from census figures on ginnings due to ginnings in one State of cotton grown in another.TABLE 325.—*Cotton (linters): Production, United States, 1909-1924*

| Year beginning August | Production, in 500-lb. gross-weight bales | Year beginning August | Production, in 500-lb. gross-weight bales |
|------------------------|---|------------------------|---|
| 1909..... | 310,433 | 1917..... | 1,125,719 |
| 1910..... | 397,072 | 1918..... | 929,516 |
| 1911..... | 557,575 | 1919..... | 607,969 |
| 1912..... | 609,504 | 1920..... | 440,313 |
| 1913..... | 638,881 | Average 1914-1920..... | 888,896 |
| Average 1909-1913..... | 502,711 | 1921..... | 397,752 |
| 1914..... | 856,900 | 1922..... | 607,779 |
| 1915..... | 931,141 | 1923..... | 668,600 |
| 1916..... | 1,330,714 | 1924..... | 897,375 |

[Division of Crop and Livestock Estimates. Compiled from reports of the Bureau of the Census,

TABLE 326.—Cotton ginned to specified dates and throughout the season, United States, 1909-1925

| Season beginning August | Cotton ginned to— | | | | | | | | | | | | Total ginned ¹ |
|----------------------------|-------------------|---------|-----------|----------|-----------|------------|------------|------------|------------|------------|------------|------------|------------------------------|
| | Aug. 1 | Aug. 16 | Sept. 1 | Sept. 25 | Oct. 1 | Oct. 13 | Nov. 1 | Nov. 14 | Dec. 1 | Dec. 13 | Jan. 1 | Jan. 16 | |
| | Bales | Bales | Bales | Bales | Bales | Bales | Bales | Bales | Bales | Bales | Bales | Bales | Bales |
| 1909..... | 388,242 | | 2,568,150 | | 5,530,967 | 7,017,849 | 8,112,199 | 8,876,886 | 9,338,085 | 9,947,327 | 9,787,592 | 10,072,731 | |
| 1910..... | 353,011 | | 2,312,074 | | 5,428,028 | 7,345,953 | 8,780,453 | 10,139,712 | 10,695,443 | 11,064,516 | 11,283,147 | 11,568,384 | |
| 1911..... | 771,297 | | 3,676,394 | | 7,758,621 | 9,970,905 | 11,313,256 | 12,816,907 | 13,770,727 | 14,317,002 | 14,518,760 | 15,583,079 | |
| 1912..... | 730,884 | | 3,007,271 | | 6,874,206 | 8,869,222 | 10,299,646 | 11,854,541 | 12,439,036 | 12,907,405 | 13,068,590 | 13,468,533 | |
| 1913..... | 799,099 | | 3,246,655 | | 6,973,518 | 8,830,396 | 10,444,529 | 12,068,412 | 12,927,426 | 13,341,721 | 13,582,056 | 14,963,811 | |
| Average 1909-1913..... | 698,507 | | 2,962,149 | | 6,512,188 | 8,406,885 | 9,790,529 | 11,155,272 | 11,838,144 | 12,260,794 | 12,445,501 | 12,933,086 | |
| 1914..... | 480,317 | | 2,393,752 | | 7,613,747 | 9,826,912 | 11,668,240 | 13,073,396 | 13,972,229 | 14,443,146 | 14,915,850 | 15,905,640 | |
| 1915..... | 463,883 | | 2,803,820 | | 5,708,730 | 7,378,886 | 8,771,275 | 9,703,612 | 10,306,369 | 10,636,778 | 10,731,960 | 11,068,173 | |
| 1916..... | 850,668 | | 4,081,989 | | 7,303,183 | 8,623,893 | 9,615,003 | 10,352,031 | 10,838,769 | 11,039,491 | 11,137,712 | 11,363,175 | |
| 1917..... | 614,757 | | 2,511,658 | | 5,575,606 | 7,185,178 | 8,571,115 | 9,713,529 | 10,131,594 | 10,434,852 | 10,570,733 | 11,248,242 | |
| 1918..... | 1,038,078 | | 3,770,011 | | 6,811,351 | 7,777,159 | 8,706,420 | 9,571,414 | 10,281,139 | 10,775,853 | 11,048,652 | 11,906,480 | |
| 1919..... | 142,625 | | 1,835,214 | | 4,929,104 | 6,305,054 | 7,604,320 | 8,844,368 | 9,396,646 | 10,008,920 | 10,307,120 | 11,906,480 | |
| 1920..... | 351,589 | | 2,249,606 | | 5,754,882 | 7,508,633 | 8,914,642 | 10,141,263 | 10,876,263 | 11,554,648 | 12,014,742 | 13,270,970 | |
| Average 1914-1920..... | 563,135 | | 2,965,808 | | 6,242,000 | 7,800,816 | 9,121,574 | 10,199,948 | 10,828,997 | 11,270,243 | 11,535,257 | 12,298,450 | |
| 1921..... | 485,787 | | 2,920,392 | | 5,497,394 | 6,646,354 | 7,274,201 | 7,639,981 | 7,790,656 | 7,892,350 | 7,912,452 | 7,977,776 | |
| 1922..... | 565,346 | | 3,270,546 | | 6,575,321 | 8,139,215 | 8,969,978 | 9,319,601 | 9,488,852 | 9,597,330 | 9,648,261 | 9,739,366 | |
| 1923..... | 1,142,680 | | 3,231,545 | | 6,409,391 | 7,559,042 | 8,399,488 | 9,243,390 | 9,549,015 | 9,804,992 | 9,944,032 | 10,170,399 | |
| 1924..... | 947,494 | | 2,665,793 | | 7,615,981 | 9,715,643 | 11,162,235 | 12,237,659 | 12,792,294 | 13,006,813 | 13,306,813 | 13,639,399 | |
| 1925..... | 1,587,005 | | 4,292,459 | | 9,321,788 | 11,208,872 | 12,263,968 | 13,873,384 | 14,826,452 | ..... | ..... | ..... |  |
| | 161,573 | 570,065 | | | 7,147,699 | 9,321,788 | 11,208,872 | 12,263,968 | 13,873,384 | 14,826,452 | ..... | ..... |  |

Division of Crop and Livestock Estimates. Compiled from reports of Bureau of the Census; quantities are given in running bales, except that round bales are counted as half bales. Liners not included.

¹ Includes cotton ginned after Jan. 16 and estimated quantities not ginned on Mar. 1. Quantities in Table 321 converted from running bales, average weight, by deducting average weight of bagging and ties, by States.

² Preliminary.
³ Sept. 16.

TABLE 327.—Cotton: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1909-1924

| Year | Adverse weather conditions | | | | | | | | | Plant diseases | Insect pests | Animal pests | Defective seed | Other and unknown causes | Total |
|--------|----------------------------|--------------------|------------------|-----------------|--------|-----------|--------|------------------|----------------|----------------|--------------|------------------|----------------|--------------------------|--------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | |
| | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. |
| 1909.. | 14.9 | 6.0 | 1.1 | 1.0 | 0.6 | 3.0 | 1.4 | 0.6 | 28.6 | 4.2 | 7.9 | (¹) | 0.1 | 1.2 | 42.0 |
| 1910.. | 12.2 | 5.1 | .9 | 2.1 | .3 | 1.6 | .1 | .3 | 22.6 | 4.3 | 7.5 | (¹) | .3 | .9 | 35.6 |
| 1911.. | 9.8 | 2.6 | (¹) | .3 | .1 | 1.6 | .3 | .7 | 15.4 | .5 | 7.9 | (¹) | .2 | 2.1 | 26.1 |
| 1912.. | 8.1 | 7.6 | 1.2 | 1.0 | .6 | 1.2 | .2 | .8 | 20.7 | 4.3 | 6.5 | .1 | .3 | .8 | 32.7 |
| 1913.. | 15.2 | 2.0 | .8 | 1.1 | .4 | 2.4 | .5 | .7 | 23.1 | .8 | 8.0 | (¹) | .4 | .8 | 33.7 |
| 1914.. | 7.9 | 2.9 | .5 | .9 | .4 | .6 | .1 | .5 | 13.8 | .2 | 9.8 | (¹) | .2 | 1.4 | 25.4 |
| 1915.. | 6.8 | 5.7 | 1.9 | .6 | .7 | 1.1 | 2.0 | .6 | 19.4 | 1.9 | 12.2 | (¹) | .1 | 3.2 | 36.8 |
| 1916.. | 9.2 | 9.1 | 3.1 | .4 | .7 | .6 | 2.0 | .1 | 25.2 | .9 | 15.8 | (¹) | .1 | .4 | 42.4 |
| 1917.. | 15.1 | 1.7 | .5 | 6.0 | 1.0 | .7 | .2 | .3 | 25.5 | 1.3 | 12.3 | (¹) | .1 | .7 | 39.9 |
| 1918.. | 23.8 | .9 | .3 | .6 | 1.1 | 2.8 | .3 | .4 | 29.2 | 2.0 | 8.0 | (¹) | .1 | 1.0 | 40.3 |
| 1919.. | 2.7 | 15.3 | 1.6 | .3 | .2 | .4 | .5 | .2 | 21.2 | 1.3 | 18.8 | (¹) | .2 | .4 | 41.9 |
| 1920.. | 2.2 | 8.8 | .8 | .8 | .2 | .1 | .2 | | 13.1 | 1.1 | 24.0 | .2 | .2 | .4 | 39.0 |
| 1921.. | 8.6 | 4.3 | .7 | .4 | .2 | .6 | 1.2 | (¹) | 16.0 | 1.0 | 35.4 | | .1 | .4 | 52.9 |
| 1922.. | 10.2 | 4.9 | .8 | .1 | .3 | 1.0 | .1 | .1 | 17.5 | .8 | 26.7 | (¹) | .1 | .1 | 45.2 |
| 1923.. | 7.2 | 8.0 | .9 | .3 | .6 | .9 | .1 | | 18.0 | .7 | 26.6 | | .1 | .1 | 45.6 |
| 1924.. | 14.0 | 4.9 | .4 | .8 | .2 | .8 | .2 | (¹) | 21.3 | .8 | 12.0 | .1 | .3 | .2 | 34.7 |

Division of Crop and Livestock Estimates.

¹ Less than 0.05 per cent.

TABLE 328.—Cotton: Acreage and yield per acre in specified countries, average 1909-10 to 1913-14, annual 1922-23 to 1925-26

| Country | Acreage | | | | | Yield of lint per acre | | | | |
|--|----------------------------|-------------|-------------|-------------|-------------|----------------------------|---------|---------|---------|---------|
| | Average 1909-10 to 1913-14 | 1922-23 | 1923-24 | 1924-25 | 1925-26 | Average 1909-10 to 1913-14 | 1922-23 | 1923-24 | 1924-25 | 1925-26 |
| | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Pounds | Pounds | Pounds | Pounds | Pounds |
| United States..... | 34,162 | 33,036 | 37,123 | 41,360 | 45,945 | 182 | 141 | 131 | 137 | 163 |
| India..... | 22,503 | 21,792 | 26,626 | 26,461 | 27,835 | 76 | 93 | 88 | 92 | 87 |
| Egypt..... | 1,743 | 1,869 | 1,780 | 1,856 | 1,998 | 398 | 356 | 363 | 379 | 390 |
| China..... | | 5,061 | 4,487 | 4,848 | | | 218 | 212 | 215 | |
| Brazil..... | ¹ 887 | 1,512 | 1,966 | 1,573 | | | 175 | 140 | 184 | |
| Russia (Asiatic)..... | 1,400 | 140 | 397 | 1,228 | 1,647 | 306 | 188 | 228 | 176 | 218 |
| Mexico..... | ¹ 245 | 242 | 279 | 520 | 302 | | 351 | 300 | 274 | 340 |
| Chosen (Korea)..... | ¹ 146 | 370 | 390 | 422 | 475 | 57 | 133 | 136 | 137 | 138 |
| Uganda..... | 58 | 334 | 573 | 584 | | 169 | 111 | 79 | 120 | |
| Peru..... | ¹ 163 | 291 | 286 | 352 | | | 329 | 340 | 280 | |
| Anglo-Egyptian Sudan..... | 44 | 62 | 101 | | | 136 | 182 | 192 | | |
| Argentina..... | 6 | 57 | 155 | 258 | | 243 | 227 | 212 | 125 | |
| Total countries reporting 1909-24..... | 61,393 | 59,643 | 66,575 | 74,614 | | | | | | |
| Estimated world total excluding China..... | 62,500 | 61,100 | 67,700 | 76,000 | | | | | | |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Data for crop year as given at the head of the tables are for crops harvested between about August 1 and July 31 of the following year. This applies to both Northern and Southern Hemispheres. For the United States prior to 1914 the figures apply to the harvest year beginning September 1.

¹ Third estimate. In the past 12 years the third estimate has averaged 95 per cent of the final estimate.² Average for three years.³ Average for four years.⁴ Average for 1914-15 to 1918-19.

TABLE 329.—Cotton: Percentage reduction from full yield per acre, due to boll weevil, as reported by crop reporters, 1910-1924

| State | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 |
|----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> |
| North Carolina..... | ..... | ..... | ..... | ..... | ..... | 0.02 | 0.02 | 0.01 | 0.07 | 3.00 | 13.26 | 31.48 | 40.48 | 26.95 | 15.93 |
| South Carolina..... | ..... | ..... | ..... | ..... | ..... | .28 | 3.44 | 9.06 | 10.73 | 19.36 | 30.56 | 45.12 | 44.28 | 36.62 | 16.11 |
| Georgia..... | ..... | ..... | 0.10 | ..... | ..... | 13.14 | 20.98 | 27.07 | 23.85 | 40.46 | 32.10 | 27.62 | 32.50 | 32.53 | 27.73 |
| Florida..... | ..... | ..... | 0.30 | 11.80 | ..... | .04 | 1.23 | 1.74 | .37 | .17 | .57 | 7.21 | 8.84 | 20.75 | 2.38 |
| Tennessee..... | ..... | ..... | .10 | 0.08 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Alabama..... | 0.05 | 0.20 | 1.50 | 4.80 | 6.02 | 16.16 | 27.91 | 28.88 | 12.14 | 28.77 | 36.03 | 32.39 | 25.51 | 32.52 | 11.77 |
| Mississippi..... | 14.66 | 5.10 | 18.00 | 33.90 | 24.14 | 24.68 | 31.73 | 22.22 | 10.41 | 19.56 | 32.25 | 30.38 | 27.65 | 30.82 | 7.38 |
| Arkansas..... | 7.23 | 2.00 | 2.40 | 2.80 | 2.93 | 4.60 | 7.49 | 8.96 | 3.14 | 4.79 | 9.41 | 21.84 | 18.15 | 15.87 | 3.70 |
| Louisiana..... | 40.30 | 11.40 | 13.70 | 25.10 | 17.66 | 19.85 | 24.31 | 11.89 | 9.79 | 24.84 | 25.99 | 34.80 | 24.61 | 23.26 | 4.69 |
| Oklahoma..... | 1.27 | .20 | .50 | .40 | .79 | 2.70 | 3.70 | 4.35 | 1.30 | 1.48 | 8.81 | 41.36 | 25.69 | 19.33 | 3.93 |
| Texas..... | 6.52 | .90 | 2.80 | 6.80 | 7.86 | 16.28 | 18.53 | 7.26 | 4.43 | 13.94 | 19.90 | 33.60 | 16.25 | 9.96 | 7.63 |
| U. S. average ¹ | 5.30 | 1.28 | 3.26 | 6.69 | 5.91 | 9.93 | 13.36 | 9.34 | 5.83 | 13.20 | 19.95 | 30.98 | 24.17 | 19.50 | 8.01 |

Division of Crop and Livestock Estimates.

¹ Average is weighted and includes cotton States in which there was no damage by boll weevil.

TABLE 330.—Cotton: Production in specified countries, average 1909-10 to 1913-14, annual 1919-20 to 1925-26

[Bales of 478 pounds net]

| Country | Year beginning about Aug. 1 | | | | | | |
|---|-----------------------------|------------|------------|-----------|-----------|------------|------------|
| | Average 1909-10 to 1913-14 | 1919-20 | 1920-21 | 1921-22 | 1922-23 | 1923-24 | 1924-25 |
| NORTHERN HEMI-SPHERE | | | | | | | |
| NORTH AMERICA | | | | | | | |
| United States ¹ | 13,033,235 | 11,420,763 | 13,439,603 | 7,953,641 | 9,762,069 | 10,139,671 | 13,627,936 |
| Mexico..... | 193,000 | 199,000 | 188,000 | 147,300 | 178,000 | 175,000 | 298,000 |
| Total North American countries..... | 13,226,235 | 11,619,763 | 13,627,603 | 8,100,941 | 9,940,069 | 10,314,671 | 13,925,936 |
| CENTRAL AND SOUTH AMERICA AND WEST INDIES | | | | | | | |
| Venezuela..... | 10,000 | ..... | ..... | ..... | ..... | ..... | 18,000 |
| Guatemala..... | 144 | ..... | ..... | 215 | 194 | 125 | ..... |
| Haiti..... | 8,910 | 15,229 | 9,132 | 21,533 | 16,000 | ..... | ..... |
| Dominican Republic..... | 1,066 | 411 | 150 | 740 | 737 | 448 | ..... |
| Porto Rico..... | 1,319 | 2,201 | 1,400 | 920 | 1,046 | 1,200 | 1,900 |
| San Salvador..... | ..... | ..... | ..... | ..... | ..... | 10,400 | ..... |
| British West Indies: | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Montserrat..... | 657 | 1,125 | 826 | 768 | 837 | 1,000 | 460 |
| St. Kitts-Nevis..... | 1,347 | 1,158 | 1,615 | 732 | 880 | 1,308 | 760 |
| Grenada..... | 703 | 785 | 688 | 634 | 691 | 594 | 680 |
| St. Vincent..... | 1,026 | 1,161 | 1,363 | 523 | 1,230 | 1,010 | 1,109 |
| Barbadoes..... | 1,061 | 211 | 185 | 419 | 832 | 857 | ..... |
| Total Central and South American countries and West Indies reporting 1909-1924..... | 5,052 | 6,430 | 5,892 | 3,477 | 4,654 | 5,112 | 4,909 |

¹ Linters not included. Production of linters during this period has been: Average 1909-10 to 1913-14, 802,711 bales; 1919-20, 607,969 bales; 1920-21, 440,313 bales; 1921-22, 397,763 bales; 1922-23, 607,779 bales; 1923-24, 688,600 bales; 1924-25, 897,375 bales.

² From an unofficial source.

³ Laguna and Lower California only.

⁴ Estimated annual production according to consular reports.

⁵ For one year only.

⁶ Average for three years.

⁷ Exports.

TABLE 330.—Cotton: Production in specified countries, average 1909-10 to 1913-14, annual 1919-1920 to 1925-26—Continued

[Bales of 478 pounds net]

| | Year beginning about Aug. 1 | | | | | | | |
|---|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------------------|
| Country | Average 1909-10 to 1913-14 | 1919-20 | 1920-21 | 1921-22 | 1922-'3 | 1923-24 | 1924-25 | 1925-26 prelimi- nary |
| NORTHERN HEMI- SPHERE—Con. | | | | | | | | |
| EUROPE | | | | | | | | |
| Italy..... | 5,212 | | | | 4,603 | 5,000 | 4,520 | |
| Yugoslavin..... | 922 | | 1,037 | 798 | 860 | 670 | 418 | |
| Greece..... | 12,614 | 10,224 | 6,840 | 5,986 | 9,868 | 13,250 | 10,600 | |
| Bulgaria..... | 1,073 | 993 | 1,212 | 1,840 | 3,600 | 1,800 | 2,950 | 2,500 |
| Malta..... | 433 | 287 | 238 | 485 | 170 | 100 | 480 | |
| Spain..... | | | | | | 1,088 | 1,270 | |
| Total European countries re- porting 1909- 1924..... | 14,120 | 11,504 | 8,290 | 8,311 | 13,638 | 15,150 | 14,030 | |
| NORTH AFRICA | | | | | | | | |
| Algeria..... | 1,370 | 371 | 1,107 | 293 | 397 | 800 | 2,240 | 7,000 |
| Dahomey..... | 604 | 616 | 668 | 1,946 | 1,273 | 2,300 | | |
| French (Guinea)..... | 230 | 46 | 177 | 114 | 172 | | | |
| Ivory Coast..... | 38 | 1,551 | 951 | 94 | 109 | | | |
| French Sudan..... | 235 | 71 | 100 | 143 | 647 | | | |
| French Togo..... | 2,312 | 5,050 | 4,552 | 4,603 | 4,600 | | | |
| Italian Somaliland..... | 7,510 | | 7,95 | 1,192 | 1,770 | 2,300 | | |
| Eritrea..... | 1,022 | 7,395 | 7,115 | 7,179 | 690 | 1,400 | 2,760 | |
| Egypt..... | 1,453,000 | 1,155,000 | 1,251,000 | 902,000 | 1,391,000 | 1,353,000 | 1,507,000 | 1,629,000 |
| Anglo-Egyptian Sudan..... | 12,552 | 18,525 | 23,506 | 19,707 | 23,500 | 40,600 | 42,700 | 92,000 |
| Gold Coast..... | 104 | 753 | 740 | 712 | 2,660 | 2,840 | 7,120 | |
| Kenya..... | 519 | 83 | 83 | 418 | 460 | 1,000 | | |
| Nigeria..... | 9,050 | 15,264 | 26,360 | 13,578 | 10,388 | 15,800 | 25,000 | 30,000 |
| Uganda..... | 20,338 | 30,568 | 68,071 | 31,381 | 77,680 | 94,140 | 146,400 | |
| Total North African countries re- porting 1909- 1924..... | 1,497,436 | 1,220,176 | 1,370,199 | 967,150 | 1,510,315 | 1,506,580 | 1,727,350 | |
| ASIA | | | | | | | | |
| Cyprus..... | 1,938 | 1,097 | 2,024 | 1,444 | 1,300 | 1,507 | 2,600 | |
| Turkey, Asiatic..... | 133,000 | | | 30,000 | | | 78,000 | 126,000 |
| India..... | 3,585,000 | 4,853,000 | 3,013,000 | 3,753,000 | 4,247,000 | 4,320,000 | 5,069,000 | 5,064,000 |
| Ceylon..... | 17 | 2 | 8 | 157 | 190 | 190 | | |
| Iraq..... | | | 96 | 241 | 250 | 840 | 1,700 | |
| Union of Socialist Soviet Republics, Asiatic..... | 953,000 | 81,000 | 58,000 | 43,000 | 55,000 | 189,000 | 453,000 | 853,000 |
| Persia..... | 136,000 | 94,000 | 105,000 | 95,000 | 95,000 | 95,000 | 95,000 | |
| China..... | 694,600 | 2,599,000 | 1,883,000 | 1,517,000 | 2,318,000 | 1,992,900 | 2,179,000 | 2,114,000 |
| Japanese Empire: | | | | | | | | |
| Japan..... | 4,704 | 3,976 | 4,784 | 3,447 | 2,884 | | | |
| Chosen (Korea)..... | 17,387 | 88,469 | 100,672 | 92,448 | 103,347 | 111,000 | 121,000 | 137,000 |
| French Indo-China..... | 14,337 | 12,598 | 14,921 | 11,665 | 11,088 | 14,000 | | |

* From an unofficial source.

† For one year only.

‡ Exports.

§ Estimate of exportable surplus reported by the International Institute of Agriculture.

|| Average for four years.

¶ Turkestan, Transcaucasia, Khiva, Bokhara.

|| For 1919-20 to 1925-26, Chinese Economic Bulletin quoting the Chinese Cotton Mill Owners' Association. The figures represent the crop in the most important producing provinces where the commercial crop is grown. The average 1909-10 to 1913-14 is the commercial crop of China as estimated by the United States Bureau of the Census.

TABLE 330.—*Cotton: Production in specified countries, average 1909-10 to 1913-14, annual 1919-20 to 1925-26—Continued*

[Bales of 478 pounds net]

| Country | Year beginning about Aug. 1 | | | | | | | |
|--|-----------------------------|---------------------|------------------|---------------------|---------------------|----------------------|----------------------|-----------------------|
| | Average 1909-10 to 1913-14 | 1919-20 | 1920-21 | 1921-22 | 1922-23 | 1923-24 | 1924-25 | 1925-26 preliminary |
| NORTHERN HEMISPHERE—Contd. | | | | | | | | |
| ASIA—continued | | | | | | | | |
| Siam..... | [†] 3, 653 | [†] 1, 778 | [†] 372 | 3, 648 | 5, 000 | | [†] 2, 900 | |
| North Borneo..... | 125 | 121 | 232 | 112 | [†] 222 | [†] 195 | | |
| Total Asiatic countries reporting 1909-1924..... | 5, 387, 925 | 7, 716, 566 | 5, 161, 696 | 5, 501, 892 | 6, 819, 647 | 6, 709, 407 | 7, 919, 600 | |
| Total Northern Hemisphere countries reporting 1909-1924..... | 20, 130, 768 | 20, 574, 439 | 20, 173, 680 | 14, 581, 771 | 18, 288, 323 | 18, 550, 920 | 23, 591, 825 | |
| SOUTHERN HEMISPHERE | | | | | | | | |
| Peru..... | 110, 000 | 154, 774 | 175, 000 | 182, 000 | 200, 000 | 203, 000 | 206, 000 | [†] 104, 000 |
| Ecuador..... | | | | [†] 3, 606 | [†] 4, 311 | [†] 11, 080 | [†] 17, 000 | |
| Brazil..... | 375, 880 | 460, 515 | 476, 264 | 504, 080 | 552, 991 | 575, 930 | 605, 000 | |
| Paraguay..... | [†] 120 | 891 | 958 | 2, 610 | 5, 800 | 16, 100 | 12, 200 | |
| Argentina..... | [†] 3, 045 | 16, 450 | 26, 411 | 27, 674 | 26, 892 | 68, 785 | 67, 800 | |
| Belgian Congo..... | | 3, 459 | 2, 122 | 4, 013 | 4, 600 | 6, 800 | 18, 400 | |
| Tanganyika Territory..... | [†] 7, 971 | 3, 410 | 2, 402 | 6, 132 | 6, 000 | [†] 9, 400 | 16, 000 | 17, 000 |
| Nyasaland..... | 4, 536 | 1, 651 | 2, 900 | 3, 285 | 4, 600 | 2, 320 | [†] 2, 010 | |
| Southern Rhodesia..... | | | | | [†] 1, 200 | | [†] 16, 700 | |
| Union of South Africa..... | | | | | [†] 5, 460 | [†] 7, 000 | [†] 16, 000 | |
| Angola..... | [†] 76 | 2, 200 | 2, 338 | 2, 198 | | | | |
| Mozambique..... | 510 | 904 | 2, 349 | 2, 067 | | | | |
| Dutch East Indies..... | [†] 766 | 997 | 948 | 1, 041 | [†] 2, 200 | [†] 10, 000 | [†] 5, 000 | |
| New Hebrides..... | 13, 981 | 10, 769 | 14, 046 | 14, 046 | [†] 6, 900 | | | |
| Australia..... | [†] 303 | [†] 2, 282 | 3, 297 | 1, 617 | 1, 900 | 1, 828 | | |
| | 91 | 19 | 656 | 2, 720 | 7, 500 | 8, 790 | 14, 400 | |
| Total Southern Hemisphere countries reporting 1909-1924..... | 502, 485 | 640, 997 | 687, 877 | 731, 740 | 811, 443 | 901, 325 | 943, 910 | |
| Total all countries reporting 1909-1924..... | 20, 633, 253 | 21, 215, 436 | 20, 861, 557 | 15, 313, 511 | 19, 099, 766 | 19, 452, 245 | 24, 535, 735 | |
| Estimated world total, including China..... | 20, 859, 000 | 21, 331, 000 | 20, 984, 000 | 15, 439, 000 | 19, 300, 000 | 19, 600, 000 | 24, 800, 000 | |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Data for crop year as given at the head of the table, are for crops harvested between about Aug. 1 and July 31 of the following year. This applies to both Northern and Southern Hemispheres. For the United States prior to 1914 the figures apply to the year beginning Sept. 1.

[†] From an unofficial source.

[†] For one year only.

[†] Average for three years.

[†] Exports.

[†] Average for four years.

TABLE 331.—Cotton: World production, 1909-1925

| Year beginning about Aug. 1 | Production in countries reporting all years 1909-1924 | Estimated world total excluding China | Estimated world total including China | Estimated world total commercial crop ¹ | Five principal producing countries | | | | |
|-----------------------------|---|---------------------------------------|---------------------------------------|--|------------------------------------|------------|-----------|--------------------|-----------|
| | | | | | United States | India | Egypt | China ² | Brazil |
| | Bales | Bales | Bales | Bales | Bales | Bales | Bales | Bales | Bales |
| 1909..... | 16,477,415 | 16,728,000 | ----- | 20,859,000 | 10,004,949 | 3,998,000 | 1,036,000 | ----- | ----- |
| 1910..... | 18,090,234 | 18,456,000 | ----- | 18,856,000 | 11,608,616 | 3,254,000 | 1,555,000 | ----- | ----- |
| 1911..... | 21,555,477 | 21,986,000 | ----- | 22,247,000 | 15,692,701 | 2,730,000 | 1,530,000 | ----- | 360,320 |
| 1912..... | 20,692,164 | 21,189,000 | ----- | 21,550,000 | 13,703,421 | 3,792,000 | 1,554,000 | ----- | 417,971 |
| 1913..... | 21,837,507 | 22,345,000 | ----- | 22,612,000 | 14,156,486 | 4,239,000 | 1,588,000 | ----- | 476,823 |
| 1914..... | 23,826,707 | 24,270,000 | ----- | 24,904,000 | 16,134,930 | 4,359,000 | 1,337,000 | ----- | 464,813 |
| 1915..... | 17,384,728 | 17,759,000 | ----- | 18,419,000 | 11,191,820 | 3,128,000 | 989,000 | ----- | 338,660 |
| 1916..... | 18,044,989 | 18,371,000 | ----- | 19,905,000 | 18,924,000 | 11,449,930 | 3,759,000 | 1,048,000 | 1,534,000 |
| 1917..... | 17,318,948 | 17,655,000 | ----- | 19,747,000 | 18,140,000 | 11,302,375 | 3,393,000 | 1,304,000 | 2,092,000 |
| 1918..... | 17,293,025 | 17,625,000 | ----- | 20,678,000 | 18,755,000 | 12,040,532 | 3,323,000 | 999,000 | 3,053,000 |
| 1919..... | 18,345,368 | 18,732,000 | ----- | 21,331,000 | 20,220,000 | 11,420,763 | 4,853,000 | 1,155,000 | 2,599,000 |
| 1920..... | 18,617,350 | 19,101,000 | ----- | 20,984,000 | 19,005,000 | 13,439,803 | 3,013,000 | 1,251,000 | 1,883,000 |
| 1921..... | 13,511,808 | 13,922,000 | ----- | 15,439,000 | 15,334,000 | 7,983,641 | 3,753,000 | 902,000 | 1,517,000 |
| 1922..... | 16,423,232 | 16,982,000 | ----- | 19,300,000 | 17,959,000 | 9,762,069 | 4,247,000 | 1,391,000 | 2,318,000 |
| 1923..... | 17,009,791 | 17,607,000 | ----- | 19,600,000 | 19,005,000 | 10,139,671 | 4,330,000 | 1,353,000 | 1,993,000 |
| 1924..... | 21,795,826 | 22,521,000 | ----- | 24,800,000 | 23,285,000 | 13,627,936 | 5,069,000 | 1,507,000 | 2,179,000 |
| 1925 preliminary | ----- | ----- | ----- | ----- | 15,608,000 | 5,064,000 | 1,629,000 | 2,114,000 | ----- |

Division of Statistical and Historical Research. Bales of 478 pounds net. Data for crop year as given are for crops harvested between about Aug. 1 and July 31 of the following year. This applies to both Northern and Southern Hemispheres. For the United States prior to 1914 the figures apply to the year beginning Sept. 1.

¹ Figures as reported by the United States Bureau of the Census, including "the cotton destined to enter commercial channels for factory purposes." Estimates of the commercial crop in China are included.

² Chinese Cotton Mill Owners' Association. Figures represent the crop in the most important cotton producing Provinces where the commercial crop is grown. Cotton in other Provinces is used entirely or almost entirely for home hand-loom consumption.

TABLE 332.—Cotton: United States, estimated monthly marketings by farmers, 1912-1924

| Year beginning August | Percentage of year's sales ¹ | | | | | | | | | | | | Season |
|-----------------------|---|-------|------|------|------|------|------------------|------|------|-----|------------------|------------------|--------|
| | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | |
| 1912..... | ----- | 17.2 | 25.8 | 20.3 | 12.8 | 8.0 | 5.2 | 4.5 | 2.6 | 1.5 | 1.1 | ² 1.0 | 100 |
| 1913..... | ----- | 19.2 | 24.4 | 19.7 | 13.3 | 8.3 | 5.3 | 4.4 | 2.7 | 1.5 | 1.2 | ² 1.0 | 100 |
| 1914..... | 1.2 | 6.8 | 14.8 | 18.0 | 16.1 | 11.0 | 8.3 | 7.7 | 6.1 | 2.5 | ³ 7.5 | ----- | 100 |
| 1915..... | 2.7 | 11.3 | 19.3 | 20.4 | 16.4 | 8.4 | ⁴ 5.4 | 5.2 | 3.9 | 3.6 | ³ 3.4 | ----- | 100 |
| 1916..... | 3.9 | 14.6 | 23.0 | 21.6 | 15.0 | 6.4 | 4.0 | 3.9 | 3.0 | 2.5 | 1.6 | ⁵ .5 | 100 |
| 1917..... | 2.5 | 11.3 | 23.0 | 22.7 | 16.2 | 8.2 | 5.8 | 4.5 | 2.6 | 1.3 | 1.0 | ⁶ .9 | 100 |
| 1918..... | 3.8 | 10.9 | 18.1 | 16.4 | 13.6 | 5.4 | 4.4 | 4.0 | 4.6 | 7.5 | 6.8 | 4.4 | 100 |
| 1919..... | 1.4 | 9.5 | 21.0 | 22.2 | 17.4 | 8.8 | 5.6 | 4.9 | 3.2 | 2.7 | 1.7 | 1.6 | 100 |
| 1920..... | 3.1 | 10.0 | 16.2 | 15.7 | 11.0 | 6.4 | 5.6 | 6.0 | 6.7 | 6.9 | 6.8 | 5.6 | 100 |
| 1921..... | 8.6 | 14.0 | 22.3 | 17.1 | 12.1 | 5.9 | 4.3 | 4.6 | 4.6 | 5.9 | 3.0 | 2.6 | 100 |
| 1922..... | 5.2 | 16.8 | 26.3 | 19.8 | 12.3 | 5.9 | 4.4 | 3.7 | 2.0 | 1.0 | 1.5 | 1.6 | 100 |
| 1923..... | 4.1 | 16.3 | 24.6 | 24.9 | 13.3 | 5.8 | 3.1 | 2.4 | 1.7 | 1.3 | ⁷ .9 | 1.6 | 100 |
| 1924..... | 3.3 | 15.2 | 25.2 | 22.3 | 14.5 | 7.0 | 5.3 | 3.4 | 1.6 | 1.0 | ⁸ .6 | ⁸ .6 | 100 |
| Average..... | 2.6 | 13.1 | 21.5 | 19.9 | 14.2 | 7.4 | 5.1 | 4.7 | 3.6 | 3.2 | 3.0 | 1.7 | 100 |

Division of Crop and Livestock Estimates.

¹ As reported by about 7,500 cotton growers, supplemented by records of State weighers, cooperative associations, and cotton dealers.

² Includes August.

³ Includes July.

TABLE 333.—Cotton: International trade, average 1910-1914, annual 1923-1925

[Thousand bales—I. e., 600 omitted]

| Country | Year ended June 30 | | | | | | | |
|--------------------------------------|--------------------|---------|---------|---------|---------|---------|------------------|---------|
| | Average 1910-1914 | | 1923 | | 1924 | | 1925 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | (1) 2 | 1 | | 21 | | 25 | | 24 |
| Australia..... | | | | | | 4 6 | | 11 |
| British India..... | 57 | 2, 154 | 72 | 3, 012 | 72 | 3, 000 | 89 | 3, 331 |
| Egypt..... | (1) | 1, 444 | (1) | 1, 513 | (1) | 1, 469 | (1) | 1, 504 |
| United States..... | 232 | 8, 840 | 494 | 5, 206 | 306 | 5, 784 | 324 | 8, 239 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Algeria 1..... | (1) | (1) | | | 1 | | 1 | |
| Austria..... | | | 114 | | 128 | 1 | 139 | 1 |
| Austria-Hungary 2..... | 906 | 12 | | | | | | |
| Belgium..... | 663 | 278 | 306 | 64 | 328 | 49 | 333 | 15 |
| Canada..... | 155 | | 258 | | 180 | | 230 | |
| Ceylon 3..... | | | | | 5 | | 4 | |
| Cuba..... | 3 | (1) | 7 | | 6 | | | |
| Czechoslovakia..... | | | 299 | | 463 | 2 | 578 | 26 |
| Denmark..... | 26 | (1) | 24 | | 23 | | 21 | |
| Estonia 4..... | | | | | 14 | | 21 | |
| Finland..... | 37 | | 34 | | 36 | | 28 | |
| France..... | 1, 440 | 337 | 1, 217 | 135 | 1, 344 | 98 | 1, 540 | 91 |
| Germany..... | 2, 142 | 221 | 1, 024 | 157 | 1, 121 | 97 | 1, 467 | 163 |
| Greece..... | 10 | (1) | | | 4 6 | | 10 | |
| Hungary..... | | | | | 11 | | 15 | |
| Italy..... | 902 | (1) | 930 | 3 | 894 | 2 | 1, 073 | 3 |
| Japan..... | 1, 405 | | 2, 604 | | 2, 260 | | 2, 419 | |
| Latvia 5..... | | | | | 3 | | 5 | |
| Netherlands..... | 277 | 145 | 113 | 2 | 78 | 4 | 148 | 2 |
| Norway..... | 18 | | 12 | | 12 | | 14 | |
| Poland 6..... | | | | | 186 | | 214 | |
| Spain..... | 388 | 1 | 415 | 1 | 328 | 1 | 313 | |
| Sweden..... | 93 | 1 | 92 | | 96 | | 89 | |
| Switzerland..... | 113 | | 109 | | 126 | | 137 | |
| Syria and Lebanon 7..... | | | | | 7 | | | 5 |
| United Kingdom..... | 4, 143 | | 2, 522 | | 2, 742 | | 3, 654 | |
| Total 31 countries..... | 13, 010 | 13, 434 | 10, 646 | 10, 114 | 10, 768 | 10, 545 | 12, 896 | 13, 415 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. Bales of 500 pounds gross weight or 478 pounds net. The figures for cotton refer to ginned and unginned cotton and hnters, but not to mill waste, cotton batting, scarto (Egyptian and Sudan). Wherever unginned cotton has been separately stated in the original reports it has been reduced to ginned cotton in this statement at the ratio of 3 pounds unginned to 1 pound ginned.

1 Less than 500 bales.

2 Year ended Dec. 31.

3 International Institute of Agriculture, 7

4 Eleven months.

5 Sea-trade only.

6 Three-year average.

TABLE 334.—Cotton: Estimated price per pound, received by producers, United States, 1909-1925

| Year beginning August | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Weighted av. |
|-----------------------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|--------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1909..... | 11.5 | 12.2 | 13.2 | 13.8 | 14.2 | 14.3 | 14.0 | 14.0 | 14.0 | 14.1 | 14.0 | 14.1 | 13.6 |
| 1910..... | 14.4 | 13.8 | 13.6 | 14.0 | 14.2 | 14.4 | 14.1 | 13.9 | 14.0 | 14.4 | 14.5 | 13.8 | 14.0 |
| 1911..... | 12.5 | 11.0 | 9.6 | 8.8 | 8.6 | 8.7 | 9.4 | 10.0 | 10.5 | 11.0 | 11.1 | 11.6 | 9.7 |
| 1912..... | 11.6 | 11.2 | 11.0 | 11.4 | 12.0 | 12.0 | 11.8 | 11.8 | 11.7 | 11.6 | 11.6 | 11.6 | 11.5 |
| 1913..... | 11.6 | 12.0 | 13.2 | 12.6 | 12.0 | 11.8 | 12.2 | 12.2 | 12.0 | 12.3 | 12.4 | 12.4 | 12.5 |
| Av. 1909-1913.... | 12.3 | 12.2 | 12.1 | 12.1 | 12.2 | 12.2 | 12.3 | 12.4 | 12.4 | 12.7 | 12.7 | 12.7 | 12.3 |
| 1914..... | 10.6 | 8.2 | 7.0 | 6.6 | 6.7 | 7.0 | 7.4 | 7.8 | 8.6 | 8.8 | 8.6 | 8.4 | 7.4 |
| 1915..... | 8.3 | 9.8 | 11.4 | 11.4 | 11.4 | 11.4 | 11.3 | 11.3 | 11.5 | 11.8 | 12.4 | 12.6 | 11.2 |
| 1916..... | 13.6 | 15.0 | 16.8 | 18.8 | 18.4 | 17.0 | 16.4 | 17.0 | 18.4 | 19.6 | 22.4 | 24.5 | 17.7 |
| 1917..... | 23.8 | 23.4 | 25.3 | 27.5 | 28.3 | 29.3 | 30.0 | 31.0 | 30.2 | 28.0 | 28.0 | 28.2 | 27.2 |
| 1918..... | 30.0 | 32.0 | 30.6 | 28.4 | 28.2 | 26.8 | 24.4 | 24.2 | 25.2 | 27.8 | 30.3 | 31.8 | 28.8 |
| 1919..... | 31.4 | 30.8 | 33.9 | 36.0 | 35.8 | 36.0 | 36.2 | 36.8 | 37.5 | 37.4 | 37.3 | 37.1 | 35.0 |
| 1920..... | 34.0 | 28.3 | 22.4 | 16.6 | 12.7 | 11.6 | 11.0 | 9.8 | 9.4 | 9.6 | 9.7 | 9.7 | 17.2 |
| Av. 1914-1920.... | 21.7 | 21.1 | 21.1 | 20.8 | 20.2 | 19.9 | 19.5 | 19.7 | 20.1 | 20.4 | 21.2 | 21.8 | 20.6 |
| 1921..... | 11.2 | 16.2 | 18.8 | 17.0 | 16.2 | 15.9 | 15.7 | 16.0 | 16.0 | 17.3 | 19.6 | 20.6 | 16.9 |
| 1922..... | 20.9 | 20.6 | 21.2 | 23.1 | 24.2 | 25.2 | 26.8 | 28.0 | 27.6 | 26.2 | 25.9 | 24.8 | 23.5 |
| 1923..... | 23.8 | 23.6 | 23.0 | 23.9 | 32.1 | 32.5 | 31.4 | 27.7 | 28.7 | 28.1 | 27.8 | 27.3 | 29.0 |
| 1924..... | 27.8 | 22.2 | 23.1 | 22.5 | 22.2 | 22.7 | 23.0 | 24.5 | 23.7 | 23.0 | 23.0 | 23.4 | 23.0 |
| 1925..... | 23.4 | 22.5 | 21.5 | 18.1 | 17.4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Crop and Livestock Estimates. Mean of prices reported on 1st of month and 1st of succeeding month, August, 1909-December, 1923.

TABLE 335.—Cotton: Estimated price per pound, received by producers, December 1, average 1909-1913, annual 1914-1925

| State | Av. 1909-1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914-1925 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921-1925 |
|---------------------|---------------|-------|-------|-------|------|------|------|-------|---------------|-------|------|------|------|------|---------------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| Missouri..... | 11.6 | 6.5 | 11.0 | 19.0 | 27.5 | 27.0 | 34.0 | 13.5 | 19.8 | 15.0 | 21.5 | 32.5 | 23.0 | 12.0 | 20.8 |
| Virginia..... | 12.2 | 7.3 | 11.4 | 19.4 | 27.8 | 26.5 | 35.0 | 15.0 | 20.3 | 16.4 | 23.0 | 32.0 | 23.0 | 19.0 | 22.7 |
| North Carolina..... | 12.3 | 6.9 | 11.2 | 19.4 | 27.7 | 26.4 | 35.2 | 14.5 | 20.2 | 16.4 | 24.5 | 30.8 | 22.6 | 19.0 | 22.7 |
| South Carolina..... | 12.4 | 6.9 | 11.3 | 19.6 | 28.4 | 27.6 | 35.7 | 14.5 | 20.6 | 16.0 | 24.3 | 32.0 | 22.1 | 18.8 | 22.6 |
| Georgia..... | 12.5 | 6.9 | 11.4 | 19.9 | 28.8 | 27.5 | 35.8 | 15.3 | 20.8 | 16.6 | 23.9 | 32.0 | 22.4 | 19.0 | 22.8 |
| Florida..... | 17.0 | 12.2 | 14.8 | 31.0 | 50.5 | 43.0 | 42.0 | 17.0 | 30.1 | 18.0 | 23.0 | 28.8 | 22.5 | 18.8 | 22.2 |
| Tennessee..... | 12.3 | 6.4 | 11.3 | 19.5 | 27.3 | 26.7 | 33.5 | 13.0 | 19.7 | 16.0 | 24.5 | 32.0 | 23.2 | 16.2 | 22.4 |
| Alabama..... | 12.4 | 6.7 | 11.1 | 19.5 | 28.0 | 27.0 | 34.8 | 15.0 | 20.3 | 16.0 | 24.0 | 31.8 | 22.7 | 18.9 | 22.7 |
| Mississippi..... | 12.6 | 6.8 | 11.5 | 20.5 | 28.5 | 27.8 | 37.5 | 15.3 | 21.1 | 16.6 | 24.1 | 32.5 | 23.7 | 19.5 | 23.3 |
| Arkansas..... | 12.2 | 6.6 | 11.6 | 19.6 | 28.2 | 27.8 | 36.4 | 13.3 | 20.5 | 16.1 | 23.6 | 31.9 | 22.8 | 16.1 | 22.1 |
| Louisiana..... | 12.0 | 6.9 | 11.2 | 19.1 | 26.7 | 27.5 | 35.0 | 14.2 | 20.1 | 15.0 | 24.0 | 30.3 | 22.4 | 18.1 | 22.0 |
| Oklahoma..... | 11.4 | 6.5 | 11.3 | 19.0 | 26.5 | 25.5 | 35.2 | 10.5 | 19.2 | 15.4 | 23.0 | 29.6 | 22.2 | 17.0 | 21.4 |
| Texas..... | 11.8 | 6.8 | 11.1 | 19.4 | 26.7 | 28.2 | 35.0 | 13.2 | 20.1 | 16.1 | 23.5 | 30.4 | 22.4 | 18.5 | 22.2 |
| Arizona..... | ..... | ..... | ..... | ..... | 48.0 | 61.0 | 30.0 | ..... | ..... | ..... | 30.0 | 34.0 | 26.4 | 21.5 | 27.8 |
| California..... | ..... | 7.0 | 11.2 | 20.0 | 23.0 | 30.0 | 43.0 | 30.0 | 24.2 | 17.0 | 26.0 | 32.0 | 24.0 | 22.0 | 24.2 |
| United States..... | 12.2 | 6.8 | 11.3 | 19.6 | 27.7 | 27.6 | 35.6 | 13.9 | 20.4 | 16.2 | 23.8 | 31.0 | 22.6 | 18.2 | 22.4 |

Division of Crop and Livestock Estimates.

TABLE 337.—Cotton, middling: Average spot price per pound at nine markets, 1914-1925—Continued

SAVANNAH

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1914..... | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1915..... | 8.02 | 10.24 | 11.95 | 11.60 | 12.11 | 12.20 | 11.79 | 8.14 | 8.36 | 9.29 | 9.36 | 9.03 | 8.06 |
| 1916..... | 14.21 | 15.40 | 17.54 | 19.69 | 19.27 | 18.45 | 18.82 | 20.15 | 20.62 | 20.62 | 24.83 | 25.95 | |
| 1917..... | 25.20 | 21.87 | 27.05 | 28.26 | 29.28 | 31.12 | 30.94 | 32.53 | 33.42 | 31.50 | 30.24 | 30.10 | 29.29 |
| 1918..... | 31.22 | 32.91 | 30.53 | 29.43 | 29.62 | 31.00 | 27.00 | 27.04 | 26.96 | 29.11 | 31.02 | 33.61 | 30.02 |
| 1919..... | 31.64 | 20.66 | 34.56 | 38.45 | 38.91 | 39.89 | 39.48 | 40.31 | 41.60 | 41.53 | 41.74 | 40.87 | 38.22 |
| 1920..... | 34.69 | 28.74 | 22.12 | 18.38 | 15.08 | 15.62 | 13.95 | 11.75 | 11.48 | 11.83 | 10.90 | 11.31 | 17.20 |
| 1921..... | 12.74 | 19.64 | 19.30 | 17.17 | 17.39 | 17.06 | 16.72 | 17.36 | 17.04 | 19.39 | 21.52 | 22.09 | 18.42 |
| 1922..... | 21.29 | 20.88 | 22.37 | 25.19 | 27.61 | 27.58 | 28.75 | 30.11 | 28.16 | 26.44 | 28.29 | 25.74 | 25.87 |
| 1923..... | 24.45 | 27.65 | 28.77 | 33.09 | 34.18 | 33.38 | 31.54 | 28.27 | 30.03 | 30.14 | 29.13 | 29.12 | 30.00 |
| 1924..... | 26.74 | 22.86 | 23.59 | 24.70 | 24.00 | 23.68 | 24.58 | 25.46 | 24.89 | 23.42 | 24.22 | 24.52 | 24.27 |
| 1925..... | 23.19 | 23.19 | 20.70 | 19.76 | 19.20 | | | | | | | | |

MONTGOMERY

[illegible]

MEMPHIS

[illegible]

LITTLE ROCK

[illegible]

TABLE 337.—Cotton, middling: Average spot price per pound at nine markets, 1914-1925—Continued

DALLAS

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1914..... | | | | | | | 7.87 | 8.25 | 9.15 | 8.71 | 8.57 | 8.25 | |
| 1915..... | 8.56 | 10.17 | 11.72 | 11.13 | 11.78 | 11.84 | 11.37 | 11.63 | 11.78 | 12.47 | 12.72 | 13.04 | 11.51 |
| 1916..... | 14.14 | 14.83 | 16.81 | 19.18 | 17.63 | 17.17 | 15.75 | 17.77 | 19.09 | 19.58 | 24.17 | 25.04 | 18.43 |
| 1917..... | 24.86 | 21.88 | 20.16 | 27.46 | 28.53 | 30.74 | 30.71 | 32.56 | 31.32 | 28.85 | 29.76 | 28.79 | 28.47 |
| 1918..... | 31.09 | 33.34 | 30.89 | 28.78 | 29.33 | 27.72 | 25.84 | 25.08 | 27.02 | 29.76 | 32.10 | 34.16 | 29.64 |
| 1919..... | 31.05 | 30.60 | 36.65 | 40.58 | 41.11 | 42.08 | 41.26 | 42.79 | 42.78 | 40.60 | 39.64 | 38.30 | 38.95 |
| 1920..... | 32.74 | 26.40 | 20.69 | 17.06 | 13.70 | 13.63 | 12.16 | 10.64 | 10.53 | 11.20 | 10.23 | 10.50 | 15.79 |
| 1921..... | 12.11 | 19.25 | 19.17 | 17.10 | 17.12 | 16.75 | 16.44 | 16.93 | 16.70 | 19.08 | 21.37 | 22.05 | 17.84 |
| 1922..... | 21.19 | 20.14 | 21.67 | 24.75 | 24.79 | 26.63 | 27.86 | 29.85 | 27.79 | 25.87 | 27.72 | 25.34 | 25.21 |
| 1923..... | 23.49 | 27.06 | 28.51 | 32.92 | 33.94 | 33.26 | 31.14 | 27.89 | 29.84 | 29.88 | 28.84 | 29.20 | 29.66 |
| 1924..... | 27.33 | 22.11 | 22.73 | 22.95 | 22.74 | 23.10 | 24.32 | 25.47 | 24.37 | 23.28 | 23.93 | 24.56 | 23.91 |
| 1925..... | 23.28 | 23.38 | 21.13 | 30.02 | 19.15 | | | | | | | | |

HOUSTON

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1914..... | | | | | | | 8.33 | 8.80 | 9.82 | 9.21 | 9.06 | 8.68 | |
| 1915..... | 9.04 | 10.56 | 12.11 | 11.62 | 12.27 | 12.36 | 11.82 | 12.09 | 12.27 | 12.99 | 13.26 | 13.60 | 12.00 |
| 1916..... | 14.79 | 15.89 | 17.42 | 19.80 | 18.10 | 17.64 | 16.05 | 18.19 | 19.43 | 20.13 | 24.60 | 25.54 | 18.92 |
| 1917..... | 25.67 | 22.62 | 26.62 | 27.87 | 28.77 | 31.25 | 30.91 | 32.94 | 31.80 | 28.06 | 30.91 | 28.75 | 28.85 |
| 1918..... | 31.26 | 33.70 | 32.05 | 30.01 | 30.26 | 28.56 | 27.00 | 26.45 | 27.33 | 30.18 | 32.04 | 34.24 | 30.26 |
| 1919..... | 31.65 | 31.36 | 36.88 | 40.79 | 40.74 | 41.72 | 39.95 | 41.58 | 42.33 | 40.67 | 39.54 | 38.10 | 38.78 |
| 1920..... | 32.94 | 27.33 | 20.98 | 17.50 | 14.16 | 13.95 | 12.62 | 10.95 | 10.89 | 11.85 | 11.02 | 11.69 | 16.33 |
| 1921..... | 13.06 | 20.02 | 19.64 | 17.65 | 17.73 | 17.20 | 17.05 | 17.51 | 17.24 | 19.67 | 22.18 | 22.51 | 18.46 |
| 1922..... | 21.59 | 20.69 | 22.20 | 25.33 | 25.45 | 27.51 | 28.71 | 30.54 | 28.59 | 26.65 | 28.42 | 25.62 | 25.94 |
| 1923..... | 24.23 | 27.78 | 29.00 | 33.46 | 34.63 | 33.85 | 31.79 | 28.60 | 30.55 | 30.61 | 29.55 | 29.29 | 30.28 |
| 1924..... | 27.69 | 23.03 | 23.53 | 23.92 | 23.55 | 23.71 | 24.88 | 26.03 | 25.04 | 23.82 | 24.11 | 24.70 | 24.50 |
| 1925..... | 23.71 | 23.35 | 21.20 | 20.23 | 19.78 | | | | | | | | |

GALVESTON

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1915..... | 9.15 | 10.59 | 12.20 | 11.66 | 12.30 | 12.39 | 11.89 | 12.14 | 12.30 | 12.98 | 13.30 | 13.71 | 12.06 |
| 1916..... | 14.77 | 15.48 | 17.48 | 19.82 | 18.43 | 17.79 | 16.30 | 18.31 | 19.63 | 20.18 | 24.58 | 25.99 | 19.06 |
| 1917..... | 25.70 | 22.66 | 20.82 | 28.07 | 29.11 | 31.28 | 31.10 | 33.06 | 32.23 | 28.40 | 30.89 | 29.37 | 29.06 |
| 1918..... | 31.56 | 34.19 | 32.25 | 30.30 | 30.64 | 29.45 | 28.26 | 26.94 | 27.63 | 30.50 | 32.87 | 34.62 | 30.78 |
| 1919..... | 31.87 | 31.58 | 37.10 | 41.32 | 41.87 | 42.53 | 41.09 | 42.58 | 42.99 | 41.64 | 39.83 | 38.59 | 39.41 |
| 1920..... | 33.78 | 28.15 | 21.98 | 18.10 | 15.06 | 14.38 | 12.99 | 11.76 | 11.47 | 12.01 | 11.27 | 11.80 | 16.89 |
| 1921..... | 13.33 | 20.33 | 20.05 | 17.99 | 17.92 | 17.32 | 17.10 | 17.58 | 17.40 | 19.75 | 22.23 | 22.67 | 18.64 |
| 1922..... | 21.79 | 20.77 | 22.28 | 25.37 | 25.48 | 27.54 | 28.81 | 30.62 | 28.63 | 26.75 | 28.57 | 25.87 | 28.03 |
| 1923..... | 24.44 | 27.80 | 29.11 | 33.62 | 34.70 | 33.95 | 31.92 | 28.85 | 30.91 | 30.82 | 29.74 | 29.94 | 30.46 |
| 1924..... | 28.01 | 23.12 | 23.56 | 23.92 | 23.69 | 23.72 | 24.78 | 26.00 | 25.04 | 23.92 | 24.34 | 24.83 | 24.57 |
| 1925..... | 23.88 | 23.50 | 21.26 | 20.24 | 19.80 | | | | | | | | |

Division of Statistical and Historical Research. Compiled from reports of the Cotton Division, average of daily closing quotations.

TABLE 338.—Cotton, middling: Monthly average spot price per pound, New York, 1909-1925

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909..... | 12.76 | 13.00 | 13.99 | 14.77 | 15.25 | 14.87 | 14.84 | 15.05 | 15.10 | 15.45 | 15.10 | 15.74 | 14.66 |
| 1910..... | 16.27 | 13.98 | 14.48 | 14.77 | 15.07 | 14.90 | 14.30 | 14.51 | 14.87 | 15.80 | 15.48 | 13.99 | 14.87 |
| 1911..... | 12.53 | 11.31 | 9.63 | 9.43 | 9.37 | 9.55 | 10.34 | 10.63 | 11.57 | 11.62 | 11.65 | 12.57 | 10.85 |
| 1912..... | 12.04 | 11.73 | 11.12 | 12.36 | 13.01 | 13.07 | 12.80 | 12.61 | 12.29 | 11.98 | 12.25 | 12.26 | 12.29 |
| 1913..... | 12.14 | 13.44 | 14.08 | 13.68 | 13.04 | 12.73 | 12.83 | 13.27 | 13.28 | 13.44 | 13.47 | 13.17 | 13.21 |
| Average 1909-1913..... | 13.15 | 12.69 | 12.66 | 13.00 | 13.15 | 13.02 | 13.02 | 13.21 | 13.41 | 13.66 | 13.59 | 13.55 | 13.18 |
| 1914..... | (1) | (1) | (1) | 7.67 | 7.53 | 3.28 | 8.57 | 9.01 | 10.25 | 9.81 | 9.68 | 9.22 | ----- |
| 1915..... | 9.41 | 10.83 | 12.37 | 11.89 | 12.33 | 12.33 | 11.73 | 11.90 | 12.05 | 12.94 | 12.97 | 13.05 | 11.98 |
| 1916..... | 14.64 | 15.79 | 17.99 | 19.92 | 18.29 | 17.59 | 15.90 | 18.46 | 20.38 | 20.74 | 25.33 | 26.30 | 19.28 |
| 1917..... | 25.49 | 23.65 | 28.02 | 29.78 | 30.74 | 32.26 | 31.76 | 33.74 | 31.85 | 27.57 | 30.39 | 31.54 | 29.68 |
| 1918..... | 33.88 | 35.69 | 32.42 | 29.69 | 30.22 | 29.10 | 26.27 | 27.74 | 28.82 | 30.58 | 32.96 | 35.33 | 31.01 |
| 1919..... | 12.10 | 30.60 | 34.98 | 39.40 | 39.19 | 39.26 | 38.77 | 41.20 | 42.30 | 41.25 | 39.27 | 41.20 | 38.29 |
| 1920..... | 3.6.23 | 30.07 | 22.08 | 18.81 | 15.68 | 16.63 | 13.44 | 11.74 | 12.14 | 12.84 | 12.00 | 12.41 | 17.89 |
| Average 1914-1920..... | ----- | ----- | ----- | 22.45 | 22.00 | 22.21 | 20.92 | 21.97 | 22.54 | 22.25 | 23.23 | 24.15 | ----- |
| 1921..... | 13.79 | 19.95 | 19.63 | 18.01 | 18.30 | 17.94 | 17.90 | 18.32 | 18.06 | 20.75 | 22.10 | 22.27 | 18.92 |
| 1922..... | 21.80 | 21.55 | 22.73 | 25.64 | 25.65 | 27.55 | 28.63 | 30.55 | 28.88 | 27.20 | 28.52 | 26.26 | 26.24 |
| 1923..... | 25.20 | 29.06 | 30.06 | 34.73 | 35.92 | 34.19 | 31.88 | 28.39 | 30.30 | 31.54 | 29.96 | 32.07 | 31.11 |
| 1924..... | 29.02 | 24.24 | 24.51 | 24.22 | 23.85 | 23.98 | 24.70 | 25.64 | 24.54 | 23.41 | 24.13 | 24.68 | 24.74 |
| 1925..... | 23.72 | 23.79 | 21.77 | 20.94 | 20.06 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Prior to September, 1900, compiled from the New York Commercial and Financial Chronicle; September, 1900, to date compiled from Market Reports of the New York Cotton Exchange, average of daily closing quotations.

¹ Cotton Exchange closed on account of the war.

² Cotton Exchange opened on Nov. 16. Quotations cover only half month.

TABLE 339.—Cotton: Average closing price per pound for future delivery, New York, 1924 and 1925

| Year and month | Prices for delivery during— | | | | | | Year and month | Prices for delivery during— | | | | | |
|----------------|-----------------------------|--------------|--------------|--------------|--------------|--------------|----------------|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| | Jan. | Mar. | May | July | Oct. | Dec. | | Jan. | Mar. | May | July | Oct. | Dec. |
| 1924 | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | 1925 | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| January..... | 33.65 | 33.80 | 34.02 | 32.91 | 28.13 | 27.68 | January..... | 23.59 | 23.74 | 24.05 | 24.25 | 23.85 | 23.79 |
| February..... | 26.44 | 31.56 | 31.85 | 30.76 | 27.17 | 26.74 | February..... | 24.69 | 24.43 | 24.76 | 25.01 | 24.78 | 24.83 |
| March..... | 24.47 | 28.35 | 28.32 | 27.68 | 25.17 | 24.82 | March..... | 24.93 | 25.46 | 25.48 | 25.72 | 25.12 | 25.12 |
| April..... | 24.04 | 24.05 | 29.98 | 28.55 | 24.91 | 24.36 | April..... | 24.15 | 24.30 | 24.28 | 24.57 | 24.29 | 24.40 |
| May..... | 24.38 | 24.49 | 30.82 | 28.89 | 25.44 | 24.66 | May..... | 22.38 | 22.61 | 22.92 | 22.95 | 22.55 | 22.75 |
| June..... | 24.81 | 24.95 | 24.99 | 28.76 | 25.76 | 25.04 | June..... | 22.77 | 23.04 | 23.23 | 23.37 | 23.08 | 23.25 |
| July..... | 25.52 | 25.75 | 25.85 | 30.65 | 26.41 | 25.64 | July..... | 23.08 | 23.99 | 24.23 | 23.67 | 24.13 | 24.25 |
| August..... | 25.94 | 26.20 | 26.35 | 25.68 | 26.52 | 26.00 | August..... | 23.08 | 23.37 | 23.69 | 23.49 | 23.36 | 23.58 |
| September..... | 23.06 | 23.32 | 23.55 | 23.14 | 23.60 | 23.05 | September..... | 23.18 | 23.46 | 23.75 | 23.48 | 24.52 | 23.82 |
| October..... | 23.59 | 23.90 | 24.11 | 23.75 | 24.50 | 23.49 | October..... | 20.67 | 20.95 | 21.12 | 20.73 | 22.02 | 21.39 |
| November..... | 23.93 | 24.28 | 24.54 | 24.40 | 23.30 | 23.74 | November..... | 19.78 | 19.89 | 19.63 | 19.16 | 18.82 | 20.42 |
| December..... | 23.42 | 23.81 | 24.16 | 24.29 | 23.59 | 23.12 | December..... | 19.15 | 19.23 | 18.91 | 18.66 | 18.10 | 20.16 |

Division of Statistical and Historical Research. Compiled from Market Reports of the New York Cotton Exchange; average of daily closing quotations. 1924 Yearbook Table 316, contains prices for 1901-1924

¹ Quotations largely nominal.

² Based on nominal quotations

TABLE 340.—Cotton: Average spot price per pound in specified foreign markets, 1912-1925

LIVERPOOL, AMERICAN MIDDLING ¹

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1912..... | 11.16 | 11.90 | 12.34 | 13.09 | 13.03 | 13.37 | 14.46 | 13.83 | 13.55 | 12.59 | 13.82 | 14.31 | 13.12 |
| 1913..... | 14.06 | 13.97 | 13.97 | 14.00 | 13.58 | 13.67 | 13.61 | 13.38 | 15.10 | 15.55 | 14.94 | 14.54 | 14.20 |
| 1914..... | 14.34 | 14.25 | 14.28 | 15.02 | 15.20 | 15.71 | 14.74 | 13.23 | 12.22 | 10.53 | 9.25 | 8.93 | 13.14 |
| 1915..... | 9.77 | 10.06 | 10.46 | 11.37 | 10.42 | 10.47 | 10.32 | 10.79 | 12.24 | 13.90 | 13.74 | 15.03 | 11.55 |
| 1916..... | 15.99 | 15.61 | 15.48 | 15.47 | 16.77 | 16.47 | 15.94 | 17.54 | 18.99 | 20.69 | 23.05 | 22.16 | 17.85 |
| 1917..... | 21.76 | 21.34 | 24.07 | 25.23 | 26.17 | 34.07 | 37.65 | 38.21 | 35.96 | 34.85 | 43.38 | 44.25 | 32.24 |
| 1918..... | 46.16 | 45.88 | 47.19 | 46.52 | 42.28 | 43.89 | 43.09 | 45.26 | 48.44 | 46.46 | 43.97 | 42.30 | 45.12 |
| 1919..... | 37.06 | 34.53 | 30.39 | 33.24 | 35.70 | 38.25 | 38.33 | 36.06 | 32.20 | 38.06 | 41.99 | 40.92 | 36.28 |
| 1920..... | 43.61 | 41.51 | 45.16 | 44.17 | 42.51 | 44.48 | 41.83 | 38.31 | 31.33 | 24.41 | 19.18 | 14.74 | 35.94 |
| Average 1914-1920..... | 27.04 | 26.18 | 26.72 | 27.29 | 27.01 | 29.05 | 28.84 | 28.20 | 27.34 | 26.99 | 27.79 | 26.90 | 27.45 |
| 1921..... | 15.32 | 12.71 | 11.78 | 12.07 | 12.53 | 11.66 | 11.94 | 13.34 | 20.70 | 20.85 | 18.46 | 18.84 | 15.02 |
| 1922..... | 18.12 | 17.75 | 19.21 | 18.89 | 21.42 | 23.46 | 24.98 | 24.90 | 23.98 | 24.55 | 27.96 | 28.26 | 22.79 |
| 1923..... | 30.64 | 30.93 | 31.42 | 30.29 | 28.43 | 31.53 | 29.28 | 28.18 | 31.99 | 31.96 | 33.74 | 36.00 | 31.37 |
| 1924..... | 34.33 | 32.53 | 29.77 | 33.15 | 32.00 | 30.74 | 30.38 | 31.62 | 25.06 | 26.13 | 26.09 | 25.73 | 29.79 |
| 1925..... | 25.90 | 27.17 | 27.95 | 26.85 | 25.83 | 27.34 | 27.76 | 26.28 | 26.25 | 23.17 | 21.51 | 20.51 | 25.54 |
| Average 1921-1925..... | 24.86 | 24.22 | 24.03 | 24.25 | 24.04 | 24.95 | 24.87 | 24.86 | 24.60 | 25.33 | 25.95 | 25.88 | 24.90 |

LIVERPOOL, EGYPTIAN UPBERS, GOOD ¹

| | | | | | | | | | | | | | |
|------------------------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1912..... | 18.0 | 16.9 | 17.6 | 19.3 | 19.5 | 21.3 | 21.3 | 20.2 | 19.1 | 18.3 | 18.9 | 19.3 | 19.1 |
| 1913..... | 19.9 | 20.1 | 20.2 | 20.3 | 20.2 | 19.7 | 19.0 | 18.8 | 20.0 | 20.2 | 20.0 | 19.5 | 19.8 |
| 1914..... | 18.9 | 17.9 | 17.3 | 17.9 | 18.1 | 18.2 | 17.6 | 16.5 | 16.1 | 13.5 | 12.6 | 12.2 | 16.4 |
| 1915..... | 12.2 | 12.8 | 14.0 | 15.5 | 14.5 | 14.4 | 13.8 | 14.1 | 15.4 | 18.1 | 17.9 | 18.6 | 15.1 |
| 1916..... | 21.9 | 22.5 | 22.4 | 21.6 | 22.4 | 23.5 | 23.7 | 23.7 | 27.2 | 31.2 | 39.5 | 39.6 | 26.6 |
| 1917..... | 39.7 | 41.9 | 44.5 | 50.5 | 52.0 | 55.4 | 60.3 | 60.9 | 52.0 | 46.7 | 51.6 | 54.4 | 50.8 |
| 1918..... | 53.8 | 51.5 | 54.9 | 56.3 | 54.0 | 52.6 | 54.3 | 55.8 | 55.4 | 54.3 | 51.7 | 50.4 | 53.8 |
| 1919..... | 50.3 | 50.0 | 49.3 | 48.3 | 48.3 | 48.4 | 46.4 | 48.8 | 48.8 | 53.4 | 67.0 | 76.3 | 52.9 |
| 1920..... | 94.0 | 105.0 | 108.7 | 107.6 | 97.1 | 81.3 | 71.6 | 68.6 | 53.4 | 37.0 | 29.4 | 23.4 | 73.1 |
| Average 1914-1920..... | 41.5 | 43.1 | 44.4 | 45.4 | 43.8 | 42.0 | 41.1 | 41.2 | 38.3 | 36.3 | 38.5 | 39.3 | 41.2 |
| 1921..... | 24.6 | 20.8 | 19.6 | 21.5 | 18.8 | 18.8 | 18.0 | 18.6 | 29.3 | 33.3 | 28.3 | 29.4 | 23.4 |
| 1922..... | 28.8 | 27.4 | 28.4 | 26.8 | 28.1 | 29.7 | 29.4 | 28.1 | 27.4 | 27.3 | 30.7 | 31.2 | 28.6 |
| 1923..... | 31.9 | 32.5 | 33.9 | 33.0 | 30.4 | 31.9 | 31.0 | 31.5 | 33.4 | 33.3 | 39.6 | 41.5 | 33.7 |
| 1924..... | 39.7 | 39.0 | 37.5 | 41.2 | 43.9 | 43.3 | 43.6 | 45.6 | 35.5 | 34.3 | 35.4 | 37.5 | 39.7 |
| 1925..... | 40.3 | 41.3 | 45.1 | 43.6 | 42.1 | 41.6 | 41.4 | 39.5 | 37.1 | 35.0 | 32.6 | 30.8 | 39.2 |
| Average 1921-1925..... | 33.1 | 32.2 | 32.9 | 33.2 | 32.7 | 33.1 | 32.7 | 32.7 | 32.5 | 32.7 | 33.3 | 34.1 | 32.9 |

LIVERPOOL, NO. 1 OOMRAS, FULLY GOOD ¹

| | | | | | | | | | | | | | |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1912..... | 10.3 | 10.8 | 10.9 | 11.3 | 11.6 | 11.7 | 12.3 | 12.2 | 11.9 | 11.6 | 12.1 | 12.5 | 11.6 |
| 1913..... | 12.7 | 12.8 | 12.7 | 12.5 | 12.2 | 11.9 | 11.8 | 11.6 | 12.9 | 12.9 | 12.8 | 12.5 | 12.4 |
| 1914..... | 12.0 | 11.5 | 11.5 | 11.5 | 11.4 | 11.0 | 10.6 | 9.7 | 9.1 | 8.8 | 7.9 | 7.7 | 10.2 |
| 1915..... | 8.5 | 8.4 | 8.5 | 9.2 | 8.9 | 9.1 | 8.9 | 9.1 | 9.7 | 10.9 | 10.7 | 11.9 | 9.5 |
| 1916..... | 12.6 | 12.4 | 12.1 | 11.9 | 13.0 | 12.8 | 12.9 | 14.2 | 15.0 | 15.8 | 17.6 | 16.6 | 13.0 |
| 1917..... | 16.9 | 17.3 | 20.2 | 21.0 | 22.1 | 31.2 | 33.4 | 34.2 | 31.9 | 36.9 | 37.6 | 37.2 | 28.3 |
| 1918..... | 38.2 | 37.6 | 38.2 | 38.2 | 35.2 | 36.8 | 36.8 | 37.8 | 44.1 | 42.4 | 37.5 | 34.3 | 38.1 |
| 1919..... | 35.3 | 32.6 | 27.7 | 28.9 | 30.1 | 32.4 | 32.2 | 30.7 | 29.0 | 30.5 | 32.1 | 32.0 | 31.1 |
| 1920..... | 32.6 | 30.0 | 32.3 | 31.8 | 30.2 | 29.1 | 26.1 | 23.8 | 21.6 | 18.5 | 15.7 | 12.0 | 25.3 |
| Average 1914-1920..... | 22.3 | 21.4 | 21.5 | 26.8 | 21.6 | 23.9 | 23.0 | 22.8 | 22.9 | 23.3 | 22.7 | 21.7 | 22.4 |
| 1921..... | 11.9 | 10.6 | 9.2 | 9.4 | 9.8 | 9.2 | 9.3 | 10.5 | 16.0 | 16.9 | 15.3 | 15.4 | 12.0 |
| 1922..... | 15.3 | 14.9 | 15.4 | 16.0 | 15.7 | 18.9 | 19.7 | 19.8 | 18.9 | 18.8 | 20.6 | 20.5 | 17.9 |
| 1923..... | 21.9 | 22.2 | 21.7 | 20.7 | 19.4 | 20.8 | 20.2 | 19.6 | 21.8 | 22.0 | 25.9 | 27.7 | 22.0 |
| 1924..... | 26.1 | 25.2 | 22.4 | 24.0 | 22.9 | 22.6 | 22.0 | 23.4 | 19.7 | 22.3 | 23.3 | 23.5 | 23.1 |
| 1925..... | 22.6 | 23.5 | 23.2 | 22.2 | 21.2 | 21.6 | 22.0 | 21.5 | 22.0 | 19.9 | 18.1 | 16.8 | 21.2 |
| Average 1921-1925..... | 19.6 | 19.3 | 18.4 | 18.5 | 17.8 | 18.6 | 18.6 | 19.0 | 19.7 | 20.0 | 20.6 | 20.8 | 19.2 |

¹ London Economist, average of weekly quotations to August, 1925, inclusive. Subsequently from Liverpool Cotton Association Daily Report.² International Yearbook of Agricultural Statistics, 1921, p. 443. London Economist, 1922 to date. Average of weekly quotations.

TABLE 340.—Cotton: Average spot price per pound in specified foreign markets, 1912-1925—Continued

ALEXANDRIA, EGYPT, EGYPTIAN UPPERS, GOOD¹

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|---------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1912..... | 15.8 | 16.6 | 16.8 | 17.6 | 18.1 | 18.9 | 19.4 | 18.5 | 17.2 | 15.8 | 17.0 | 18.1 | 17.5 |
| 1913..... | 18.6 | 18.7 | 19.0 | 19.4 | 19.0 | 18.5 | 18.2 | 17.8 | 18.5 | 18.6 | 18.6 | 18.0 | 18.0 |
| 1914..... | 17.4 | 17.0 | 16.4 | 17.0 | 16.8 | 16.7 | 16.3 | (²) | (²) | 9.6 | 11.2 | 10.5 | 14.9 |
| 1915..... | 11.1 | 11.9 | 13.0 | 14.3 | 13.2 | 13.1 | 12.5 | 12.6 | (²) | (²) | 16.2 | (²) | 13.1 |
| 1916..... | 19.2 | 21.1 | 21.0 | 20.3 | 20.6 | 21.4 | 20.7 | 20.6 | 23.3 | 27.5 | 34.5 | 35.4 | 23.8 |
| 1917..... | 35.1 | 37.3 | 39.6 | 43.7 | 49.3 | 51.7 | 60.1 | 45.1 | 29.6 | 32.4 | 35.6 | 38.5 | 41.9 |
| 1918..... | 37.9 | 36.6 | 38.0 | 38.3 | 36.5 | 37.6 | 40.5 | (²) | (²) | (²) | (²) | (²) | --- |
| 1919..... | (²) | (²) | (²) | (²) | (²) | (²) | (²) | 47.1 | 42.6 | 45.6 | 60.5 | 71.9 | --- |
| 1920..... | 85.2 | 94.6 | 87.2 | 94.0 | 82.7 | 69.8 | 61.2 | 49.1 | 41.9 | 32.5 | 24.2 | 19.5 | 62.3 |
| 1921..... | 19.9 | 15.1 | 16.3 | 16.3 | 15.3 | 14.2 | 14.9 | 14.9 | 25.7 | 30.9 | 26.0 | 27.3 | 19.5 |
| 1922..... | 25.3 | 23.3 | 22.9 | 22.7 | 24.7 | 26.7 | 26.1 | 25.0 | 23.3 | 24.1 | 26.7 | 27.0 | 24.1 |
| 1923..... | 28.8 | 30.0 | 31.3 | 30.4 | 28.2 | 30.1 | 29.4 | 29.2 | 30.0 | 30.4 | 35.8 | 38.4 | 30.9 |
| 1924..... | 38.8 | 37.9 | 35.2 | 39.2 | 41.8 | 39.4 | 38.4 | 36.1 | 28.5 | 29.5 | 31.4 | 34.3 | 35.1 |
| 1925..... | 38.1 | 40.0 | 44.2 | 41.2 | 39.7 | 39.6 | 39.8 | 34.8 | 32.3 | 31.2 | 29.6 | --- | --- |
| Average 1921-1925.. | 30.2 | 29.3 | 30.0 | 30.0 | 29.9 | 30.0 | 29.7 | 28.0 | 28.0 | 29.2 | 29.9 | --- | --- |

Division of Statistical and Historical Research. Conversions at monthly average rates of exchange as quoted by International Institute of Agriculture Annual, 1921, and Federal Reserve Board.

¹ Monthly Agricultural Statistics, Ministry of Finance, Cairo, Egypt.

² No quotations.

COTTONSEED

TABLE 341.—Cottonseed: Production, 1909-1925

(Thousand short tons—i. e., 000 omitted)

| Year beginning August | Production | Year beginning August | Production | Year beginning August | Production |
|-----------------------|------------|-----------------------|------------|-------------------------|------------|
| 1909..... | 4,462 | 1915..... | 4,992 | 1921..... | 3,531 |
| 1910..... | 5,175 | 1916..... | 5,113 | 1922..... | 4,836 |
| 1911..... | 6,967 | 1917..... | 5,040 | 1923..... | 4,502 |
| 1912..... | 6,104 | 1918..... | 5,360 | 1924..... | 6,051 |
| 1913..... | 6,305 | 1919..... | 5,074 | 1925 ¹ | 6,928 |
| 1914..... | 7,186 | 1920..... | 5,971 | | |

Division of Crop and Livestock Estimates. Compiled from reports of the Bureau of the Census.

¹ Preliminary estimate by Department of Agriculture.

TABLE 342.—Cottonseed and cottonseed products: Production, 1909-1925

| Year ended July 31— | Cottonseed crushed | Crude cottonseed products | | | Year ended July 31— | Cottonseed crushed | Crude cottonseed products | | |
|------------------------|-------------------------|---------------------------|-------------------------|-------------------------|------------------------|-------------------------|---------------------------|-------------------------|-------------------------|
| | | Oil | Cake and meal | Hulls | | | Oil | Cake and meal | Hulls |
| | <i>1,000 short tons</i> | <i>1,000 gallons</i> | <i>1,000 short tons</i> | <i>1,000 short tons</i> | | <i>1,000 short tons</i> | <i>1,000 gallons</i> | <i>1,000 short tons</i> | <i>1,000 short tons</i> |
| 1909..... | 3,670 | 146,790 | 1,492 | 1,330 | 1918..... | 4,252 | 174,906 | 2,068 | 906 |
| 1910..... | 3,269 | 131,000 | 1,326 | 1,189 | 1919..... | 4,479 | 176,711 | 2,170 | 1,137 |
| 1911..... | 4,106 | 167,970 | 1,792 | 1,375 | 1920..... | 4,013 | 161,529 | 1,817 | 1,143 |
| 1912..... | 4,921 | 201,650 | 2,151 | 1,642 | | | | | |
| 1913..... | 4,580 | 185,750 | 1,999 | 1,540 | Average 1914-1920..... | 4,579 | 184,376 | 2,153 | 1,229 |
| Average 1909-1913..... | 4,109 | 166,632 | 1,782 | 1,415 | 1921..... | 4,069 | 174,558 | 1,786 | 1,258 |
| 1914..... | 4,848 | 193,330 | 2,220 | 1,400 | 1922..... | 3,008 | 124,063 | 1,355 | 937 |
| 1915..... | 5,780 | 229,260 | 2,648 | 1,677 | 1923..... | 3,242 | 133,723 | 1,487 | 944 |
| 1916..... | 4,202 | 167,116 | 1,923 | 1,220 | 1924..... | 3,308 | 130,616 | 1,518 | 941 |
| 1917..... | 4,479 | 187,688 | 2,225 | 969 | 1925..... | 4,605 | 187,156 | 2,125 | 1,331 |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of the Census.

TABLE 343.—*Cottonseed: Production and farm value, by States, 1921-1925*

| State | Production, year beginning August— | | | | | Total value, year beginning August— | | | | |
|---------------------|------------------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------------------|------------------|------------------|------------------|-------------------|
| | 1921 | 1922 | 1923 | 1924 | 1925 ¹ | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
| | 1,000 short tons | 1,000 short tons | 1,000 short tons | 1,000 short tons | 1,000 short tons | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Missouri..... | 31 | 63 | 54 | 84 | 115 | 970 | 2,310 | 2,710 | 3,360 | 4,140 |
| Virginia..... | 7 | 12 | 22 | 17 | 22 | 220 | 480 | 980 | 680 | 770 |
| North Carolina..... | 344 | 378 | 452 | 366 | 484 | 11,420 | 15,600 | 20,160 | 13,670 | 15,972 |
| South Carolina..... | 334 | 218 | 341 | 357 | 388 | 11,510 | 9,230 | 15,450 | 13,160 | 12,416 |
| Georgia..... | 349 | 317 | 261 | 445 | 511 | 11,070 | 12,520 | 12,340 | 16,520 | 16,863 |
| Florida..... | 5 | 12 | 6 | 8 | 18 | 160 | 380 | 250 | 290 | 612 |
| Tennessee..... | 134 | 174 | 101 | 158 | 218 | 4,090 | 6,680 | 4,780 | 5,870 | 5,559 |
| Alabama..... | 257 | 306 | 260 | 437 | 593 | 7,890 | 13,310 | 11,980 | 15,790 | 17,197 |
| Mississippi..... | 361 | 439 | 268 | 487 | 857 | 10,330 | 14,940 | 12,840 | 17,690 | 18,854 |
| Arkansas..... | 354 | 452 | 278 | 488 | 679 | 9,990 | 14,910 | 12,370 | 16,690 | 12,426 |
| Louisiana..... | 124 | 152 | 163 | 219 | 400 | 3,400 | 4,760 | 6,600 | 6,840 | 9,800 |
| Oklahoma..... | 214 | 279 | 291 | 671 | 688 | 5,300 | 8,780 | 11,520 | 21,500 | 18,232 |
| Texas..... | 978 | 1,433 | 1,032 | 2,201 | 1,820 | 27,430 | 45,370 | 75,640 | 70,560 | 51,870 |
| New Mexico..... | 3 | 5 | 12 | 25 | 27 | 90 | 160 | 470 | 800 | 756 |
| Arizona..... | 20 | 21 | 34 | 48 | 42 | 360 | 470 | 1,350 | 1,540 | 1,117 |
| California..... | 15 | 12 | 24 | 35 | 56 | 300 | 380 | 710 | 1,140 | 2,240 |
| All other..... | 1 | 3 | 3 | 5 | 10 | 30 | 120 | 140 | 180 | 360 |
| United States..... | 3,531 | 4,386 | 4,502 | 6,051 | 6,928 | 104,560 | 150,400 | 190,050 | 206,220 | 189,184 |

Division of Crop and Livestock Estimates. Compiled from reports of the Bureau of the Census.

¹ Preliminary estimate by Department of Agriculture. Value based on weighted average price Aug. 15 to Nov. 15.TABLE 344.—*Cottonseed: Estimated price per ton, received by producers, United States, 1910-1925*

| Year beginning August | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Weighted average |
|-----------------------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|------------------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1910..... | 26.23 | 26.80 | 25.36 | 25.65 | 26.35 | 25.61 | 25.49 | 25.12 | 25.46 | 23.38 | 22.70 | 26.75 | 26.75 |
| 1911..... | 20.45 | 18.09 | 16.73 | 16.69 | 16.70 | 16.57 | 16.81 | 18.21 | 18.62 | 19.21 | 19.24 | 19.04 | 17.13 |
| 1912..... | 18.02 | 17.61 | 18.04 | 18.67 | 21.42 | 21.98 | 22.01 | 21.55 | 21.89 | 21.88 | 21.54 | 21.37 | 18.77 |
| 1913..... | 20.24 | 21.07 | 22.01 | 22.46 | 23.48 | 22.70 | 23.37 | 23.60 | 24.17 | 23.56 | 23.62 | 22.78 | 22.14 |
| A v. 1910-1913..... | 19.57 | 20.75 | 20.91 | 20.77 | 21.81 | 21.90 | 21.95 | 22.21 | 22.70 | 22.53 | 21.94 | 21.47 | 20.85 |
| 1914..... | 20.16 | 13.88 | 15.28 | 14.01 | 17.73 | 19.14 | 23.33 | 22.32 | 22.09 | 22.07 | 20.82 | 20.05 | 15.59 |
| 1915..... | 20.14 | 20.98 | 33.73 | 34.01 | 35.54 | 36.85 | 36.75 | 36.56 | 38.13 | 37.91 | 35.79 | 36.06 | 30.25 |
| 1916..... | 35.22 | 41.13 | 47.19 | 55.82 | 66.35 | 52.53 | 51.43 | 53.18 | 55.94 | 55.61 | 57.19 | 56.90 | 48.11 |
| 1917..... | 56.61 | 57.58 | 65.02 | 69.38 | 68.29 | 67.51 | 66.95 | 68.27 | 68.08 | 68.16 | 66.03 | 64.11 | 64.01 |
| 1918..... | 61.34 | 67.90 | 65.85 | 64.97 | 65.05 | 64.93 | 64.65 | 64.00 | 64.28 | 63.83 | 63.80 | 64.24 | 65.02 |
| 1919..... | 66.23 | 62.13 | 66.95 | 72.65 | 69.07 | 69.88 | 69.34 | 67.18 | 68.71 | 69.88 | 66.16 | 61.64 | 67.87 |
| 1920..... | 43.22 | 29.96 | 28.94 | 26.00 | 19.83 | 18.96 | 19.76 | 18.92 | 17.23 | 17.28 | 17.06 | 18.75 | 28.06 |
| A v. 1914-1920..... | 43.27 | 41.94 | 46.14 | 48.12 | 47.41 | 47.11 | 47.46 | 47.20 | 47.87 | 47.82 | 46.69 | 45.96 | 45.72 |
| 1921..... | 22.06 | 27.19 | 31.05 | 29.15 | 28.78 | 29.24 | 30.17 | 32.72 | 40.79 | 40.21 | 37.71 | 36.02 | 29.25 |
| 1922..... | 32.44 | 25.37 | 31.79 | 40.18 | 42.93 | 43.35 | 45.10 | 46.32 | 47.60 | 46.58 | 43.14 | 41.42 | 32.13 |
| 1923..... | 37.47 | 40.88 | 40.90 | 45.92 | 45.54 | 44.37 | 43.27 | 41.34 | 40.42 | 40.53 | 39.96 | 39.07 | 41.59 |
| 1924..... | 38.44 | 31.74 | 31.95 | 33.57 | 35.48 | 37.50 | 37.14 | 38.21 | 37.94 | 38.61 | 36.06 | 36.41 | 32.94 |
| 1925..... | 36.52 | 33.48 | 32.82 | 27.64 | 27.87 | | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 345.—*Cottonseed oil: International trade, average 1909–1913, annual, 1922–1924*

[Thousand pounds—1. c., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|----------|------------------|----------|----------|----------|------------------|------------------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Brazil..... | 4, 680 | 1 12 | 28 | 4, 827 | 39 | 2, 681 | ----- | ----- |
| China..... | ----- | 2, 110 | ----- | 1, 020 | ----- | 1, 336 | ----- | 1, 374 |
| Egypt..... | 1, 927 | 3, 568 | 751 | 10, 072 | 21 | 25, 198 | 34 | 16, 085 |
| Peru..... | ----- | 2 158 | ----- | 5, 382 | ----- | 5, 243 | ----- | 10, 083 |
| United Kingdom..... | 44, 246 | 53, 020 | 10, 324 | 23, 690 | 10, 809 | 46, 274 | 16, 524 | 50, 180 |
| United States..... | 4, 715 | 292, 257 | 21 | 75, 303 | 25 | 49, 608 | ----- | 43, 343 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 2, 728 | 1, 177 | (¹) | 14 | 7 | 16 | 85 | 17 |
| Argentina..... | 7, 510 | 12 | 5, 285 | ----- | 4, 791 | ----- | 517 | ----- |
| Australia..... | 1, 062 | ----- | 786 | ----- | 904 | 3 | ----- | ----- |
| Belgium..... | 16, 884 | 8, 143 | 1, 168 | 218 | 2, 387 | 8 | 2, 094 | (¹) |
| Canada..... | 21, 131 | ----- | 30, 658 | ----- | 25, 613 | ----- | 20, 495 | ----- |
| Czechoslovakia..... | ----- | ----- | 352 | ----- | 37 | ----- | 1, 214 | ----- |
| Denmark..... | 7, 081 | ----- | 8, 302 | 108 | 8, 813 | 1, 850 | 3, 406 | 1, 180 |
| France..... | 24, 656 | 2, 509 | 4, 299 | 269 | 6, 404 | 374 | 7, 853 | 100 |
| Germany..... | 51, 894 | ----- | 5, 879 | ----- | 9, 397 | ----- | 14, 204 | ----- |
| Greece..... | ----- | 6 | 779 | ----- | 198 | ----- | 1, 735 | ----- |
| Italy..... | 34, 498 | ----- | 531 | 32 | 19 | 1 | 36 | (¹) |
| Mexico..... | 27, 062 | 2, 559 | 4, 065 | ----- | ----- | ----- | ----- | ----- |
| Netherlands..... | 40, 141 | 392 | 12, 608 | 1, 958 | 23, 464 | 5, 809 | 21, 162 | 5, 604 |
| Norway..... | 11, 284 | ----- | 8, 815 | 1, 161 | 4, 695 | 3 | 5, 552 | ----- |
| Sweden..... | 5, 220 | 20 | 942 | 38 | 1, 354 | ----- | 1, 555 | ----- |
| Uruguay..... | 3, 938 | ----- | 2, 649 | ----- | ----- | ----- | ----- | ----- |
| Other countries..... | 27, 023 | 282 | 5, 458 | 307 | 3, 902 | 270 | 1, 846 | 224 |
| Total..... | 337, 670 | 367, 125 | 103, 691 | 124, 394 | 103, 879 | 138, 680 | 98, 372 | 128, 190 |

Division of Statistical and Historical Research. Official sources except where otherwise noted.

¹ One year only.² International Institute of Agriculture.³ Four-year average.⁴ Three-year average.⁵ Less than 500 pounds.⁶ Year beginning July 1⁷ Two-year average.TABLE 346.—*Cottonseed oil, crude: Average price per pound f. o. b. mills, 1909–1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1909..... | Cents 4.43 | Cents 4.44 | Cents 4.36 | Cents 4.45 | Cents 4.66 | Cents 4.68 | Cents 4.65 | Cents 5.01 | Cents 4.82 | Cents 5.63 | Cents 5.97 | Cents 6.32 | Cents 4.95 |
| 1910..... | 6.18 | 6.12 | 6.46 | 7.03 | 7.12 | 7.27 | 7.27 | ----- | 7.00 | 6.44 | 6.17 | 6.20 | ----- |
| 1911..... | 6.14 | 5.80 | 5.55 | 5.20 | 5.43 | 5.47 | 4.88 | 4.27 | 4.80 | 4.38 | 4.40 | 4.15 | 5.04 |
| 1912..... | 4.30 | 4.52 | 4.60 | 5.48 | 6.22 | 5.80 | 5.30 | 5.24 | 4.95 | 4.84 | 5.02 | 5.27 | 5.13 |
| 1913..... | 5.22 | 5.36 | 5.44 | 6.03 | 5.87 | 6.23 | 6.20 | 6.10 | 6.18 | 5.94 | 6.06 | 5.83 | 5.17 |
| Av. 1909–1913..... | 5.27 | 5.25 | 5.28 | 5.64 | 5.86 | 5.89 | 5.66 | ----- | 5.55 | 5.45 | 5.52 | 5.55 | ----- |
| 1914..... | 6.10 | 6.16 | 6.30 | 6.60 | 6.53 | 6.26 | 6.40 | 5.26 | 5.30 | 4.71 | 4.54 | 4.44 | 5.72 |
| 1915..... | 5.15 | 5.81 | 6.00 | 5.60 | 5.16 | 5.09 | 4.83 | 4.40 | 5.41 | 6.67 | 6.64 | 7.31 | 5.67 |
| 1916..... | 7.71 | 7.67 | 8.72 | 9.18 | 9.61 | 9.54 | 9.20 | 8.85 | 8.82 | 10.10 | 11.35 | 11.35 | 9.34 |
| 1917..... | 11.10 | 11.20 | 11.64 | 13.20 | 14.10 | 14.67 | 14.00 | 13.92 | 13.86 | 15.93 | 17.40 | 17.33 | 14.03 |
| 1918..... | 17.50 | 17.50 | 17.50 | 17.50 | 17.50 | 17.60 | 17.50 | 17.60 | 17.50 | 17.50 | 17.50 | 17.50 | 17.50 |
| 1919..... | 17.50 | 17.50 | 17.50 | 17.50 | 17.50 | 21.58 | 21.75 | 21.75 | 17.38 | 16.25 | 18.95 | 18.46 | 18.63 |
| 1920..... | 19.74 | 18.25 | 17.69 | 16.19 | 15.62 | 15.80 | 11.50 | 10.00 | 10.25 | 10.35 | 7.08 | 6.19 | 13.20 |
| Av. 1914–1920..... | 12.11 | 12.01 | 12.19 | 12.25 | 12.29 | 12.87 | 12.17 | 11.67 | 11.23 | 11.64 | 11.92 | 11.80 | 12.01 |
| 1921..... | 6.10 | 5.80 | 4.70 | 4.43 | 5.34 | 5.74 | 6.76 | 6.75 | 6.81 | 7.26 | 7.00 | 7.02 | 6.23 |
| 1922..... | 7.16 | 8.28 | 10.15 | 9.80 | 10.00 | 9.75 | 8.88 | 8.50 | 6.46 | 7.34 | 8.30 | 8.52 | 8.60 |
| 1923..... | 9.84 | 9.92 | 10.45 | 10.25 | 9.88 | 9.75 | 9.00 | ----- | 9.94 | 9.44 | 9.88 | 9.45 | ----- |
| 1924..... | 9.46 | 8.84 | 8.40 | 8.74 | 8.20 | 8.78 | 10.06 | 11.30 | 8.34 | 9.03 | 8.85 | 9.69 | 9.15 |
| 1925..... | 9.48 | 9.20 | 9.95 | 10.00 | 9.34 | 9.75 | ----- | ----- | 9.14 | 8.53 | 8.79 | 8.78 | ----- |
| Av. 1921–1925..... | 8.41 | 8.41 | 8.74 | 8.64 | 8.55 | 8.75 | ----- | ----- | 8.34 | 8.32 | 8.56 | 8.69 | ----- |

Division of Statistical and Historical Research. 1909–1912, and 1919–1925 average of weekly quotations in the Oil, Paint and Drug Reporter. 1913–1918 from War Industries Board Price Bulletin No. 15.

TABLE 347.—*Cottonseed oil, prime summer yellow: Average spot price per pound (barrels), New York, 1909-1925*

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909..... | 5.46 | 5.94 | 6.60 | 6.84 | 7.32 | 7.30 | 7.14 | 7.48 | 7.76 | 7.99 | 7.96 | 8.51 | 7.19 |
| 1910..... | 10.84 | 10.12 | 8.11 | 7.29 | 7.24 | 7.32 | 7.03 | 6.60 | 6.19 | 6.55 | 6.43 | 5.89 | 7.47 |
| 1911..... | 5.85 | 6.96 | 5.97 | 5.73 | 5.37 | 5.39 | 5.64 | 5.69 | 6.46 | 7.18 | 6.86 | 6.67 | 6.14 |
| 1912..... | 6.47 | 6.36 | 6.22 | 6.01 | 6.30 | 6.25 | 6.35 | 6.44 | 6.96 | 7.01 | 7.70 | 9.11 | 6.77 |
| 1913..... | 8.88 | 7.67 | 7.00 | 7.05 | 6.86 | 6.98 | 7.12 | 7.38 | 7.51 | 7.18 | 7.30 | 7.18 | 7.34 |
| Average 1909-1913..... | 7.50 | 7.41 | 6.78 | 6.58 | 6.62 | 6.65 | 6.64 | 6.72 | 6.98 | 7.18 | 7.25 | 7.47 | 6.98 |
| 1914..... | 6.67 | 5.87 | 5.22 | 5.55 | 5.83 | 6.56 | 7.08 | 6.70 | 6.61 | 6.40 | 6.18 | 6.06 | 6.23 |
| 1915..... | 5.78 | 6.30 | 7.71 | 7.93 | 8.38 | 8.99 | 9.59 | 10.53 | 10.73 | 10.91 | 10.91 | 10.04 | 8.98 |
| 1916..... | 9.27 | 10.17 | 11.75 | 12.53 | 12.38 | 12.32 | 12.51 | 13.62 | 15.30 | 16.23 | 16.26 | 14.62 | 13.07 |
| 1917..... | 14.84 | 16.44 | 17.09 | 18.59 | 18.65 | 20.09 | 20.33 | 19.84 | 19.75 | 20.00 | 20.25 | 20.25 | 18.91 |
| 1918..... | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 20.25 | 21.25 | 21.25 | 25.03 | 27.37 | 21.41 |
| 1919..... | 25.84 | 21.33 | 23.00 | 22.75 | 21.50 | 21.83 | 19.67 | 19.07 | 18.54 | 19.21 | 16.70 | 13.21 | 20.23 |
| 1920..... | 12.32 | 13.48 | 11.43 | 10.14 | 8.91 | 8.59 | 7.34 | 6.26 | 6.24 | 7.22 | 7.46 | 8.57 | 9.00 |
| Average 1914-1920..... | 13.57 | 13.41 | 13.91 | 13.96 | 13.70 | 14.09 | 13.82 | 13.75 | 14.06 | 14.46 | 14.08 | 14.20 | 13.98 |
| 1921..... | 8.69 | 9.88 | 8.69 | 8.30 | 8.28 | 8.62 | 9.86 | 11.48 | 11.57 | 11.71 | 11.33 | 10.97 | 9.95 |
| 1922..... | 9.96 | 8.54 | 8.88 | 9.51 | 9.81 | 10.77 | 10.90 | 11.78 | 11.76 | 11.60 | 11.48 | 10.35 | 10.44 |
| 1923..... | 10.34 | 11.62 | 12.01 | 11.67 | 11.00 | 11.00 | 10.03 | 9.77 | 10.09 | 9.82 | 10.42 | 11.98 | 10.81 |
| 1924..... | 13.83 | 10.54 | 11.00 | 10.86 | 11.41 | 11.10 | 10.69 | 11.10 | 11.08 | 10.51 | 10.75 | 11.38 | 11.19 |
| 1925..... | 11.09 | 10.81 | 9.86 | 10.32 | 10.47 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. January, 1891-December, 1908, compiled from Oil, Paint and Drug Reporter, Nov. 7, 1910, p. 40, average price per gallon divided by 7.5 to convert to pound basis; January, 1909-December, 1921, from annual reports of the New York Produce Exchange; 1922 and subsequently, compiled from Oil, Paint and Drug Reporter, average of daily ranges.

TABLE 348.—*Cottonseed meal, 36 per cent protein: Price per ton, Memphis, 1910-1925*

| Year beginning August — | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Average |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | \$26.00 | \$25.75 | \$25.38 | \$24.38 | \$24.38 | \$23.88 | \$23.25 | \$23.25 | \$23.88 | \$23.88 | \$24.50 | \$25.63 | \$24.51 |
| 1911..... | 26.50 | 25.75 | 24.63 | 24.63 | 24.63 | 24.38 | 25.13 | 26.00 | 27.25 | 28.00 | 27.25 | 26.75 | 25.91 |
| 1912..... | 26.75 | 25.63 | 24.38 | 24.63 | 25.50 | 25.75 | 25.13 | 25.13 | 28.00 | 28.75 | 28.00 | 30.63 | 26.42 |
| 1913..... | 31.75 | 27.00 | 27.13 | 27.38 | 27.25 | 26.75 | 26.13 | 26.75 | 27.63 | 27.75 | 27.50 | 27.75 | 27.50 |
| 1914..... | 28.00 | 23.75 | 22.75 | 22.38 | 23.50 | 24.75 | 27.25 | 26.88 | 28.50 | 26.00 | 25.25 | 25.13 | 25.18 |
| 1915..... | 25.63 | 27.13 | 30.50 | 32.00 | 34.00 | 32.25 | 29.00 | 28.38 | 28.88 | 27.75 | 27.25 | 27.25 | 29.17 |
| 1916..... | 25.25 | 30.75 | 35.25 | 39.25 | 39.00 | 37.50 | 36.25 | 38.25 | 38.50 | 39.50 | 42.25 | 44.50 | 37.27 |
| 1917..... | 45.50 | 43.00 | 45.50 | 49.75 | 46.50 | 46.50 | 46.50 | 46.50 | 46.50 | 46.50 | 46.50 | 46.50 | 46.31 |
| 1918..... | 46.50 | 46.50 | 46.50 | 54.00 | 54.00 | 54.00 | 54.00 | 54.00 | 54.00 | 54.00 | 59.13 | 69.75 | 53.87 |
| 1919..... | 76.25 | 63.00 | 66.50 | 70.25 | 69.25 | 71.00 | 65.00 | 65.75 | 64.81 | 65.13 | 63.63 | 59.40 | 66.66 |
| 1920..... | 55.00 | 51.25 | 59.50 | 54.13 | 28.00 | 28.38 | 26.50 | 25.17 | 23.50 | 28.92 | 29.75 | 34.00 | 33.67 |
| Av. 1914-1920..... | 43.59 | 40.77 | 40.93 | 43.11 | 42.04 | 42.05 | 40.64 | 40.42 | 40.38 | 41.11 | 41.97 | 43.79 | 41.73 |
| 1921..... | 36.44 | 36.00 | 34.50 | 33.44 | 34.20 | 34.75 | 36.12 | 41.12 | 43.00 | 43.75 | 42.50 | 39.80 | 37.97 |
| 1922..... | 34.00 | 32.60 | 37.60 | 42.80 | 42.10 | 41.90 | 41.25 | 39.60 | 39.10 | 38.25 | 38.00 | 35.40 | 38.38 |
| 1923..... | 39.00 | 40.20 | 40.75 | 42.70 | 40.60 | 39.10 | 37.75 | 36.70 | 36.60 | 36.50 | 36.00 | 38.75 | 38.77 |
| 1924..... | 39.90 | 37.75 | 37.40 | 36.30 | 36.75 | 34.60 | 33.40 | 33.50 | 34.00 | 34.90 | 36.10 | 38.25 | 36.07 |
| 1925..... | 40.80 | 34.25 | 32.20 | 31.40 | 32.00 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. 1910-1918, compiled from Cotton Oil Press; 1919-1924, compiled from reports of Hay, Feed, and Seed Division.

TABLE 349.—*Cottonseed meal, 36 per cent protein bagged: Average price per ton at 12 markets, 1925*

| Market | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Atlanta..... | 38.25 | 33.50 | 34.25 | 34.70 | 35.60 | 35.60 | 37.50 | 41.25 | ----- | ----- | ----- | ----- |
| Baltimore..... | 42.90 | 41.40 | 41.75 | 42.50 | 43.40 | 44.00 | 46.30 | 44.00 | ----- | 40.10 | 38.75 | ----- |
| Boston..... | 43.10 | 42.40 | 42.80 | 43.60 | 44.50 | 45.10 | 47.80 | 46.00 | 43.60 | 41.25 | 39.75 | 39.75 |
| Buffalo..... | 40.75 | 40.00 | 40.10 | 41.10 | 42.20 | 42.60 | 45.25 | 43.10 | ----- | 38.60 | 38.00 | 37.60 |
| Chicago..... | 40.30 | 39.00 | 38.90 | 39.60 | 40.75 | 41.40 | 44.00 | 43.50 | 39.40 | 37.25 | 36.50 | 36.60 |
| Cincinnati..... | 39.60 | 37.75 | 37.80 | 38.60 | 40.10 | 41.00 | 43.75 | 45.40 | 39.10 | 36.90 | 35.60 | 35.80 |
| Memphis..... | 34.60 | 33.40 | 33.50 | 34.00 | 34.90 | 36.10 | 38.25 | 40.80 | 34.25 | 32.20 | 31.40 | 32.00 |
| Minneapolis..... | 42.10 | 39.70 | 39.80 | 40.25 | 41.10 | 42.00 | 43.25 | 45.50 | 40.60 | 39.40 | 38.25 | 38.00 |
| Philadelphia..... | 42.80 | 41.75 | 41.90 | 42.70 | 44.00 | 44.25 | 46.70 | 44.30 | 42.30 | 40.25 | 39.20 | 39.30 |
| Pittsburgh..... | 41.90 | 39.60 | 39.60 | 39.70 | 42.10 | 42.25 | 44.10 | 43.70 | 39.50 | 38.10 | 37.90 | 37.80 |
| St. Louis..... | 38.40 | 36.40 | 35.50 | 36.75 | 38.20 | 39.50 | 41.00 | 45.00 | ----- | ----- | ----- | ----- |
| Savannah..... | 38.70 | 37.30 | 37.50 | 36.25 | 37.70 | 38.00 | 40.25 | 43.40 | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from reports of the Hay, Feed, and Seed Division.

TABLE 350.—Cottonseed meal: Price per ton paid by farmers, United States, 1910-1925

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 32.33 | 33.77 | 33.17 | 32.70 | 32.69 | 32.18 | 32.38 | 32.64 | 32.36 | 31.84 | 31.37 | 31.58 |
| 1911..... | 31.88 | 31.42 | 31.32 | 31.09 | 31.08 | 30.92 | 31.17 | 30.92 | 31.01 | 30.73 | 30.12 | 30.50 |
| 1912..... | 30.42 | 30.87 | 31.22 | 31.80 | 32.28 | 31.84 | 31.82 | 31.53 | 30.60 | 30.28 | 29.37 | 30.16 |
| 1913..... | 30.97 | 31.16 | 31.08 | 30.89 | 31.23 | 31.53 | 31.56 | 31.78 | 32.32 | 31.94 | 31.97 | 32.36 |
| 1914..... | 32.49 | 32.59 | 32.65 | 32.75 | 32.98 | 32.68 | 32.62 | 32.34 | 30.73 | 29.44 | 28.36 | 29.04 |
| 1915..... | 29.55 | 30.85 | 31.32 | 31.43 | 31.54 | 31.39 | 31.36 | 31.07 | 30.79 | 33.77 | 34.96 | 36.45 |
| 1916..... | 37.03 | 37.08 | 36.46 | 36.02 | 35.72 | 35.60 | 34.93 | 35.05 | 36.17 | 37.80 | 41.52 | 42.96 |
| 1917..... | 42.95 | 43.33 | 43.67 | 44.73 | 45.63 | 45.17 | 44.45 | 49.25 | 50.00 | 50.98 | 53.62 | 55.52 |
| 1918..... | 55.93 | 56.25 | 56.59 | 58.41 | 58.21 | 56.18 | 55.69 | 55.60 | 57.40 | 59.22 | 59.93 | 60.64 |
| 1919..... | 62.81 | 62.61 | 62.88 | 63.29 | 63.40 | 63.06 | 64.77 | 71.72 | 74.08 | 72.58 | 76.16 | 78.57 |
| 1920..... | 79.39 | 79.79 | 79.70 | 78.87 | 78.74 | 78.52 | 77.63 | 73.84 | 68.22 | 61.81 | 50.95 | 47.97 |
| 1921..... | 42.92 | 41.93 | 40.17 | 37.41 | 36.75 | 37.84 | 38.24 | 40.74 | 41.97 | 43.54 | 43.67 | 44.23 |
| 1922..... | 45.08 | 45.26 | 47.90 | 49.44 | 50.47 | 50.42 | 51.06 | 48.87 | 45.48 | 46.10 | 50.54 | 52.70 |
| 1923..... | 52.79 | 53.91 | 53.37 | 52.79 | 52.35 | 51.89 | 50.36 | 49.64 | 49.47 | 51.08 | 51.49 | 51.75 |
| 1924..... | 52.33 | 51.73 | 50.26 | 49.34 | 49.09 | 47.99 | 48.03 | 49.78 | 48.98 | 48.39 | 47.86 | 48.49 |
| 1925..... | 48.49 | 48.81 | 47.01 | 46.17 | 46.98 | 46.36 | 47.06 | 48.71 | 47.43 | 45.46 | 44.81 | 43.62 |

Division of Crop and Livestock Estimates. As reported monthly by country dealers.

HAY

TABLE 351.—Hay, tame: Acreage, production, value, exports, etc., United States, 1909-1925

| Year | Acreage | Average yield per acre | Production | Price per ton received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Chicago prices No. 1 timothy per ton by carload lots | | | | Domestic exports, fiscal year beginning July 1 | Imports, fiscal year beginning July 1 ² |
|-------------------------|-------------|------------------------|------------------|--|-------------------|-----------------------------|--|-------|---------------|-------|--|--|
| | | | | | | | December | | Following May | | | |
| | | | | | | | Low | High | Low | High | | |
| | 1,000 acres | Short tons | 1,000 short tons | Dollars | 1,000 dollars | Dollars | Dols. | Dols. | Dols. | Dols. | Short tons | Short tons |
| 1909..... | 51,041 | 1.46 | 74,384 | 10.58 | 786,722 | 15.41 | 16.00 | 17.00 | 12.50 | 16.00 | 61,608 | 108,448 |
| 1910..... | 51,015 | 1.36 | 69,378 | 12.14 | 842,252 | 16.51 | 16.00 | 19.00 | 18.50 | 23.50 | 61,850 | 377,108 |
| 1911..... | 48,240 | 1.14 | 54,916 | 14.29 | 784,926 | 16.27 | 20.00 | 22.00 | 24.00 | 28.00 | 66,898 | 782,884 |
| 1912..... | 40,530 | 1.47 | 72,691 | 11.79 | 856,985 | 17.30 | 13.00 | 18.00 | 14.00 | 16.50 | 68,006 | 175,082 |
| 1913..... | 48,954 | 1.31 | 64,116 | 12.43 | 797,077 | 16.28 | 14.50 | 18.00 | 15.00 | 17.50 | 56,169 | 191,280 |
| Av. 1909-1913..... | 49,756 | 1.35 | 67,097 | 12.12 | 813,534 | 16.35 | 15.90 | 18.80 | 16.80 | 20.30 | 62,906 | 326,972 |
| 1914..... | 49,145 | 1.43 | 70,071 | 11.12 | 779,068 | 15.85 | 15.00 | 16.00 | 16.50 | 17.50 | 118,169 | 22,609 |
| 1915..... | 51,108 | 1.68 | 85,020 | 10.63 | 913,644 | 17.88 | 14.50 | 16.50 | 17.50 | 20.00 | 199,730 | 48,366 |
| 1916..... | 55,721 | 1.64 | 91,192 | 11.22 | 1,022,930 | 18.36 | 15.00 | 17.50 | 19.00 | 22.00 | 95,792 | 65,125 |
| 1917..... | 55,203 | 1.51 | 83,308 | 17.09 | 1,423,766 | 25.79 | 26.00 | 28.00 | 26.00 | 26.00 | 33,762 | 460,027 |
| 1918..... | 55,755 | 1.37 | 76,660 | 20.13 | 1,543,494 | 27.68 | 29.00 | 31.00 | 34.00 | 37.00 | 32,366 | 310,742 |
| 1919..... | 56,886 | 1.53 | 86,997 | 20.05 | 1,744,547 | 30.67 | 28.00 | 32.00 | 35.00 | 50.00 | 67,142 | 251,946 |
| 1920..... | 58,101 | 1.55 | 89,785 | 17.66 | 1,585,355 | 27.29 | 28.00 | 32.00 | 31.00 | 23.00 | 55,440 | 126,185 |
| Av. 1914-1920..... | 54,560 | 1.52 | 83,052 | 15.44 | 1,282,460 | 23.51 | 21.93 | 24.71 | 23.29 | 27.93 | 86,059 | 163,577 |
| 1921..... | 58,769 | 1.40 | 82,458 | 12.10 | 998,069 | 16.98 | 20.00 | 24.00 | 26.00 | 28.00 | 61,240 | 5,357 |
| 1922..... | 61,159 | 1.57 | 95,748 | 12.55 | 1,262,093 | 19.65 | 20.00 | 22.00 | 21.00 | 23.00 | 53,696 | 35,430 |
| 1923..... | 59,868 | 1.49 | 89,256 | 14.13 | 1,261,480 | 21.07 | 23.00 | 27.00 | 25.00 | 29.00 | 23,516 | 403,478 |
| 1924..... | 61,451 | 1.60 | 98,088 | 13.76 | 1,349,528 | 21.96 | 22.00 | 24.00 | 19.00 | 23.00 | 26,413 | 119,141 |
| 1925 ² | 59,398 | 1.46 | 86,474 | 13.99 | 1,209,496 | 20.36 | 23.00 | 26.00 | ..... | ..... | ..... | ..... |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

¹ Based on farm price Dec. 1.² Compiled from Commerce and Navigation of United States, 1909-1918, and June issues of Monthly Summaries of Foreign Commerce, 1919-1925.³ Preliminary.

TABLE 352.—Hay, wild: Acreage, production, and farm value, United States, 1909-1925

| Year | Acreage | Yield per acre | Production | Price per ton received by producers Dec. 1 | Farm value | Year | Acreage | Yield per acre | Production | Price per ton received by producers Dec. 1 | Farm value |
|-----------|-------------|----------------|------------------|--|--------------|-------------------------|-------------|----------------|------------------|--|--------------|
| | 1,000 acres | Short tons | 1,000 short tons | Dolls. | 1,000 dolls. | | 1,000 acres | Short tons | 1,000 short tons | Dolls. | 1,000 dolls. |
| 1909..... | 17,187 | 1.07 | 18,383 | ----- | ----- | 1918..... | 15,365 | 0.94 | 14,479 | 15.23 | 220,487 |
| 1910..... | 17,187 | .77 | 13,151 | ----- | ----- | 1919..... | 17,150 | 1.07 | 18,401 | 16.50 | 303,639 |
| 1911..... | 17,187 | .71 | 12,155 | ----- | ----- | 1920..... | 15,787 | 1.11 | 17,460 | 11.35 | 193,115 |
| 1912..... | 17,427 | 1.04 | 18,043 | ----- | ----- | 1921..... | 15,632 | .98 | 15,391 | 6.63 | 101,991 |
| 1913..... | 16,341 | .92 | 15,063 | ----- | ----- | 1922..... | 15,871 | 1.02 | 16,131 | 7.14 | 115,176 |
| 1914..... | 16,752 | 1.11 | 18,615 | 7.49 | 139,500 | 1923..... | 15,556 | 1.12 | 17,301 | 7.88 | 130,734 |
| 1915..... | 16,796 | 1.27 | 21,343 | 6.80 | 145,125 | 1924..... | 15,080 | .98 | 14,731 | 7.83 | 115,365 |
| 1916..... | 16,635 | 1.19 | 19,800 | 7.90 | 156,503 | 1925 ¹ | 14,746 | .88 | 13,049 | 8.46 | 110,334 |
| 1917..... | 16,212 | .93 | 15,131 | 13.49 | 204,081 | | | | | | |

Division of Crop and Livestock Estimates. Figures in italics are census figures.

¹ Preliminary.

TABLE 353.—Hay, wild: Acreage, production, and total farm value, by States, 1924 and 1925

| State | Acreage | | Production | | Total value, basis Dec. 1, price | | State | Acreage | | Production | | Total value, basis Dec. 1, price | |
|-------------|-------------|-------------------|------------------|-------------------|----------------------------------|-------------------|-------------|-------------|-------------------|------------------|-------------------|----------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| | 1,000 acres | 1,000 acres | 1,000 short tons | 1,000 short tons | 1,000 dolls. | 1,000 dolls. | | 1,000 acres | 1,000 acres | 1,000 short tons | 1,000 short tons | 1,000 dolls. | 1,000 dolls. |
| Me..... | 13 | 13 | 12 | 12 | 115 | 101 | N. C..... | 60 | 45 | 60 | 28 | 950 | 462 |
| N. H..... | 17 | 17 | 16 | 14 | 176 | 154 | S. C..... | 4 | 4 | 2 | 1 | 35 | 16 |
| Vt..... | 13 | 13 | 13 | 14 | 143 | 143 | Ga..... | 20 | 12 | 12 | 6 | 180 | 99 |
| Mass..... | 12 | 12 | 12 | 12 | 180 | 192 | Fla..... | 4 | 3 | 3 | 3 | 52 | 54 |
| R. I..... | 1 | 1 | 1 | 1 | 16 | 16 | Ky..... | 23 | 23 | 28 | 24 | 375 | 312 |
| Conn..... | 11 | 11 | 12 | 12 | 192 | 198 | Tenn..... | 50 | 47 | 50 | 31 | 700 | 527 |
| N. Y..... | 67 | 68 | 86 | 76 | 886 | 760 | Ala..... | 22 | 22 | 11 | 14 | 170 | 228 |
| N. J..... | 16 | 16 | 21 | 26 | 269 | 364 | Miss..... | 38 | 32 | 23 | 24 | 336 | 334 |
| Penn..... | 25 | 24 | 34 | 30 | 408 | 360 | Ark..... | 150 | 127 | 112 | 89 | 1,422 | 1,228 |
| Ohio..... | 12 | 10 | 14 | 11 | 112 | 116 | La..... | 18 | 18 | 13 | 13 | 265 | 182 |
| Ind..... | 21 | 18 | 21 | 16 | 149 | 176 | Okla..... | 530 | 424 | 583 | 280 | 5,655 | 3,276 |
| Ill..... | 41 | 37 | 55 | 37 | 605 | 441 | Tex..... | 215 | 211 | 215 | 95 | 3,118 | 1,668 |
| Mich..... | 41 | 41 | 51 | 40 | 439 | 428 | Mont..... | 673 | 650 | 606 | 585 | 5,454 | 5,265 |
| Wis..... | 197 | 256 | 256 | 333 | 2,150 | 2,830 | Idaho..... | 100 | 101 | 75 | 152 | 712 | 1,003 |
| Minn..... | 2,070 | 2,070 | 2,422 | 2,484 | 19,376 | 19,127 | Wyo..... | 380 | 380 | 342 | 399 | 3,249 | 3,591 |
| Iowa..... | 318 | 300 | 401 | 300 | 3,489 | 3,150 | Colo..... | 360 | 360 | 360 | 360 | 3,492 | 3,888 |
| Mo..... | 151 | 130 | 184 | 112 | 1,564 | 1,008 | N. Mex..... | 32 | 35 | 26 | 28 | 351 | 336 |
| N. Dak..... | 1,971 | 1,774 | 1,872 | 1,685 | 10,858 | 9,773 | Ariz..... | 4 | 5 | 2 | 4 | 24 | 60 |
| S. Dak..... | 2,941 | 2,819 | 2,206 | 1,748 | 13,457 | 13,984 | Utah..... | 70 | 77 | 74 | 131 | 703 | 1,048 |
| Nebr..... | 2,976 | 2,976 | 2,976 | 2,232 | 20,832 | 20,088 | Nev..... | 125 | 181 | 101 | 233 | 1,313 | 1,864 |
| Kans..... | 991 | 938 | 1,120 | 788 | 7,952 | 6,462 | Wash..... | 27 | 30 | 27 | 46 | 356 | 616 |
| Del..... | 1 | 1 | 1 | 2 | 12 | 24 | Oreg..... | 129 | 235 | 90 | 282 | 1,071 | 2,256 |
| Md..... | 5 | 4 | 7 | 4 | 93 | 56 | Calif..... | 114 | 148 | 84 | 207 | 1,428 | 1,760 |
| Va..... | 17 | 13 | 21 | 8 | 302 | 132 | U. S..... | 15,080 | 14,746 | 14,731 | 13,049 | 115,365 | 110,334 |
| W. Va..... | 13 | 13 | 13 | 17 | 169 | 260 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 354.—Hay, tame: Acreage, production, and total farm value, by States, 1924 and 1925

| State | Acreage | | Production | | Total value, basis Dec. 1 price | |
|---------------------|-------------|-------------------|------------------|-------------------|---------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| | 1,000 acres | 1,000 acres | 1,000 short tons | 1,000 short tons | 1,000 dollars | 1,000 dollars |
| Maine..... | 1,249 | 1,249 | 1,392 | 1,507 | 18,096 | 18,084 |
| New Hampshire..... | 461 | 461 | 512 | 563 | 9,472 | 10,416 |
| Vermont..... | 917 | 920 | 1,380 | 1,440 | 22,218 | 19,008 |
| Massachusetts..... | 457 | 457 | 586 | 610 | 14,064 | 14,030 |
| Rhode Island..... | 47 | 47 | 62 | 63 | 1,488 | 1,480 |
| Connecticut..... | 352 | 355 | 441 | 451 | 11,025 | 11,050 |
| New York..... | 4,953 | 4,871 | 7,199 | 6,730 | 104,386 | 98,258 |
| New Jersey..... | 265 | 265 | 484 | 411 | 9,196 | 8,220 |
| Pennsylvania..... | 3,087 | 3,069 | 4,078 | 4,274 | 79,648 | 72,058 |
| Ohio..... | 3,331 | 3,021 | 5,303 | 3,284 | 67,878 | 49,917 |
| Indiana..... | 2,375 | 2,236 | 3,504 | 2,284 | 43,800 | 35,092 |
| Illinois..... | 3,725 | 3,503 | 5,548 | 3,728 | 74,808 | 50,275 |
| Michigan..... | 3,005 | 3,006 | 4,758 | 2,971 | 57,572 | 49,022 |
| Wisconsin..... | 3,317 | 3,362 | 6,383 | 5,481 | 84,804 | 76,734 |
| Minnesota..... | 2,299 | 2,359 | 3,897 | 4,132 | 44,816 | 45,452 |
| Iowa..... | 3,362 | 3,152 | 5,970 | 4,236 | 68,058 | 57,186 |
| Missouri..... | 3,468 | 3,399 | 4,829 | 3,753 | 57,948 | 48,038 |
| North Dakota..... | 926 | 896 | 1,450 | 1,452 | 11,020 | 10,454 |
| South Dakota..... | 1,102 | 1,153 | 1,819 | 1,520 | 16,180 | 16,720 |
| Nebraska..... | 1,963 | 1,672 | 4,382 | 3,635 | 42,067 | 43,984 |
| Kansas..... | 1,570 | 1,714 | 3,398 | 3,466 | 38,058 | 41,930 |
| Delaware..... | 85 | 82 | 128 | 112 | 2,176 | 2,240 |
| Maryland..... | 426 | 418 | 738 | 570 | 12,103 | 10,830 |
| Virginia..... | 1,030 | 1,005 | 1,461 | 768 | 24,961 | 10,128 |
| West Virginia..... | 791 | 785 | 1,205 | 950 | 21,208 | 19,000 |
| North Carolina..... | 775 | 789 | 745 | 529 | 15,045 | 11,638 |
| South Carolina..... | 355 | 246 | 166 | 62 | 3,652 | 1,210 |
| Georgia..... | 763 | 598 | 392 | 187 | 7,448 | 3,927 |
| Florida..... | 88 | 78 | 69 | 54 | 1,380 | 1,212 |
| Kentucky..... | 1,120 | 1,008 | 1,587 | 1,151 | 28,566 | 21,524 |
| Tennessee..... | 1,377 | 1,296 | 1,435 | 1,103 | 28,700 | 26,216 |
| Alabama..... | 616 | 501 | 445 | 408 | 8,455 | 8,160 |
| Mississippi..... | 361 | 393 | 340 | 393 | 6,950 | 6,956 |
| Arkansas..... | 588 | 559 | 645 | 445 | 10,578 | 8,010 |
| Louisiana..... | 264 | 242 | 192 | 219 | 3,418 | 4,161 |
| Oklahoma..... | 531 | 487 | 845 | 623 | 11,238 | 9,968 |
| Texas..... | 828 | 804 | 967 | 653 | 16,246 | 12,276 |
| Montana..... | 1,206 | 1,232 | 2,087 | 2,034 | 20,870 | 20,840 |
| Idaho..... | 1,073 | 1,032 | 2,329 | 3,385 | 28,414 | 28,772 |
| Wyoming..... | 646 | 663 | 1,166 | 1,283 | 11,427 | 11,419 |
| Colorado..... | 1,263 | 1,245 | 2,660 | 2,676 | 29,260 | 32,112 |
| New Mexico..... | 174 | 171 | 396 | 387 | 6,098 | 5,805 |
| Arizona..... | 158 | 160 | 583 | 555 | 9,503 | 9,135 |
| Utah..... | 537 | 568 | 1,085 | 1,874 | 13,020 | 16,866 |
| Nevada..... | 207 | 216 | 363 | 658 | 5,155 | 5,922 |
| Washington..... | 970 | 913 | 1,800 | 2,067 | 27,900 | 30,855 |
| Oregon..... | 953 | 900 | 1,394 | 1,863 | 18,540 | 21,611 |
| California..... | 1,990 | 1,780 | 4,645 | 5,414 | 100,796 | 75,796 |
| United States..... | 61,451 | 59,398 | 98,086 | 88,474 | 1,349,528 | 1,209,406 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 355.—Hay, tame: Yield in short tons per acre, by States, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------|------|------|------|------|------|----------------------|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|----------------------|
| Me. | 0.95 | 1.25 | 1.10 | 1.16 | 1.00 | 1.09 | 1.15 | 1.15 | 1.45 | 1.35 | 1.15 | 1.20 | 0.95 | 1.20 | 0.81 | 1.25 | 1.28 | 1.11 | 1.21 | 1.15 |
| N. H. | 0.97 | 1.20 | 1.08 | 1.25 | 1.00 | 1.09 | 1.15 | 1.00 | 1.45 | 1.35 | 1.15 | 1.20 | 1.10 | 1.20 | 0.96 | 1.23 | 1.22 | 1.11 | 1.22 | 1.15 |
| Vt. | 1.25 | 1.35 | 1.30 | 1.50 | 1.28 | 1.34 | 1.20 | 1.35 | 1.70 | 1.62 | 1.30 | 1.50 | 1.35 | 1.43 | 1.03 | 1.39 | 1.40 | 1.50 | 1.57 | 1.38 |
| Mass. | 1.15 | 1.28 | 1.08 | 1.25 | 1.21 | 1.19 | 1.22 | 1.60 | 1.66 | 1.50 | 1.20 | 1.40 | 1.35 | 1.40 | 1.28 | 1.32 | 1.37 | 1.28 | 1.33 | 1.31 |
| R. I. | 1.10 | 1.18 | 1.00 | 1.13 | 1.17 | 1.12 | 1.17 | 1.24 | 1.35 | 1.50 | 1.30 | 1.25 | 1.10 | 1.27 | 1.29 | 1.29 | 1.24 | 1.32 | 1.34 | 1.30 |
| Conn. | 1.15 | 1.35 | 1.10 | 1.15 | 1.14 | 1.18 | 1.25 | 1.35 | 1.55 | 1.50 | 1.30 | 1.35 | 1.20 | 1.36 | 1.28 | 1.35 | 1.32 | 1.25 | 1.27 | 1.29 |
| N. Y. | 1.05 | 1.32 | 1.02 | 1.25 | 1.14 | 1.16 | 1.20 | 1.30 | 1.62 | 1.46 | 1.25 | 1.40 | 1.25 | 1.35 | 1.01 | 1.40 | 1.36 | 1.45 | 1.38 | 1.32 |
| N. J. | 1.25 | 1.50 | 1.05 | 1.44 | 1.30 | 1.31 | 1.35 | 1.45 | 1.60 | 1.45 | 1.50 | 1.60 | 1.65 | 1.50 | 1.33 | 1.61 | 1.05 | 1.82 | 1.57 | 1.48 |
| Pa. | 1.20 | 1.38 | 1.00 | 1.43 | 1.32 | 1.27 | 1.28 | 1.40 | 1.60 | 1.41 | 1.41 | 1.35 | 1.40 | 1.41 | 1.20 | 1.57 | 1.05 | 1.61 | 1.30 | 1.36 |
| Ohio. | 1.43 | 1.39 | 0.98 | 1.36 | 1.30 | 1.29 | 1.13 | 1.44 | 1.57 | 1.42 | 1.40 | 1.35 | 1.35 | 1.38 | 1.27 | 1.50 | 1.20 | 1.50 | 1.09 | 1.33 |
| Ind. | 1.40 | 1.30 | 0.94 | 1.37 | 1.00 | 1.20 | 1.00 | 1.50 | 1.44 | 1.45 | 1.45 | 1.22 | 1.29 | 1.34 | 1.09 | 1.37 | 1.24 | 1.47 | 1.01 | 1.24 |
| Ill. | 1.45 | 1.33 | 0.82 | 1.30 | 0.98 | 1.18 | 0.85 | 1.54 | 1.45 | 1.25 | 1.35 | 1.35 | 1.25 | 1.29 | 1.18 | 1.45 | 1.30 | 1.49 | 1.07 | 1.30 |
| Mich. | 1.30 | 1.30 | 1.16 | 1.33 | 1.05 | 1.23 | 1.28 | 1.40 | 1.70 | 1.50 | 1.03 | 1.20 | 1.20 | 1.33 | 1.00 | 1.45 | 1.26 | 1.66 | 1.00 | 1.25 |
| Wis. | 1.53 | 1.00 | 1.20 | 1.60 | 1.62 | 1.39 | 1.75 | 1.75 | 1.70 | 1.70 | 1.40 | 1.77 | 1.70 | 1.68 | 1.35 | 1.70 | 1.33 | 1.87 | 1.59 | 1.57 |
| Minn. | 1.75 | 1.00 | 1.00 | 1.53 | 1.50 | 1.36 | 1.89 | 1.91 | 1.85 | 1.55 | 1.40 | 1.90 | 1.70 | 1.74 | 1.56 | 1.58 | 1.25 | 1.70 | 1.75 | 1.67 |
| Iowa. | 1.64 | 1.05 | 0.80 | 1.40 | 1.48 | 1.27 | 1.38 | 1.80 | 1.00 | 1.23 | 1.30 | 1.53 | 1.52 | 1.48 | 1.48 | 1.47 | 1.52 | 1.78 | 1.34 | 1.52 |
| Mo. | 1.35 | 1.30 | 0.60 | 1.30 | 0.60 | 1.03 | 1.70 | 1.52 | 1.30 | 1.15 | 0.90 | 1.35 | 1.24 | 1.17 | 1.20 | 1.10 | 1.22 | 1.39 | 1.10 | 1.20 |
| N. Dak. | 1.37 | 0.55 | 1.00 | 1.40 | 1.14 | 1.11 | 1.45 | 1.50 | 1.70 | 0.88 | 1.10 | 1.00 | 1.25 | 1.27 | 1.36 | 1.57 | 1.49 | 1.57 | 1.62 | 1.52 |
| S. Dak. | 1.50 | 0.80 | 0.55 | 1.46 | 1.20 | 1.10 | 1.70 | 2.00 | 1.90 | 1.50 | 1.60 | 1.75 | 1.75 | 1.74 | 1.60 | 1.81 | 1.70 | 1.65 | 1.32 | 1.63 |
| Nebr. | 1.50 | 1.00 | 0.66 | 1.35 | 1.34 | 1.21 | 1.69 | 2.60 | 2.10 | 1.60 | 1.40 | 1.86 | 1.90 | 1.88 | 1.27 | 1.95 | 2.42 | 2.23 | 1.77 | 2.19 |
| Kans. | 1.45 | 1.15 | 0.85 | 1.50 | 0.90 | 1.17 | 1.51 | 2.30 | 1.55 | 2.18 | 1.73 | 2.46 | 2.06 | 1.97 | 1.78 | 2.15 | 2.20 | 2.16 | 2.02 | 2.06 |
| Del. | 1.40 | 1.43 | 0.88 | 1.33 | 1.30 | 1.27 | 1.10 | 1.20 | 1.45 | 1.26 | 1.25 | 1.28 | 1.40 | 1.28 | 1.22 | 1.51 | 1.17 | 1.61 | 1.37 | 1.36 |
| Md. | 1.20 | 1.35 | 0.72 | 1.51 | 1.20 | 1.21 | 1.15 | 2.01 | 1.48 | 1.25 | 1.35 | 1.40 | 1.55 | 1.34 | 1.28 | 1.62 | 1.05 | 1.73 | 1.36 | 1.41 |
| Va. | 1.30 | 1.19 | 0.64 | 1.20 | 1.27 | 1.12 | 0.72 | 1.35 | 1.35 | 1.16 | 1.35 | 1.20 | 1.30 | 1.20 | 0.98 | 1.26 | 1.00 | 1.36 | 1.76 | 1.07 |
| W. Va. | 1.25 | 1.20 | 0.66 | 1.38 | 1.25 | 1.15 | 0.92 | 1.50 | 1.64 | 1.27 | 1.30 | 1.20 | 1.25 | 1.28 | 1.21 | 1.34 | 1.19 | 1.52 | 1.21 | 1.29 |
| N. C. | 1.38 | 1.50 | 1.05 | 1.30 | 1.31 | 1.31 | 1.15 | 1.85 | 1.30 | 1.13 | 1.20 | 1.02 | 1.05 | 1.24 | 1.19 | 1.20 | 1.22 | 0.96 | 0.67 | 1.05 |
| S. C. | 1.23 | 1.25 | 1.08 | 1.15 | 1.16 | 1.17 | 1.15 | 1.30 | 1.30 | 1.08 | 1.10 | 0.90 | 0.93 | 1.11 | 0.83 | 0.99 | 0.80 | 0.47 | 0.25 | 0.67 |
| Ga. | 1.35 | 1.40 | 1.35 | 1.35 | 1.40 | 1.37 | 1.35 | 1.15 | 1.15 | 1.08 | 1.24 | 0.85 | 0.81 | 1.08 | 0.89 | 0.84 | 0.60 | 0.51 | 0.33 | 0.65 |
| Fla. | 1.38 | 1.33 | 1.30 | 1.25 | 1.35 | 1.32 | 1.35 | 1.20 | 1.25 | 1.10 | 1.14 | 0.77 | 0.63 | 1.07 | 1.04 | 1.11 | 0.90 | 0.78 | 0.69 | 0.82 |
| Ky. | 1.30 | 1.29 | 0.95 | 1.23 | 0.97 | 1.14 | 0.95 | 1.40 | 1.40 | 1.30 | 1.30 | 1.15 | 1.20 | 1.24 | 1.10 | 1.38 | 1.36 | 1.42 | 1.14 | 1.28 |
| Tenn. | 1.50 | 1.40 | 1.00 | 1.30 | 1.21 | 1.28 | 1.20 | 1.47 | 1.38 | 1.20 | 1.35 | 1.16 | 1.28 | 1.29 | 1.16 | 1.33 | 1.15 | 1.04 | 0.92 | 1.12 |
| Ala. | 1.50 | 1.43 | 1.40 | 1.25 | 1.36 | 1.39 | 1.31 | 1.45 | 1.10 | 0.80 | 0.81 | 0.90 | 0.86 | 1.03 | 0.91 | 0.95 | 0.80 | 0.72 | 0.69 | 0.81 |
| Miss. | 1.47 | 1.42 | 1.50 | 1.48 | 1.33 | 1.44 | 1.45 | 1.40 | 1.40 | 1.45 | 1.20 | 1.35 | 1.44 | 1.38 | 1.14 | 1.22 | 1.25 | 0.94 | 1.00 | 1.11 |
| Ark. | 1.25 | 1.35 | 1.15 | 1.23 | 1.20 | 1.24 | 1.05 | 1.60 | 1.25 | 1.47 | 1.30 | 1.12 | 1.16 | 1.28 | 1.26 | 1.25 | 1.26 | 1.10 | 0.80 | 1.13 |
| La. | 1.50 | 1.75 | 1.30 | 1.65 | 1.50 | 1.54 | 1.90 | 1.75 | 1.70 | 1.60 | 1.30 | 1.44 | 1.40 | 1.58 | 1.29 | 1.33 | 1.44 | 0.73 | 0.90 | 1.14 |
| Okla. | 0.90 | 1.05 | 0.80 | 1.25 | 0.85 | 0.97 | 1.13 | 2.30 | 1.70 | 1.60 | 1.20 | 1.82 | 1.60 | 1.62 | 1.62 | 1.67 | 1.71 | 1.59 | 1.28 | 1.57 |
| Tex. | 0.95 | 1.15 | 1.00 | 1.40 | 1.16 | 1.13 | 1.75 | 1.70 | 1.20 | 1.00 | 1.00 | 1.60 | 1.40 | 1.38 | 1.40 | 1.56 | 1.64 | 1.17 | 0.81 | 1.32 |
| Mont. | 1.79 | 1.40 | 2.00 | 1.90 | 1.80 | 1.78 | 2.50 | 2.00 | 1.70 | 1.40 | 1.60 | 1.00 | 1.80 | 1.71 | 1.79 | 1.89 | 1.88 | 1.73 | 1.65 | 1.79 |
| Idaho. | 2.85 | 3.00 | 3.10 | 2.80 | 2.90 | 2.93 | 2.62 | 2.70 | 2.50 | 3.00 | 3.00 | 2.30 | 2.70 | 2.69 | 2.83 | 2.52 | 2.60 | 2.17 | 3.28 | 2.66 |
| Wyo. | 2.40 | 2.40 | 2.10 | 1.90 | 1.90 | 2.14 | 2.30 | 2.20 | 1.80 | 1.70 | 2.10 | 2.40 | 2.00 | 1.93 | 1.80 | 1.90 | 1.93 | 1.80 | 1.94 | 1.87 |
| Colo. | 2.50 | 2.00 | 2.00 | 2.19 | 2.05 | 2.15 | 2.40 | 2.20 | 2.05 | 2.45 | 2.22 | 2.05 | 2.15 | 2.22 | 2.16 | 1.91 | 2.05 | 2.11 | 2.15 | 2.08 |
| N. Mex. | 2.50 | 2.10 | 2.00 | 2.33 | 2.08 | 2.34 | 2.50 | 2.20 | 2.00 | 1.90 | 2.20 | 2.40 | 2.40 | 2.23 | 2.20 | 1.80 | 2.09 | 2.28 | 2.26 | 2.14 |
| Ariz. | 3.30 | 2.10 | 3.86 | 3.40 | 4.00 | 3.33 | 3.20 | 3.20 | 3.80 | 3.50 | 3.20 | 3.30 | 3.10 | 3.36 | 3.04 | 3.29 | 3.56 | 3.60 | 3.47 | 3.42 |
| Utah. | 2.90 | 3.00 | 2.50 | 2.78 | 2.33 | 2.70 | 2.75 | 2.50 | 2.20 | 2.90 | 2.35 | 1.92 | 2.02 | 2.46 | 2.53 | 2.75 | 2.09 | 2.02 | 3.30 | 2.66 |
| Nev. | 2.35 | 3.40 | 3.40 | 3.00 | 2.75 | 2.98 | 3.25 | 3.00 | 2.40 | 2.90 | 2.60 | 2.28 | 2.33 | 2.68 | 2.70 | 2.82 | 2.67 | 1.75 | 3.05 | 2.60 |
| Wash. | 2.10 | 2.10 | 2.40 | 2.20 | 2.30 | 2.22 | 2.20 | 2.30 | 2.40 | 2.20 | 1.80 | 2.40 | 2.00 | 2.19 | 2.22 | 1.98 | 2.36 | 1.86 | 2.36 | 2.15 |
| Oreg. | 2.05 | 2.10 | 2.10 | 2.20 | 2.10 | 2.11 | 2.00 | 2.20 | 2.30 | 1.95 | 1.80 | 1.72 | 2.25 | 2.03 | 2.10 | 2.00 | 2.24 | 1.46 | 2.07 | 1.97 |
| Calif. | 1.70 | 1.83 | 1.75 | 1.53 | 1.50 | 1.66 | 1.95 | 1.80 | 1.75 | 2.00 | 1.25 | 2.25 | 2.30 | 1.90 | 2.33 | 2.47 | 2.55 | 2.33 | 3.04 | 2.64 |
| U. S. | 1.46 | 1.36 | 1.14 | 1.47 | 1.31 | 1.35 | 1.43 | 1.68 | 1.64 | 1.51 | 1.37 | 1.52 | 1.51 | 1.52 | 1.40 | 1.57 | 1.49 | 1.60 | 1.46 | 1.50 |

Division of Crop and Livestock Estimates.

TABLE 356.—*Hay, wild: Yield in short tons per acre, by States, 1910-1925*

| State | 1910 | 1911 | 1912 | 1913 | Av. 1910- 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914- 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921- 1925 |
|---------|------|------|------|------|----------------------|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|----------------------|
| Me. | 1.05 | 0.90 | 0.96 | 0.80 | 0.93 | 1.05 | 0.95 | 1.03 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 0.86 | 1.10 | 1.10 | 0.96 | 0.94 | 0.99 |
| N. H. | 1.05 | .85 | 1.05 | .80 | .94 | 1.00 | .89 | 1.05 | 1.00 | .90 | 1.00 | .95 | .96 | .80 | 1.00 | .94 | .95 | .85 | .91 |
| Vt. | 1.10 | 1.05 | 1.25 | 1.03 | 1.11 | 1.07 | 1.05 | 1.35 | 1.00 | 1.00 | 1.10 | 1.00 | 1.08 | 1.00 | 1.10 | 1.00 | 1.00 | 1.05 | 1.03 |
| Mass. | 1.05 | .88 | 1.05 | 1.01 | 1.00 | 1.10 | 1.05 | 1.05 | 1.00 | 1.00 | 1.10 | 1.10 | 1.06 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| R. I. | 1.00 | .90 | .93 | .97 | .92 | 1.00 | 1.00 | 1.00 | .90 | .90 | .90 | 1.00 | .96 | .88 | .90 | .95 | .85 | .85 | .89 |
| Conn. | 1.00 | .90 | .95 | .89 | .94 | 1.15 | .95 | 1.17 | 1.00 | 1.00 | 1.08 | 1.00 | 1.05 | 1.10 | 1.00 | 1.20 | 1.07 | 1.05 | 1.08 |
| N. Y. | 1.05 | .87 | 1.10 | 1.00 | 1.00 | 1.30 | 1.00 | 1.45 | 1.25 | 1.00 | 1.26 | 1.19 | 1.21 | 1.00 | 1.15 | 1.18 | 1.28 | 1.12 | 1.15 |
| N. J. | 1.30 | .90 | 1.30 | 1.15 | 1.16 | 1.50 | 1.15 | 1.45 | 1.45 | 1.30 | 1.20 | 1.35 | 1.34 | 1.23 | 1.40 | 1.20 | 1.30 | 1.60 | 1.35 |
| Pa. | 1.20 | .85 | 1.25 | 1.20 | 1.12 | 1.16 | 1.00 | 1.55 | 1.30 | .95 | 1.25 | 1.24 | 1.21 | 1.20 | 1.30 | 1.15 | 1.35 | 1.24 | 1.23 |
| Ohio. | 1.25 | .90 | 1.30 | 1.20 | 1.16 | 1.10 | 1.42 | 1.60 | 1.30 | 1.50 | 1.30 | 1.28 | 1.34 | 1.40 | 1.50 | 1.15 | 1.14 | 1.14 | 1.27 |
| Ind. | 1.25 | .90 | 1.30 | 1.00 | 1.11 | 1.10 | 1.20 | 1.40 | 1.20 | 1.20 | 1.20 | 1.20 | 1.21 | 1.07 | 1.14 | 1.15 | 1.00 | .90 | 1.05 |
| Ill. | 1.10 | .75 | 1.10 | .85 | .95 | 1.05 | 1.30 | 1.20 | 1.40 | 1.30 | 1.15 | 1.20 | 1.23 | 1.20 | 1.25 | 1.15 | 1.35 | 1.00 | 1.19 |
| Mich. | 1.10 | .95 | 1.10 | .85 | 1.00 | 1.25 | 1.15 | 1.33 | 1.25 | 1.05 | 1.25 | 1.28 | 1.22 | 1.10 | 1.30 | 1.20 | 1.25 | .97 | 1.16 |
| Wis. | .90 | 1.00 | 1.25 | 1.30 | 1.11 | 1.33 | 1.35 | 1.47 | 1.37 | 1.55 | 1.36 | 1.28 | 1.39 | 1.20 | 1.30 | 1.30 | 1.30 | 1.30 | 1.28 |
| Minn. | .70 | .70 | 1.10 | 1.10 | .90 | 1.44 | 1.35 | 1.62 | 1.24 | 1.15 | 1.48 | 1.40 | 1.37 | 1.28 | 1.22 | 1.15 | 1.17 | 1.20 | 1.20 |
| Iowa. | .80 | .60 | 1.00 | 1.10 | .88 | 1.20 | 1.35 | 1.30 | 1.15 | 1.20 | 1.26 | 1.27 | 1.25 | 1.16 | 1.14 | 1.20 | 1.26 | 1.00 | 1.15 |
| Mo. | 1.00 | .50 | 1.00 | .60 | .78 | .84 | 1.15 | 1.10 | 1.00 | .75 | 1.16 | 1.12 | 1.02 | 1.10 | .95 | 1.10 | 1.22 | .86 | 1.05 |
| N. Dak. | .50 | .80 | 1.00 | .90 | .80 | 1.02 | 1.15 | 1.20 | .65 | .90 | .90 | .95 | .97 | 1.00 | 1.05 | 1.00 | .65 | .95 | .99 |
| S. Dak. | .60 | .40 | 1.00 | .80 | .70 | 1.10 | 1.40 | 1.25 | .90 | 1.00 | 1.00 | 1.12 | 1.11 | .80 | .90 | 1.20 | .75 | .62 | .85 |
| Nebr. | .75 | .65 | 1.00 | .90 | .82 | 1.07 | 1.20 | 1.10 | .85 | .88 | 1.02 | 1.02 | 1.02 | .84 | .85 | 1.10 | 1.00 | .75 | .91 |
| Kans. | .90 | .60 | 1.05 | .70 | .81 | .96 | 1.40 | 1.10 | .80 | .60 | 1.15 | .97 | 1.00 | 1.09 | 1.10 | 1.18 | 1.13 | .84 | 1.07 |
| Del. | 1.25 | .80 | 1.20 | 1.15 | 1.10 | 1.24 | 1.20 | 1.28 | 1.12 | 1.14 | 1.33 | 1.50 | 1.26 | .87 | 1.24 | 1.36 | 1.40 | 1.50 | 1.27 |
| Md. | 1.25 | .65 | 1.35 | 1.15 | 1.10 | 1.15 | 1.10 | 1.25 | 1.14 | 1.17 | 1.38 | 1.45 | 1.23 | 1.20 | 1.12 | 1.15 | 1.40 | 1.10 | 1.19 |
| Va. | 1.05 | .60 | 1.10 | 1.15 | .98 | .87 | 1.10 | 1.05 | 1.10 | 1.05 | 1.12 | 1.25 | 1.08 | .75 | 1.00 | 1.00 | 1.25 | .65 | .93 |
| W. Va. | 1.10 | .60 | 1.20 | 1.15 | 1.01 | .95 | 1.10 | 1.20 | 1.20 | 1.20 | 1.14 | 1.20 | 1.14 | 1.10 | 1.20 | 1.00 | 1.00 | 1.30 | 1.12 |
| N. C. | 1.20 | 1.00 | 1.10 | 1.15 | 1.11 | 1.10 | 1.40 | 1.07 | 1.01 | 1.00 | 1.00 | 1.20 | 1.11 | 1.00 | 1.00 | 1.00 | 1.00 | .62 | .92 |
| S. C. | 1.20 | 1.05 | 1.10 | 1.15 | 1.12 | 1.15 | 1.40 | 1.25 | 1.25 | 1.05 | 1.10 | 1.20 | 1.20 | .81 | .60 | .85 | .60 | .33 | .72 |
| Ga. | 1.30 | 1.30 | 1.50 | 1.35 | 1.31 | 1.15 | 1.30 | 1.25 | 1.10 | .91 | .95 | .90 | 1.07 | 1.00 | .92 | .90 | .60 | .51 | .70 |
| Fla. | 1.20 | 1.15 | 1.10 | 1.20 | 1.16 | 1.05 | 1.15 | 1.00 | 1.00 | 1.10 | 1.05 | .95 | 1.04 | .90 | .90 | .85 | .80 | .75 | .84 |
| Ky. | 1.05 | .90 | 1.05 | .80 | .95 | 1.20 | 1.20 | 1.15 | 1.50 | 1.00 | 1.10 | 1.00 | 1.16 | .90 | 1.15 | 1.00 | 1.20 | 1.05 | 1.06 |
| Tenn. | 1.15 | .95 | 1.10 | 1.05 | 1.06 | 1.20 | 1.10 | 1.20 | 1.10 | 1.00 | 1.10 | 1.15 | 1.12 | 1.15 | 1.10 | 1.10 | 1.00 | .65 | 1.00 |
| Ala. | 1.20 | 1.20 | 1.10 | 1.15 | 1.16 | 1.38 | 1.20 | 1.20 | 1.05 | 1.00 | 1.00 | 1.00 | 1.12 | .90 | .80 | .80 | .50 | .62 | .72 |
| Miss. | 1.20 | 1.30 | 1.25 | 1.15 | 1.23 | 1.20 | 1.10 | 1.25 | 1.22 | 1.20 | 1.30 | 1.30 | 1.22 | 1.00 | 1.10 | 1.20 | .60 | .75 | .93 |
| Ark. | 1.05 | .90 | 1.00 | 1.00 | .99 | 1.00 | 1.20 | 1.00 | 1.12 | .90 | 1.20 | 1.15 | 1.08 | 1.05 | 1.00 | 1.21 | .75 | .70 | .94 |
| La. | 1.35 | 1.00 | 1.25 | 1.20 | 1.20 | 1.55 | 1.40 | 1.40 | 1.25 | 1.00 | 1.50 | 1.30 | 1.34 | 1.30 | 1.40 | 1.20 | 1.00 | .70 | 1.12 |
| Okla. | .80 | .60 | .90 | .70 | .75 | .68 | 1.25 | 1.00 | .70 | .56 | 1.20 | 1.20 | .94 | 1.00 | .90 | .98 | 1.10 | .66 | .93 |
| Tex. | .90 | .70 | 1.00 | .90 | .88 | 1.25 | 1.40 | 1.05 | .75 | .60 | 1.25 | 1.10 | 1.06 | 1.10 | 1.10 | 1.10 | 1.00 | .45 | .95 |
| Mont. | .80 | 1.10 | 1.00 | .95 | .96 | .94 | 1.10 | .90 | .75 | .75 | .35 | .95 | .82 | .80 | .90 | .91 | .90 | .90 | .88 |
| Idaho. | 1.50 | 1.60 | 1.40 | 1.50 | 1.50 | 1.25 | 1.40 | 1.20 | 1.40 | 1.10 | 1.00 | 1.20 | 1.22 | 1.50 | 1.20 | 1.20 | .75 | 1.50 | 1.23 |
| Wyo. | 1.00 | .95 | .90 | .90 | .94 | 1.00 | .95 | .95 | 1.00 | 1.10 | .92 | 1.00 | .99 | .80 | .95 | 1.05 | .90 | 1.00 | .95 |
| Colo. | .90 | .90 | 1.10 | .95 | .96 | 1.20 | 1.12 | .92 | 1.02 | .94 | .89 | 1.05 | 1.02 | 1.00 | .97 | 1.05 | 1.00 | 1.00 | 1.00 |
| N. Mex. | .70 | .95 | .90 | .70 | .81 | .80 | .90 | .65 | .87 | .70 | .90 | .82 | .81 | .85 | .80 | .80 | .80 | .80 | .81 |
| Ariz. | .70 | .95 | .75 | 1.00 | .88 | .80 | .70 | 1.00 | 1.25 | 1.00 | 1.00 | .80 | .94 | 1.00 | .50 | 1.25 | .50 | .75 | .80 |
| Utah. | 1.60 | 1.55 | 1.60 | 1.50 | 1.56 | 1.60 | 1.60 | 1.50 | 1.75 | 1.10 | 1.17 | 1.23 | 1.42 | 1.10 | 1.38 | 1.52 | 1.05 | 1.70 | 1.35 |
| Nev. | 1.60 | 1.60 | 1.30 | 1.10 | 1.40 | 1.50 | 1.30 | 1.00 | 1.50 | .50 | .84 | 1.00 | 1.09 | 1.11 | 1.50 | 1.09 | .81 | 1.29 | 1.18 |
| Wash. | 1.20 | 1.40 | 1.25 | 1.25 | 1.28 | 1.30 | 1.20 | 1.40 | 1.40 | 1.33 | 1.20 | 1.15 | 1.28 | 1.50 | 1.14 | 1.58 | 1.00 | 1.55 | 1.35 |
| Oreg. | 1.15 | 1.20 | 1.25 | 1.20 | 1.20 | 1.22 | 1.30 | 1.10 | 1.10 | 1.00 | 1.18 | 1.20 | 1.16 | 1.10 | 1.00 | 1.10 | .75 | 1.20 | 1.03 |
| Calif. | 1.10 | 1.10 | 1.00 | 1.00 | 1.05 | 1.20 | 1.10 | 1.00 | 1.00 | 1.15 | .95 | 1.04 | 1.07 | 1.10 | 1.10 | 1.00 | .74 | 1.40 | 1.07 |
| U. S. | .77 | .71 | 1.04 | .92 | .86 | 1.11 | 1.27 | 1.19 | .93 | .94 | 1.07 | 1.11 | 1.09 | .98 | 1.02 | 1.12 | .98 | .88 | 1.00 |

Division of Crop and Livestock Estimates.

TABLE 357.—*Hay, alfalfa: Acreage, yield per acre, and production, by States, 1924 and 1925*

| State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | | State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | |
|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Me..... | 1 | 1 | 2.80 | 3.00 | 3 | 3 | N. C..... | 5 | 5 | 2.70 | 1.00 | 14 | 5 |
| N. H..... | 1 | 1 | 3.00 | 3.00 | 3 | 3 | S. C..... | 3 | 3 | 1.90 | .55 | 5 | 2 |
| Vt..... | 4 | 5 | 2.85 | 3.00 | 11 | 15 | Ga..... | 3 | 4 | 1.80 | .48 | 5 | 2 |
| Mass..... | 1 | 1 | 3.09 | 3.10 | 3 | 3 | Ky..... | 54 | 49 | 2.20 | 2.25 | 119 | 110 |
| Conn..... | 2 | 2 | 3.00 | 3.10 | 6 | 6 | Tenn..... | 15 | 15 | 2.00 | 1.50 | 30 | 22 |
| N. Y..... | 198 | 208 | 2.60 | 2.58 | 515 | 537 | Ala..... | 15 | 14 | 1.50 | 1.20 | 22 | 17 |
| N. J..... | 23 | 23 | 2.75 | 2.70 | 63 | 62 | Miss..... | 18 | 18 | 1.25 | 1.55 | 22 | 28 |
| Pa..... | 77 | 73 | 2.30 | 2.40 | 177 | 175 | Ark..... | 45 | 43 | 1.80 | 1.80 | 81 | 77 |
| Ohio..... | 152 | 161 | 2.50 | 2.30 | 380 | 370 | La..... | 12 | 10 | 1.25 | 1.55 | 15 | 16 |
| Ind..... | 115 | 207 | 2.30 | 2.13 | 264 | 441 | Okla..... | 240 | 204 | 1.80 | 1.50 | 432 | 306 |
| Ill..... | 225 | 248 | 2.85 | 2.60 | 641 | 646 | Tex..... | 60 | 71 | 1.85 | 1.80 | 111 | 128 |
| Mich..... | 350 | 392 | 2.35 | 2.05 | 822 | 804 | Mont..... | 598 | 604 | 2.01 | 2.00 | 1,202 | 1,208 |
| Wis..... | 287 | 310 | 2.80 | 2.65 | 804 | 822 | Idaho..... | 731 | 709 | 2.50 | 3.80 | 1,828 | 2,694 |
| Minn..... | 221 | 330 | 2.70 | 2.75 | 597 | 909 | Wyo..... | 400 | 400 | 2.00 | 2.20 | 800 | 880 |
| Iowa..... | 288 | 270 | 3.05 | 2.45 | 878 | 664 | Colo..... | 873 | 870 | 2.30 | 2.30 | 2,008 | 2,001 |
| Mo..... | 180 | 180 | 2.50 | 2.45 | 472 | 403 | N. Mex..... | 116 | 116 | 2.70 | 2.70 | 313 | 313 |
| S. Dak..... | 116 | 117 | 2.00 | 2.25 | 232 | 263 | Ariz..... | 125 | 128 | 4.30 | 4.00 | 538 | 512 |
| N. Dak..... | 711 | 754 | 1.80 | 1.43 | 1,280 | 1,078 | Utah..... | 467 | 495 | 2.14 | 3.50 | 999 | 1,732 |
| Nebr..... | 1,358 | 1,300 | 2.40 | 2.32 | 3,250 | 3,016 | Nev..... | 145 | 152 | 2.05 | 3.60 | 299 | 547 |
| Kans..... | 981 | 990 | 2.42 | 2.28 | 2,374 | 2,257 | Wash..... | 260 | 273 | 3.00 | 3.00 | 780 | 819 |
| Del..... | 2 | 2 | 2.50 | 2.70 | 5 | 5 | Oreg..... | 236 | 226 | 2.50 | 3.00 | 590 | 678 |
| Md..... | 19 | 19 | 2.45 | 2.40 | 47 | 46 | Calif..... | 964 | 971 | 3.75 | 4.20 | 3,615 | 4,078 |
| Va..... | 36 | 40 | 2.20 | 1.63 | 79 | 61 | U. S..... | 10,750 | 11,040 | 2.49 | 2.61 | 26,763 | 28,868 |
| W. Va..... | 8 | 8 | 2.50 | 2.00 | 20 | 16 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 358.—*Hay, clover: Acreage, yield per acre, and production, by States, 1924 and 1925*

| State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | | State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | |
|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Me..... | 33 | 33 | 1.50 | 1.70 | 50 | 56 | N. C..... | 104 | 114 | 1.00 | .70 | 104 | 80 |
| N. H..... | 9 | 9 | 1.60 | 1.80 | 14 | 16 | S. C..... | 3 | 3 | .85 | .25 | 3 | 1 |
| Vt..... | 25 | 25 | 1.70 | 1.90 | 42 | 48 | Ga..... | 5 | 5 | .90 | .42 | 4 | 2 |
| Mass..... | 17 | 17 | 1.96 | 2.00 | 33 | 34 | Fla..... | 1 | 1 | 1.00 | .60 | 1 | 1 |
| R. I..... | 1 | 1 | 1.60 | 1.90 | 2 | 2 | Ky..... | 164 | 145 | 1.45 | 1.00 | 238 | 174 |
| Conn..... | 4 | 4 | 2.00 | 2.05 | 8 | 8 | Tenn..... | 275 | 247 | 1.00 | .90 | 275 | 223 |
| N. Y..... | 450 | 455 | 1.65 | 1.62 | 742 | 737 | Ala..... | 24 | 22 | .79 | .73 | 19 | 16 |
| N. J..... | 28 | 28 | 1.86 | 1.60 | 52 | 46 | Miss..... | 97 | 96 | .91 | .95 | 88 | 98 |
| Pa..... | 314 | 330 | 1.62 | 1.58 | 509 | 521 | Ark..... | 95 | 90 | 1.00 | .75 | 95 | 68 |
| Ohio..... | 620 | 583 | 1.56 | 1.14 | 967 | 665 | La..... | 43 | 40 | .65 | .70 | 28 | 28 |
| Ind..... | 700 | 635 | 1.43 | .94 | 1,001 | 597 | Okla..... | 21 | 21 | 1.30 | 1.00 | 27 | 21 |
| Ill..... | 770 | 732 | 1.60 | 1.10 | 1,232 | 805 | Tex..... | 4 | 4 | 2.00 | .55 | 8 | 2 |
| Mich..... | 700 | 714 | 1.46 | .95 | 1,015 | 678 | Mont..... | 51 | 55 | 1.55 | 1.45 | 79 | 80 |
| Wis..... | 824 | 783 | 2.10 | 1.75 | 1,730 | 1,370 | Idaho..... | 45 | 42 | 1.90 | 2.60 | 81 | 109 |
| Minn..... | 550 | 582 | 1.74 | 1.90 | 957 | 1,106 | Wyo..... | 15 | 18 | 1.60 | 1.90 | 24 | 34 |
| Iowa..... | 700 | 630 | 1.89 | 1.35 | 1,280 | 850 | Colo..... | 20 | 20 | 1.80 | 1.90 | 36 | 38 |
| Mo..... | 700 | 686 | 1.45 | 1.20 | 1,015 | 823 | N. Mex..... | 2 | 2 | 2.00 | 1.70 | 4 | 3 |
| S. Dak..... | 190 | 213 | 1.75 | 2.00 | 332 | 428 | Utah..... | 3 | 3 | 1.50 | 2.50 | 4 | 8 |
| N. Dak..... | 117 | 105 | 1.60 | 1.25 | 187 | 131 | Nev..... | 1 | 1 | 1.70 | 2.50 | 2 | 2 |
| Nebr..... | 203 | 116 | 2.00 | 1.65 | 406 | 194 | Wash..... | 74 | 70 | 2.00 | 2.40 | 148 | 166 |
| Kans..... | 139 | 228 | 1.76 | 1.70 | 244 | 387 | Oreg..... | 131 | 113 | 1.70 | 2.10 | 223 | 207 |
| Del..... | 20 | 19 | 1.35 | 1.40 | 27 | 27 | Calif..... | 9 | 9 | 1.60 | 1.67 | 14 | 15 |
| Md..... | 85 | 82 | 1.60 | 1.31 | 136 | 107 | U. S..... | 8,596 | 8,341 | 1.60 | 1.35 | 13,781 | 11,231 |
| Va..... | 160 | 160 | 1.47 | .82 | 235 | 131 | | | | | | | |
| W. Va..... | 50 | 48 | 1.60 | 1.40 | 80 | 67 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 359.—*Hay, clover and timothy (mixed): Acreage, yield per acre, and production, by States, 1924 and 1925*

| State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | | State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | |
|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Me..... | 539 | 530 | 1.29 | 1.40 | 695 | 755 | Va..... | 300 | 285 | 1.60 | .75 | 480 | 214 |
| N. H..... | 154 | 154 | 1.40 | 1.50 | 216 | 231 | W. Va..... | 330 | 330 | 1.62 | 1.20 | 535 | 396 |
| Vt..... | 530 | 530 | 1.61 | 1.65 | 853 | 874 | N. C..... | 45 | 49 | 1.40 | .70 | 63 | 34 |
| Mass..... | 126 | 126 | 1.61 | 1.65 | 203 | 208 | Ga..... | 2 | 2 | 1.00 | .42 | 2 | 1 |
| R. I..... | 16 | 16 | 1.50 | 1.60 | 24 | 26 | Ky..... | 217 | 186 | 1.45 | 1.20 | 315 | 223 |
| Conn..... | 74 | 75 | 1.60 | 1.65 | 118 | 124 | Tenn..... | 250 | 238 | 1.00 | .85 | 250 | 202 |
| N. Y..... | 2,251 | 2,206 | 1.52 | 1.40 | 3,422 | 3,088 | Ala..... | 3 | 3 | 1.00 | 1.09 | 3 | 3 |
| N. J..... | 120 | 120 | 1.78 | 1.50 | 214 | 180 | Miss..... | 2 | 2 | 1.00 | 1.10 | 2 | 2 |
| Pa..... | 1,571 | 1,671 | 1.65 | 1.39 | 2,592 | 2,184 | Ark..... | 80 | 76 | 1.00 | .75 | 80 | 57 |
| Ohio..... | 1,244 | 1,139 | 1.60 | 1.05 | 1,990 | 1,196 | Okla..... | 10 | 11 | 1.39 | 1.10 | 14 | 12 |
| Ind..... | 660 | 579 | 1.60 | .86 | 1,056 | 498 | Tex..... | 1 | 1 | 1.00 | 1.00 | 1 | 1 |
| Ill..... | 839 | 776 | 1.58 | .98 | 1,326 | 760 | Mont..... | 157 | 157 | 1.61 | 1.70 | 253 | 267 |
| Mich..... | 1,518 | 1,456 | 1.50 | .80 | 2,277 | 1,165 | Idaho..... | 97 | 93 | 1.60 | 2.50 | 155 | 232 |
| Wis..... | 1,648 | 1,727 | 1.80 | 1.50 | 2,966 | 2,590 | Wyo..... | 74 | 73 | 1.61 | 2.00 | 119 | 146 |
| Minn..... | 849 | 806 | 1.59 | 1.68 | 1,350 | 1,273 | Colo..... | 126 | 126 | 1.90 | 2.00 | 239 | 252 |
| Iowa..... | 1,702 | 1,666 | 1.67 | 1.26 | 2,993 | 2,009 | N. Mex..... | 4 | 4 | 1.70 | 1.40 | 7 | 6 |
| Mo..... | 999 | 989 | 1.35 | 1.00 | 1,349 | 969 | Utah..... | 20 | 21 | 1.25 | 2.30 | 25 | 48 |
| N. Dak..... | 25 | 25 | 1.00 | 1.60 | 40 | 40 | Nev..... | 14 | 15 | 1.10 | 2.00 | 15 | 30 |
| S. Dak..... | 80 | 101 | 1.45 | 1.15 | 116 | 116 | Wash..... | 106 | 100 | 1.90 | 2.25 | 201 | 225 |
| Nebr..... | 155 | 50 | 1.70 | 1.34 | 264 | 67 | Oreg..... | 48 | 50 | 1.70 | 1.70 | 82 | 85 |
| Kans..... | 106 | 98 | 1.52 | 1.40 | 161 | 137 | Calif..... | 21 | 21 | 1.29 | 1.71 | 27 | 36 |
| Del..... | 27 | 28 | 1.50 | 1.30 | 40 | 36 | U. S..... | 17,424 | 16,814 | 1.58 | 1.27 | 27,478 | 21,349 |
| Md..... | 194 | 194 | 1.78 | 1.24 | 345 | 241 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.TABLE 360.—*Hay, timothy: Acreage, yield per acre, and production, by States, 1924 and 1925*

| State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | | State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | |
|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Me..... | 136 | 136 | 1.21 | 1.30 | 165 | 177 | W. Va..... | 220 | 211 | 1.45 | 1.12 | 319 | 236 |
| N. H..... | 44 | 44 | 1.30 | 1.45 | 57 | 64 | N. C..... | 25 | 26 | 1.20 | .64 | 30 | 17 |
| Vt..... | 135 | 135 | 1.36 | 1.50 | 184 | 202 | S. C..... | 2 | 2 | .85 | .25 | 2 | 1 |
| Mass..... | 56 | 56 | 1.47 | 1.55 | 82 | 87 | Ga..... | 4 | 4 | 1.00 | .42 | 4 | 2 |
| R. I..... | 8 | 8 | 1.56 | 1.45 | 12 | 12 | Ky..... | 239 | 200 | 1.25 | 1.00 | 299 | 200 |
| Conn..... | 35 | 36 | 1.55 | 1.57 | 54 | 57 | Tenn..... | 80 | 74 | .95 | .82 | 76 | 61 |
| N. Y..... | 1,270 | 1,232 | 1.40 | 1.27 | 1,778 | 1,665 | Ala..... | 4 | 2 | 1.00 | 1.00 | 4 | 2 |
| N. J..... | 63 | 63 | 1.63 | 1.35 | 103 | 85 | Miss..... | 4 | 4 | .90 | 1.00 | 4 | 4 |
| Pa..... | 971 | 942 | 1.55 | 1.28 | 1,505 | 1,206 | Ark..... | 30 | 29 | 1.00 | .75 | 30 | 22 |
| Ohio..... | 1,200 | 1,036 | 1.50 | .88 | 1,800 | 912 | Okla..... | 13 | 13 | 1.44 | 1.25 | 19 | 16 |
| Ind..... | 630 | 554 | 1.38 | .73 | 869 | 404 | Ill..... | 22 | 22 | 1.00 | 1.00 | 22 | 22 |
| Ill..... | 996 | 946 | 1.30 | .75 | 1,295 | 710 | Mont..... | 100 | 100 | 1.40 | 1.40 | 140 | 140 |
| Mich..... | 390 | 355 | 1.30 | .67 | 507 | 238 | Idaho..... | 67 | 54 | 1.20 | 1.90 | 68 | 103 |
| Wis..... | 439 | 430 | 1.57 | 1.30 | 689 | 559 | Wyo..... | 29 | 30 | 1.30 | 1.60 | 38 | 48 |
| Minn..... | 392 | 368 | 1.36 | 1.35 | 533 | 497 | Colo..... | 30 | 30 | 1.80 | 1.80 | 54 | 54 |
| Iowa..... | 471 | 430 | 1.38 | 1.00 | 650 | 430 | N. Mex..... | 5 | 5 | 1.70 | 1.40 | 8 | 7 |
| Mo..... | 1,153 | 1,141 | 1.15 | .83 | 1,326 | 947 | Utah..... | 8 | 8 | 1.25 | 2.15 | 10 | 17 |
| N. Dak..... | 76 | 70 | 1.15 | 1.25 | 87 | 88 | Nev..... | 8 | 8 | 1.10 | 2.00 | 9 | 16 |
| S. Dak..... | 72 | 72 | 1.18 | .90 | 85 | 65 | Wash..... | 51 | 51 | 1.50 | 2.00 | 76 | 102 |
| Nebr..... | 26 | 15 | 1.40 | 1.14 | 36 | 17 | Oreg..... | 18 | 17 | 1.50 | 2.00 | 27 | 34 |
| Kans..... | 69 | 72 | 1.26 | 1.26 | 87 | 91 | Calif..... | 5 | 5 | 1.20 | 1.60 | 6 | 8 |
| Del..... | 11 | 11 | 1.40 | 1.15 | 16 | 13 | U. S..... | 9,793 | 9,234 | 1.37 | 1.05 | 13,461 | 9,712 |
| Md..... | 70 | 70 | 1.63 | 1.23 | 114 | 86 | | | | | | | |
| Va..... | 126 | 117 | 1.45 | .75 | 183 | 88 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 361.—Hay, grains cut green: Acreage, yield per acre, and production, by States, 1924 and 1925

| State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | | State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | |
|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Me..... | 4 | 4 | 1.70 | 1.85 | 7 | 7 | N. C..... | 79 | 89 | 1.06 | 0.75 | 84 | 67 |
| N. H..... | 6 | 6 | 2.00 | 2.25 | 12 | 14 | S. C..... | 20 | 21 | .55 | .48 | 11 | 10 |
| Vt..... | 19 | 19 | 2.20 | 2.25 | 42 | 43 | Ga..... | 30 | 45 | .55 | .40 | 16 | 18 |
| Mass..... | 8 | 8 | 2.00 | 2.15 | 16 | 17 | Fla..... | 1 | 1 | .95 | .90 | 1 | 1 |
| R. I..... | 1 | 1 | 1.75 | 1.85 | 2 | 2 | Ky..... | 30 | 35 | 1.53 | 1.20 | 46 | 42 |
| Conn..... | 6 | 6 | 2.05 | 2.00 | 12 | 12 | Tenn..... | 50 | 50 | .80 | 1.00 | 40 | 50 |
| N. Y..... | 28 | 20 | 1.87 | 2.00 | 52 | 58 | Ala..... | 25 | 30 | .65 | .60 | 16 | 18 |
| N. J..... | 3 | 3 | 2.10 | 1.75 | 6 | 5 | Miss..... | 10 | 12 | .80 | .88 | 8 | 11 |
| Pa..... | 10 | 10 | 1.80 | 1.80 | 18 | 18 | Ark..... | 50 | 45 | 1.10 | .68 | 55 | 31 |
| Ohio..... | 25 | 25 | 1.70 | 1.30 | 42 | 32 | Okl..... | 33 | 38 | 1.00 | .78 | 33 | 30 |
| Ind..... | 27 | 36 | 1.50 | 1.11 | 40 | 40 | Tex..... | 45 | 58 | 1.10 | .45 | 50 | 28 |
| Ill..... | 20 | 25 | 1.44 | 1.09 | 29 | 27 | Mont..... | 190 | 211 | 1.40 | 1.10 | 266 | 232 |
| Mich..... | 20 | 22 | 1.40 | 1.14 | 28 | 25 | Idaho..... | 109 | 98 | 1.40 | 1.90 | 153 | 186 |
| Wis..... | 26 | 21 | 1.61 | 1.60 | 42 | 34 | Wyo..... | 53 | 62 | 1.50 | 1.40 | 80 | 87 |
| Minn..... | 46 | 44 | 1.65 | 1.70 | 76 | 75 | Colo..... | 88 | 90 | 1.00 | 1.40 | 88 | 126 |
| Iowa..... | 17 | 20 | 1.60 | 1.40 | 27 | 41 | N. Mex..... | 20 | 17 | 1.30 | 1.20 | 26 | 20 |
| Mo..... | 49 | 49 | 1.40 | 1.28 | 69 | 63 | Ariz..... | 23 | 20 | 1.50 | 1.50 | 34 | 30 |
| N. Dak..... | 197 | 213 | 1.40 | 1.65 | 276 | 351 | Utah..... | 6 | 6 | 1.00 | 1.80 | 6 | 11 |
| S. Dak..... | 46 | 50 | 1.10 | .90 | 51 | 45 | Nev..... | 7 | 7 | .90 | 1.50 | 6 | 10 |
| Nebr..... | 32 | 34 | 1.70 | 1.40 | 54 | 48 | Wash..... | 420 | 357 | 1.25 | 1.80 | 525 | 643 |
| Kans..... | 42 | 50 | 1.60 | 1.50 | 67 | 75 | Oreg..... | 410 | 415 | .80 | 1.70 | 328 | 706 |
| Del..... | 3 | 2 | 1.60 | 1.90 | 5 | 4 | Calif..... | 905 | 694 | .90 | 1.60 | 815 | 1,110 |
| Md..... | 5 | 4 | 2.00 | 1.57 | 10 | 6 | U. S..... | 3,290 | 3,137 | 1.14 | 1.46 | 3,743 | 4,567 |
| Va..... | 26 | 26 | 1.50 | 1.15 | 39 | 30 | | | | | | | |
| W. Va..... | 20 | 20 | 1.70 | 1.50 | 34 | 30 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 362.—Hay, annual legumes: Acreage, yield per acre, and production, by States, 1924 and 1925

| State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | | State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | |
|------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Vt..... | 1 | 1 | 2.00 | 1.50 | 2 | 2 | N. C..... | 423 | 397 | 0.82 | 0.63 | 347 | 250 |
| N. Y..... | 4 | 4 | 1.60 | 2.00 | 6 | 8 | S. C..... | 280 | 179 | .39 | .21 | 110 | 38 |
| N. J..... | 2 | 2 | 2.12 | 1.60 | 4 | 3 | Ga..... | 619 | 440 | .47 | .32 | 292 | 139 |
| Pa..... | 18 | 17 | 1.75 | 1.80 | 32 | 31 | Fla..... | 61 | 51 | .80 | .65 | 49 | 33 |
| Ohio..... | 46 | 37 | 1.55 | 1.70 | 71 | 63 | Ky..... | 90 | 80 | 1.61 | 1.45 | 159 | 116 |
| Ind..... | 168 | 157 | 1.18 | 1.39 | 199 | 218 | Tenn..... | 282 | 268 | 1.19 | 1.06 | 336 | 283 |
| Ill..... | 394 | 343 | 1.26 | 1.27 | 496 | 435 | Ala..... | 381 | 350 | .64 | .59 | 243 | 208 |
| Mich..... | 12 | 13 | 1.58 | 1.62 | 19 | 21 | Miss..... | 113 | 136 | .92 | .97 | 104 | 132 |
| Wis..... | 17 | 15 | 1.64 | 1.50 | 28 | 22 | Ark..... | 100 | 104 | .97 | .72 | 97 | 75 |
| Minn..... | 11 | 11 | 1.64 | 1.50 | 18 | 16 | La..... | 149 | 132 | .71 | .91 | 106 | 120 |
| Iowa..... | 20 | 20 | 2.00 | 1.70 | 40 | 34 | Okl..... | 14 | 20 | 1.00 | .85 | 14 | 17 |
| Mo..... | 151 | 141 | 1.40 | 1.51 | 212 | 213 | Tex..... | 117 | 102 | .68 | .47 | 80 | 48 |
| Nebr..... | 4 | 6 | 1.30 | 1.40 | 5 | 8 | Mont..... | 7 | 7 | 1.35 | 1.35 | 9 | 9 |
| Kans..... | 8 | 6 | 1.75 | 1.33 | 14 | 8 | Wash..... | 7 | 5 | 1.85 | 1.75 | 13 | 9 |
| Del..... | 18 | 16 | 1.70 | 1.40 | 31 | 22 | Oreg..... | 40 | 15 | 1.50 | 1.80 | 60 | 27 |
| Md..... | 38 | 34 | 1.84 | 2.00 | 70 | 68 | Calif..... | 18 | 18 | 1.40 | 1.70 | 25 | 31 |
| Va..... | 270 | 265 | .86 | .65 | 231 | 171 | U. S..... | 3,926 | 3,425 | .91 | .86 | 3,582 | 2,941 |
| W. Va..... | 34 | 33 | 1.76 | 1.91 | 60 | 63 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 363.—*Hay, millet, Sudan grass, and other: Acreage, yield per acre, and production, by States, 1924 and 1925*

| State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | | State | Thousands of acres | | Yield per acre (short tons) | | Production (thousands of short tons) | |
|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|-------------|--------------------|-------------------|-----------------------------|------|--------------------------------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| Me..... | 536 | 536 | 0.86 | 0.95 | 472 | 509 | N. C..... | 94 | 109 | 1.10 | 0.70 | 103 | 76 |
| N. H..... | 247 | 247 | .85 | .95 | 210 | 235 | S. C..... | 47 | 38 | .74 | .26 | 35 | 10 |
| Vt..... | 203 | 205 | 1.21 | 1.25 | 246 | 256 | Ga..... | 100 | 68 | .69 | .34 | 69 | 23 |
| Mass..... | 249 | 249 | 1.00 | 1.05 | 249 | 261 | Fla..... | 25 | 25 | .70 | .75 | 18 | 19 |
| R. I..... | 21 | 21 | 1.06 | 1.02 | 22 | 21 | Ky..... | 317 | 313 | 1.30 | .91 | 411 | 280 |
| Conn..... | 231 | 232 | 1.06 | 1.05 | 243 | 244 | Tenn..... | 425 | 404 | 1.01 | .87 | 428 | 352 |
| N. Y..... | 752 | 737 | .91 | 1.00 | 684 | 737 | Ala..... | 164 | 170 | .84 | .85 | 138 | 144 |
| N. J..... | 26 | 26 | 1.61 | 1.20 | 42 | 31 | Miss..... | 117 | 123 | .96 | 1.00 | 112 | 123 |
| Pa..... | 1.26 | 126 | 1.15 | 1.10 | 145 | 139 | Ark..... | 188 | 172 | 1.10 | .67 | 207 | 115 |
| Ohio..... | 44 | 40 | 1.20 | 1.15 | 53 | 46 | La..... | 60 | 60 | .72 | .92 | 43 | 55 |
| Ind..... | 75 | 68 | 1.00 | .97 | 75 | 66 | Okla..... | 200 | 180 | 1.53 | 1.23 | 306 | 221 |
| Ill..... | 481 | 433 | 1.10 | .80 | 529 | 346 | Tex..... | 579 | 546 | 1.20 | .78 | 695 | 426 |
| Mich..... | 60 | 54 | 1.50 | .75 | 90 | 40 | Mont..... | 103 | 98 | 1.34 | 1.00 | 138 | 98 |
| Wis..... | 76 | 76 | 1.63 | 1.10 | 124 | 84 | Idaho..... | 34 | 36 | 1.30 | 1.70 | 44 | 61 |
| Minn..... | 230 | 218 | 1.59 | 1.18 | 366 | 257 | Wyo..... | 75 | 80 | 1.40 | 1.10 | 105 | 88 |
| Iowa..... | 74 | 98 | 1.05 | 1.00 | 122 | 98 | Colo..... | 126 | 109 | 1.87 | 1.88 | 235 | 205 |
| Mo..... | 227 | 204 | 1.70 | 1.25 | 386 | 255 | N. Mex..... | 27 | 27 | 1.40 | 1.40 | 38 | 38 |
| N. Dak..... | 322 | 258 | 1.50 | 1.10 | 483 | 284 | Ariz..... | 10 | 12 | 1.10 | 1.10 | 11 | 13 |
| S. Dak..... | 76 | 71 | 1.31 | 1.20 | 100 | 85 | Utah..... | 33 | 35 | 1.25 | 1.65 | 41 | 58 |
| Nebr..... | 185 | 151 | 1.94 | 1.91 | 358 | 288 | Nev..... | 32 | 33 | 1.00 | 1.60 | 32 | 53 |
| Kans..... | 225 | 270 | 2.00 | 1.89 | 451 | 511 | Wash..... | 52 | 57 | 1.10 | 1.60 | 57 | 91 |
| Del..... | 4 | 4 | 1.25 | 1.30 | 5 | 5 | Oreg..... | 70 | 64 | 1.20 | 1.50 | 84 | 96 |
| Md..... | 15 | 15 | 1.10 | 1.08 | 16 | 16 | Calif..... | 68 | 62 | 1.10 | 2.20 | 143 | 136 |
| Va..... | 112 | 112 | 1.40 | .65 | 157 | 73 | U. S..... | 7,672 | 7,407 | 1.21 | 1.06 | 9,278 | 7,816 |
| W. Va..... | 129 | 135 | 1.22 | 1.05 | 157 | 142 | | | | | | | |

Division of Crop and Livestock Estimates.

¹ Preliminary.TABLE 364.—*Hay: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1909-1924*

| Year | Adverse weather conditions | | | | | | | | | | Plant diseases | Insect pests | Animal pests | Defective seed | Other and unknown causes | Total |
|------|----------------------------|--------------------|--------|-----------------|--------|-----------|--------|----------------|----------------|--------|----------------|--------------|--------------|----------------|--------------------------|--------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | | |
| | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. | P. ct. |
| 1906 | 10.7 | 2.2 | 0.6 | 1.2 | 0.1 | 0.3 | 0.3 | 0.3 | 15.7 | 0.1 | 0.5 | 0.1 | 0.1 | 1.1 | 17.6 | |
| 1910 | 17.4 | 1.2 | .3 | 1.2 | .1 | .6 | .1 | .4 | 21.2 | .1 | .5 | .2 | .1 | 1.5 | 23.6 | |
| 1911 | 27.7 | .8 | (1) | .9 | .1 | 1.9 | (1) | .5 | 31.9 | .1 | .6 | .1 | (1) | 1.9 | 34.7 | |
| 1915 | 3.7 | 4.9 | .6 | 1.8 | .1 | .1 | .3 | .4 | 11.9 | .2 | .5 | .1 | (1) | 1.2 | 13.9 | |
| 1916 | 5.5 | 1.0 | .3 | 1.1 | .1 | .2 | .1 | .3 | 8.6 | (1) | .3 | .1 | (1) | .6 | 9.6 | |
| 1917 | 11.5 | 1.3 | .2 | 2.9 | .2 | .3 | .1 | .3 | 16.8 | .1 | .4 | .1 | (1) | .9 | 18.3 | |
| 1918 | 17.5 | .7 | .2 | 2.8 | .1 | .8 | .1 | .5 | 22.7 | .1 | .9 | .2 | (1) | 1.0 | 24.9 | |
| 1919 | 9.9 | 1.9 | .3 | 1.0 | .1 | .4 | .1 | .2 | 13.9 | .1 | 1.0 | (1) | .1 | .5 | 15.6 | |
| 1920 | 7.2 | 1.4 | .2 | 1.3 | .2 | .2 | .1 | .1 | 10.7 | .2 | 1.0 | ----- | .1 | .7 | 12.7 | |
| 1921 | 15.1 | .9 | .2 | 1.4 | .2 | .7 | .2 | .7 | 19.4 | .2 | .9 | .2 | ----- | .3 | 21.0 | |
| 1922 | 10.6 | .9 | .2 | .8 | .2 | .3 | .1 | .1 | 13.2 | .2 | .8 | .1 | (1) | .2 | 14.5 | |
| 1923 | 12.7 | 1.5 | .4 | 1.9 | .8 | .4 | .1 | ----- | 17.3 | .2 | .8 | .1 | (1) | .3 | 18.7 | |
| 1924 | 13.8 | 1.7 | .2 | 1.4 | .3 | .2 | .1 | .1 | 17.8 | .2 | .6 | .1 | (1) | .3 | 19.0 | |

Division of Crop and Livestock Estimates.

¹ Less than 0.05 per cent.

TABLE 365.—Hay, all: United States, stocks on farms, May 1, 1910-1925

| Year | Production of all hay preceding year | Per cent on farms May 1 | On farms May 1 | Price per ton May 1 | Year | Production of all hay preceding year | Per cent on farms May 1 | On farms May 1 | Price per ton May 1 |
|----------|--------------------------------------|-------------------------|-------------------|---------------------|----------|--------------------------------------|-------------------------|-------------------|---------------------|
| | <i>Short tons</i> | <i>Per cent</i> | <i>Short tons</i> | | | <i>Short tons</i> | <i>Per cent</i> | <i>Short tons</i> | |
| 1910.... | 92,767,000 | 11.6 | 10,745,000 | \$11.08 | 1918.... | 98,439,000 | 11.7 | 11,476,000 | \$17.97 |
| 1911.... | 82,529,000 | 12.4 | 10,222,000 | 11.69 | 1919.... | 91,139,000 | 9.4 | 8,559,000 | 22.31 |
| 1912.... | 67,071,000 | 8.5 | 8,732,000 | 16.31 | 1920.... | 105,308,000 | 10.2 | 10,707,000 | 24.22 |
| 1913.... | 90,734,000 | 14.9 | 13,523,000 | 10.42 | 1921.... | 107,245,000 | 17.9 | 19,160,000 | 13.08 |
| 1914.... | 79,179,000 | 12.2 | 9,631,000 | 11.63 | 1922.... | 97,849,000 | 11.2 | 10,960,000 | 12.98 |
| 1915.... | 88,686,000 | 12.2 | 13,797,000 | 11.03 | 1923.... | 111,879,000 | 12.0 | 13,379,000 | 12.69 |
| 1916.... | 107,263,000 | 13.5 | 14,452,000 | 11.27 | 1924.... | 108,611,000 | 12.0 | 12,835,000 | 13.69 |
| 1917.... | 110,992,000 | 11.4 | 12,659,000 | 13.94 | 1925.... | 112,817,000 | 13.9 | 15,887,000 | 12.32 |

Division of Crop and Livestock Estimates.

TABLE 366.—Hay: Receipts at 12 markets, 1910-1925

| Year beginning July | Balti- more | Bos- ton | Chi- cago | Kan- sas City | Mil- wau- kee | Min- neap- olis | New York | Peo- ria | Phil- adel- phia | Pitts- burgh | St. Louis | San Fran- cisco | Total |
|-----------------------|-------------------|-------------------|-------------------|---------------------|---------------------|-----------------------|-------------------|-------------------|------------------------|-------------------|-------------------|-----------------------|-------------------|
| | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> |
| 1910..... | 68,589 | 162,420 | 273,983 | 308,940 | 38,313 | 66,306 | 336,471 | 37,419 | 85,851 | 119,685 | 253,540 | 184,594 | 1,937,111 |
| 1911..... | 69,284 | 164,196 | 351,630 | 318,948 | 44,199 | 63,570 | 286,474 | 41,822 | 96,484 | 116,608 | 256,462 | 177,483 | 1,956,160 |
| 1912..... | 58,939 | 139,920 | 274,709 | 343,392 | 47,138 | 37,280 | 296,868 | 38,131 | 82,063 | 106,993 | 222,908 | 141,224 | 1,789,723 |
| 1913..... | 63,186 | 117,740 | 300,032 | 285,288 | 36,283 | 38,280 | 317,543 | 43,060 | 75,630 | 103,406 | 261,155 | 133,596 | 1,844,861 |
| 1914..... | 54,904 | 115,161 | 325,095 | 308,604 | 45,060 | 45,513 | 330,098 | 33,957 | 78,583 | 83,923 | 308,727 | 161,756 | 1,981,875 |
| 1915..... | 50,415 | 126,590 | 273,181 | 398,172 | 34,637 | 45,376 | 294,395 | 51,299 | 94,000 | 106,710 | 232,628 | 140,560 | 1,843,969 |
| 1916..... | 50,874 | 123,780 | 237,932 | 359,316 | 24,360 | 35,652 | 212,250 | 48,703 | 78,284 | 92,202 | 310,591 | 104,468 | 1,678,585 |
| 1917..... | 64,053 | 97,150 | 352,730 | 419,064 | 23,131 | 39,129 | 199,727 | 40,250 | 61,618 | 74,075 | 237,506 | 82,460 | 1,691,790 |
| 1918..... | 41,870 | 67,000 | 287,081 | 386,460 | 16,656 | 28,457 | 221,580 | 35,050 | 31,571 | 72,721 | 213,042 | 72,440 | 1,473,879 |
| 1919..... | 32,650 | 58,740 | 225,050 | 599,340 | 19,053 | 22,601 | 167,088 | 33,306 | 52,466 | 65,080 | 213,042 | 85,807 | 1,613,823 |
| 1920..... | 19,559 | 50,220 | 140,801 | 537,169 | 19,466 | 23,015 | 150,338 | 21,140 | 40,057 | 79,082 | 188,550 | 73,272 | 1,153,049 |
| A v. 1914-1920..... | 44,904 | 91,234 | 264,403 | 414,146 | 26,052 | 34,249 | 225,069 | 37,696 | 60,941 | 81,768 | 235,012 | 104,108 | 1,610,581 |
| 1921..... | 13,730 | 51,290 | 135,625 | 196,584 | 19,038 | 23,467 | 98,904 | 10,970 | 51,226 | 70,162 | 121,104 | 59,185 | 857,195 |
| 1922..... | 15,536 | 47,010 | 152,632 | 244,160 | 17,626 | 25,972 | 92,516 | 33,060 | 42,188 | 61,709 | 138,312 | 60,017 | 930,807 |
| 1923..... | 26,830 | 42,910 | 149,623 | 257,774 | 17,094 | 30,624 | 84,682 | 29,470 | 49,884 | 60,918 | 136,414 | 69,583 | 955,206 |
| 1924 | | | | | | | | | | | | | |
| July..... | 1,371 | 4,780 | 13,720 | 15,609 | 1,144 | 2,018 | 7,614 | 730 | 3,780 | 3,087 | 9,968 | 8,268 | 72,980 |
| August..... | 930 | 2,010 | 6,986 | 23,705 | 680 | 1,810 | 4,487 | 3,240 | 2,088 | 1,903 | 8,470 | 5,524 | 61,839 |
| September..... | 809 | 2,750 | 12,275 | 23,860 | 1,275 | 1,541 | 5,461 | 4,960 | 2,856 | 1,490 | 13,932 | 3,736 | 74,745 |
| October..... | 1,208 | 5,210 | 19,100 | 38,424 | 874 | 3,330 | 6,774 | 4,000 | 3,456 | 5,643 | 12,072 | 4,664 | 101,815 |
| November..... | 1,264 | 3,170 | 14,061 | 24,936 | 1,037 | 2,298 | 4,603 | 3,330 | 3,280 | 8,514 | 15,975 | 4,490 | 87,258 |
| December..... | 830 | 2,790 | 13,482 | 21,240 | 850 | 2,764 | 7,586 | 1,630 | 2,232 | 4,108 | 9,852 | 4,881 | 72,545 |
| 1925 | | | | | | | | | | | | | |
| January..... | 1,456 | 4,060 | 16,771 | 45,732 | 966 | 3,062 | 5,104 | 1,700 | 3,216 | 5,676 | 21,396 | 5,495 | 114,634 |
| February..... | 808 | 2,850 | 15,929 | 32,628 | 337 | 2,779 | 2,519 | 1,680 | 2,388 | 4,422 | 12,108 | 2,657 | 81,175 |
| March..... | 1,416 | 9,870 | 12,749 | 32,268 | 266 | 2,866 | 2,677 | 2,360 | 1,012 | 2,750 | 5,096 | 3,866 | 77,966 |
| April..... | 880 | 2,210 | 9,187 | 18,180 | 504 | 2,261 | 3,636 | 3,220 | 2,140 | 4,848 | 5,720 | 3,081 | 56,777 |
| May..... | 1,808 | 3,480 | 12,295 | 12,192 | 565 | 1,698 | 6,511 | 860 | 3,000 | 2,100 | 4,763 | 2,164 | 51,346 |
| June..... | 1,698 | 3,530 | 8,760 | 15,420 | 732 | 1,326 | 4,991 | 870 | 2,536 | (1) | 3,553 | (1) | 42,816 |
| Total..... | 13,978 | 46,710 | 155,375 | 303,994 | 9,236 | 27,663 | 61,963 | 28,430 | 32,884 | 46,041 | 122,905 | 49,726 | 898,995 |
| July..... | 887 | 3,090 | 11,856 | 30,864 | 828 | 2,104 | 8,403 | 1,600 | 1,380 | (1) | 4,829 | 10,702 | 76,543 |
| August..... | 795 | 7,010 | 10,611 | 30,324 | 1,145 | 2,420 | 6,410 | 5,130 | 1,272 | (1) | 6,842 | 9,812 | 81,771 |
| September..... | 997 | 7,020 | 16,244 | 24,564 | 1,404 | 1,282 | 4,700 | 3,950 | 2,532 | (1) | 3,740 | 5,858 | 64,689 |
| October..... | 1,177 | 3,220 | 15,456 | 29,580 | 1,392 | 2,389 | 8,068 | 3,620 | 2,904 | (1) | 9,603 | 5,303 | 82,282 |
| November..... | 1,645 | 3,490 | 17,447 | 33,180 | 1,228 | 3,789 | 7,420 | 1,350 | 3,720 | (1) | 6,842 | 3,300 | 83,311 |
| December..... | 1,232 | 4,340 | 14,601 | 32,352 | 2,481 | 3,018 | 4,236 | 2,080 | 2,748 | (1) | 7,447 | 2,928 | 77,463 |
| Total six months..... | 6,633 | 23,670 | 86,215 | 177,864 | 8,478 | 15,002 | 39,237 | 17,200 | 14,556 | (1) | 39,303 | 37,901 | 460,069 |

Division of Statistical and Historical Research. Compiled from Hay Trade Journal; Annual Reports of San Francisco Merchants' Exchange; Minneapolis Chamber of Commerce Reports and Daily Market Record; Chicago Board of Trade and Daily Trade Bulletin; Kansas City Grain Market Review.

1 Not reported.

TABLE 367.—Hay: Shipments from eight markets, 1910–1925.

| Year beginning July | Balti- more | Chicago | Kansas City | Mil- waukee | Minne- apolis | Peoria | Pitts- burgh | St. Louis | Total |
|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> |
| 1910..... | 11,864 | 18,011 | 93,828 | 5,958 | 31,350 | 10,373 | 76,631 | 112,435 | 360,450 |
| 1911..... | 13,267 | 49,160 | 58,896 | 4,445 | 28,910 | 17,222 | 75,420 | 146,285 | 393,595 |
| 1912..... | 8,313 | 22,681 | 85,176 | 3,159 | 4,820 | 7,819 | 65,800 | 105,538 | 303,301 |
| 1913..... | 8,995 | 30,184 | 78,756 | 9,718 | 5,500 | 16,077 | 65,148 | 130,376 | 362,754 |
| 1914..... | 8,806 | 83,414 | 67,608 | 17,306 | 5,390 | 19,788 | 37,512 | 172,590 | 412,504 |
| 1915..... | 9,681 | 55,791 | 73,668 | 6,841 | 4,156 | 9,676 | 87,216 | 90,415 | 337,444 |
| 1916..... | 13,657 | 33,439 | 138,432 | 5,765 | 4,351 | 15,324 | 55,032 | 103,990 | 369,990 |
| 1917..... | 26,913 | 62,665 | 222,912 | 5,293 | 7,042 | 10,621 | 20,536 | 177,240 | 533,222 |
| 1918..... | 20,221 | 52,802 | 143,040 | 2,886 | 4,147 | 7,650 | 23,511 | 119,625 | 373,982 |
| 1919..... | 4,118 | 32,637 | 276,492 | 5,270 | 6,925 | 6,151 | 26,267 | 111,695 | 469,555 |
| 1920..... | ..... | 18,631 | 153,648 | 3,863 | 2,020 | 7,100 | 40,480 | 63,250 | 288,992 |
| Av. 1914-1920..... | ..... | 48,483 | 153,686 | 6,761 | 4,862 | 10,901 | 41,508 | 110,829 | 397,956 |
| 1921..... | ..... | 9,700 | 50,748 | 10,435 | 3,531 | 4,520 | 31,509 | 43,610 | 154,053 |
| 1922..... | ..... | 10,951 | 78,660 | 14,879 | 2,625 | 3,460 | 7,323 | 61,720 | 179,618 |
| 1923..... | ..... | 14,280 | 101,048 | 6,121 | 3,584 | 2,130 | ..... | 54,452 | 181,615 |
| 1924..... | ..... | 8,160 | 129,780 | 2,295 | 2,352 | 1,370 | ..... | 48,886 | 192,843 |
| 1924 | | | | | | | | | |
| July..... | ..... | 518 | 5,268 | 380 | 220 | 80 | ..... | 3,690 | 10,156 |
| August..... | ..... | 243 | 8,364 | 126 | 251 | 60 | ..... | 3,230 | 9,294 |
| September..... | ..... | 332 | 8,304 | ..... | 80 | 140 | ..... | 3,095 | 12,851 |
| October..... | ..... | 1,142 | 13,596 | 12 | 178 | 100 | ..... | 3,950 | 18,978 |
| November..... | ..... | 1,005 | 12,180 | 192 | 120 | 140 | ..... | 5,485 | 19,122 |
| December..... | ..... | 515 | 10,056 | 108 | 190 | 60 | ..... | 2,490 | 13,419 |
| 1925 | | | | | | | | | |
| January..... | ..... | 1,094 | 21,048 | 300 | 251 | 100 | ..... | 6,025 | 28,818 |
| February..... | ..... | 1,167 | 15,552 | 204 | 270 | 240 | ..... | 4,815 | 22,248 |
| March..... | ..... | 1,074 | 15,984 | 276 | 275 | 230 | ..... | 5,906 | 23,745 |
| April..... | ..... | 446 | 8,808 | 288 | 190 | 60 | ..... | 4,260 | 14,052 |
| May..... | ..... | 294 | 6,324 | 165 | 230 | 70 | ..... | 2,904 | 9,987 |
| June..... | ..... | 330 | 7,296 | 244 | 97 | 100 | ..... | 2,136 | 10,203 |
| Total..... | ..... | 8,160 | 129,780 | 2,295 | 2,352 | 1,370 | ..... | 48,886 | 192,843 |
| July..... | ..... | 617 | 12,876 | 140 | 191 | 180 | ..... | 2,004 | 16,908 |
| August..... | ..... | 173 | 12,204 | 60 | 144 | 50 | ..... | 2,304 | 14,935 |
| September..... | ..... | 459 | 11,196 | 206 | 75 | 190 | ..... | 3,538 | 15,664 |
| October..... | ..... | 1,228 | 11,940 | 240 | 128 | 370 | ..... | 3,960 | 17,866 |
| November..... | ..... | 1,008 | 14,796 | 132 | 646 | 130 | ..... | 3,880 | 20,601 |
| December..... | ..... | 2,236 | 17,700 | 263 | 339 | 540 | ..... | 4,488 | 25,566 |
| Total six months..... | ..... | 5,811 | 80,712 | 1,041 | 1,523 | 1,460 | ..... | 21,083 | 111,630 |

Division of Statistical and Historical Research. Compiled from Hay Trade Journal; Chicago Board of Trade, and Daily Trade Bulletin; Kansas City Board of Trade, and Grain Market Review; Minneapolis Daily Market Record; Peoria Board of Trade.

TABLE 368.—Hay, tame: Estimated price per ton, received by producers, December 1, average 1909–1913, annual 1914–1925

| State | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|---------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|-------|-------|-------|-------|----------------------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| Maine..... | 13.90 | 13.10 | 14.90 | 12.40 | 11.10 | 13.90 | 18.70 | 24.60 | 15.63 | 20.00 | 13.10 | 13.50 | 13.00 | 12.00 | 14.32 |
| New Hampshire..... | 16.62 | 17.00 | 17.40 | 14.50 | 12.00 | 18.80 | 24.00 | 25.00 | 18.39 | 28.00 | 19.50 | 19.00 | 18.50 | 18.50 | 20.70 |
| Vermont..... | 13.92 | 14.60 | 15.50 | 12.60 | 11.50 | 16.30 | 20.10 | 23.00 | 16.23 | 22.00 | 17.50 | 16.50 | 16.10 | 13.20 | 17.06 |
| Massachusetts..... | 20.72 | 21.50 | 22.00 | 19.00 | 19.90 | 26.00 | 27.00 | 28.00 | 23.34 | 27.00 | 23.00 | 26.00 | 24.00 | 23.00 | 24.60 |
| Rhode Island..... | 21.14 | 20.20 | 22.50 | 20.00 | 20.30 | 25.50 | 32.00 | 33.20 | 24.81 | 27.00 | 26.50 | 26.80 | 24.00 | 23.50 | 25.56 |
| Connecticut..... | 20.88 | 19.50 | 20.00 | 18.50 | 19.50 | 24.00 | 30.20 | 30.00 | 23.10 | 26.00 | 26.00 | 24.00 | 25.00 | 24.50 | 25.10 |
| New York..... | 15.20 | 14.60 | 15.70 | 11.90 | 15.10 | 20.40 | 20.50 | 23.60 | 17.40 | 18.00 | 14.10 | 16.20 | 14.50 | 14.60 | 15.48 |
| New Jersey..... | 19.14 | 19.50 | 19.00 | 17.60 | 20.00 | 28.00 | 29.10 | 27.50 | 22.96 | 18.00 | 18.10 | 26.90 | 19.00 | 20.00 | 20.40 |
| Pennsylvania..... | 14.02 | 14.50 | 15.60 | 13.80 | 17.50 | 23.70 | 24.00 | 23.50 | 18.94 | 17.00 | 14.30 | 21.50 | 16.00 | 17.00 | 17.16 |
| Ohio..... | 13.62 | 13.40 | 12.70 | 10.60 | 19.00 | 22.20 | 21.80 | 19.30 | 17.03 | 11.50 | 10.80 | 16.70 | 12.80 | 16.20 | 13.40 |
| Indiana..... | 12.94 | 14.10 | 11.00 | 10.90 | 18.70 | 19.80 | 21.60 | 19.30 | 16.49 | 13.00 | 11.20 | 15.60 | 12.50 | 15.50 | 13.56 |
| Illinois..... | 13.12 | 14.40 | 10.80 | 11.30 | 20.00 | 21.00 | 21.40 | 20.60 | 17.07 | 13.50 | 12.50 | 14.80 | 13.50 | 15.90 | 14.04 |
| Michigan..... | 13.56 | 12.00 | 12.20 | 10.60 | 17.20 | 23.50 | 23.40 | 21.00 | 17.04 | 13.00 | 10.10 | 14.50 | 12.10 | 16.50 | 13.24 |
| Wisconsin..... | 12.70 | 9.30 | 9.00 | 11.60 | 17.30 | 21.60 | 20.30 | 20.40 | 15.77 | 15.40 | 12.30 | 16.00 | 13.30 | 14.00 | 14.20 |
| Minnesota..... | 8.00 | 6.10 | 6.40 | 7.00 | 12.10 | 14.10 | 14.50 | 11.20 | 10.20 | 8.60 | 10.70 | 11.30 | 11.50 | 11.00 | 10.62 |
| Iowa..... | 9.60 | 10.10 | 8.70 | 9.00 | 16.80 | 18.20 | 17.40 | 16.24 | 13.78 | 9.30 | 10.00 | 12.50 | 11.40 | 13.50 | 11.34 |
| Missouri..... | 11.02 | 13.60 | 8.50 | 9.30 | 17.50 | 20.50 | 19.50 | 15.70 | 14.94 | 9.80 | 11.50 | 12.00 | 12.00 | 12.80 | 11.62 |
| North Dakota..... | 6.18 | 5.20 | 5.70 | 6.00 | 11.50 | 14.60 | 14.10 | 9.90 | 9.57 | 7.70 | 7.50 | 6.80 | 7.60 | 7.20 | 7.36 |
| South Dakota..... | 6.66 | 5.70 | 5.30 | 5.40 | 10.60 | 10.00 | 13.50 | 8.50 | 8.43 | 6.40 | 7.50 | 8.10 | 8.90 | 11.00 | 8.38 |
| Nebraska..... | 8.34 | 6.90 | 5.80 | 7.10 | 15.20 | 17.20 | 14.00 | 9.00 | 10.74 | 7.00 | 11.20 | 10.20 | 9.60 | 12.10 | 10.02 |
| Kansas..... | 8.76 | 7.40 | 5.60 | 7.60 | 16.60 | 19.40 | 15.80 | 10.20 | 11.80 | 8.00 | 9.30 | 10.60 | 11.20 | 12.10 | 10.24 |
| Delaware..... | 16.60 | 17.00 | 17.00 | 15.90 | 20.00 | 23.00 | 20.00 | 21.60 | 20.84 | 17.50 | 19.00 | 21.00 | 17.00 | 20.00 | 18.90 |
| Maryland..... | 16.36 | 15.30 | 16.20 | 14.00 | 19.90 | 26.80 | 24.00 | 25.00 | 20.17 | 15.10 | 18.50 | 23.60 | 16.40 | 19.00 | 18.52 |
| Virginia..... | 15.80 | 17.20 | 15.70 | 15.00 | 21.30 | 23.00 | 23.70 | 23.50 | 19.91 | 17.70 | 16.00 | 20.00 | 17.80 | 21.00 | 18.50 |
| West Virginia..... | 15.64 | 17.20 | 15.50 | 14.50 | 21.10 | 23.50 | 25.60 | 24.20 | 20.16 | 17.50 | 16.80 | 19.90 | 17.60 | 20.00 | 18.36 |
| North Carolina..... | 15.84 | 17.10 | 16.50 | 17.50 | 19.70 | 21.00 | 24.20 | 23.00 | 19.84 | 19.80 | 18.20 | 20.00 | 21.00 | 22.00 | 20.20 |
| South Carolina..... | 17.04 | 17.00 | 15.60 | 16.70 | 20.60 | 23.10 | 31.00 | 25.00 | 21.71 | 20.00 | 17.50 | 18.00 | 22.00 | 20.00 | 19.50 |
| Georgia..... | 16.82 | 16.20 | 15.10 | 16.20 | 20.00 | 23.50 | 25.30 | 23.50 | 19.97 | 15.80 | 17.00 | 18.90 | 19.00 | 21.00 | 18.34 |
| Florida..... | 17.36 | 17.20 | 16.00 | 16.00 | 18.20 | 18.50 | 23.00 | 19.00 | 18.27 | 19.60 | 18.50 | 20.00 | 20.00 | 23.00 | 20.20 |
| Kentucky..... | 14.50 | 16.00 | 10.30 | 11.00 | 14.30 | 21.20 | 23.00 | 22.00 | 18.93 | 15.50 | 14.50 | 17.00 | 18.00 | 18.70 | 16.74 |
| Tennessee..... | 14.98 | 17.00 | 13.90 | 15.00 | 19.30 | 24.00 | 27.00 | 20.50 | 19.53 | 15.50 | 16.40 | 18.50 | 20.00 | 22.00 | 18.48 |
| Alabama..... | 13.66 | 13.80 | 12.40 | 13.00 | 16.20 | 20.30 | 22.30 | 19.50 | 16.79 | 15.60 | 17.00 | 18.50 | 19.00 | 20.00 | 18.02 |
| Mississippi..... | 12.14 | 12.00 | 11.00 | 11.00 | 15.30 | 18.50 | 20.50 | 17.20 | 15.07 | 14.50 | 14.50 | 15.50 | 17.50 | 17.70 | 15.94 |
| Arkansas..... | 12.09 | 12.90 | 10.30 | 12.50 | 15.40 | 19.50 | 20.50 | 16.00 | 15.30 | 12.50 | 13.60 | 16.00 | 16.40 | 18.00 | 15.30 |
| Louisiana..... | 11.88 | 12.00 | 10.30 | 11.00 | 14.30 | 21.20 | 23.00 | 16.00 | 15.40 | 14.00 | 13.30 | 15.00 | 17.80 | 19.00 | 15.82 |
| Oklahoma..... | 8.30 | 7.90 | 5.60 | 9.00 | 15.40 | 19.50 | 15.10 | 10.80 | 11.86 | 8.20 | 12.50 | 14.30 | 13.30 | 16.00 | 12.86 |
| Texas..... | 11.60 | 9.80 | 7.90 | 10.50 | 20.00 | 24.00 | 18.00 | 13.40 | 14.93 | 9.00 | 11.50 | 16.00 | 10.80 | 18.80 | 14.00 |
| Montana..... | 10.08 | 8.70 | 7.50 | 11.00 | 18.60 | 19.60 | 23.00 | 12.00 | 14.34 | 8.70 | 9.00 | 8.90 | 10.00 | 10.00 | 9.32 |
| Idaho..... | 7.84 | 7.30 | 7.70 | 12.10 | 16.00 | 17.60 | 22.00 | 12.50 | 13.60 | 6.70 | 10.00 | 8.90 | 12.20 | 8.50 | 9.26 |
| Wyoming..... | 9.40 | 7.50 | 7.80 | 12.00 | 17.00 | 14.00 | 23.00 | 12.00 | 13.33 | 7.50 | 8.50 | 9.60 | 9.80 | 8.90 | 8.86 |
| Colorado..... | 9.76 | 7.40 | 7.60 | 11.00 | 16.60 | 15.50 | 18.50 | 12.00 | 12.66 | 6.90 | 11.20 | 11.30 | 11.00 | 12.00 | 10.48 |
| New Mexico..... | 11.24 | 9.30 | 8.80 | 14.00 | 21.00 | 20.00 | 18.20 | 17.00 | 15.47 | 12.70 | 19.50 | 16.00 | 15.40 | 15.00 | 15.72 |
| Arizona..... | 12.16 | 8.80 | 9.60 | 14.50 | 24.80 | 24.00 | 20.00 | 29.00 | 18.67 | 13.00 | 18.00 | 15.00 | 16.30 | 17.00 | 15.86 |
| Utah..... | 8.82 | 7.70 | 8.00 | 15.00 | 15.00 | 17.10 | 21.90 | 13.00 | 13.96 | 6.20 | 8.20 | 8.90 | 12.00 | 9.00 | 8.86 |
| Nevada..... | 10.10 | 8.30 | 7.50 | 9.60 | 15.90 | 19.90 | 19.60 | 16.00 | 13.83 | 9.00 | 11.80 | 11.00 | 14.20 | 9.00 | 11.00 |
| Washington..... | 12.54 | 11.00 | 10.80 | 13.80 | 20.00 | 25.40 | 23.00 | 18.50 | 17.50 | 10.50 | 16.20 | 12.00 | 15.50 | 15.00 | 13.84 |
| Oregon..... | 10.14 | 9.20 | 9.50 | 10.90 | 17.50 | 20.00 | 19.10 | 14.50 | 14.39 | 9.80 | 13.60 | 11.00 | 13.30 | 11.60 | 11.86 |
| California..... | 11.84 | 8.20 | 11.20 | 12.60 | 19.20 | 20.00 | 17.20 | 20.00 | 15.49 | 11.00 | 15.00 | 14.00 | 21.70 | 14.00 | 15.14 |
| United States..... | 12.25 | 11.12 | 10.63 | 11.22 | 17.09 | 20.13 | 20.05 | 17.76 | 15.43 | 12.11 | 12.56 | 14.13 | 13.76 | 13.99 | 13.31 |

Division of Crop and Livestock Estimates.

As reported by crop reporters.

TABLE 369.—*Hay, all (loose): Estimated price per ton, received by producers, United States, 1909-1925*

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted av. |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1909..... | 10.12 | 9.70 | 9.85 | 10.19 | 10.42 | 10.48 | 10.90 | 11.48 | 11.57 | 11.30 | 10.96 | 10.80 | 10.61 |
| 1910..... | 10.75 | 10.98 | 11.16 | 11.16 | 11.67 | 11.92 | 11.74 | 11.68 | 11.46 | 11.52 | 12.04 | 12.78 | 11.54 |
| 1911..... | 13.61 | 13.73 | 13.58 | 13.57 | 13.95 | 14.02 | 14.07 | 14.62 | 15.15 | 15.98 | 16.26 | 15.27 | 14.86 |
| 1912..... | 13.18 | 11.62 | 11.12 | 11.05 | 11.44 | 11.45 | 10.98 | 10.74 | 10.52 | 10.42 | 10.48 | 10.51 | 11.17 |
| 1913..... | 10.45 | 10.74 | 11.24 | 11.48 | 11.97 | 12.06 | 11.08 | 11.68 | 11.60 | 11.58 | 11.64 | 11.46 | 11.49 |
| Av. 1909-1913.... | 11.60 | 11.35 | 11.39 | 11.49 | 11.89 | 11.90 | 11.87 | 12.02 | 12.06 | 12.16 | 12.28 | 12.16 | 11.83 |
| 1914..... | 11.02 | 10.98 | 11.03 | 10.87 | 10.95 | 10.80 | 10.65 | 10.86 | 10.94 | 11.00 | 11.10 | 11.00 | 10.92 |
| 1915..... | 10.52 | 10.07 | 9.89 | 9.90 | 9.92 | 9.97 | 10.31 | 10.65 | 10.80 | 11.06 | 11.37 | 11.28 | 10.40 |
| 1916..... | 10.50 | 9.80 | 9.68 | 9.82 | 10.31 | 10.74 | 11.10 | 11.44 | 12.04 | 13.24 | 14.31 | 14.32 | 11.22 |
| 1917..... | 13.43 | 13.08 | 13.54 | 14.50 | 15.85 | 17.32 | 18.98 | 19.01 | 18.91 | 18.32 | 17.55 | 16.60 | 16.80 |
| 1918..... | 16.00 | 16.67 | 17.94 | 18.56 | 19.31 | 19.64 | 19.86 | 19.80 | 20.17 | 21.42 | 22.80 | 22.52 | 19.42 |
| 1919..... | 20.94 | 20.34 | 20.16 | 19.58 | 19.40 | 20.00 | 21.16 | 22.04 | 22.62 | 23.58 | 24.54 | 24.24 | 21.65 |
| 1920..... | 22.26 | 20.38 | 19.41 | 18.20 | 17.08 | 16.43 | 15.70 | 14.76 | 13.94 | 13.34 | 12.80 | 12.56 | 16.27 |
| Av. 1914-1920.... | 14.95 | 14.47 | 14.52 | 14.53 | 14.69 | 14.96 | 15.32 | 15.51 | 15.63 | 15.99 | 16.35 | 16.07 | 15.17 |
| 1921..... | 12.17 | 11.72 | 11.52 | 11.24 | 11.10 | 11.29 | 11.34 | 11.58 | 12.05 | 12.64 | 12.82 | 12.28 | 11.74 |
| 1922..... | 11.44 | 10.78 | 10.68 | 10.87 | 11.38 | 11.82 | 11.98 | 12.04 | 12.18 | 12.54 | 12.82 | 12.32 | 11.67 |
| 1923..... | 11.78 | 11.68 | 12.25 | 12.44 | 12.75 | 13.15 | 13.69 | 13.60 | 13.63 | 13.73 | 13.65 | 13.75 | 12.98 |
| 1924..... | 13.40 | 12.95 | 12.68 | 12.64 | 12.68 | 12.69 | 12.70 | 12.83 | 12.39 | 12.48 | 12.17 | 11.82 | 12.68 |
| 1925..... | 12.48 | 12.25 | 12.42 | 12.47 | 13.07 | 13.40 | | | | | | | |

Division of Crop and Livestock Estimates. Mean of prices reported on 1st of month and 1st of succeeding month, July, 1909-December, 1923. As reported by country merchants.

TABLE 370.—*Hay, alfalfa: Estimated price per ton received by producers, United States, 1914-1925*

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted av. |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1914..... | 8.65 | 8.38 | 8.72 | 8.96 | 9.20 | 9.05 | 9.48 | 9.32 | 9.79 | 9.81 | 9.58 | 8.50 | 9.12 |
| 1915..... | 8.28 | 8.28 | 8.22 | 8.14 | 8.72 | 9.52 | 9.89 | 10.35 | 10.74 | 10.73 | 10.56 | 10.49 | 9.39 |
| 1916..... | 9.87 | 9.80 | 10.06 | 10.25 | 11.31 | 12.79 | 13.63 | 14.68 | 17.68 | 17.68 | 17.92 | 16.77 | 12.76 |
| 1917..... | 14.13 | 15.28 | 16.33 | 17.59 | 19.19 | 20.39 | 21.27 | 21.38 | 20.82 | 18.97 | 17.84 | 16.74 | 18.42 |
| 1918..... | 16.58 | 18.22 | 19.72 | 20.23 | 20.42 | 20.74 | 20.42 | 20.91 | 21.40 | 22.28 | 23.32 | 20.89 | 20.35 |
| 1919..... | 20.15 | 20.72 | 20.89 | 20.56 | 21.63 | 22.95 | 24.15 | 24.41 | 24.68 | 24.57 | 25.68 | 24.20 | 22.70 |
| 1920..... | 21.70 | 20.43 | 19.12 | 18.03 | 17.10 | 16.59 | 14.98 | 13.55 | 12.88 | 11.35 | 10.88 | 10.64 | 15.90 |
| 1921..... | 9.85 | 9.66 | 9.56 | 9.82 | 9.67 | 10.46 | 10.55 | 11.04 | 11.80 | 12.39 | 12.28 | 10.98 | 10.59 |
| 1922..... | 10.61 | 10.54 | 11.15 | 11.87 | 12.70 | 13.31 | 14.06 | 14.02 | 14.33 | 14.09 | 14.40 | 13.63 | 12.82 |
| 1923..... | 12.45 | 12.01 | 12.78 | 13.37 | 13.59 | 14.39 | 13.99 | 14.08 | 13.98 | 14.09 | 14.12 | 13.70 | 13.54 |
| 1924..... | 13.19 | 13.84 | 13.69 | 12.85 | 13.91 | 13.40 | 14.50 | 14.78 | 14.43 | 14.08 | 14.34 | 12.83 | 13.81 |
| 1925..... | 13.02 | 13.00 | 12.91 | 13.41 | 13.74 | 14.14 | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 371.—*Hay, clover: Estimated price per ton received by producers, United States, 1914-1925*

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted av. |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1914..... | 11.85 | 12.09 | 12.44 | 12.47 | 12.70 | 12.76 | 13.07 | 13.30 | 13.41 | 13.65 | 13.79 | 12.78 | 12.83 |
| 1915..... | 11.65 | 10.87 | 10.82 | 10.60 | 10.59 | 10.95 | 11.24 | 11.41 | 11.70 | 11.87 | 12.52 | 12.40 | 11.29 |
| 1916..... | 10.84 | 9.83 | 10.01 | 10.08 | 10.46 | 10.80 | 11.38 | 11.65 | 11.90 | 13.06 | 13.94 | 14.22 | 11.33 |
| 1917..... | 12.95 | 12.76 | 13.79 | 15.01 | 17.14 | 18.67 | 19.82 | 21.11 | 21.37 | 19.68 | 18.30 | 16.54 | 17.21 |
| 1918..... | 15.73 | 17.18 | 19.27 | 20.60 | 21.13 | 21.26 | 21.69 | 21.11 | 21.25 | 23.36 | 25.33 | 25.48 | 20.93 |
| 1919..... | 22.02 | 21.58 | 21.74 | 21.17 | 21.61 | 22.60 | 23.78 | 24.34 | 26.13 | 26.93 | 28.31 | 27.80 | 23.69 |
| 1920..... | 24.62 | 22.82 | 22.57 | 21.29 | 20.60 | 19.96 | 19.17 | 17.39 | 16.44 | 15.47 | 14.90 | 14.52 | 19.48 |
| 1921..... | 13.89 | 14.17 | 14.37 | 13.99 | 13.83 | 14.17 | 13.90 | 14.10 | 14.06 | 14.51 | 14.90 | 14.33 | 14.15 |
| 1922..... | 12.82 | 12.66 | 12.64 | 12.51 | 12.67 | 13.03 | 13.39 | 13.35 | 13.24 | 13.47 | 13.58 | 13.70 | 13.03 |
| 1923..... | 13.52 | 13.51 | 14.12 | 14.73 | 14.94 | 15.82 | 15.51 | 15.93 | 16.31 | 16.08 | 15.92 | 15.95 | 15.14 |
| 1924..... | 15.45 | 14.00 | 13.75 | 13.65 | 13.64 | 13.45 | 13.25 | 13.30 | 12.52 | 12.41 | 12.67 | 12.20 | 13.43 |
| 1925..... | 13.03 | 13.67 | 14.06 | 14.09 | 14.74 | 15.28 | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 372.—Hay, timothy: Estimated price per ton, received by producers, United States, 1914-1925

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted average |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1914..... | 13.06 | 13.09 | 13.54 | 13.66 | 13.69 | 13.69 | 14.07 | 14.28 | 14.29 | 14.53 | 14.74 | 14.33 | 13.87 |
| 1915..... | 13.43 | 12.39 | 12.32 | 12.14 | 12.24 | 12.73 | 13.11 | 13.39 | 13.61 | 14.00 | 14.50 | 14.71 | 13.09 |
| 1916..... | 12.97 | 11.71 | 11.57 | 11.54 | 12.03 | 12.29 | 12.61 | 12.91 | 13.29 | 14.26 | 15.31 | 15.76 | 12.83 |
| 1917..... | 14.68 | 14.11 | 14.89 | 16.23 | 18.33 | 20.31 | 21.37 | 22.25 | 22.53 | 21.47 | 20.40 | 18.55 | 18.07 |
| 1918..... | 17.61 | 18.98 | 20.85 | 22.60 | 22.93 | 22.94 | 23.48 | 22.69 | 22.68 | 24.74 | 27.27 | 27.50 | 22.66 |
| 1919..... | 24.22 | 23.80 | 23.65 | 23.04 | 22.90 | 23.71 | 24.59 | 25.49 | 26.75 | 27.99 | 29.92 | 30.05 | 25.13 |
| 1920..... | 26.59 | 24.35 | 24.15 | 22.74 | 22.00 | 21.22 | 19.88 | 18.30 | 17.04 | 16.09 | 15.44 | 15.16 | 20.64 |
| 1921..... | 14.51 | 15.01 | 14.83 | 14.39 | 14.22 | 14.31 | 14.51 | 14.77 | 15.06 | 15.52 | 16.10 | 15.75 | 14.82 |
| 1922..... | 14.33 | 13.61 | 13.44 | 13.70 | 13.93 | 13.91 | 14.41 | 14.46 | 14.59 | 14.64 | 14.96 | 14.95 | 14.18 |
| 1923..... | 14.86 | 14.68 | 15.13 | 16.22 | 16.78 | 16.95 | 16.96 | 17.25 | 17.53 | 17.53 | 17.48 | 17.52 | 16.53 |
| 1924..... | 16.74 | 15.24 | 14.47 | 14.54 | 14.00 | 14.37 | 14.29 | 14.24 | 13.31 | 13.39 | 13.38 | 13.05 | 14.30 |
| 1925..... | 13.89 | 14.06 | 14.98 | 15.11 | 15.38 | 15.87 | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 373.—Hay, prairie: Estimated price per ton, received by producers, United States, 1914-1925

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted average |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1914..... | 7.49 | 7.29 | 7.33 | 7.59 | 7.49 | 7.37 | 7.65 | 7.80 | 8.03 | 8.58 | 8.29 | 7.72 | 7.69 |
| 1915..... | 7.37 | 6.83 | 6.64 | 6.44 | 6.75 | 6.95 | 7.38 | 7.34 | 7.39 | 7.56 | 7.71 | 7.97 | 7.13 |
| 1916..... | 7.25 | 6.06 | 7.21 | 7.26 | 7.85 | 8.14 | 8.58 | 8.60 | 9.32 | 10.94 | 12.02 | 11.84 | 8.61 |
| 1917..... | 10.11 | 10.82 | 11.40 | 12.29 | 13.32 | 14.91 | 15.39 | 15.74 | 15.47 | 14.47 | 12.75 | 12.78 | 13.21 |
| 1918..... | 12.51 | 13.26 | 14.35 | 15.06 | 15.47 | 16.30 | 16.33 | 16.35 | 17.38 | 18.55 | 20.22 | 18.71 | 16.03 |
| 1919..... | 16.10 | 16.10 | 15.90 | 15.88 | 16.91 | 17.19 | 17.54 | 17.36 | 16.52 | 16.66 | 18.06 | 17.59 | 16.78 |
| 1920..... | 15.38 | 13.74 | 12.93 | 11.83 | 11.47 | 10.80 | 10.20 | 9.46 | 8.70 | 8.43 | 8.05 | 8.02 | 10.94 |
| 1921..... | 7.67 | 7.80 | 7.52 | 6.78 | 7.49 | 7.47 | 7.39 | 7.67 | 7.94 | 8.02 | 8.21 | 8.40 | 7.62 |
| 1922..... | 7.68 | 7.76 | 7.54 | 7.74 | 8.13 | 8.98 | 9.44 | 9.52 | 9.61 | 9.74 | 10.64 | 10.07 | 8.79 |
| 1923..... | 9.17 | 8.97 | 8.54 | 9.19 | 9.07 | 9.29 | 8.84 | 8.57 | 8.60 | 8.78 | 8.74 | 8.54 | 8.92 |
| 1924..... | 8.35 | 8.60 | 8.49 | 8.25 | 8.25 | 8.62 | 9.14 | 9.08 | 9.05 | 9.11 | 9.27 | 8.55 | 8.70 |
| 1925..... | 8.93 | 8.55 | 9.24 | 9.41 | 9.39 | 9.78 | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 374.—Hay, alfalfa No. 1: Average price per ton at Kansas City, 1910-1925

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 12.08 | 13.50 | 13.89 | 14.25 | 14.25 | 14.23 | 13.51 | 12.93 | 12.07 | 13.67 | 13.29 | 12.38 | 13.42 |
| 1911..... | 15.13 | 14.41 | 14.87 | 15.00 | 15.27 | 15.50 | 17.72 | 18.37 | 20.49 | 22.73 | 19.34 | 11.62 | 16.71 |
| 1912..... | 12.59 | 13.09 | 13.58 | 15.11 | 15.11 | 15.00 | 14.79 | 12.86 | 14.06 | 13.75 | 13.28 | 10.70 | 13.65 |
| 1913..... | 12.12 | 14.80 | 16.14 | 16.54 | 16.00 | 16.01 | 15.99 | 15.25 | 15.18 | 15.30 | 15.54 | 14.23 | 15.26 |
| 1914..... | 12.38 | 13.42 | 13.33 | 12.51 | 13.21 | 13.79 | 13.75 | 13.73 | 14.76 | 15.11 | 13.73 | 13.42 | 13.59 |
| 1915..... | 12.54 | 11.90 | 12.25 | 13.11 | 12.83 | 14.35 | 14.54 | 15.34 | 13.92 | 14.44 | 14.45 | 11.42 | 13.34 |
| 1916..... | 11.22 | 13.40 | 13.58 | 15.68 | 16.60 | 19.33 | 19.81 | 20.25 | 21.10 | 24.33 | 24.52 | 21.87 | 18.64 |
| 1917..... | 21.18 | 24.09 | 24.07 | 27.42 | 31.10 | 32.76 | 30.01 | 31.33 | 27.56 | 24.11 | 22.64 | 20.57 | 26.40 |
| 1918..... | 22.60 | 29.08 | 31.45 | 30.14 | 31.21 | 31.01 | 32.85 | 31.01 | 34.56 | 37.00 | 36.20 | 34.43 | 32.04 |
| 1919..... | 26.93 | 27.63 | 24.86 | 30.24 | 33.39 | 35.10 | 35.75 | 34.83 | 32.79 | 34.70 | 34.15 | 36.45 | 31.99 |
| 1920..... | 27.21 | 29.49 | 27.22 | 23.95 | 25.06 | 23.01 | 23.30 | 20.30 | 20.30 | 21.00 | 22.20 | 18.40 | 23.45 |
| Average 1914-1920..... | 19.02 | 21.20 | 20.97 | 21.87 | 23.61 | 24.19 | 24.29 | 23.83 | 23.71 | 24.43 | 24.17 | 21.96 | 22.78 |
| 1921..... | 17.50 | 19.00 | 17.20 | 19.80 | 20.40 | 19.60 | 20.00 | 19.60 | 22.10 | 22.50 | 22.10 | 15.40 | 19.60 |
| 1922..... | 15.50 | 15.80 | 18.30 | 22.60 | 23.80 | 23.00 | 23.40 | 23.70 | 24.60 | 26.25 | 25.90 | 22.90 | 22.15 |
| 1923..... | 18.90 | 20.90 | 22.80 | 24.90 | 24.80 | 24.90 | 25.30 | 23.50 | 24.70 | 26.10 | 24.50 | 18.00 | 23.28 |
| 1924..... | 18.60 | 20.00 | 20.25 | 20.80 | 21.25 | 22.70 | 22.70 | 19.25 | 19.60 | 18.90 | 19.20 | 17.50 | 20.06 |
| 1925..... | 18.20 | 19.50 | 20.10 | 21.60 | 21.25 | 21.40 | | | | | | | |

Division of Statistical and Historical Research. Compiled from Kansas City Daily Price Current and Kansas City Grain Market Review, average of daily range; 1925 from reports of the Hay, Feed, and Seed Division, weekly.

TABLE 375.—Hay, prairie No. 1: Average price per ton at Kansas City, 1910-1925

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 10.83 | 10.82 | 11.67 | 11.34 | 11.16 | 10.86 | 11.07 | 10.95 | 10.84 | 11.31 | 11.55 | 13.61 | 11.33 |
| 1911..... | 15.93 | 12.93 | 11.60 | 11.60 | 12.07 | 12.61 | 13.84 | 13.66 | 16.70 | 20.85 | 20.48 | 15.16 | 14.78 |
| 1912..... | 8.79 | 7.96 | 8.39 | 8.96 | 8.91 | 9.39 | 10.45 | 9.37 | 9.19 | 9.86 | 9.53 | 9.97 | 9.21 |
| 1913..... | 10.60 | 13.62 | 15.76 | 16.00 | 15.66 | 15.57 | 14.20 | 14.50 | 14.40 | 16.00 | 16.42 | 15.43 | 14.85 |
| 1914..... | 12.10 | 9.90 | 11.58 | 11.35 | 10.94 | 10.98 | 11.25 | 10.89 | 11.26 | 11.41 | 11.02 | 11.03 | 11.15 |
| 1915..... | 11.32 | 8.65 | 8.63 | 9.71 | 9.54 | 8.97 | 8.84 | 9.16 | 8.96 | 9.50 | 9.74 | 8.65 | 9.30 |
| 1916..... | 8.50 | 8.06 | 9.36 | 9.47 | 10.74 | 11.15 | 10.57 | 10.92 | 12.92 | 18.68 | 19.74 | 20.57 | 12.56 |
| 1917..... | 18.14 | 18.57 | 18.06 | 19.00 | 25.07 | 25.47 | 24.00 | 23.79 | 23.42 | 21.13 | 19.17 | 17.66 | 21.17 |
| 1918..... | 19.26 | 25.26 | 26.57 | 27.58 | 26.84 | 24.04 | 26.25 | 26.82 | 32.35 | 36.63 | 36.91 | 37.34 | 29.15 |
| 1919..... | 20.89 | 19.98 | 19.32 | 19.75 | 21.12 | 25.34 | 21.40 | 20.68 | 20.64 | 21.70 | 24.02 | 18.95 | 21.15 |
| 1920..... | 17.21 | 19.52 | 18.47 | 16.45 | 16.13 | 14.49 | 14.00 | 13.10 | 14.10 | 13.70 | 14.10 | 13.40 | 15.39 |
| Average 1914-1920..... | 15.35 | 15.71 | 16.00 | 16.27 | 17.20 | 17.21 | 16.90 | 16.48 | 17.66 | 18.06 | 19.53 | 18.23 | 17.12 |
| 1921..... | 12.30 | 11.40 | 11.30 | 12.40 | 12.00 | 11.30 | 11.10 | 10.30 | 11.50 | 11.90 | 12.40 | 11.90 | 11.05 |
| 1922..... | 12.90 | 10.70 | 11.00 | 14.00 | 14.20 | 12.70 | 12.60 | 13.25 | 14.60 | 19.10 | 19.10 | 18.60 | 14.40 |
| 1923..... | 11.80 | 11.50 | 13.80 | 14.60 | 14.75 | 14.75 | 14.80 | 14.50 | 14.80 | 14.50 | 13.90 | 12.50 | 13.85 |
| 1924..... | 11.60 | 11.60 | 11.00 | 12.40 | 11.60 | 11.00 | 11.00 | 10.40 | 10.50 | 10.30 | 10.60 | 10.75 | 11.14 |
| 1925..... | 11.60 | 11.30 | 12.75 | 14.40 | 13.75 | 14.10 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from Kansas City Daily Price Current and Kansas City Grain Market Review, average of daily range; 1925 from reports of the Hay, Feed, and Seed Division, weekly.

TABLE 376.—Hay, timothy No. 1: Average price per ton at Chicago, 1910-1925

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Average |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 18.75 | 19.50 | 17.25 | 17.25 | 17.50 | 17.60 | 17.00 | 16.25 | 16.25 | 17.75 | 21.00 | 21.75 | 18.23 |
| 1911..... | 23.50 | 21.50 | 20.00 | 20.50 | 21.25 | 21.00 | 21.75 | 20.75 | 21.50 | 24.00 | 26.00 | 21.25 | 21.92 |
| 1912..... | 19.75 | 18.50 | 18.50 | 18.00 | 17.00 | 15.50 | 15.75 | 14.25 | 14.75 | 15.50 | 15.25 | 14.25 | 16.42 |
| 1913..... | 15.00 | 17.75 | 17.75 | 18.00 | 17.00 | 16.25 | 15.50 | 14.75 | 15.25 | 16.00 | 16.25 | 15.25 | 16.23 |
| 1914..... | 16.25 | 16.75 | 15.50 | 15.25 | 15.50 | 15.50 | 16.25 | 15.50 | 15.25 | 16.25 | 17.00 | 17.50 | 16.04 |
| 1915..... | 19.25 | 20.25 | 19.00 | 17.00 | 15.50 | 15.50 | 16.25 | 15.50 | 16.75 | 18.75 | 18.75 | 18.00 | 17.54 |
| 1916..... | 16.00 | 16.00 | 15.50 | 16.25 | 16.25 | 16.25 | 15.50 | 15.75 | 15.75 | 18.00 | 20.50 | 18.75 | 16.71 |
| 1917..... | 17.75 | 19.25 | 21.00 | 25.00 | 27.25 | 27.00 | 28.25 | 29.00 | 28.00 | 24.00 | 23.00 | 19.00 | 24.04 |
| 1918..... | 21.50 | 26.50 | 32.00 | 31.00 | 30.00 | 30.00 | 29.50 | 26.00 | 30.50 | 33.50 | 35.50 | 33.00 | 29.92 |
| 1919..... | 34.50 | 35.00 | 29.00 | 28.00 | 29.50 | 30.00 | 32.50 | 34.00 | 35.25 | 43.00 | 46.50 | 42.75 | 35.00 |
| 1920..... | 38.50 | 40.25 | 33.75 | 32.25 | 32.00 | 28.50 | 26.00 | 24.40 | 25.30 | 23.80 | 21.90 | 22.50 | 29.17 |
| Average 1914-1920..... | 23.39 | 24.86 | 23.68 | 23.54 | 23.71 | 23.25 | 23.69 | 22.88 | 23.83 | 25.33 | 26.16 | 24.50 | 24.06 |
| 1921..... | 24.40 | 24.00 | 24.20 | 22.60 | 22.90 | 21.90 | 22.50 | 21.80 | 23.60 | 26.60 | 25.70 | 23.60 | 23.67 |
| 1922..... | 24.50 | 22.00 | 20.90 | 22.40 | 23.00 | 21.10 | 21.75 | 21.50 | 23.00 | 23.00 | 23.10 | 24.00 | 22.50 |
| 1923..... | 24.00 | 25.20 | 26.60 | 26.50 | 26.80 | 27.10 | 26.80 | 24.80 | 25.30 | 26.20 | 26.30 | 25.20 | 25.90 |
| 1924..... | 25.00 | 25.40 | 24.40 | 22.90 | 22.80 | 23.00 | 23.30 | 22.75 | 23.00 | 22.75 | 21.75 | 24.00 | 23.42 |
| 1925..... | 24.10 | 26.00 | 26.00 | 26.20 | 24.75 | 24.40 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Compiled from Chicago Board of Trade and Daily Trade Bulletin, average of daily range; 1925 from reports of the Hay, Feed and Seed Division, weekly.

TABLE 377.—Hay and straw: Average price per ton at Chicago, 1925

| Class and grade | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Alfalfa No. 1..... | 23.00 | 22.50 | 19.60 | 18.75 | 18.60 | 21.25 | 21.75 | 22.20 | 24.00 | 24.20 | 24.40 | 24.00 |
| Alfalfa, standard..... | 18.00 | 18.00 | 15.25 | 15.50 | 14.00 | 18.00 | 19.50 | 19.80 | 20.00 | 20.60 | 21.25 | 22.00 |
| Alfalfa No. 2..... | 15.20 | 14.50 | 13.10 | 12.25 | 11.60 | 15.50 | 17.50 | 17.60 | 18.00 | 18.00 | 18.25 | 20.00 |
| Clover No. 1..... | 18.00 | 15.50 | 15.00 | 15.00 | 15.00 | 17.10 | 17.70 | 18.20 | 18.50 | 20.20 | 20.20 | 22.10 |
| Clover No. 1: Medium mixed..... | 19.30 | 17.50 | 18.00 | 18.00 | 17.70 | ----- | 19.20 | 21.20 | 21.80 | 22.30 | 22.25 | 22.00 |
| Light mixed..... | 20.80 | 19.50 | 19.10 | 19.25 | 20.00 | 22.10 | 22.50 | 24.40 | 24.40 | 24.80 | 23.60 | 24.40 |
| Clover No. 2, light mixed..... | 18.00 | 17.00 | 16.00 | 16.40 | 16.75 | 19.10 | 19.60 | 22.10 | 21.75 | 22.10 | 21.10 | 21.60 |
| Prairie No. 1: Midland..... | 13.70 | 13.00 | 12.50 | 13.00 | 13.00 | 13.75 | 14.00 | 14.00 | 14.00 | 14.00 | 14.25 | 13.75 |
| Upland..... | 17.80 | 16.25 | 15.50 | 15.75 | 15.00 | 17.50 | 17.50 | 18.40 | 17.25 | 19.00 | 20.00 | 19.75 |
| Prairie No. 2, upland..... | 15.60 | 15.00 | 14.00 | 13.50 | 13.90 | 15.25 | 15.60 | 16.50 | 16.50 | 17.50 | 18.00 | 17.75 |
| Timothy No. 1..... | 23.30 | 22.75 | 23.00 | 22.75 | 21.75 | 24.00 | 24.10 | 26.00 | 26.00 | 26.20 | 24.75 | 24.40 |
| Timothy No. 2..... | 18.60 | 17.40 | 17.00 | 17.25 | 17.90 | 20.10 | 21.25 | 23.10 | 23.25 | 23.60 | 22.25 | 22.10 |
| Oat straw..... | 10.80 | 9.00 | 9.10 | 9.90 | 9.50 | 10.90 | 10.50 | 10.30 | 8.75 | 10.80 | 11.50 | 11.60 |
| Rye straw..... | 12.90 | 11.10 | 11.10 | 11.75 | 10.40 | 13.10 | 11.90 | 11.70 | 11.90 | 13.50 | 16.00 | 15.50 |
| Wheat straw..... | 10.40 | 8.10 | 8.50 | 9.25 | 8.80 | 10.00 | 10.00 | 8.60 | 8.25 | 10.00 | 11.10 | 11.00 |

Division of Statistical and Historical Research. Compiled from reports of the Hay, Feed, and Seed Division, average of weekly range.

TABLE 378.—Hay and straw: Average price per ton at Kansas City, 1925

| Class and grade | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Alfalfa No. 1..... | 22.70 | 19.25 | 19.60 | 18.90 | 18.20 | 17.50 | 18.20 | 19.40 | 20.10 | 21.40 | 21.25 | 21.40 |
| Alfalfa, standard..... | 19.60 | 16.90 | 16.75 | 15.80 | 16.25 | 15.90 | 16.50 | 17.20 | 17.75 | 19.20 | 19.25 | 19.60 |
| Alfalfa No. 2..... | 17.10 | 14.10 | 13.25 | 12.40 | 13.75 | 13.30 | 13.75 | 14.20 | 14.00 | 16.40 | 17.70 | 18.10 |
| Clover No. 1..... | 16.80 | 15.60 | 13.40 | 12.00 | 10.75 | 10.75 | 10.60 | 12.60 | 14.50 | 15.40 | 16.50 | 18.40 |
| Clover No. 1: | | | | | | | | | | | | |
| Mixed..... | 15.40 | 14.50 | 14.00 | 13.75 | 13.00 | 13.60 | 13.60 | 14.50 | 15.60 | 16.60 | 16.90 | 17.80 |
| Light mixed..... | 16.50 | 15.50 | 15.25 | 15.10 | 14.50 | 15.00 | 14.60 | 16.00 | 16.90 | 18.10 | 18.40 | 18.90 |
| Prairie No. 1, upland..... | 11.00 | 10.40 | 10.50 | 10.30 | 10.60 | 10.75 | 11.60 | 11.30 | 12.75 | 14.40 | 13.75 | 14.10 |
| Prairie No. 2, upland..... | 10.00 | 9.10 | 9.80 | 9.00 | 8.70 | 9.00 | 10.40 | 10.00 | 12.00 | 13.00 | 12.75 | 12.90 |
| Timothy No. 1..... | 17.00 | 15.90 | 15.25 | 15.20 | 14.60 | 15.75 | 15.10 | 16.10 | 17.40 | 18.70 | 18.90 | 19.60 |
| Timothy No. 2..... | 14.70 | 13.50 | 13.10 | 12.90 | 11.80 | 13.00 | 12.70 | 13.75 | 14.60 | 15.50 | 16.70 | 17.40 |
| Wheat straw..... | 8.30 | 7.00 | 7.00 | 8.10 | 8.30 | 8.30 | 8.20 | 6.60 | 6.50 | 8.25 | 9.10 | 8.90 |

Division of Statistical and Historical Research. Compiled from reports of the Hay, Feed, and Seed Division, average of weekly range.

TABLE 379.—Hay and straw: Average price per ton at St. Louis, 1925

| Class and grade | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Alfalfa No. 1..... | 32.00 | 30.00 | 25.00 | 27.70 | 27.00 | 20.00 | 20.00 | 21.00 | 25.00 | 30.00 | 30.00 | 27.75 |
| Alfalfa, standard..... | 24.30 | 25.00 | 23.00 | 22.50 | 22.00 | 20.00 | 20.00 | 21.00 | 22.00 | 25.50 | 24.80 | 25.00 |
| Alfalfa No. 2..... | 19.20 | 17.25 | 17.00 | 15.00 | 17.00 | 17.00 | 16.80 | 18.40 | 17.20 | 21.25 | 21.50 | 23.00 |
| Clover No. 1..... | 20.50 | 18.10 | 15.50 | 15.50 | 19.00 | 19.00 | 20.00 | 20.00 | 19.00 | 23.00 | 23.00 | 24.75 |
| Clover No. 1: | | | | | | | | | | | | |
| Mixed..... | 18.00 | 17.00 | 17.00 | 18.00 | 18.50 | 21.00 | 21.00 | 21.00 | 21.00 | 23.80 | 23.30 | 23.75 |
| Light mixed..... | 16.50 | 14.30 | 14.75 | 21.00 | 18.70 | 18.00 | 18.00 | 19.00 | 19.00 | 21.10 | 20.75 | 20.75 |
| Clover No. 2, light mixed..... | 15.00 | 16.10 | 15.75 | 15.90 | 15.40 | 16.00 | 16.00 | 16.20 | 15.60 | 18.40 | 18.10 | 19.10 |
| Prairie No. 1, upland..... | 12.90 | 13.75 | 12.75 | 13.00 | 12.70 | 14.00 | 14.10 | 14.40 | 14.50 | 17.00 | 16.70 | 17.60 |
| Prairie No. 2, upland..... | 23.30 | 21.10 | 21.25 | 21.40 | 21.30 | 24.00 | 24.80 | 24.10 | 26.00 | 27.40 | 27.75 | 28.00 |
| Timothy No. 1..... | 17.40 | 16.75 | 15.60 | 16.50 | 16.60 | 18.50 | 19.25 | 19.70 | 20.00 | 21.30 | 21.50 | 22.10 |
| Timothy No. 2..... | 10.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.75 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 |
| Wheat straw..... | 10.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.75 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 |

Division of Statistical and Historical Research. Compiled from reports of the Hay, Feed, and Seed Division, average of weekly range.

TABLE 380.—Hay, No. 1 alfalfa: Average price per ton at 20 markets, 1925

| Market | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Atlanta..... | 35.70 | 33.00 | 33.75 | 32.30 | 30.40 | 30.00 | 30.00 | 31.00 | 35.00 | 35.25 | 35.00 | 35.60 |
| Birmingham ¹ | 35.50 | 34.50 | 34.25 | 33.50 | 31.00 | 30.00 | 31.50 | 33.00 | 33.00 | 34.75 | 34.75 | 35.00 |
| Chicago ¹ | 23.00 | 22.50 | 19.60 | 18.75 | 18.60 | 21.25 | 21.75 | 22.20 | 24.00 | 24.20 | 24.40 | 24.60 |
| Cincinnati..... | 27.00 | 23.25 | 23.00 | 23.25 | 19.50 | 19.50 | 20.00 | 22.80 | 23.00 | 24.20 | 24.00 | 24.70 |
| Denver..... | 17.70 | 17.50 | 14.90 | 14.50 | 15.30 | 18.60 | 18.25 | 18.75 | 18.75 | 19.60 | 19.00 | 18.30 |
| Detroit ¹ | 16.50 | 16.50 | 16.50 | 16.50 | 15.50 | 15.50 | 19.20 | 20.00 | 20.00 | 20.80 | 21.60 | 21.00 |
| Fort Worth ¹ | 22.70 | 19.25 | 19.60 | 18.90 | 19.20 | 17.50 | 28.75 | 29.00 | 29.00 | 30.75 | 30.75 | 30.25 |
| Kansas City..... | 29.00 | 29.00 | 23.20 | 22.10 | 21.30 | 19.00 | 18.20 | 19.50 | 20.10 | 21.50 | 21.25 | 21.40 |
| Los Angeles..... | 29.00 | 26.00 | 27.30 | 27.60 | 28.00 | 23.10 | 24.10 | 24.30 | 26.25 | 28.80 | 29.10 | 29.90 |
| Memphis..... | 29.00 | 27.60 | 27.30 | 27.60 | 28.00 | 23.10 | 24.10 | 24.30 | 26.25 | 28.80 | 29.10 | 29.90 |
| Minneapolis..... | 23.80 | 21.75 | 21.00 | 20.00 | 21.40 | 21.25 | 18.25 | 18.40 | 20.00 | 20.60 | 21.00 | 21.00 |
| New Orleans..... | 31.75 | 30.60 | 29.60 | 28.90 | 28.80 | 27.30 | 27.70 | 29.10 | 30.00 | 32.30 | 32.25 | 31.60 |
| New York ^{1, 2} | 30.50 | 30.25 | 29.80 | 30.00 | 29.30 | 29.00 | 27.50 | 29.50 | 30.00 | 30.20 | 30.40 | 27.60 |
| Omaha..... | 18.70 | 17.00 | 15.75 | 16.00 | 15.60 | 16.70 | 16.75 | 17.00 | 17.75 | 18.25 | 19.50 | 19.50 |
| Richmond ¹ | 30.20 | 28.75 | 27.90 | 27.50 | 23.80 | 24.75 | 28.25 | 30.40 | 31.75 | 32.00 | 31.60 | 32.00 |
| St. Joseph ¹ | 23.00 | 21.75 | 21.00 | 20.00 | 21.40 | 21.25 | 18.00 | 18.00 | 20.00 | 20.60 | 21.00 | 21.00 |
| St. Louis..... | 32.00 | 30.00 | 25.00 | 27.70 | 27.00 | 20.00 | 20.00 | 21.00 | 25.00 | 30.00 | 30.00 | 27.75 |
| St. Paul..... | 24.00 | 22.50 | 20.50 | 20.50 | 21.50 | 20.00 | 18.25 | 19.25 | 20.00 | 20.00 | 20.00 | 20.00 |
| San Francisco..... | 26.00 | 25.75 | 21.30 | 19.00 | 15.50 | 15.25 | 15.25 | 16.80 | 17.00 | 16.20 | 17.25 | 18.00 |
| Savannah..... | 31.00 | 30.00 | 30.00 | 29.50 | 30.00 | 29.00 | 29.90 | 29.50 | 32.00 | 32.60 | 33.00 | 31.00 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division, except where noted.

¹ National Hay Press, monthly.

² Based on United States grades.

³ Hay Trade Journal, weekly.

⁴ Large bales.

TABLE 381.—Hay, No. 1 timothy: Average price per ton at 29 markets, 1925

| Market | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Atlanta..... | 26.30 | 24.60 | 24.60 | 24.20 | 25.10 | 26.00 | 27.75 | 27.00 | 29.50 | 29.50 | 30.00 | 29.75 |
| Baltimore..... | 21.90 | 21.90 | 21.10 | 20.00 | 19.20 | 19.40 | 19.90 | 21.10 | 22.40 | 24.90 | 25.40 | 25.60 |
| Birmingham ¹ | 26.50 | 26.00 | 26.50 | 25.75 | 24.50 | 25.25 | 27.00 | 28.00 | 31.50 | ----- | 31.00 | ----- |
| Boston ² | 26.40 | 26.10 | 25.50 | 25.10 | 25.00 | 24.90 | 25.25 | 25.90 | 26.50 | 26.50 | 26.60 | 26.25 |
| Chattanooga ¹ | 24.75 | 24.25 | 24.00 | 23.75 | 24.25 | 24.75 | 26.00 | 27.50 | ----- | ----- | ----- | ----- |
| Chicago ³ | 23.30 | 22.75 | 23.00 | 22.75 | 21.75 | 24.00 | 24.10 | 26.00 | 26.00 | 26.20 | 24.75 | 24.40 |
| Cincinnati..... | 18.50 | 18.25 | 18.10 | 18.50 | 17.70 | 20.90 | 21.90 | 23.70 | 25.25 | 25.30 | 25.25 | 26.00 |
| Cleveland ¹ | ----- | 18.75 | 18.50 | 18.00 | ----- | 20.00 | 20.00 | 21.50 | 23.00 | ----- | 24.00 | ----- |
| Denver..... | 17.70 | 18.00 | 17.90 | 17.50 | 18.00 | 19.60 | 19.00 | 19.00 | 18.75 | 19.60 | 19.50 | 19.20 |
| Des Moines ¹ | 14.00 | 12.75 | 12.50 | ----- | 13.50 | 14.50 | 14.50 | 15.00 | 15.25 | ----- | 17.50 | ----- |
| Detroit ⁴ | 17.50 | 16.25 | 16.25 | 16.25 | 16.40 | 17.60 | 22.80 | 24.75 | 23.75 | 23.75 | 24.75 | 24.75 |
| Duluth ¹ | 16.50 | 16.00 | 15.75 | 15.75 | 16.00 | 16.00 | 16.25 | 16.75 | 17.00 | 16.50 | 16.00 | 16.00 |
| Indianapolis ¹ | 16.25 | 16.00 | 15.75 | 15.75 | ----- | 19.25 | 18.25 | 19.25 | ----- | 22.75 | 23.75 | 24.25 |
| Jacksonville ¹ | 20.25 | 25.75 | 25.75 | 25.50 | 25.25 | 27.25 | 28.25 | 27.75 | ----- | ----- | ----- | ----- |
| Kansas City..... | 17.00 | 15.90 | 15.25 | 15.20 | 14.60 | 15.75 | 15.10 | 16.10 | 17.40 | 18.70 | 18.90 | 19.60 |
| Louisville ¹ | 18.75 | 18.25 | 18.00 | 18.00 | 18.00 | 18.00 | 19.00 | 22.00 | 24.50 | 24.50 | 24.00 | 24.25 |
| Memphis..... | 23.60 | 21.50 | 22.10 | 22.25 | 22.20 | 24.70 | 23.50 | 23.20 | 25.50 | 26.20 | 26.00 | 26.40 |
| Milwaukee ¹ | 17.25 | 16.50 | 15.75 | 15.50 | 15.75 | 17.00 | 18.75 | 19.00 | 18.75 | 19.75 | 20.00 | 19.50 |
| Minneapolis..... | 17.90 | 17.40 | 17.25 | 16.75 | 17.00 | 17.75 | 16.90 | 17.10 | 17.10 | 18.70 | 17.50 | 16.75 |
| New Orleans..... | 27.00 | 25.90 | 25.50 | 24.90 | 24.50 | 26.00 | 26.40 | 26.00 | 27.00 | 29.50 | 30.00 | 29.70 |
| New York ^{2, 4} | 26.50 | 26.40 | 25.25 | 25.25 | 25.50 | 25.40 | 25.75 | 27.70 | 29.00 | 29.00 | 29.40 | 28.70 |
| Norfolk..... | 22.00 | 21.50 | 21.00 | 21.25 | 21.50 | 23.50 | ----- | ----- | ----- | ----- | ----- | ----- |
| Pittsburgh..... | 21.00 | 20.60 | 20.00 | 20.75 | 20.00 | 21.10 | 23.25 | 24.40 | 25.25 | 26.40 | 25.40 | 26.70 |
| Richmond ¹ | 23.20 | 22.40 | 22.10 | 22.60 | 21.20 | 22.75 | 27.10 | 28.10 | 28.00 | 27.80 | 27.75 | 28.20 |
| St. Joseph ¹ | 16.00 | 15.50 | 14.50 | ----- | ----- | ----- | 15.50 | 15.50 | ----- | ----- | ----- | ----- |
| St. Louis..... | 23.30 | 21.10 | 21.25 | 21.40 | 21.30 | 24.60 | 24.80 | 24.10 | 26.00 | 27.40 | 27.75 | 28.00 |
| St. Paul ¹ | 18.00 | 17.50 | 16.50 | 16.50 | 16.50 | 16.50 | 17.25 | 17.25 | 17.00 | ----- | 17.00 | 16.50 |
| Savannah..... | 27.10 | 26.00 | 25.50 | 25.75 | 25.75 | 28.10 | 29.75 | 29.00 | 31.75 | 32.50 | 32.00 | 30.00 |
| Winnipeg ¹ | 21.00 | 21.00 | 19.75 | 19.75 | 20.50 | 21.50 | 19.25 | 16.50 | 15.50 | 16.00 | 16.75 | 15.75 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division, except where noted.

¹ National Hay Press, monthly.

² Large bales.

³ Based on United States grades.

⁴ Hay Trade Journal, weekly.

TABLE 382.—Hay, No. 1 clover: Average price per ton at 12 markets, 1925

| Market | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Baltimore..... | 19.25 | 18.75 | 17.75 | 17.60 | 17.60 | 17.40 | ----- | ----- | ----- | ----- | 23.50 | 23.50 |
| Chicago ¹ | 18.00 | 15.50 | 15.00 | 15.00 | 15.00 | 17.10 | 17.70 | 18.20 | 18.50 | 20.20 | 21.50 | 22.10 |
| Cincinnati..... | 17.80 | 16.25 | 15.90 | 16.40 | 16.10 | 17.40 | 18.75 | 20.00 | 20.75 | 23.70 | 24.10 | 24.50 |
| Cleveland ¹ | ----- | 16.00 | 15.50 | 15.00 | ----- | 17.00 | 17.00 | 18.00 | 19.00 | ----- | 20.00 | ----- |
| Detroit ¹ | 14.50 | 14.50 | 13.50 | ----- | 13.50 | 14.40 | 17.30 | 19.50 | 19.50 | 19.50 | 20.50 | 20.50 |
| Indianapolis ² | 14.25 | 14.00 | 13.75 | 13.75 | 14.00 | 14.25 | 14.25 | 14.25 | ----- | 18.75 | 18.50 | 19.25 |
| Kansas City..... | 16.80 | 15.60 | 13.40 | 12.00 | 10.75 | 10.75 | 10.60 | 12.50 | 14.50 | 15.40 | 16.50 | 18.40 |
| Louisville ¹ | 18.25 | 17.75 | 16.50 | 16.00 | 16.00 | 16.00 | 17.00 | 19.00 | 20.50 | 21.00 | 21.00 | ----- |
| Pittsburgh..... | 19.20 | 18.25 | 17.00 | 16.60 | 15.60 | 16.25 | 19.00 | 19.75 | 20.25 | 22.60 | 24.40 | 25.50 |
| Richmond ¹ | 23.10 | 22.60 | 22.10 | 21.60 | 19.25 | 22.00 | 24.75 | 26.70 | 27.25 | 27.00 | 27.00 | 27.20 |
| St. Louis..... | 20.50 | 18.10 | 15.50 | 15.50 | ----- | 19.00 | ----- | 20.00 | 19.00 | ----- | 23.00 | 24.75 |
| St. Paul ¹ | 18.00 | 17.00 | 14.50 | 14.00 | 15.00 | 14.50 | 14.50 | 15.00 | 15.00 | ----- | 16.00 | 16.00 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division, except where noted.

¹ Based on U. S. Grades.

² National Hay Press, monthly.

³ Hay Trade Journal, weekly.

TABLE 383.—Hay, No. 1 light clover mixed: Average price per ton at 16 markets, 1925

| Market | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Atlanta..... | 25.90 | 24.10 | 23.90 | 23.70 | 24.00 | 24.90 | 26.75 | 26.00 | 28.50 | 28.40 | 29.00 | 28.75 |
| Baltimore..... | 19.60 | 19.75 | 19.10 | 17.90 | 17.75 | 17.25 | 17.90 | 18.80 | 20.00 | 23.20 | 23.75 | 23.75 |
| Chicago ¹ | 20.80 | 19.50 | 19.10 | 19.25 | 20.00 | 22.10 | 22.50 | 24.40 | 24.40 | 24.80 | 23.60 | 24.40 |
| Cincinnati..... | 17.70 | 17.00 | 16.90 | 16.90 | 16.60 | 19.25 | 20.40 | 22.50 | 23.75 | 23.90 | 23.25 | 24.50 |
| Detroit ² | 16.50 | 15.00 | 15.00 | 15.00 | 15.70 | 16.50 | 22.50 | 23.50 | 22.50 | 22.40 | 23.00 | 23.10 |
| Jacksonville ³ | 25.00 | 25.00 | 23.25 | 23.60 | 25.50 | 25.75 | 27.00 | 26.50 | ..... | ..... | ..... | ..... |
| Kansas City..... | 16.50 | 15.50 | 15.25 | 15.10 | 14.50 | 15.00 | 14.60 | 16.00 | 16.90 | 18.10 | 18.40 | 18.90 |
| Louisville ¹ | 17.75 | 17.25 | 17.00 | 17.00 | ..... | 17.00 | 17.75 | 20.75 | 23.50 | 23.50 | 23.00 | 23.25 |
| Milwaukee ³ | 16.75 | 16.00 | 15.50 | 15.00 | 16.50 | 16.50 | 18.25 | 18.50 | 18.00 | 18.75 | 19.50 | 19.00 |
| Minneapolis..... | 15.50 | 15.80 | 15.80 | 15.25 | 15.75 | ..... | 16.50 | ..... | 16.00 | ..... | ..... | ..... |
| New York ^{1,4} | 24.75 | 24.50 | 22.75 | 22.40 | 23.20 | 23.00 | 23.60 | 25.90 | 27.10 | 27.00 | 27.10 | 26.30 |
| Philadelphia ¹ | 20.80 | 20.10 | 18.60 | 18.40 | 18.20 | 17.60 | 18.10 | 19.60 | 21.10 | 22.80 | 23.90 | 23.60 |
| Pittsburgh..... | 18.80 | 17.75 | 16.60 | 16.75 | 16.50 | 17.50 | 20.00 | 20.75 | 21.00 | 22.75 | 22.70 | 24.20 |
| Richmond ¹ | 22.50 | 22.10 | 21.50 | 21.60 | 20.80 | 21.60 | 23.10 | 27.10 | 27.00 | 26.90 | 27.25 | 27.20 |
| St. Louis..... | 18.00 | ..... | ..... | 17.00 | 18.00 | 22.75 | 21.00 | 23.00 | ..... | ..... | 23.90 | 23.75 |
| Savannah..... | 25.30 | 24.00 | 23.90 | 23.75 | 23.70 | 20.10 | 27.25 | 26.00 | 29.80 | 30.50 | 30.50 | ..... |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division, except where noted.

¹ Based on U. S. grades.

² Hay Trade Journal, weekly.

³ National Hay Press, monthly.

⁴ Large bales.

TABLE 384.—Hay, No. 1 prairie: Average price per ton at 12 markets, 1925

| Market | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Chicago ¹ | 17.80 | 16.25 | 15.50 | 15.75 | 16.00 | 17.50 | 17.50 | 18.40 | 17.25 | 19.00 | 20.00 | 19.75 |
| Denver ¹ | 13.50 | 13.75 | ..... | ..... | ..... | 13.50 | 13.75 | 14.25 | 14.25 | ..... | ..... | ..... |
| Des Moines ¹ | 12.25 | 11.25 | 11.50 | 12.00 | 12.25 | 12.75 | 13.00 | 14.25 | 14.25 | ..... | 15.50 | ..... |
| Duluth ² | 16.00 | 16.00 | 15.75 | 15.25 | 15.50 | 16.00 | 15.75 | 15.25 | 15.50 | 16.00 | 16.00 | 16.00 |
| Fort Worth ¹..... | ..... | ..... | 17.25 | 17.50 | 17.50 | 18.00 | 19.75 | 20.50 | ..... | ..... | 22.25 | 22.75 |
| Kansas City..... | 11.00 | 10.40 | 10.50 | 10.30 | 10.60 | 10.75 | 11.60 | 11.30 | 12.75 | 14.40 | 13.75 | 14.10 |
| Minneapolis..... | 16.70 | 16.10 | 16.10 | 15.50 | 16.00 | 17.00 | 16.00 | 14.80 | 15.50 | 16.80 | 16.00 | 15.75 |
| New Orleans..... | 18.60 | 18.30 | 18.30 | 17.75 | 17.60 | 16.40 | 16.90 | 18.75 | ..... | 19.75 | 20.90 | 20.75 |
| Omaha..... | 12.30 | 11.25 | 10.75 | 10.50 | 10.90 | 11.90 | 12.30 | 13.50 | 13.70 | 14.25 | 14.75 | 14.75 |
| St. Louis..... | 15.60 | 16.10 | 15.75 | 15.90 | 15.40 | 16.40 | 16.00 | 16.20 | 15.60 | 18.40 | 18.90 | 19.10 |
| St. Paul ¹ | 17.00 | 16.50 | 15.00 | 16.00 | 15.50 | 15.25 | 14.75 | 15.00 | 16.00 | ..... | 15.50 | 15.00 |
| Winnipeg ² | 14.50 | 14.00 | ..... | 13.00 | 13.00 | 13.25 | 12.50 | 11.00 | 10.50 | 10.50 | 10.25 | 9.75 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division, except where noted.

¹ Based on United States grades.

² National Hay Press, monthly.

PASTURE

TABLE 385.—*Pasture: Condition, 1st of month, United States, 1909-1925*

| Year | May | June | July | Aug. | Sept. | Oct |
|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> |
| 1909..... | 80.1 | 89.2 | 93.1 | 84.8 | ..... | ..... |
| 1910..... | 89.3 | 88.5 | 81.6 | 73.0 | ..... | ..... |
| 1911..... | 81.3 | 81.8 | 69.6 | 59.0 | ..... | ..... |
| 1912..... | 81.7 | 63.7 | 84.9 | 80.6 | ..... | ..... |
| 1913..... | 87.1 | 89.2 | 81.2 | 73.7 | ..... | ..... |
| Average 1909-1913..... | 83.9 | 88.5 | 82.1 | 75.5 | ..... | ..... |
| 1914..... | 88.3 | 89.8 | 82.1 | 76.2 | ..... | ..... |
| 1915..... | 87.2 | 91.3 | 91.3 | 96.1 | 98.5 | 96.5 |
| 1916..... | 85.2 | 93.4 | 97.7 | 80.9 | 80.4 | 76.9 |
| 1917..... | 81.9 | 83.8 | 89.9 | 85.5 | 82.4 | 78.4 |
| 1918..... | 83.1 | 92.5 | 84.5 | 75.4 | 69.9 | 77.3 |
| 1919..... | 90.3 | 97.4 | 95.2 | 83.9 | 80.2 | 78.2 |
| 1920..... | 79.8 | 88.8 | 89.5 | 86.3 | 86.2 | 86.2 |
| Average 1914-1920..... | 85.1 | 91.0 | 90.0 | 84.3 | 82.9 | 82.2 |
| 1921..... | 91.8 | 90.1 | 80.8 | 74.3 | 81.6 | 84.8 |
| 1922..... | 84.5 | 93.8 | 89.0 | 87.9 | 81.3 | 76.0 |
| 1923..... | 77.0 | 84.8 | 85.5 | 77.6 | 78.8 | 83.1 |
| 1924..... | 80.2 | 82.2 | 87.6 | 84.0 | 80.8 | 82.6 |
| 1925..... | 86.5 | 78.1 | 76.5 | 75.7 | 72.6 | 76.9 |

Division of Crop and Livestock Estimates.

HOPS

TABLE 386.—*Hops: Acreage, production, and farm value, United States, 1915-1925*

| Year | Acreage | Average yield per acre | Production | Price per pound received by producers Dec. 1 | Farm value |
|-------------------------|--------------|------------------------|---------------------|--|----------------------|
| | <i>Acres</i> | <i>Pounds</i> | <i>1,000 pounds</i> | <i>Cents</i> | <i>1,000 dollars</i> |
| 1915..... | 44,653 | 1,186.6 | 52,985 | 11.7 | 6,203 |
| 1916..... | 43,900 | 1,152.5 | 50,595 | 12.0 | 6,073 |
| 1917..... | 29,900 | 982.9 | 29,388 | 33.3 | 9,795 |
| 1918..... | 25,900 | 829.4 | 21,481 | 19.3 | 4,150 |
| 1919..... | 21,000 | 1,189.0 | 24,970 | 77.6 | 19,376 |
| 1920..... | 28,000 | 1,224.3 | 34,280 | 35.7 | 12,236 |
| 1921..... | 27,000 | 1,086.7 | 29,340 | 24.1 | 7,080 |
| 1922..... | 23,400 | 1,185.6 | 27,744 | 8.6 | 2,383 |
| 1923..... | 18,440 | 1,071.1 | 19,751 | 18.8 | 3,722 |
| 1924..... | 20,350 | 1,359.7 | 27,670 | 10.3 | 2,863 |
| 1925 ¹ | 20,350 | 1,404.1 | 28,573 | 21.8 | 6,232 |

Division of Crop and Livestock Estimates.

¹ Preliminary.TABLE 387.—*Hops: Acreage, production, and farm value, by States, 1924 and 1925*

| State | Acreage | | Average yield per acre | | Production | | Price per pound received by producers Dec. 1 | | Farm value | |
|-----------------|--------------|-------------------|------------------------|---------------|---------------------|---------------------|--|--------------|--------------------|--------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| | <i>Acres</i> | <i>Acres</i> | <i>Pounds</i> | <i>Pounds</i> | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>Cents</i> | <i>Cents</i> | <i>1,000 dols.</i> | <i>1,000 dols.</i> |
| Washington..... | 2,350 | 2,350 | 1,817 | 2,116 | 4,270 | 4,973 | 10.0 | 21.0 | 427 | 1,044 |
| Oregon..... | 12,000 | 13,000 | 1,150 | 1,200 | 13,800 | 15,600 | 10.0 | 23.0 | 1,380 | 3,588 |
| California..... | 6,000 | 5,000 | 1,600 | 1,600 | 9,600 | 8,000 | 11.0 | 20.0 | 1,056 | 1,600 |
| Total..... | 20,350 | 20,350 | 1,359.7 | 1,404.1 | 27,670 | 28,573 | 10.3 | 21.8 | 2,863 | 6,232 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 388.—Hops: Acreage and yield per acre in specified countries, average 1909–1913, annual 1922–1925

| Country | Acreage | | | | | Yield per acre | | | | |
|---|--------------------------------|------------------|------------------|------------------|------------------|--------------------|-------|-------|-------|------------------|
| | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909–1913 | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTH AMERICA | | | | | | | | | | |
| Canada ² | ³ 718 | ³ 507 | ³ 507 | ³ 507 | ⁴ 640 | ¹ 1,429 | 1,843 | 1,972 | 1,604 | 1,400 |
| United States ² | ⁴ 45,000 | 23,400 | 18,440 | 20,350 | 20,350 | ¹ 1,103 | 1,186 | 1,071 | 1,360 | 1,400 |
| EUROPE | | | | | | | | | | |
| England and Wales | 33,797 | 26,452 | 24,893 | 25,897 | 26,256 | 977 | 1,274 | 1,030 | 1,925 | 1,514 |
| Belgium | 5,313 | 4,258 | 2,975 | 3,123 | 3,158 | 1,319 | 788 | 1,073 | 1,754 | 1,605 |
| France | 17,072 | 10,430 | 10,168 | 10,052 | 9,573 | 788 | 857 | 495 | 1,113 | 1,098 |
| Germany | 56,267 | 29,687 | 28,691 | 28,738 | 30,821 | 515 | 462 | 244 | 432 | 345 |
| Austria | ⁷ 6,210 | 242 | 264 | 300 | 300 | ⁷ 573 | 355 | 371 | 300 | 300 |
| Czechoslovakia | ⁷ 38,385 | 19,408 | 19,177 | 20,242 | 22,400 | ⁷ 599 | 641 | 356 | 1,085 | 644 |
| Hungary | ⁷ 628 | 131 | 79 | 178 | 178 | ⁷ 814 | 687 | 759 | 506 | 506 |
| Yugoslavia | 3,749 | 4,502 | 3,991 | 5,503 | 5,200 | 725 | 699 | 837 | 876 | 876 |
| Rumania | ⁷ 664 | ⁴ 371 | ⁴ 371 | ⁴ 371 | — | 825 | 503 | 296 | 593 | 593 |
| Poland | 11,963 | 4,823 | 4,895 | 4,964 | — | 403 | 738 | 584 | 653 | 653 |
| OCEANIA | | | | | | | | | | |
| Australia | 1,251 | 1,741 | — | — | — | 1,285 | 1,383 | — | — | — |
| New Zealand | ⁴ 653 | 676 | 701 | — | — | — | 1,587 | 1,374 | — | — |
| Total countries reporting for all periods 1909–1913 to 1925 | 200,301 | 118,644 | 108,840 | 114,412 | 118,398 | — | — | — | — | — |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated.

¹ Figures for Europe are estimates for present boundaries.

² British Columbia.

³ Two-year average.

⁴ Unofficial.

⁵ Principal producing States.

⁶ One year only.

⁷ Four-year average.

TABLE 389.—Hops: Production in specified countries, average 1909–1913, annual 1922–1925

[Thousand pounds—1, e., 000 omitted]

| Country | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
|---|--------------------------------|------------------|--------------------|--------------------|--------------------|
| NORTH AMERICA | | | | | |
| Canada ² | ¹ 1,026 | 681 | 1,000 | 813 | — |
| United States ² | 53,654 | 27,744 | 19,751 | 27,670 | 28,573 |
| EUROPE | | | | | |
| England and Wales | 33,021 | 33,712 | 25,648 | 49,840 | 39,760 |
| Belgium | 7,008 | 3,344 | 3,192 | 5,478 | 5,353 |
| France | 13,459 | 8,940 | 5,036 | 11,187 | 9,646 |
| Germany | 28,961 | 13,704 | 7,011 | 12,418 | 10,646 |
| Austria | ³ 3,560 | 86 | 98 | 90 | — |
| Czechoslovakia | ⁴ 22,997 | 12,439 | 6,819 | 21,987 | 14,416 |
| Hungary | ⁵ 611 | 90 | 60 | 106 | ⁶ 84 |
| Yugoslavia | 2,718 | 3,148 | 3,340 | 4,818 | ⁶ 4,312 |
| Rumania | ⁶ 548 | ⁶ 220 | ⁶ 110 | ⁶ 220 | ⁶ 207 |
| Poland | 5,897 | 3,558 | 2,857 | 3,243 | ⁶ 2,404 |
| Russia | 6,797 | — | — | — | — |
| OCEANIA | | | | | |
| Australia | 1,607 | 2,408 | ⁶ 1,700 | ⁶ 2,425 | ⁶ 2,240 |
| New Zealand | ⁷ (950) | 1,071 | 993 | | |
| Total countries reporting for all periods 1909–1913 to 1925 | 171,331 | 110,378 | 76,487 | 139,372 | 117,701 |
| Estimated world total exclusive of Russia ⁸ | 175,917 | 111,145 | 77,585 | 140,275 | — |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated.

¹ Figures for Europe are estimates for present boundaries.

² British Columbia only.

³ Two-year average.

⁴ Principal producing States.

⁵ Four-year average.

⁶ Unofficial.

⁷ Rough estimate for one year based on acreage for that year and yields in later years.

⁸ Exclusive of production in minor producing countries whose crops do not influence the world markets and for which no statistics are available.

TABLE 390.—Hops: Acreage, production, imports, exports, and consumption in the United States, 1910–1925

| Year beginning July 1— | Acreage | Production | Imports | Exports | | Consumption by brewers |
|------------------------|---------------------|-------------------------|---------------|---------------|---------------|------------------------|
| | | | | Domestic | Foreign | |
| | <i>Acres</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| 1910..... | (¹) | (¹) | 8,557,531 | 13,104,774 | 17,974 | 45,068,811 |
| 1911..... | (¹) | (¹) | 2,991,125 | 12,190,663 | 35,869 | 42,436,665 |
| 1912..... | (¹) | (¹) | 8,494,144 | 17,591,195 | 35,859 | 44,237,735 |
| 1913..... | (¹) | (¹) | 5,382,025 | 24,262,896 | 30,224 | 43,887,023 |
| 1914..... | (¹) | (¹) | 11,651,332 | 16,210,443 | 16,947 | 38,839,294 |
| 1915..... | 44,653 | 52,986,000 | 675,704 | 22,409,818 | 134,571 | 37,451,610 |
| 1916..... | 43,900 | 50,595,000 | 239,849 | 4,874,876 | 26,215 | 41,949,225 |
| 1917..... | 29,900 | 29,388,000 | 121,288 | 3,494,579 | 37,823 | 33,451,415 |
| 1918..... | 25,900 | 21,481,000 | 6 | 7,466,952 | 4,719 | 13,924,650 |
| 1919..... | 21,000 | 24,970,000 | 2,698,264 | 30,779,508 | 104,198 | ² 6,440,894 |
| 1920..... | 28,000 | 34,280,000 | 4,807,998 | 22,206,028 | 827,803 | ² 5,988,982 |
| 1921..... | 27,000 | 29,340,000 | 893,321 | 19,521,647 | 487,633 | ² 4,452,676 |
| 1922..... | 23,400 | 27,744,000 | 1,294,644 | 13,497,183 | 198,006 | ² 4,555,759 |
| 1923..... | 18,440 | 19,751,000 | 761,174 | 20,460,705 | 132,572 | ² 3,814,858 |
| 1924..... | 20,350 | 27,670,000 | 438,996 | 16,121,978 | 54,022 | ² 3,255,945 |
| 1925..... | ³ 20,350 | ³ 28,573,000 | | | | |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of Foreign and Domestic Commerce, and Division of Crop and Livestock Estimates; figures on consumption by brewers from records of the Bureau of Internal Revenue.

¹ Not available.

² Hops used to make cereal beverages.

³ Preliminary.

TABLE 391.—Hops: International trade, average 1909–1913, annual 1922–1924

[Thousand pounds—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|----------------|--------------------|------------------|------------------|------------------|------------------|------------------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Austria-Hungary..... | 938 | 18,333 | | | | | | |
| Czechoslovakia..... | | | 54 | 10,611 | 526 | 6,826 | 2,047 | 19,317 |
| France..... | 5,436 | 335 | 2,642 | 3,329 | 3,807 | 4,513 | 4,080 | 8,108 |
| Germany..... | 7,688 | 17,564 | 4,806 | 7,444 | 2,056 | 4,250 | 14,003 | 2,217 |
| New Zealand..... | 61 | 352 | 21 | 221 | 16 | 282 | 3 | 663 |
| Poland..... | | | 345 | 1,135 | 152 | 1,548 | 719 | 624 |
| United States..... | 6,235 | 16,416 | 1,201 | 14,882 | 1,018 | 20,041 | 406 | 17,391 |
| Yugoslavia..... | | | ¹ 130 | 1,932 | ¹ 339 | 5,078 | ¹ 192 | 2,817 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 618 | | 656 | | 996 | | 538 | |
| Australia..... | 1,106 | 22 | ¹ 720 | ¹ 1 | ² 222 | ² 055 | | |
| Austria..... | | | ¹ 1,281 | ¹ 141 | 3,263 | 140 | 2,881 | ¹ 156 |
| Belgium..... | 6,915 | 4,814 | 4,630 | 2,072 | 4,673 | 2,389 | 3,745 | 3,672 |
| British India..... | 246 | | 282 | | 294 | | 164 | |
| Canada..... | 1,306 | 176 | 1,965 | 826 | 4,240 | 1,182 | 2,064 | 760 |
| Denmark..... | 1,027 | ¹ 1 | 600 | 1 | 489 | 8 | 755 | 5 |
| Hungary..... | | | 226 | 179 | 74 | 92 | 412 | 103 |
| Irish Free State..... | | | | | | | 8,327 | |
| Italy..... | 529 | 10 | 778 | 87 | 504 | 35 | 609 | 52 |
| Japan..... | 253 | | 754 | | 924 | | 1,200 | |
| Netherlands..... | 2,938 | 1,405 | 1,323 | 549 | 1,228 | 716 | 1,294 | 317 |
| Norway..... | 269 | | 546 | | 362 | | 376 | |
| Russia..... | 1,258 | 2,348 | ¹ 22 | ¹ 397 | ¹ 324 | | ¹ 399 | |
| Sweden..... | 987 | 1 | 865 | 85 | 1,040 | 3 | 947 | 12 |
| Switzerland..... | 1,257 | ² 2 | 749 | | 521 | | 843 | |
| Union of South Africa..... | 487 | | 404 | | 398 | | 304 | |
| United Kingdom..... | 21,028 | 2,162 | 14,284 | 316 | 1,356 | 2,470 | 10,099 | 4,963 |
| Other countries..... | 2,277 | | 2,535 | 402 | 3,019 | 8,831 | 1,331 | 24 |
| Total..... | 62,969 | 62,941 | 41,837 | 44,610 | 31,841 | 59,359 | 58,347 | 61,041 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. Lupulin and hopfenmehl (hop meal) are not included.

¹ International Institute of Agriculture.

² Year beginning July 1.

³ Three-year average.

⁴ One year only.

TABLE 392.—Hops: Wholesale price per pound, 1913–1925

| Year | New York State, prime to choice | | | San Francisco | | |
|----------------|---------------------------------|-------|----------------------|---------------|-------|----------------------|
| | Low | High | Average ¹ | Low | High | Average ¹ |
| | Cents | Cents | Cents | Cents | Cents | Cents |
| 1913..... | 17 | 48 | ----- | 19 | 30 | ----- |
| 1914..... | 23 | 50 | ----- | 10 | 30 | ----- |
| 1915..... | 13 | 30 | ----- | 10 | 15 | ----- |
| 1916..... | 15 | 65 | ----- | 7 | 14 | ----- |
| 1917..... | 34 | 90 | ----- | 6 | 40 | ----- |
| 1918..... | 23 | 54 | 37.9 | 19 | 22.5 | 19.5 |
| 1919..... | 37 | 85 | 50.9 | *34 | 84 | 50.2 |
| 1920..... | 41 | 105 | 80.2 | 33 | 85 | 61.6 |
| 1921..... | 26 | 50 | 37.0 | 12 | 35 | 24.4 |
| 1922..... | 19 | 40 | 25.3 | 9 | 30 | 17.6 |
| 1923..... | 19 | 58 | 32.5 | 10 | 35 | 17.2 |
| 1924..... | 31 | 68 | 47.3 | 12.5 | 40.0 | 24.2 |
| 1925..... | 28 | 66 | 39.9 | 11 | 25 | 13.9 |
| 1925 | | | | | | |
| January..... | 30 | 34 | 32.2 | 11 | 16 | 13.6 |
| February..... | 32 | 34 | 33 | 11 | 16 | 13.5 |
| March..... | 31 | 34 | 31.8 | 11 | 16 | 13.5 |
| April..... | 28 | 31 | 29.6 | 11 | 16 | 13.5 |
| May..... | 28 | 30 | 29 | 11 | 16 | 13.5 |
| June..... | 28 | 30 | 29 | 11 | 16 | 13.5 |
| July..... | 28 | 30 | 29 | 11 | 16 | 13.5 |
| August..... | 28 | 30 | 29 | 11 | 16 | 13.5 |
| September..... | 40 | 62 | 49.1 | 11 | 16 | 13.5 |
| October..... | 53 | 65 | 62.3 | 11 | 16 | 13.5 |
| November..... | 60 | 65 | 62.5 | 11 | 16 | 13.5 |
| December..... | 60 | 65 | 62.5 | 11 | 25 | 18.3 |

Division of Statistical and Historical Research Compiled from New York Journal of Commerce and San Francisco Daily Commercial News.

¹ Monthly averages are computed from daily ranges. Yearly averages are simple averages of monthly averages.

PEANUTS

TABLE 393.—Peanuts: Acreage, production, and farm value, United States, 1916–1925

| Year | Acreage | Average yield per acre | Production | Price per pound received by producers Nov. 15 | Farm value |
|-----------|-------------|------------------------|--------------|---|---------------|
| | 1,000 acres | Pounds | 1,000 pounds | Cents | 1,000 dollars |
| 1916..... | 1,043 | 881.1 | 919,028 | 4.5 | 41,243 |
| 1917..... | 1,842 | 777.7 | 1,432,581 | 6.9 | 98,512 |
| 1918..... | 1,865 | 664.9 | 1,240,102 | 6.5 | 80,271 |
| 1919..... | 1,132 | 691.9 | 783,273 | 9.3 | 73,094 |
| 1920..... | 1,181 | 712.6 | 841,474 | 5.3 | 44,256 |
| 1921..... | 1,214 | 683.1 | 829,307 | 4.0 | 33,097 |
| 1922..... | 1,006 | 630.0 | 633,114 | 4.7 | 29,613 |
| 1923..... | 896 | 722.9 | 647,762 | 6.8 | 43,918 |
| 1924..... | 1,207 | 620.5 | 745,925 | *4.6 | 34,481 |
| 1925..... | 982 | 706.8 | 694,076 | *3.6 | 25,225 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

* Dec. 1 price.

TABLE 394.—*Peanuts: Acreage, production, and farm value, by States, 1924 and 1925*

| State | Acreage | | Average yield per acre | | Production | | Price per pound received by producers Dec. 1 | | Farm value | |
|---------------------|--------------------|--------------------|------------------------|-------------|---------------------|---------------------|--|-------------|----------------------|----------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>Cts.</i> | <i>Cts.</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Virginia..... | 120 | 138 | 650 | 950 | 78,000 | 131,100 | 5.5 | 4.0 | 4,290 | 5,244 |
| North Carolina..... | 210 | 230 | 845 | 1,117 | 177,450 | 223,400 | 5.4 | 3.9 | 9,582 | 8,713 |
| South Carolina..... | 22 | 14 | 650 | 430 | 14,300 | 6,020 | 5.0 | 3.8 | 715 | 220 |
| Georgia..... | 399 | 278 | 600 | 475 | 239,400 | 132,050 | 4.2 | 3.4 | 10,055 | 4,490 |
| Florida..... | 47 | 41 | 710 | 600 | 33,370 | 24,600 | 4.0 | 3.2 | 1,335 | 787 |
| Tennessee..... | 23 | 20 | 730 | 815 | 16,700 | 16,300 | 3.5 | 3.4 | 588 | 554 |
| Alabama..... | 270 | 180 | 500 | 560 | 135,000 | 100,800 | 4.1 | 3.2 | 5,535 | 3,226 |
| Mississippi..... | 14 | 14 | 480 | 595 | 6,720 | 8,330 | 3.9 | 3.0 | 262 | 250 |
| Arkansas..... | 10 | 10 | 535 | 496 | 5,350 | 4,960 | 4.2 | 3.1 | 225 | 154 |
| Louisiana..... | 9 | 9 | 355 | 640 | 3,195 | 5,760 | 4.2 | 3.5 | 134 | 202 |
| Oklahoma..... | 8 | 7 | 700 | 700 | 5,600 | 4,900 | 4.3 | 3.2 | 241 | 157 |
| Texas..... | 75 | 71 | 450 | 505 | 33,750 | 35,855 | 4.5 | 3.4 | 1,519 | 1,219 |
| Total..... | 1,207 | 822 | 620.5 | 706.8 | 748,925 | 694,075 | 4.6 | 3.6 | 34,481 | 25,225 |

Division of Crop and Livestock Estimates

¹ Preliminary.TABLE 395.—*Peanuts: Estimated price per pound, received by producers, United States, 1910-1925*

| Year beginning November | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Weighted av. |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1910..... | 4.7 | 4.5 | 4.4 | 5.0 | 4.8 | 4.9 | 4.8 | 5.2 | 5.0 | 5.3 | 5.1 | 4.6 | 4.6 |
| 1911..... | 4.4 | 4.4 | 4.3 | 4.7 | 5.0 | 4.9 | 4.9 | 5.2 | 4.9 | 5.0 | 4.8 | 4.7 | 4.4 |
| 1912..... | 4.7 | 4.6 | 4.6 | 4.5 | 4.7 | 4.8 | 4.7 | 5.0 | 5.1 | 4.9 | 4.9 | 4.8 | 4.6 |
| 1913..... | 4.4 | 4.8 | 4.7 | 4.7 | 4.7 | 4.9 | 5.1 | 5.1 | 5.2 | 4.9 | 5.0 | 4.5 | 4.6 |
| Av. 1910-1913..... | 4.0 | 4.0 | 4.5 | 4.7 | 4.8 | 4.9 | 4.9 | 5.1 | 5.0 | 5.0 | 5.0 | 4.6 | 4.6 |
| 1914..... | 4.4 | 4.3 | 4.5 | 4.4 | 4.2 | 4.5 | 4.8 | 4.8 | 4.7 | 4.5 | 4.4 | 4.3 | 4.4 |
| 1915..... | 4.2 | 4.2 | 4.3 | 4.4 | 4.4 | 4.6 | 4.6 | 4.7 | 4.6 | 4.6 | 4.4 | 4.4 | 4.3 |
| 1916..... | 4.4 | 4.7 | 4.9 | 5.3 | 5.5 | 6.2 | 7.2 | 7.7 | 7.6 | 7.2 | 6.6 | 6.1 | 4.8 |
| 1917..... | 7.1 | 7.1 | 7.0 | 7.2 | 7.4 | 8.3 | 8.2 | 7.9 | 7.8 | 7.9 | 8.3 | 6.9 | 7.1 |
| 1918..... | 6.6 | 6.1 | 6.0 | 6.9 | 7.0 | 6.9 | 7.2 | 7.7 | 8.2 | 8.1 | 8.3 | 8.1 | 6.5 |
| 1919..... | 9.1 | 9.1 | 9.9 | 10.5 | 11.2 | 10.9 | 11.2 | 11.2 | 11.0 | 8.5 | 8.0 | 5.8 | 9.2 |
| 1920..... | 5.3 | 4.7 | 4.4 | 4.1 | 4.0 | 3.5 | 3.4 | 3.8 | 3.8 | 3.9 | 4.0 | 4.0 | 4.7 |
| Av. 1914-1920..... | 5.9 | 5.7 | 5.9 | 6.1 | 6.2 | 6.4 | 6.7 | 6.8 | 6.8 | 6.4 | 6.3 | 5.7 | 5.9 |
| 1921..... | 3.7 | 3.5 | 3.6 | 4.0 | 4.3 | 3.9 | 3.9 | 4.2 | 4.4 | 4.4 | 4.7 | 3.6 | 3.7 |
| 1922..... | 5.2 | 5.0 | 5.9 | 6.5 | 6.7 | 7.1 | 7.1 | 7.3 | 6.9 | 6.7 | 6.7 | 7.0 | 5.5 |
| 1923..... | 6.8 | 6.2 | 6.4 | 6.7 | 6.8 | 6.7 | 6.4 | 6.5 | 6.4 | 6.6 | 6.4 | 6.4 | 6.5 |
| 1924..... | 6.3 | 5.6 | 5.4 | 5.5 | 5.9 | 5.7 | 6.2 | 6.2 | 5.4 | 5.2 | 5.7 | 4.7 | 5.7 |
| 1925..... | 5.1 | 4.4 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Crop and Livestock Estimates.

TABLE 396.—*Monthly average price, in cents per pound, of cleaned and shelled peanuts, f. o. b. important shipping points, November, 1924–October, 1925*

VIRGINIA–NORTH CAROLINA SECTION ¹

| | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. |
|--------------------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <i>Cleaned Virginias</i> | | | | | | | | | | | | |
| Jumbos..... | 9 $\frac{7}{8}$ | 9 $\frac{3}{4}$ | 10 $\frac{3}{4}$ | 11 $\frac{1}{2}$ | 11 $\frac{1}{2}$ | 11 $\frac{3}{4}$ | 11 $\frac{1}{2}$ | 11 $\frac{3}{4}$ | 11 $\frac{1}{2}$ | 11 $\frac{1}{2}$ | 11 $\frac{1}{2}$ | 10 $\frac{3}{4}$ |
| Fancys..... | 8 $\frac{3}{4}$ | 8 $\frac{3}{4}$ | 9 $\frac{3}{4}$ | 10 $\frac{3}{4}$ | 10 $\frac{3}{4}$ | 10 $\frac{3}{4}$ | 10 $\frac{3}{4}$ | 10 $\frac{3}{4}$ | 9 $\frac{3}{4}$ | 9 $\frac{1}{2}$ | 8 $\frac{3}{4}$ | 7 $\frac{3}{4}$ |
| Extras..... | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 8 $\frac{3}{4}$ | 8 $\frac{3}{4}$ | 8 $\frac{3}{4}$ | 8 | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 7 | 6 $\frac{3}{4}$ |
| <i>Shelled Virginias</i> | | | | | | | | | | | | |
| Extra Large.... | 12 | 11 $\frac{3}{4}$ | 12 $\frac{3}{4}$ | 13 $\frac{1}{4}$ | 13 $\frac{3}{4}$ | 13 $\frac{3}{4}$ | 13 $\frac{3}{4}$ | 13 $\frac{1}{4}$ | 13 | 12 $\frac{3}{4}$ | 12 $\frac{3}{4}$ | 11 $\frac{3}{4}$ |
| No. 1..... | 9 $\frac{1}{2}$ | 8 $\frac{3}{4}$ | 9 $\frac{1}{2}$ | 9 $\frac{3}{4}$ | 9 $\frac{3}{4}$ | 9 $\frac{1}{2}$ | 9 $\frac{3}{4}$ | 9 $\frac{3}{4}$ | 9 $\frac{1}{2}$ | 9 $\frac{1}{2}$ | 9 $\frac{1}{2}$ | 9 |
| No. 2..... | 6 $\frac{1}{2}$ | 6 $\frac{1}{4}$ | 6 | 6 $\frac{1}{4}$ | 5 $\frac{3}{4}$ | 5 $\frac{3}{4}$ | 5 $\frac{1}{4}$ | 5 $\frac{1}{4}$ | 4 $\frac{3}{4}$ | 4 $\frac{3}{4}$ | 4 $\frac{3}{4}$ | 4 $\frac{1}{4}$ |

SOUTHEAST SECTION: GEORGIA, ALABAMA, FLORIDA, AND SOUTH CAROLINA ¹

| | | | | | | | | | | | | |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <i>Shelled Spanish</i> | | | | | | | | | | | | |
| No. 1..... | 8 $\frac{1}{4}$ | 8 $\frac{1}{2}$ | 8 $\frac{1}{2}$ | 8 $\frac{1}{2}$ | 8 $\frac{1}{4}$ | 8 | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 7 $\frac{1}{2}$ | 7 $\frac{3}{4}$ | 7 $\frac{1}{4}$ | 6 $\frac{3}{4}$ |
| No. 2..... | 7 $\frac{1}{4}$ | 7 | 6 $\frac{3}{4}$ | 6 $\frac{3}{4}$ | 6 $\frac{3}{4}$ | 5 $\frac{3}{4}$ | 5 $\frac{3}{4}$ | 5 $\frac{3}{4}$ | 5 $\frac{3}{4}$ | 6 | 6 | 5 $\frac{3}{4}$ |
| <i>Shelled Runners</i> | | | | | | | | | | | | |
| No. 1..... | 7 $\frac{1}{4}$ | 7 $\frac{1}{4}$ | 7 $\frac{1}{4}$ | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 7 $\frac{1}{4}$ | 7 | 7 $\frac{1}{4}$ | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 6 $\frac{3}{4}$ |
| No. 2..... | 6 $\frac{1}{2}$ | 6 $\frac{1}{8}$ | 6 | 6 $\frac{3}{8}$ | 6 $\frac{1}{2}$ | 6 $\frac{1}{4}$ | 5 $\frac{1}{4}$ | 5 $\frac{3}{8}$ | 5 $\frac{3}{8}$ | 5 $\frac{3}{8}$ | 5 $\frac{1}{2}$ | 5 $\frac{1}{4}$ |

TEXAS ¹

| | | | | | | | | | | | | |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---|-----------------|-----------------|-----------------|
| <i>Shelled Spanish</i> | | | | | | | | | | | | |
| No. 1..... | 8 $\frac{1}{4}$ | 8 $\frac{1}{4}$ | 8 $\frac{3}{4}$ | 9 $\frac{1}{4}$ | 9 $\frac{1}{4}$ | 9 $\frac{1}{4}$ | 9 | 8 $\frac{3}{4}$ | 9 | 8 $\frac{3}{4}$ | 8 $\frac{3}{4}$ | 8 $\frac{1}{4}$ |
| No. 2..... | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 7 $\frac{1}{4}$ | 7 $\frac{1}{2}$ | 7 $\frac{1}{2}$ | 7 $\frac{1}{2}$ | 7 $\frac{1}{4}$ | 7 $\frac{1}{4}$ | 7 | 6 $\frac{3}{4}$ | 6 $\frac{3}{4}$ | 6 $\frac{1}{4}$ |

Fruit and Vegetable Division.

¹ Important shipping points: Suffolk, Petersburg, Franklin, and Norfolk, Va.; Edenton, N. C.

² Important shipping points: Albany, Cordele, Donaldsonville, Valdosta, and Arlington, Ga.; Dothan, Enterprise, and Troy, Ala.; Charleston, S. C.

³ Important shipping points: Fort Worth, DeLeon, Denison, and Tyler, Tex.

TABLE 397.—*Peanuts used in the production of oil, United States, 1918–1925*

[Thousand pounds—1, e., 000 omitted]

| Year beginning July 1— | July–September | October–December | January–March | April–June | Total |
|------------------------|----------------|------------------|-----------------------|-----------------------|----------|
| 1918..... | | | ¹ 239, 920 | ¹ 176, 280 | |
| 1919..... | 11, 184 | 4, 364 | 5, 868 | 9, 214 | 30, 630 |
| 1920..... | 15, 770 | 27, 414 | 27, 962 | 32, 624 | 104, 070 |
| 1921..... | 23, 480 | 40, 338 | 44, 152 | 25, 964 | 133, 934 |
| 1922..... | 4, 704 | 13, 170 | 9, 082 | 8, 436 | 35, 392 |
| 1923..... | 942 | 6, 164 | 4, 676 | 6, 470 | 17, 252 |
| 1924..... | 1, 928 | 17, 668 | 24, 678 | 16, 592 | 61, 166 |
| 1925..... | 9, 036 | 20, 216 | | | |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of the Census. Quantities reported in terms of "hulled" have been converted to "in the hull" basis by multiplying by 1.5.

¹ Peanuts "in the hull" and "hulled" not separately stated.

² Quarterly reports from January–December, 1925, subject to revision.

TABLE 393.—Peanuts: International trade, average 1911-1913, annual 1922-1924

[Thousand pounds—1. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|-----------|-----------|-----------|-----------|-----------|------------------|-----------|
| | Average 1911-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Anglo-Egyptian | | | | | | | | |
| Sudan | | 1,961 | | 5,941 | | 13,296 | | 22,987 |
| Brazil | | 274 | | 123 | | 4,492 | | |
| British India | | 503,448 | | 590,332 | | 597,356 | | 550,505 |
| China | 32,882 | 138,472 | 20,090 | 238,032 | 23,390 | 391,183 | 22,921 | 661,267 |
| Dutch East Indies | 612 | 60,282 | 602 | 29,006 | 577 | 39,876 | | 139,585 |
| Mozambique | * 1,098 | * 15,907 | 570 | 23,043 | 35 | 24,340 | | |
| Nigeria | | 17,163 | | 53,514 | | 51,267 | | |
| Spain | | 8,205 | | 3,164 | | 8,790 | | * 3,764 |
| Tanganyika | | * 0,275 | | 28,040 | | 36,978 | | 9,056 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Algeria | 7,022 | 218 | 6,359 | 197 | 5,811 | 158 | 7,906 | 259 |
| Argentina | 8,667 | | 12,680 | 103 | 4,485 | 12,372 | 554 | 2,883 |
| British Malaya | * 19,488 | * 10,839 | 11,708 | 2,323 | 12,674 | 2,106 | 14,041 | 2,006 |
| Canada | 7,302 | | 20,062 | | 21,963 | | 22,283 | |
| Denmark | 5,236 | | 11,294 | | 22,155 | | 20,178 | |
| Egypt | 4,604 | 1,637 | 6,077 | 3,328 | 6,336 | 3,711 | 7,406 | 4,504 |
| France | 1,239,559 | 47,107 | 1,248,006 | 12,370 | 1,410,553 | 15,098 | 1,359,105 | 17,906 |
| Germany | 174,970 | * 998 | 152,762 | | 83,145 | | 165,178 | |
| Hongkong | | | 44,443 | 34,414 | 49,511 | 30,837 | 60,265 | 41,277 |
| Italy ¹ | 1,194 | 804 | 84,241 | 768 | 58,423 | 36 | 57,859 | 48 |
| Japan | | 10,675 | 20,312 | 1,117 | 24,543 | 1,532 | 32,147 | 401 |
| Netherlands | 122,862 | 32,863 | 98,301 | 2,679 | 117,386 | 4,698 | 148,528 | 4,877 |
| Philippine Islands | 2,264 | | 3,102 | | 3,154 | | 3,058 | |
| Tunis | * 1,459 | | 2,795 | | | | 3,369 | |
| Union of South Africa | 3,164 | 7 | 1,499 | 25 | 2,192 | 5 | 1,204 | 29 |
| United Kingdom | | | 149,707 | | 224,548 | | 226,216 | |
| United States | 20,988 | 6,804 | 15,192 | 12,621 | 76,484 | 4,866 | 88,915 | 3,127 |
| Other countries | 100,865 | 980,818 | 15,920 | 5,030 | 11,788 | 5,987 | 9,185 | 955 |
| Total | 1,754,306 | 1,847,857 | 1,934,767 | 1,046,170 | 2,159,153 | 1,257,930 | 2,251,278 | 1,365,436 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. Includes shelled and unshelled, assuming the peanuts to be unshelled unless otherwise stated. When shelled nuts were reported, they have been reduced to terms of unshelled at the ratio of 3 pounds unshelled to 2 pounds shelled.

¹ Java and Madura only.

² Two-year average.

³ Six months.

⁴ International Institute of Agriculture, Oleaginous Products and Vegetable Oils.

⁵ Three-year average.

⁶ One year only.

⁷ Reports include some sesamum.

TABLE 399.—Peanut oil: International trade, average 1909–1913, annual 1922–1924

[Thousand pounds—1. c., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|---------------------------------|----------|----------|----------|----------|----------|-------------------|----------|
| | Average, 1909–1913 ¹ | | 1922 | | 1923 | | 1924, preliminary | |
| | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Belgium..... | 2,233 | 2,065 | 4,748 | 3,693 | 3,642 | 4,978 | 3,598 | 4,945 |
| China..... | (?) | 35,693 | (?) | 51,136 | (?) | 62,285 | (?) | 89,636 |
| France..... | 142 | 50,967 | 1,963 | 45,426 | 1,230 | 59,332 | 3,448 | 72,156 |
| Netherlands..... | 2,743 | 18,569 | 17,716 | 20,781 | 6,960 | 20,170 | 19,134 | 24,281 |
| United Kingdom..... | (?) | (?) | 17,463 | 7,939 | 7,170 | 11,921 | 10,980 | 21,784 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Algeria..... | (?) | (?) | 24,411 | 690 | 20,510 | 646 | 30,248 | 539 |
| Canada..... | | | 1,744 | | 17,708 | | 24,937 | |
| Denmark..... | 2,941 | 156 | 3,047 | 705 | 1,517 | 1,309 | 828 | 2,019 |
| Germany..... | 1,602 | | 5,959 | 5,344 | 7,137 | 7,363 | 13,792 | 6,141 |
| Hongkong..... | | | 27,558 | 21,747 | 33,911 | 24,942 | 41,142 | 27,091 |
| Italy..... | 8,867 | 4 | 6,643 | 25 | 1,347 | 29 | 8,005 | 3 |
| Morocco..... | (?) | | 2,032 | | 2,983 | | 2,448 | |
| Norway..... | (?) | (?) | 7,862 | 187 | 10,727 | 903 | 7,272 | |
| Philippine Islands..... | 1,976 | (?) | 3,119 | (?) | 3,011 | (?) | 3,754 | (?) |
| Sweden..... | 2,459 | | 3,962 | 1,121 | 5,985 | 534 | 6,251 | 333 |
| United States..... | 7,295 | (?) | 2,470 | 963 | 8,009 | 203 | 15,395 | 39 |
| Other countries..... | 6,466 | 458 | 1,723 | 20 | 735 | 220 | 1,234 | 2 |
| Total..... | 35,724 | 107,812 | 132,420 | 159,777 | 141,682 | 194,835 | 193,066 | 249,569 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. Conversions made on the basis of 7.5 pounds to the gallon.

¹ International Institute of Agriculture, Oleaginous Products and Vegetable Oils.

² Not separately stated.

³ Four-year average.

⁴ Includes some soy-bean oil.

⁵ Three-year average.

TABLE 400.—Peanut oil, refined: Average price per pound (in barrels), at New York, 1916–1925

| Year beginning Sep-tember | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Aver-age |
|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1916..... | Cents 12.19 | Cents 12.60 | Cents 13.33 | Cents 13.49 | Cents 13.50 | Cents 14.38 | Cents 14.80 | Cents 17.58 | Cents 17.83 | Cents 17.87 | Cents 17.44 | Cents 18.06 | Cents 15.26 |
| 1917..... | 18.61 | 20.12 | 21.67 | 22.67 | 22.49 | 22.98 | 22.33 | 22.41 | 21.70 | 21.15 | 21.47 | 21.78 | 21.62 |
| 1918..... | 21.44 | 22.75 | 22.75 | 21.06 | 20.36 | 20.25 | 19.90 | 22.38 | 24.58 | 26.91 | 29.31 | 30.05 | 23.48 |
| 1919..... | 26.25 | 25.25 | 26.68 | 26.69 | 27.50 | 26.43 | 27.12 | 25.00 | 23.10 | 20.88 | 19.00 | 17.19 | 24.26 |
| 1920..... | 16.88 | 16.20 | 14.62 | 12.75 | 12.52 | 12.34 | 11.00 | 10.70 | 10.50 | 10.25 | 10.00 | 10.12 | 12.32 |
| 1921..... | 10.62 | 11.75 | 11.59 | 11.22 | 11.25 | 11.38 | 12.25 | 13.15 | 13.00 | 13.00 | 12.48 | 12.62 | 12.03 |
| 1922..... | 12.40 | 12.25 | 13.03 | 14.25 | 16.88 | 17.38 | 17.85 | 17.75 | 16.56 | 16.00 | 16.00 | 16.00 | 15.63 |
| 1923..... | 16.00 | 16.00 | 15.69 | 14.80 | 14.75 | 14.75 | 14.75 | 14.75 | 14.88 | 15.25 | 15.25 | 15.55 | 15.19 |
| 1924..... | 16.45 | 16.25 | 16.25 | 16.25 | 16.75 | 16.75 | 16.75 | 16.75 | 15.20 | 15.00 | 15.00 | 15.00 | 16.03 |
| 1925..... | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |

Division of Statistical and Historical Research. Compiled from Oil, Paint, and Drug Reporter, average of weekly range.

TABLE 401.—*Sugar beets: Production by States, 1922-1925; United States, 1914-1925*

| State and year ¹ | Acreage ² | | | Quantity harvested | Yield per acre | Price per ton received by producers | Value |
|-----------------------------|----------------------|--------------|-----------------------|--------------------|-------------------|-------------------------------------|----------------|
| | Planted | Harvested | | | | | |
| | | Area | Percentage of planted | | | | |
| | <i>Acres</i> | <i>Acres</i> | <i>P. ct.</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Dollars</i> | <i>Dollars</i> |
| Ohio: | | | | | | | |
| 1922..... | 28,000 | 26,000 | 91.85 | 220,000 | 8.51 | 6.88 | 1,512,000 |
| 1923..... | 46,000 | 41,000 | 90.94 | 391,000 | 9.43 | 9.26 | 3,620,000 |
| 1924..... | 48,000 | 41,000 | 85.42 | 315,000 | 7.68 | 9.48 | 2,986,000 |
| 1925 ³ | 42,000 | 37,000 | 88.10 | 353,000 | 9.54 | | |
| Michigan: | | | | | | | |
| 1922..... | 106,000 | 84,000 | 78.98 | 692,000 | 8.23 | 7.22 | 4,994,000 |
| 1923..... | 131,000 | 109,000 | 83.31 | 883,000 | 8.11 | 9.38 | 8,282,000 |
| 1924..... | 174,000 | 150,000 | 86.21 | 1,081,000 | 7.21 | 8.85 | 9,569,000 |
| 1925 ³ | 137,000 | 119,000 | 86.86 | 1,069,000 | 8.98 | | |
| Wisconsin: | | | | | | | |
| 1922..... | 13,000 | 8,000 | 63.42 | 67,000 | 8.27 | 7.22 | 484,000 |
| 1923..... | 20,000 | 15,000 | 73.87 | 122,000 | 8.36 | 8.72 | 1,064,000 |
| 1924..... | 27,000 | 21,000 | 77.78 | 136,000 | 6.48 | 7.02 | 955,000 |
| 1925 ³ | 18,000 | 12,000 | 66.67 | 136,000 | 11.33 | | |
| Nebraska: | | | | | | | |
| 1922..... | 55,000 | 55,000 | 100.00 | 703,000 | 12.78 | 7.79 | 5,477,000 |
| 1923..... | 60,000 | 58,000 | 96.38 | 640,000 | 11.04 | 8.10 | 5,181,000 |
| 1924..... | 67,000 | 65,000 | 97.01 | 766,000 | 11.78 | 7.53 | 5,768,000 |
| 1925 ³ | 62,000 | 62,000 | 100.00 | 824,000 | 13.29 | | |
| Montana and Wyoming: | | | | | | | |
| 1922..... | 27,000 | 24,000 | 88.89 | 257,000 | 10.73 | 8.43 | 2,184,000 |
| 1923..... | 40,000 | 37,000 | 92.50 | 431,000 | 11.64 | 8.76 | 3,770,000 |
| 1924..... | 58,000 | 54,000 | 93.10 | 564,000 | 10.44 | 8.18 | 4,613,000 |
| 1925 ³ | 62,000 | 59,000 | 95.16 | 610,000 | 10.34 | | |
| Idaho: | | | | | | | |
| 1922..... | 33,000 | 24,000 | 71.08 | 273,000 | 11.59 | 8.28 | 2,262,000 |
| 1923..... | 47,000 | 43,000 | 90.00 | 498,000 | 11.68 | 8.57 | 4,269,000 |
| 1924..... | 62,000 | 39,000 | 62.90 | 267,000 | 6.85 | 7.19 | 1,920,000 |
| 1925 ³ | 40,000 | 40,000 | 100.00 | 467,000 | 11.68 | | |
| Colorado: | | | | | | | |
| 1922..... | 165,000 | 148,000 | 89.33 | 1,466,000 | 9.93 | 7.79 | 11,426,000 |
| 1923..... | 182,000 | 164,000 | 90.44 | 1,996,000 | 12.15 | 8.15 | 16,276,000 |
| 1924..... | 236,000 | 225,000 | 94.94 | 2,546,000 | 11.32 | 7.59 | 19,329,000 |
| 1925 ³ | 186,000 | 134,000 | 72.04 | 1,460,000 | 11.12 | | |
| Utah: | | | | | | | |
| 1922..... | 80,000 | 73,000 | 90.77 | 819,000 | 11.29 | 7.96 | 6,519,000 |
| 1923..... | 84,000 | 83,000 | 98.56 | 1,075,000 | 12.91 | 8.28 | 8,901,000 |
| 1924..... | 98,000 | 81,000 | 82.65 | 568,000 | 7.01 | 6.92 | 3,930,000 |
| 1925 ³ | 71,000 | 69,000 | 97.18 | 974,000 | 14.12 | | |
| California: | | | | | | | |
| 1922..... | 62,000 | 57,000 | 92.29 | 424,000 | 7.40 | 10.14 | 4,306,000 |
| 1923..... | 70,000 | 61,000 | 86.25 | 581,000 | 9.59 | 13.99 | 8,129,000 |
| 1924..... | 93,000 | 84,000 | 90.32 | 785,000 | 9.35 | 9.14 | 7,174,000 |
| 1925 ³ | 100,000 | 78,000 | 78.00 | 491,000 | 6.29 | | |
| Other States: | | | | | | | |
| 1922..... | 37,000 | 31,000 | 83.78 | 262,000 | 8.12 | 7.13 | 1,873,000 |
| 1923..... | 52,000 | 46,000 | 88.46 | 389,000 | 8.37 | 8.93 | 3,473,000 |
| 1924..... | 60,000 | 57,000 | 95.00 | 485,000 | 8.51 | 7.24 | 3,511,000 |
| 1925 ³ | 62,000 | 57,000 | 93.55 | 518,000 | 8.93 | | |
| United States: | | | | | | | |
| 1914..... | 515,000 | 483,000 | 93.94 | 5,585,000 | 11.60 | 5.45 | 30,438,000 |
| 1915..... | 694,000 | 611,000 | 92.02 | 6,511,000 | 10.70 | 5.67 | 36,950,000 |
| 1916..... | 768,000 | 665,000 | 86.57 | 6,228,000 | 9.56 | 6.12 | 38,139,000 |
| 1917..... | 807,000 | 665,000 | 82.43 | 5,980,000 | 9.00 | 7.89 | 44,192,000 |
| 1918..... | 890,000 | 694,000 | 86.13 | 5,949,000 | 10.01 | 10.00 | 59,404,000 |
| 1919..... | 890,000 | 692,000 | 77.77 | 6,421,000 | 9.27 | 11.74 | 75,420,000 |
| 1920..... | 978,000 | 872,000 | 89.08 | 8,538,000 | 9.79 | 11.63 | 99,324,000 |
| A v. 1914-20..... | 759,000 | 655,000 | 86.27 | 6,450,000 | 9.87 | 8.49 | 54,851,000 |
| 1921..... | 882,000 | 815,000 | 92.36 | 7,782,000 | 9.55 | 6.35 | 49,392,000 |
| 1922..... | 606,000 | 530,000 | 87.50 | 5,183,000 | 9.77 | 7.91 | 41,017,000 |
| 1923..... | 732,000 | 657,000 | 89.82 | 7,006,000 | 10.66 | 8.99 | 62,965,000 |
| 1924..... | 925,000 | 817,000 | 88.32 | 7,513,000 | 9.20 | 7.95 | 59,785,000 |
| 1925 ³ | 780,000 | 667,000 | 85.51 | 6,932,000 | 10.39 | | |
| A v. 1921-25..... | 785,000 | 697,000 | 88.70 | 6,983,000 | 9.91 | | |

Division of Crop and Livestock Estimates.

¹ Acreage and production of beets are credited to the State in which the beets are made into sugar. Year shown is that in which beets were grown. Sugar-making campaign extends into succeeding year.

² The planted acreage is that covered by factory-contract agreements and understandings, all of which is not actually planted by growers. Therefore abandonment may not mean actual loss of acreage.

³ Preliminary.

TABLE 402.—Beet sugar: Production by States, 1922-1925, United States, 1914-1925

| State and year ¹ | Facto- ries oper- ating | Aver- age length of cam- paign | Sugar made (chiefly re- fined) | Beets sliced | Analysis of beets | | Recovery of sucrose ⁴ | | Loss ⁵ |
|-----------------------------|----------------------------------|--|---|-----------------|---|--|--|---|-------------------|
| | | | | | Per- centage of suc- rose ² | Puri- ty co- effi- cient ³ | Per- centage of weight of beets | Per- centage of total sucrose in beets | |
| Ohio: | No. | Days | Short tons | Short tons | Per cent | Per cent | Per cent | Per cent | Per cent |
| 1922..... | 4 | 60 | 25,000 | 206,000 | 14.65 | 82.81 | 11.94 | 81.50 | 2.71 |
| 1923..... | 5 | 79 | 39,000 | 367,000 | 13.39 | 82.02 | 10.54 | 78.72 | 2.85 |
| 1924..... | 5 | 59 | 45,000 | 297,000 | 17.85 | 85.20 | 15.15 | 84.87 | 2.70 |
| 1925..... | | | 38,000 | 353,000 | 13.03 | | 10.76 | 82.59 | 2.27 |
| Michigan: | | | | | | | | | |
| 1922..... | 15 | 48 | 81,000 | 648,000 | 14.38 | 84.16 | 12.52 | 87.07 | 1.80 |
| 1923..... | 16 | 57 | 110,000 | 815,000 | 15.20 | 84.40 | 13.51 | 88.36 | 1.78 |
| 1924..... | 16 | 70 | 165,000 | 992,000 | 18.55 | 86.75 | 16.63 | 89.65 | 1.92 |
| 1925..... | | | 123,000 | 1,069,000 | 14.03 | | 11.61 | 82.04 | 2.52 |
| Wisconsin: | | | | | | | | | |
| 1922..... | 4 | 31 | 8,000 | 65,000 | 16.06 | 83.14 | 13.08 | 81.44 | 2.08 |
| 1923..... | 4 | 51 | 14,000 | 113,000 | 15.71 | 85.32 | 12.33 | 78.49 | 3.38 |
| 1924..... | 4 | 66 | 18,000 | 128,000 | 17.19 | 85.36 | 14.06 | 81.79 | 3.13 |
| 1925..... | | | 15,000 | 136,000 | 14.71 | | 11.03 | 74.98 | 3.68 |
| Nebraska: | | | | | | | | | |
| 1922..... | 5 | 92 | 87,000 | 671,000 | 14.79 | 84.26 | 12.94 | 87.49 | 1.85 |
| 1923..... | 5 | 83 | 74,000 | 597,000 | 14.48 | 82.38 | 12.32 | 85.08 | 2.16 |
| 1924..... | 5 | 90 | 105,000 | 717,000 | 16.46 | 84.90 | 14.04 | 88.94 | 1.82 |
| 1925..... | | | 105,000 | 824,000 | 14.93 | | 12.74 | 85.33 | 2.19 |
| Montana and Wyoming: | | | | | | | | | |
| 1922..... | 4 | 53 | 37,000 | 246,000 | 16.87 | 85.72 | 15.12 | 89.63 | 1.75 |
| 1923..... | 4 | 84 | 55,000 | 397,000 | 15.88 | 83.91 | 13.97 | 87.97 | 2.02 |
| 1924..... | 4 | 92 | 81,000 | 517,000 | 17.21 | 85.77 | 15.67 | 91.05 | 1.64 |
| 1925..... | | | 80,000 | 610,000 | 15.25 | | 13.12 | 86.03 | 2.13 |
| Idaho: | | | | | | | | | |
| 1922..... | 5 | 55 | 40,000 | 258,000 | 10.58 | 86.21 | 15.44 | 93.12 | 1.14 |
| 1923..... | 9 | 61 | 68,000 | 467,000 | 16.39 | 86.74 | 14.64 | 89.32 | 1.75 |
| 1924..... | 8 | 34 | 38,000 | 252,000 | 17.06 | 87.06 | 15.08 | 88.39 | 1.98 |
| 1925..... | | | 69,000 | 467,000 | 17.00 | | 15.70 | 89.20 | 1.90 |
| Colorado: | | | | | | | | | |
| 1922..... | 15 | 63 | 183,000 | 1,422,000 | 14.06 | 82.69 | 12.90 | 87.99 | 1.76 |
| 1923..... | 16 | 78 | 240,000 | 1,890,000 | 14.89 | 82.34 | 12.73 | 87.25 | 1.88 |
| 1924..... | 16 | 93 | 364,000 | 2,403,000 | 16.65 | 84.70 | 15.15 | 90.99 | 1.60 |
| 1925..... | | | 191,000 | 1,490,000 | 14.36 | | 12.82 | 89.28 | 1.64 |
| Utah: | | | | | | | | | |
| 1922..... | 16 | 55 | 110,000 | 775,000 | 16.11 | 85.17 | 14.16 | 87.90 | 1.95 |
| 1923..... | 17 | 67 | 137,000 | 1,008,000 | 15.66 | 85.02 | 13.69 | 86.78 | 2.07 |
| 1924..... | 17 | 36 | 76,000 | 540,000 | 16.30 | 85.44 | 14.07 | 86.32 | 2.23 |
| 1925..... | | | 127,000 | 974,000 | 15.91 | | 13.04 | 81.96 | 2.87 |
| California: | | | | | | | | | |
| 1922..... | 7 | 74 | 73,000 | 424,000 | 18.48 | 82.71 | 17.28 | 93.51 | 1.20 |
| 1923..... | 6 | 88 | 100,000 | 579,000 | 18.35 | 82.04 | 17.33 | 94.44 | 1.02 |
| 1924..... | 8 | 77 | 131,000 | 783,000 | 18.26 | 83.24 | 16.73 | 91.62 | 1.53 |
| 1925..... | | | 87,000 | 491,000 | 19.15 | | 17.72 | 92.53 | 1.43 |
| Other States: | | | | | | | | | |
| 1922..... | 6 | 55 | 31,000 | 248,000 | 14.96 | 81.36 | 12.47 | 83.36 | 2.49 |
| 1923..... | 7 | 64 | 44,000 | 352,000 | 14.46 | 81.01 | 12.16 | 84.09 | 1.70 |
| 1924..... | 7 | 67 | 67,000 | 446,000 | 17.03 | 83.23 | 15.02 | 88.20 | 2.01 |
| 1925..... | | | 60,000 | 518,000 | 14.09 | | 11.68 | 82.19 | 2.61 |
| United States: | | | | | | | | | |
| 1914..... | 60 | 85 | 722,000 | 5,288,000 | 16.38 | 83.89 | 13.65 | 83.33 | 2.73 |
| 1915..... | 67 | 92 | 874,000 | 6,150,000 | 16.49 | 84.38 | 14.21 | 86.17 | 2.28 |
| 1916..... | 74 | 80 | 821,000 | 5,920,000 | 16.30 | 84.74 | 13.86 | 85.03 | 2.44 |
| 1917..... | 91 | 74 | 765,000 | 5,626,000 | 16.28 | 83.89 | 13.60 | 83.64 | 2.68 |
| 1918..... | 80 | 81 | 761,000 | 5,578,000 | 16.18 | 84.70 | 13.04 | 84.30 | 2.64 |
| 1919..... | 80 | 78 | 726,000 | 5,888,000 | 14.48 | 82.84 | 12.34 | 85.22 | 2.14 |
| 1920..... | 97 | 91 | 1,089,000 | 7,991,000 | 15.99 | 83.96 | 13.63 | 85.24 | 2.36 |
| Average 1914-1920..... | 81 | 83 | 823,000 | 6,063,000 | 16.01 | 84.07 | 13.67 | 84.75 | 2.44 |
| 1921..... | 92 | 76 | 1,020,000 | 7,414,000 | 15.77 | 83.09 | 13.76 | 87.25 | 2.01 |
| 1922..... | 81 | 58 | 675,000 | 4,963,000 | 15.44 | 83.76 | 13.61 | 88.15 | 1.83 |
| 1923..... | 89 | 70 | 881,000 | 6,585,000 | 15.30 | 83.43 | 13.37 | 87.39 | 1.78 |
| 1924..... | 90 | 66 | 1,060,000 | 7,076,000 | 17.19 | 85.03 | 15.41 | 89.65 | 1.78 |
| 1925..... | | | 895,000 | 6,932,000 | 15.12 | | 12.91 | 85.38 | 2.21 |
| Average 1921-1925..... | | | 912,000 | 6,594,000 | 15.76 | | 12.91 | 87.56 | 1.91 |

Division of Crop and Livestock Estimates. Figures for 1925 are preliminary.

¹ Acreage and production of beets are credited to the State in which the beets are made into sugar. Year shown is that in which beets were grown. Sugar-making campaign extends into succeeding year.

² Based upon weight of beets.

³ Percentage of sucrose (pure sucrose) in the total soluble solids of the beets.

⁴ Percentage of sucrose actually extracted by factories.

⁵ Percentage of sucrose (based upon weight of beets) remaining in molasses and pulp.

⁶ Preliminary.

TABLE 403.—*Cane sugar: Production in Louisiana, 1911-1925*

| Year ¹ | Facto- ries in opera- tion | Sugar made ² | Average sugar made per ton of cane | Cane used for sugar | | | Molasses made ³ | |
|------------------------|-------------------------------------|----------------------------|--|---------------------|------------------------|-----------------|----------------------------|---------------------|
| | | | | Acreage | Average per acre | Produc- tion | Total | Per ton of sugar |
| | | | | | | | | |
| | Num- ber | Short tons | Pounds | Acres | Short tons | Short tons | Gallons | Gal- lons |
| 1911..... | 188 | 352,874 | 120 | 310,000 | 19 | 5,887,252 | 35,062,525 | 99 |
| 1912..... | 120 | 153,573 | 142 | 197,000 | 11 | 2,162,574 | 14,302,169 | 93 |
| 1913..... | 153 | 292,698 | 139 | 248,000 | 17 | 4,214,000 | 21,046,320 | 82 |
| 1914..... | 149 | 212,700 | 152 | 213,000 | 15 | 3,199,600 | 17,177,443 | 71 |
| 1915..... | 130 | 137,500 | 135 | 183,000 | 11 | 2,018,000 | 12,743,000 | 93 |
| 1916..... | 150 | 303,900 | 149 | 221,000 | 18 | 4,072,000 | 26,154,000 | 86 |
| 1917..... | 140 | 243,600 | 128 | 244,000 | 15.6 | 3,813,000 | 30,728,000 | 126 |
| 1918..... | 134 | 280,900 | 135 | 231,200 | 18 | 4,170,000 | 23,049,000 | 130 |
| 1919..... | 121 | 121,000 | 129 | 179,900 | 10.5 | 1,883,000 | 12,991,000 | 107 |
| 1920..... | 122 | 169,127 | 136 | 182,843 | 13.6 | 2,492,524 | 16,856,867 | 100 |
| Average 1914-1920..... | 136 | 214,104 | 138 | 207,849 | 14.9 | 3,092,503 | 20,671,330 | 97 |
| 1921..... | 124 | 324,431 | 155 | 226,366 | 18.5 | 4,180,780 | 25,423,341 | 78 |
| 1922..... | 112 | 295,095 | 156 | 241,433 | 15.6 | 3,778,110 | 22,718,640 | 77 |
| 1923..... | 105 | 162,023 | 136 | 217,259 | 11.1 | 2,386,650 | 15,719,400 | 97 |
| 1924..... | 82 | 88,000 | 144 | 163,000 | 7.6 | 1,228,000 | 9,590,000 | 109 |
| 1925..... | ..... | 198,000 | 108 | 221,000 | 16.5 | 3,648,000 | 22,981,000 | 116 |
| Average 1921-1925..... | ..... | 213,500 | 140 | 213,800 | 14.2 | 3,044,300 | 19,286,500 | 90 |

Division of Crop and Livestock Estimates.

¹ Sugar campaign, usually not ended before February following season of growth of cane.² Chiefly raw.³ Figures for molasses, 1911-1914, are as reported by the Louisiana Sugar Planters' Association; figures for later years as reported by Division of Crop and Livestock Estimates.TABLE 404.—*Cane sugar: Production in Hawaii, 1914-1925*

| Island, and year ended Sept. 30 | Average length of cam- paign | Sugar made (chiefly raw) | Cane used for sugar | | | Total area in cane | Average extrac- tion of sugar | |
|------------------------------------|------------------------------------|--------------------------------|----------------------|---------------------------------|------------|--------------------------|----------------------------------|--------------------------------|
| | | | Acreage harvested | Average yield per acre | Production | | Per cent of cane | Per short ton of cane |
| | | | | | | | | |
| | Days | Short tons | Acres | Short tons | Short tons | Acres | Per cent | Pounds |
| Island of Hawaii: | | | | | | | | |
| 1922..... | 198 | 223,000 | 55,000 | 37 | 2,010,000 | 106,000 | 11.09 | 222 |
| 1923..... | 164 | 186,000 | 52,000 | 32 | 1,681,000 | 105,000 | 11.08 | 222 |
| 1924..... | 201 | 228,000 | 49,000 | 41 | 1,906,000 | 106,000 | 11.42 | 228 |
| 1925..... | 170 | 265,000 | 54,000 | 43 | 2,321,000 | 108,000 | 11.33 | 227 |
| Island of Kauai: | | | | | | | | |
| 1922..... | 200 | 94,000 | 23,000 | 36 | 842,000 | 43,000 | 11.22 | 224 |
| 1923..... | 171 | 93,000 | 21,000 | 37 | 782,000 | 42,000 | 11.82 | 236 |
| 1924..... | 170 | 121,000 | 20,000 | 49 | 986,000 | 42,000 | 12.27 | 245 |
| 1925..... | 134 | 134,000 | 24,000 | 46 | 1,111,000 | 47,000 | 12.06 | 241 |
| Island of Maui: | | | | | | | | |
| 1922..... | 159 | 124,000 | 19,000 | 50 | 971,000 | 38,000 | 12.76 | 255 |
| 1923..... | 136 | 112,000 | 17,000 | 50 | 874,000 | 43,000 | 12.81 | 259 |
| 1924..... | 166 | 155,000 | 19,000 | 62 | 1,170,000 | 39,000 | 13.25 | 265 |
| 1925..... | 141 | 170,000 | 20,000 | 63 | 1,258,000 | 40,000 | 13.51 | 270 |
| Island of Oahu: | | | | | | | | |
| 1922..... | 243 | 151,000 | 27,000 | 48 | 1,265,000 | 42,000 | 11.92 | 238 |
| 1923..... | 200 | 146,000 | 24,000 | 52 | 1,223,000 | 44,000 | 11.93 | 239 |
| 1924..... | 211 | 187,000 | 23,000 | 66 | 1,509,000 | 45,000 | 12.39 | 248 |
| 1925..... | 146 | 202,000 | 24,000 | 67 | 1,607,000 | 46,000 | 12.57 | 251 |
| Territory of Hawaii: | | | | | | | | |
| 1914..... | 183 | 612,000 | 112,700 | 43 | 4,900,000 | ..... | 12.49 | 250 |
| 1915..... | 195 | 646,000 | 113,200 | 46 | 5,185,000 | 239,800 | 12.46 | 249 |
| 1916..... | 180 | 592,763 | 115,419 | 42 | 4,859,424 | 246,332 | 12.20 | 244 |
| 1917..... | 190 | 644,663 | 123,900 | 42 | 5,220,000 | 245,100 | 12.35 | 247 |
| 1918..... | 184 | 576,700 | 119,800 | 41 | 4,855,000 | 276,800 | 11.88 | 238 |
| 1919..... | 178 | 600,312 | 119,700 | 40 | 4,744,000 | 239,900 | 12.65 | 253 |
| 1920..... | 176 | 555,727 | 114,100 | 39 | 4,473,000 | 247,900 | 12.42 | 248 |
| Average 1914-1920..... | 184 | 604,024 | 116,974 | 42 | 4,890,918 | 240,305 | 12.35 | 247 |
| 1921..... | 202 | 521,579 | 113,100 | 41 | 4,667,000 | 236,500 | 11.20 | 224 |
| 1922..... | 199 | 592,000 | 124,000 | 41 | 5,088,000 | 229,000 | 11.64 | 233 |
| 1923..... | 187 | 637,000 | 114,000 | 40 | 4,590,000 | 235,000 | 11.77 | 235 |
| 1924..... | 192 | 691,000 | 111,000 | 51 | 5,681,000 | 232,000 | 12.21 | 244 |
| 1925..... | 164 | 769,000 | 122,000 | 52 | 6,297,000 | 241,000 | 12.21 | 244 |
| Average 1921-1925..... | 183 | 622,116 | 116,820 | 45 | 5,262,600 | 234,700 | 11.84 | 237 |

Division of Crop and Livestock Estimates.

¹ 1915-1920 average.

TABLE 405.—*Sugar: Production in the United States and its possessions, 1909–1925*

| Year beginning July | Beet sugar (chiefly refined) | Cane sugar (chiefly raw) | | | | | Total |
|-------------------------|------------------------------|--------------------------|--------------|------------|------------|---------------------------------|-------------|
| | | Louisiana | Other States | Porto Rico | Hawaii | Philippine Islands ¹ | |
| | Short tons | Short tons | Short tons | Short tons | Short tons | Short tons | Short tons |
| 1909..... | 512, 469 | 320, 526 | 11, 200 | 348, 786 | 517, 090 | 140, 783 | 1, 848, 854 |
| 1910..... | 510, 172 | 342, 750 | 12, 320 | 349, 840 | 566, 821 | 164, 658 | 1, 946, 531 |
| 1911..... | 599, 500 | 352, 874 | 8, 000 | 371, 076 | 595, 038 | 205, 046 | 2, 131, 534 |
| 1912..... | 692, 556 | 153, 573 | 9, 000 | 398, 004 | 546, 624 | 345, 077 | 2, 144, 734 |
| 1913..... | 733, 401 | 292, 698 | 7, 840 | 351, 666 | 612, 000 | 408, 339 | 2, 405, 944 |
| Av. 1909–1913... | 609, 620 | 292, 478 | 9, 672 | 363, 474 | 567, 495 | 262, 781 | 2, 095, 519 |
| 1914..... | 722, 054 | 212, 700 | 3, 920 | 346, 490 | 646, 000 | 421, 192 | 2, 382, 355 |
| 1915..... | 874, 220 | 137, 500 | 1, 120 | 483, 590 | 592, 763 | 412, 274 | 2, 501, 467 |
| 1916..... | 820, 657 | 303, 900 | 7, 000 | 503, 081 | 644, 663 | 425, 268 | 2, 704, 567 |
| 1917..... | 765, 207 | 243, 600 | 2, 240 | 453, 794 | 676, 700 | 474, 745 | 2, 516, 286 |
| 1918..... | 760, 950 | 290, 900 | 3, 500 | 406, 002 | 600, 312 | 453, 346 | 2, 505, 010 |
| 1919..... | 726, 451 | 121, 006 | 1, 125 | 485, 071 | 555, 727 | 466, 012 | 2, 356, 286 |
| 1920..... | 1, 089, 021 | 169, 127 | 6, 987 | 489, 818 | 621, 579 | 608, 499 | 2, 885, 031 |
| Av. 1914–1920... | 822, 651 | 214, 104 | 3, 699 | 452, 549 | 591, 106 | 466, 033 | 2, 550, 143 |
| 1921..... | 1, 020, 489 | 324, 431 | 3, 270 | 408, 325 | 592, 000 | 533, 189 | 2, 881, 704 |
| 1922..... | 675, 000 | 295, 095 | 640 | 379, 172 | 537, 000 | 476, 325 | 2, 362, 232 |
| 1923..... | 881, 000 | 162, 023 | 2, 800 | 447, 670 | 691, 000 | 520, 091 | 2, 713, 484 |
| 1924..... | 1, 090, 000 | 88, 483 | ----- | 660, 000 | 1 775, 000 | 1 679, 000 | ----- |
| 1925 ² | 598, 000 | 197, 528 | ----- | 596, 000 | 1 723, 000 | 1 526, 000 | ----- |

Division of Statistical and Historical Research. Cane sugar production 1909–1910 from Willett & Gray; 1911 and subsequently from United States Department of Agriculture. Hawaiian production from Hawaiian Sugar Planters' Association.

¹ Exports 1909–1911, production 1912 and subsequently.

² Unofficial.

³ Subject to revision.

TABLE 406.—*Sugar: Production, trade, and supply available for consumption in continental United States, 1909–1924¹*

| Year beginning July | Production ² | Brought in from insular possessions ³ | Imports as sugar ⁴ | Domestic exports as sugar ⁵ | Exports in other forms ⁶ | Available for consumption ⁷ | |
|---------------------|-------------------------|--|-------------------------------|--|-------------------------------------|--|------------|
| | | | | | | Total | Per capita |
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | Pounds |
| 1909..... | 1, 765, 260 | 1, 855, 504 | 3, 869, 508 | 144, 764 | 48, 702 | 7, 296, 806 | 79.7 |
| 1910..... | 1, 806, 950 | 1, 887, 402 | 3, 690, 558 | 73, 195 | 31, 932 | 7, 279, 783 | 78.3 |
| 1911..... | 2, 010, 673 | 2, 375, 326 | 3, 664, 848 | 100, 760 | 30, 321 | 7, 910, 766 | 83.9 |
| 1912..... | 1, 814, 141 | 2, 063, 944 | 4, 532, 852 | 61, 926 | 38, 434 | 8, 300, 577 | 86.6 |
| 1913..... | 2, 177, 888 | 1, 872, 762 | 4, 926, 504 | 74, 381 | 23, 785 | 8, 678, 978 | 91.3 |
| Av. 1909–1913... | 1, 914, 982 | 2, 008, 986 | 4, 136, 854 | 91, 005 | 34, 635 | 7, 935, 182 | 84.0 |
| 1914..... | 2, 045, 056 | 2, 196, 628 | 5, 059, 926 | 605, 283 | 27, 171 | 8, 669, 756 | 87.9 |
| 1915..... | 2, 156, 813 | 2, 204, 114 | 5, 378, 134 | 1, 765, 728 | 24, 427 | 7, 948, 906 | 79.4 |
| 1916..... | 2, 389, 213 | 2, 407, 876 | 5, 055, 968 | 1, 353, 505 | 58, 422 | 8, 438, 130 | 83.2 |
| 1917..... | 2, 136, 875 | 1, 951, 368 | 4, 689, 632 | 610, 858 | 92, 262 | 8, 074, 755 | 78.5 |
| 1918..... | 2, 204, 842 | 2, 147, 888 | 5, 599, 924 | 1, 137, 133 | 73, 494 | 8, 742, 027 | 83.8 |
| 1919..... | 1, 806, 120 | 1, 955, 910 | 7, 625, 910 | 1, 553, 005 | 196, 772 | 9, 633, 723 | 91.1 |
| 1920..... | 2, 693, 623 | 2, 152, 684 | 6, 456, 568 | 638, 178 | 178, 983 | 10, 485, 704 | 97.9 |
| Av. 1914–1920... | 2, 204, 306 | 2, 144, 575 | 5, 696, 150 | 1, 094, 813 | 93, 076 | 8, 856, 143 | 86.0 |
| 1921..... | 2, 849, 453 | 2, 681, 734 | 7, 881, 554 | 2, 170, 698 | 62, 795 | 11, 179, 248 | 103.0 |
| 1922..... | 2, 042, 720 | 2, 470, 098 | 8, 136, 411 | 824, 393 | 25, 137 | 11, 799, 699 | 107.3 |
| 1923..... | 2, 223, 796 | 2, 549, 741 | 6, 873, 909 | 305, 767 | 20, 303 | 11, 312, 376 | 101.6 |
| 1924..... | 2, 316, 924 | 3, 291, 751 | 7, 856, 896 | 646, 941 | 44, 672 | 12, 873, 964 | 114.1 |

Division of Statistical and Historical Research. See Table 405 for source of production figures. Trade figures, Bureau of Foreign and Domestic Commerce.

¹ In terms of raw sugar.

² Beet and cane sugar only.

³ Duty free. From Hawaii, Porto Rico, and the Philippine Islands (Virgin Islands included 1917 and subsequently).

⁴ No account taken of sugar imported in other forms. Imports from Philippine Islands excluded, re-exports deducted.

⁵ Shipments to Hawaii and Porto Rico included. Direct exports to foreign countries from Hawaii and Porto Rico excluded.

⁶ Sugar used in the manufacture of other commodities for export on which drawback was paid.

⁷ No account taken of stocks at beginning or end of the year.

TABLE 407.—*Sugar beets: Acreage and yield per acre in specified countries, average 1909-1913, annual 1922-1925*

| Country | Acreage | | | | | Yield per acre | | | | |
|----------------------------------|--------------------------------|-------------|-------------|-------------|-------------------|-------------------|------------|------------|------------|-------------------|
| | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925, preliminary | Average 1909-1913 | 1922 | 1923 | 1924 | 1925, preliminary |
| NORTH AMERICA | | | | | | | | | | |
| Canada..... | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Short tons | Short tons | Short tons | Short tons | Short tons |
| United States ² | 17 | 15 | 18 | 31 | 667 | 9.4 | 8.5 | 8.8 | 9.5 | 10.4 |
| Total N. America..... | 485 | 530 | 657 | 817 | 667 | 10.0 | 9.8 | 10.7 | 9.2 | 10.4 |
| EUROPE | | | | | | | | | | |
| England and Wales..... | 14 | 8 | 17 | 22 | 55 | 7.2 | 7.8 | 6.9 | 9.2 | 9.2 |
| Sweden..... | 78 | 41 | 106 | 102 | 100 | 13.3 | 12.3 | 10.8 | 9.9 | 14.0 |
| Denmark..... | 80 | 60 | 79 | 95 | 92 | 10.9 | 10.5 | 10.7 | 11.1 | 14.1 |
| Netherlands..... | 144 | 138 | 167 | 183 | 164 | 13.7 | 14.5 | 11.4 | 14.6 | 14.7 |
| Belgium..... | 146 | 149 | 179 | 201 | 179 | 12.3 | 12.6 | 12.5 | 13.7 | 13.4 |
| France..... | 612 | 323 | 406 | 503 | 483 | 10.7 | 11.2 | 10.3 | 12.7 | 11.0 |
| Spain..... | 114 | 138 | 153 | 443 | 193 | 8.3 | 9.6 | 10.0 | 5.2 | 10.5 |
| Italy..... | 130 | 203 | 223 | 306 | 124 | 15.3 | 12.2 | 13.3 | 13.4 | 13.7 |
| Switzerland..... | 12 | 3 | 3 | 3 | 4 | 15.0 | 12.3 | 11.7 | 16.7 | 13.0 |
| Germany..... | 1,075 | 1,031 | 948 | 975 | 996 | 13.7 | 11.5 | 10.1 | 11.6 | 11.4 |
| Austria..... | 57 | 28 | 32 | 46 | 51 | 9.8 | 6.8 | 8.3 | 10.4 | 11.8 |
| Czechoslovakia..... | 716 | 519 | 574 | 748 | 764 | 11.5 | 11.1 | 11.6 | 12.3 | 13.1 |
| Hungary..... | 131 | 103 | 128 | 168 | 163 | 11.5 | 7.6 | 7.4 | 8.4 | 10.3 |
| Yugoslavia..... | 35 | 48 | 67 | 119 | 82 | 10.9 | 7.2 | 6.1 | 9.8 | 9.7 |
| Bulgaria..... | 7 | 25 | 31 | 37 | ----- | 8.1 | 9.4 | 5.5 | 7.9 | ----- |
| Rumania..... | 72 | 54 | 92 | 133 | 144 | 9.3 | 6.8 | 7.7 | 7.2 | 9.0 |
| Poland..... | 431 | 270 | 337 | 404 | 425 | 10.7 | 10.9 | 8.4 | 8.8 | 9.6 |
| Finland..... | (³) | 3 | 2 | 2 | 3 | ----- | 4.0 | 2.5 | 3.0 | 6.3 |
| Russia..... | 1,484 | 435 | 611 | 860 | 1,168 | 7.2 | 3.8 | 4.8 | 3.7 | 0.5 |
| Total Europe..... | 5,318 | 3,579 | 4,155 | 5,350 | 5,190 | ----- | ----- | ----- | ----- | ----- |
| World total..... | 5,820 | 4,124 | 4,830 | 6,198 | 5,900 | ----- | ----- | ----- | ----- | ----- |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated.

¹ Averages for countries having changed boundaries are estimates for territory within present boundaries.

² Principal producing States.

³ Two year average.

⁴ One year only, 1912-13. According to statistics of the German sugar association, the 1912-13 acreage was higher than any other year with the exception of 1914-15.

⁵ Four-year average.

⁶ No sugar beets grown for sugar previous to 1918.

TABLE 408.—*Sugar beets: Production in specified countries, average 1909–1913, annual 1922–1925*

[Thousand short tons—i. e., 000 omitted]

| Country | Average 1909– 1913 ¹ | 1922 | 1923 | 1924 | 1925 prelimi- nary |
|----------------------------------|---------------------------------------|--------|--------|--------|--------------------------|
| NORTH AMERICA | | | | | |
| Canada..... | 160 | 128 | 169 | 295 | ..... |
| United States ² | 4,860 | 5,183 | 7,006 | 7,513 | 6,632 |
| Total North America..... | 5,020 | 5,311 | 7,165 | 7,808 | ..... |
| EUROPE | | | | | |
| England and Wales..... | ³ 29 | 62 | 117 | 202 | 504 |
| Sweden..... | 1,036 | 503 | 1,148 | 1,008 | 1,458 |
| Denmark..... | 871 | 631 | 844 | 1,051 | 1,301 |
| Netherlands..... | 1,977 | 2,004 | 1,890 | 2,075 | 2,403 |
| Belgium..... | 1,793 | 1,873 | 2,245 | 2,744 | 2,397 |
| France..... | 6,544 | 3,626 | 4,174 | 6,369 | 5,290 |
| Spain..... | 949 | 1,318 | 1,535 | 2,312 | 2,017 |
| Italy..... | 1,983 | 2,486 | 2,976 | 4,102 | 1,698 |
| Switzerland..... | ⁴ 30 | 37 | 35 | 50 | 52 |
| Germany..... | ⁵ 14,679 | 11,893 | 9,586 | 11,317 | 11,382 |
| Austria..... | 561 | 191 | 267 | 477 | 601 |
| Czechoslovakia..... | 8,238 | 5,776 | 6,641 | 9,231 | 9,976 |
| Hungary..... | 1,513 | 784 | 6,052 | 1,405 | 1,681 |
| Yugoslavia..... | 381 | 345 | 411 | 1,172 | ⁶ 794 |
| Bulgaria..... | 67 | 236 | 169 | 291 | 0 |
| Rumania..... | ⁶ 668 | 365 | 709 | 962 | 1,298 |
| Poland..... | 4,611 | 2,945 | 2,838 | 3,539 | 4,064 |
| Finland..... | ..... | 12 | 5 | 6 | 19 |
| Russia..... | 10,636 | 1,661 | 2,921 | 3,213 | 7,583 |
| Total Europe..... | 56,556 | 36,748 | 39,460 | 52,126 | 54,621 |
| Estimated world total..... | 61,576 | 42,059 | 46,634 | 59,934 | 61,700 |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated.

¹ Averages for countries having changed boundaries are estimated for territory within present boundaries.

² Principal producing States

³ Two-year average.

⁴ Unofficial estimate.

⁵ One year only, 1912–13. According to statistics of the German sugar association, the 1912–13 production of beets was higher than any other year with the exception of 1913–14.

⁶ Four-year average.

TABLE 409.—*Sugar, raw, cane and beet: World production, 1909–10, to 1925–26*

| Year ¹ | Production in countries reporting all years | Estimated world to- tals, pre- liminary | Total Eu- rope beet sugar | Three chief producing countries | | |
|--------------------------|--|--|---------------------------------|---------------------------------|--------------------|-------------------|
| | | | | Cuba | India ² | Java ³ |
| | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> |
| 1909–10..... | 13,281,591 | 16,784,000 | 6,607,324 | 2,020,871 | 2,480,700 | 1,368,755 |
| 1910–11..... | 14,961,161 | 18,777,000 | 8,416,291 | 1,061,465 | 2,587,100 | 1,411,275 |
| 1911–12..... | 13,885,475 | 17,824,000 | 6,638,121 | 2,123,502 | 2,744,900 | 1,616,590 |
| 1912–13..... | 16,269,155 | 20,269,000 | 8,885,767 | 2,719,961 | 2,861,500 | 1,550,274 |
| 1913–14..... | 16,987,369 | 20,913,000 | 8,726,501 | 2,908,460 | 2,573,200 | 1,615,944 |
| 1914–15..... | 16,690,421 | 20,753,000 | 8,099,430 | 2,021,984 | 2,736,000 | 1,548,668 |
| 1915–16..... | 14,496,093 | 18,985,000 | 5,849,814 | 3,398,385 | 2,940,000 | 1,454,030 |
| 1916–17..... | 13,922,308 | 18,664,000 | 4,619,013 | 3,421,597 | 3,063,000 | 1,796,558 |
| 1917–18..... | 14,838,179 | 20,261,000 | 4,817,219 | 3,889,066 | 3,839,000 | 2,008,521 |
| 1918–19..... | 14,122,476 | 18,380,000 | 3,611,861 | 4,400,902 | 2,752,000 | 1,900,114 |
| 1919–20..... | 13,025,076 | 17,801,000 | 2,868,402 | 4,183,676 | 3,404,000 | 1,472,791 |
| 1920–21..... | 14,839,487 | 19,469,000 | 4,104,095 | 4,406,413 | 2,825,000 | 1,681,338 |
| 1921–22..... | 15,742,572 | 20,482,000 | 4,389,063 | 4,517,470 | 2,928,000 | 1,853,367 |
| 1922–23..... | 15,572,805 | 20,714,000 | 4,988,935 | 4,083,493 | 3,410,000 | 1,989,170 |
| 1923–24..... | 16,965,741 | 22,772,000 | 5,634,290 | 4,006,223 | 3,715,000 | 1,980,653 |
| 1924–25..... | 21,110,598 | 26,483,000 | 7,705,440 | 5,812,068 | 2,841,000 | 2,201,368 |
| 1925–26 preliminary..... | 21,991,114 | 27,656,000 | 8,021,900 | 5,927,840 | 3,274,000 | 2,531,126 |

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¹ Figures are for the crop years 1909–10 to 1925–26 for the countries in which the sugar harvesting season begins in the fall months and is completed during the following calendar year, except in the case of cane-sugar producing countries where the season begins in May or June and is completed in the same calendar year. Production in these countries is for the calendar years 1909 to 1925.

² The figures quoted are the production of gur, a low grade of sugar which is mostly consumed by the natives.

³ All grades of sugar reduced to terms of head sugar.

TABLE 410.—Sugar: Production in specified countries, average, 1909–10 to 1913–14, annual 1922–23 to 1925–26**BET SUGAR IN TERMS OF RAW SUGAR**

| Country | Average 1909–10 to 1913–14 ¹ | 1922–23 | 1923–24 | 1924–25 | Prelimi- nary, 1925–26 |
|---|---|-----------------------------|-----------------------------|-----------------------------|------------------------------|
| NORTH AMERICA | | | | | |
| Canada ² | <i>Short tons</i> 11,782 | <i>Short tons</i> 16,995 | <i>Short tons</i> 22,400 | <i>Short tons</i> 48,733 | <i>Short tons</i> 41,000 |
| United States ³ | 855,000 | 729,000 | 947,000 | 1,172,000 | 962,000 |
| Total North America | 866,782 | 745,995 | 969,400 | 1,220,733 | 1,003,000 |
| EUROPE | | | | | |
| England ⁴ | 3,084 | 7,852 | 14,875 | 29,745 | 56,300 |
| Sweden | 153,739 | 79,472 | 164,716 | 148,819 | 225,600 |
| Denmark | 127,001 | 98,949 | 114,684 | 149,730 | 193,000 |
| Netherlands ⁵ | 246,341 | 276,276 | 250,844 | 352,439 | 347,600 |
| Belgium | 278,837 | 292,534 | 326,273 | 431,851 | 397,000 |
| France ⁶ | 807,887 | 522,265 | 623,735 | 874,823 | 791,000 |
| Spain | 115,727 | 172,492 | 180,633 | 282,764 | 248,000 |
| Italy | 208,675 | 307,143 | 302,426 | 459,300 | 172,000 |
| Switzerland | 3,784 | 6,757 | 6,355 | 6,614 | 7,000 |
| Germany | 2,304,263 | 1,603,933 | 1,263,455 | 1,710,040 | 1,745,600 |
| Austria | 79,528 | 26,963 | 62,909 | 83,159 | 80,000 |
| Czechoslovakia | 1,221,274 | 811,297 | 1,104,742 | 1,572,807 | 1,081,000 |
| Hungary | 175,783 | 90,259 | 136,073 | 222,864 | 243,000 |
| Yugoslavia | 41,459 | 36,333 | 40,015 | 140,414 | 64,000 |
| Bulgaria | 4,370 | 19,821 | 31,487 | 44,530 | (⁷) |
| Rumania | 788,245 | 55,357 | 81,487 | 96,607 | 114,200 |
| Poland | 702,626 | 347,340 | 456,799 | 605,502 | 610,800 |
| Finland | (⁸) | 1,862 | 518 | 607 | 2,300 |
| Russia | 1,557,114 | 230,830 | 415,635 | 454,750 | 1,020,100 |
| Total Europe | 8,119,838 | 4,988,035 | 5,634,290 | 7,705,440 | 8,021,900 |
| Australia | 1,030 | 3,118 | 3,919 | 3,920 | 3,379 |
| Estimated world total beet sugar ⁹ | 8,787,650 | 5,734,148 | 6,607,609 | 8,980,063 | 9,028,300 |

CANE SUGAR (RAW)

| | | | | | |
|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| NORTH AND CENTRAL AMERICA | | | | | |
| United States | 319,837 | 295,095 | 162,023 | 38,483 | 197,528 |
| Hawaii | 567,495 | 537,660 | 601,000 | 775,000 | 723,000 |
| Porto Rico | 363,474 | 879,172 | 447,570 | 660,000 | 596,000 |
| Virgin Islands | 9,613 | 1,951 | 2,646 | 8,047 | 8,000 |
| Central America: | | | | | |
| Honduras | | 19,000 | 25,000 | 21,563 | |
| Costa Rica | 2,791 | 9,000 | 9,000 | 8,000 | |
| Guatemala | 8,998 | 14,507 | 28,177 | 26,866 | 28,000 |
| Nicaragua | 3,742 | 12,400 | 11,000 | 35,800 | 22,600 |
| Salvador | 18,084 | 22,000 | 18,000 | 22,000 | |
| Panama | | 6,572 | 5,480 | 6,084 | |
| Mexico | 163,388 | 164,616 | 185,568 | 185,050 | 196,000 |
| West Indies: | | | | | |
| British— | | | | | |
| Antigua | 12,919 | 14,046 | 8,803 | 19,388 | 17,000 |
| Barbados | 27,788 | 68,811 | 48,900 | 55,233 | 58,222 |
| Jamaica | 23,856 | 43,735 | 37,443 | 47,700 | 45,000 |
| St. Christopher | 13,252 | 12,025 | 11,420 | 17,666 | 15,000 |
| Trinidad and Tobago | 51,275 | 46,613 | 58,250 | 77,983 | 62,000 |
| Cuba | 2,287,622 | 4,083,483 | 4,606,223 | 5,812,088 | 5,927,840 |
| Dominican Republic | 104,664 | 206,270 | 255,855 | 345,492 | 418,920 |

¹ Where changes in boundary have occurred averages are estimates for territory within present boundaries.² Refined sugar in terms of raw.³ Unofficial estimate.⁴ Two-year average.⁵ One year only, 1912–13. According to statistics of the German sugar association the 1912–13 sugar production was greater than any other year.⁶ No sugar produced.⁷ Four-year average.⁸ Exclusive of production in minor producing countries for which no data are available.⁹ Louisiana only.¹⁰ One year only.

TABLE 410.—*Sugar: Production in specified countries, average, 1909-10 to 1913-14, annual 1922-23 to 1925-26—Continued*

CANE SUGAR (RAW)—Continued

| Country | Average 1909-10 to 1913-14 | 1922-23 | 1923-24 | 1924-25 | Prelimi- nary, 1925-26 |
|--|----------------------------------|------------------------|-----------------------|-----------------------|------------------------------|
| NORTH AND CENTRAL AMERICA—contd. | | | | | |
| Haiti | Short tons (¹¹) | Short tons 3 10,967 | Short tons 3 8,500 | Short tons 3 9,274 | Short tons 3 15,000 |
| French West Indies: | | | | | |
| Guadeloupe | 40,810 | 27,000 | 30,000 | 3 44,790 | 3 45,000 |
| Martinique | 42,782 | 23,279 | 3 10,103 | 3 53,754 | 3 50,000 |
| Total North and Central America reporting for all periods 1909-1913 to 1925-26 | 4,031,945 | 5,032,970 | 6,611,481 | 8,259,654 | 8,416,520 |
| EUROPE AND ASIA | | | | | |
| Spain | 17,059 | 9,319 | 8,445 | 9,043 | 3 10,000 |
| India ¹² | 2,649,480 | 3,410,000 | 3,715,000 | 2,841,000 | 3 3,274,000 |
| Formosa | 192,599 | 391,724 | 507,898 | 532,823 | 558,275 |
| Japan | 75,718 | 88,117 | 86,127 | | |
| Java | 1,512,569 | 1,980,170 | 1,980,653 | 2,201,368 | 3 2,531,126 |
| Philippine Islands | 294,380 | 175,325 | 529,091 | 3 670,000 | 3 526,000 |
| Total Europe and Asia reporting for all periods 1909-1913 to 1925-26 | 4,665,787 | 6,273,538 | 6,741,077 | 6,263,234 | 6,899,401 |
| SOUTH AMERICA | | | | | |
| Argentina | 193,853 | 238,603 | 282,476 | 274,127 | 432,968 |
| Brazil | 332,813 | 830,240 | 881,764 | 916,543 | 3 840,000 |
| British Guiana | 112,312 | 101,642 | 102,736 | 3 101,779 | 114,000 |
| Dutch Guiana | 13,235 | 13,146 | 12,091 | 9,006 | 3 11,000 |
| Paraguay | 1,363 | 1,083 | 3 1,937 | 3 3,400 | |
| Peru | 202,518 | 317,531 | 340,615 | 345,025 | 3 297,000 |
| Total South American countries reporting for all periods 1909-1913 to 1925-26 | 854,731 | 1,510,169 | 1,620,672 | 1,647,470 | 1,604,068 |
| AFRICA | | | | | |
| Egypt | 67,127 | 105,829 | 79,698 | 88,203 | 3 120,000 |
| Mauritius | 233,671 | 254,840 | 222,160 | 217,698 | 3 227,000 |
| Union of South Africa | 88,165 | 150,362 | 203,350 | 3 161,253 | 3 233,000 |
| Portuguese East Africa | 26,460 | 55,829 | 3 63,168 | 3 49,591 | 3 78,000 |
| Reunion | 41,653 | 44,474 | 48,954 | 3 58,666 | 3 45,000 |
| Total Africa | 457,076 | 620,334 | 617,249 | 605,411 | 703,000 |
| OCEANIA | | | | | |
| Australia | 216,331 | 343,129 | 320,324 | 486,232 | 3 593,000 |
| Fiji | 84,629 | 51,277 | 40,036 | 71,477 | 3 101,000 |
| Total Oceania | 300,960 | 394,406 | 360,360 | 557,709 | 693,000 |
| Total world cane sugar production in countries reporting all periods 1909-1913 to 1925-26 | 10,310,499 | 14,763,417 | 15,950,839 | 17,333,478 | 18,406,889 |
| Estimated world total cane sugar ¹ | 10,464,000 | 14,980,000 | 16,165,000 | 17,553,000 | 18,628,000 |
| Total world cane and beet sugar production in countries reporting all periods 1909-1913 to 1925-26 | 19,098,149 | 20,497,565 | 22,558,448 | 26,263,571 | 27,435,108 |
| Estimated world total beet and cane sugar ¹ | 19,252,000 | 20,714,000 | 22,773,000 | 26,483,000 | 27,656,000 |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated.

Figures are for the crop years 1909-10 to 1925-26 for the countries in which the sugar harvesting season begins in the fall months and is completed during the following calendar year, except in the case of cane-sugar producing countries where the season begins in May or June and is completed in the same calendar year. Production in these countries is for the calendar years 1909 to 1925.

¹ Unofficial estimate.

² Exclusive of production in minor production countries for which no data are available.

¹² Too small to report.

¹³ The figures quoted are the production of gur, a low grade of sugar which is mostly consumed by the natives. There are 23 modern factories in India which make sugar direct from cane. These factories produced 38,000 short tons refined sugar in 1924-25 as compared with 43,000 short tons in 1922-24. The decrease, according to the secretary of the sugar bureau, was due to inadequate supply of raw material and the higher price of gur, which induced the peasants to prefer making gur to selling cane to factories.

¹⁴ Three-year average.

TABLE 411.—*Sugar: International trade, average 1909–1913, annual 1922–1924*

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|---------------------|--------------------|--------------------|-------------------|---------------------|-------------------------------|--------------------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> |
| Austria-Hungary..... | 3,942 | 848,830 | | | | | | |
| Belgium..... | 7,892 | 154,476 | 104,286 | 177,594 | 66,579 | 164,908 | 65,563 | 177,601 |
| Brazil..... | ¹ 117 | 38,284 | | 277,903 | (²) | 168,844 | | 37,992 |
| British Guiana..... | ¹ 6,112 | 106,196 | 281 | 101,440 | 323 | 93,147 | 309 | 96,204 |
| Cuba..... | 656 | 2,009,899 | 294 | 5,581,371 | 3,359 | 3,872,353 | ³ 4,538,853 | |
| Czechoslovakia..... | | | 36 | 350,366 | 43 | 519,484 | 42 | 734,896 |
| Dominican Republic..... | ⁴ 766 | 92,351 | 284 | 189,195 | 164 | 186,946 | 501 | 243,227 |
| Dutch East Indies..... | 3,562 | 1,412,555 | 2,941 | 1,582,691 | 2,851 | 2,014,473 | ⁴ 135 ⁵ | 2,070,646 |
| Egypt..... | 43,020 | 8,086 | 160 | 19,675 | 5,022 | 49,904 | 48,799 | 31,095 |
| Fiji..... | ⁴ 386 | 78,817 | 138 | 80,339 | 119 | 49,401 | 133 | 49,809 |
| Germany..... | 3,486 | 873,161 | 206,999 | 13,915 | 5,824 | 19,513 | 50,412 | 418,477 |
| Hungary..... | | | 9,545 | 28 | 930 | 49,716 | 142 | 105,923 |
| Jamaica..... | 395 | 14,494 | | 56,735 | | 27,700 | | 38,776 |
| Mauritius..... | ¹ 2 | 226,255 | 80 | 322,692 | 181 | 246,704 | 1 | 201,437 |
| Netherlands..... | 82,721 | 200,490 | 152,559 | 219,477 | 162,528 | 232,844 | 258,223 | 203,091 |
| Peru..... | 726 | 146,736 | 22 | 302,447 | 16 | 311,391 | 277 | 292,071 |
| Philippine Islands..... | 3,950 | 179,432 | 2,692 | 399,112 | 4,985 | 299,807 | 3,741 | 394,430 |
| Poland..... | | | 12,636 | 65,344 | 1,571 | 104,871 | 123 | 271,498 |
| Russia..... | 3,744 | 293,514 | | | | | | |
| Salvador..... | | 2,935 | | 10,087 | | 10,188 | | 6,057 |
| Trinidad and Tobago..... | 522 | 43,756 | 746 | 58,074 | 893 | 39,780 | 945 | 48,632 |
| Union of South Africa..... | 29,094 | 675 | 17,913 | 36,100 | 2,972 | 32,274 | 537 | 9,375 |
| Venezuela..... | ⁴ 285 | 2,181 | 18 | 10,714 | 27 | 21,931 | ⁷ 8 | ⁷ 5,308 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 37,908 | | 42,852 | 1,657 | 42,922 | 501 | 47,520 | 5 |
| Anglo-Egyptian Sudan..... | 13,764 | | 11,197 | | 8,609 | | 14,939 | |
| Argentina..... | 51,090 | 72 | 81,148 | 2 | 27,089 | 1 | 7,329 | 112 |
| Australia..... | 70,233 | 268 | ⁸ 5,097 | ⁸ 2,809 | ⁸ 588 | ⁸ 11,121 | | |
| Austria..... | | | 110,029 | 27 | 89,220 | 226 | 112,731 | 372 |
| British India..... | 715,990 | 26,611 | 516,965 | 17,988 | 559,541 | 22,221 | 624,281 | 6,000 |
| Canada..... | 297,893 | 820 | 600,135 | 159,949 | 432,791 | 60,974 | 435,482 | 43,550 |
| Chile..... | 84,965 | 90 | 104,303 | 78 | 88,437 | 117 | 87,984 | |
| China..... | 343,622 | 14,933 | 510,987 | 15,018 | 407,209 | 24,207 | 618,019 | 10,005 |
| Denmark..... | 21,814 | 22,536 | 21,621 | 654 | 71,544 | 292 | 57,610 | 519 |
| Finland..... | 50,077 | | 66,072 | | 54,528 | | 74,270 | |
| Formosa..... | 554 | 5,744 | 37,787 | 13,085 | 20,193 | 10,646 | | |
| France..... | 186,198 | 206,897 | 659,015 | 171,850 | 552,298 | 135,972 | 502,494 | 160,818 |
| Greece..... | 11,718 | | 43,542 | | 38,813 | | 62,289 | |
| Hongkong..... | | | 376,879 | 350,468 | 336,667 | 356,748 | 418,337 | 336,631 |
| Italy..... | 9,249 | 302 | 38,603 | 10 | 39,698 | 2,339 | 50,662 | 27,201 |
| Japan..... | 176,942 | 60,204 | 437,434 | 95,298 | 333,762 | 71,207 | 339,519 | 127,274 |
| Morocco..... | 61,402 | | 83,009 | | 75,939 | | 83,151 | |
| New Zealand..... | 62,962 | ¹ 13,478 | 74,413 | 298 | 72,139 | 380 | 70,920 | 372 |
| Norway..... | 52,326 | | 78,448 | | 63,428 | | 83,714 | |
| Persia..... | 109,352 | ¹ 587 | 49,317 | | 58,867 | | | |
| Portugal..... | 39,631 | | | | 63,881 | | 62,155 | |
| Spain..... | | 63 | 41,337 | 35 | 812 | 8 | ⁷ 41 | ⁷ 108 |
| Sweden..... | 1,472 | ¹ 1 | 7,170 | 1 | 27,626 | 1 | 81,693 | 1 |
| Switzerland..... | 118,201 | | 91,349 | 2 | 109,910 | 36 | 137,037 | 68 |
| United Kingdom..... | 1,853,605 | 32,603 | 2,121,591 | 32,712 | 1,694,865 | 58,667 | 1,946,416 | 81,121 |
| United States..... | 2,122,517 | 39,684 | 4,860,810 | 918,361 | 3,854,668 | 222,458 | 4,137,873 | 220,248 |
| Yugoslavia..... | | | 29,600 | | | | | |
| Other countries..... | 432,752 | 314,086 | 221,274 | 81,474 | 191,907 | 132,250 | 315,682 | 80,226 |
| Total..... | 7,125,060 | 7,472,071 | 11,833,726 | 11,717,075 | 9,572,399 | 9,626,557 | 10,802,048 | 11,160,635 |

Division of Statistical and Historical Research. Official sources except where otherwise noted.

The following kinds and grades have been included under the head of sugar: Brown, white candied, caramell, chancaca (Peru), crystal cube, maple, muscovado, panela. The following have been excluded: "Candy" (meaning confectionery), confectionery, glucose, grape sugar, jaggery, molasses, and sirups.

¹ Four-year average.² Less than half a ton.³ Revista Asucarera de H. A. Hilmely.⁴ One year only.⁵ Java and Madura only.⁶ Three-year average.⁷ Six months.⁸ Year beginning July 1.

TABLE 412.—*Sugar, raw (96° centrifugal): Average wholesale price per pound, New York, 1909-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Av. ¹ |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909..... | 3.7 | 3.0 | 3.8 | 3.9 | 3.9 | 3.9 | 3.9 | 4.1 | 4.2 | 4.3 | 4.4 | 4.2 | 4.0 |
| 1910..... | 4.1 | 4.2 | 4.4 | 4.3 | 4.3 | 4.2 | 4.3 | 4.4 | 4.3 | 3.9 | 3.9 | 4.0 | 4.2 |
| 1911..... | 3.6 | 3.5 | 3.8 | 3.9 | 3.9 | 3.9 | 4.3 | 4.9 | 5.9 | 5.9 | 5.9 | 4.8 | 4.5 |
| 1912..... | 4.4 | 4.6 | 4.6 | 4.1 | 4.0 | 3.9 | 3.9 | 4.1 | 4.3 | 4.1 | 4.0 | 4.0 | 4.2 |
| 1913..... | 3.5 | 3.5 | 3.5 | 3.4 | 3.3 | 3.3 | 3.6 | 3.7 | 3.7 | 3.5 | 3.6 | 3.4 | 3.5 |
| Average 1909-1913..... | 3.9 | 3.9 | 4.0 | 3.9 | 3.9 | 3.8 | 4.0 | 4.2 | 4.5 | 4.3 | 4.2 | 4.1 | 4.1 |
| 1914..... | 3.3 | 3.4 | 3.0 | 3.0 | 3.2 | 3.3 | 3.3 | 5.7 | 5.8 | 4.4 | 3.9 | 3.9 | 3.8 |
| 1915..... | 4.1 | 4.7 | 4.8 | 4.8 | 4.8 | 4.9 | 4.9 | 4.8 | 4.3 | 4.1 | 4.8 | 4.9 | 4.7 |
| 1916..... | 4.6 | 4.9 | 5.6 | 6.2 | 6.4 | 6.3 | 6.3 | 5.6 | 5.6 | 6.3 | 6.2 | 5.3 | 5.8 |
| 1917..... | 5.2 | 5.2 | 5.5 | 6.2 | 6.1 | 6.0 | 6.6 | 7.3 | 7.0 | 6.9 | 6.9 | 6.3 | 6.3 |
| 1918..... | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.1 | 6.1 | 7.0 | 7.3 | 7.3 | 7.3 | 6.4 |
| 1919..... | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 10.2 | 7.5 |
| 1920..... | 13.0 | 11.4 | 11.9 | 17.7 | 20.8 | 19.7 | 17.6 | 13.4 | 10.7 | 8.3 | 6.8 | 5.3 | 13.0 |
| Average 1914-1920..... | 6.2 | 6.1 | 6.3 | 7.3 | 7.8 | 7.6 | 7.4 | 7.2 | 6.8 | 6.4 | 6.2 | 6.2 | 6.8 |
| 1921..... | 5.4 | 5.3 | 6.1 | 5.4 | 4.9 | 4.2 | 4.4 | 4.7 | 4.3 | 4.2 | 4.1 | 3.7 | 4.7 |
| 1922..... | 3.6 | 3.8 | 3.9 | 4.0 | 4.1 | 4.6 | 5.2 | 5.2 | 4.8 | 5.4 | 5.6 | 5.7 | 4.7 |
| 1923..... | 5.3 | 6.2 | 7.3 | 7.8 | 7.9 | 7.4 | 6.9 | 6.1 | 7.0 | 7.6 | 7.3 | 7.3 | 7.0 |
| 1924..... | 6.7 | 7.2 | 6.9 | 6.4 | 5.6 | 5.1 | 5.1 | 5.4 | 6.0 | 6.0 | 5.8 | 5.3 | 6.0 |
| 1925..... | 4.6 | 4.6 | 4.7 | 4.5 | 4.3 | 4.4 | 5.3 | 4.4 | 4.3 | 3.9 | 4.0 | 4.1 | 4.3 |
| Average 1921-1925..... | 5.1 | 5.4 | 5.8 | 5.6 | 5.4 | 5.1 | 5.2 | 5.2 | 5.3 | 5.4 | 5.4 | 5.2 | 5.3 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

¹ Derived from the figures upon which the monthly averages are based.

TABLE 413.—*Sugar, granulated: Average wholesale price per pound, New York, 1909-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Av. ¹ |
|------------------------|--------------|--------------|--------------|-------------------|-------------------|-------------------|-------------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909..... | 4.5 | 4.4 | 4.6 | 4.8 | 4.8 | 4.7 | 4.7 | 4.8 | 4.9 | 4.9 | 5.0 | 4.9 | 4.8 |
| 1910..... | 4.9 | 4.9 | 5.2 | 5.1 | 5.2 | 5.0 | 5.1 | 5.1 | 5.0 | 4.8 | 4.6 | 4.7 | 5.0 |
| 1911..... | 4.7 | 4.6 | 4.7 | 4.7 | 4.8 | 4.9 | 5.1 | 5.7 | 6.6 | 6.6 | 6.1 | 5.6 | 5.3 |
| 1912..... | 5.4 | 5.5 | 5.5 | 5.1 | 4.9 | 5.0 | 4.9 | 4.9 | 5.0 | 4.8 | 4.8 | 4.8 | 5.1 |
| 1913..... | 4.5 | 4.2 | 4.2 | 4.1 | 4.1 | 4.1 | 4.5 | 4.6 | 4.5 | 4.2 | 4.2 | 4.1 | 4.3 |
| Average 1909-1913..... | 4.8 | 4.7 | 4.8 | 4.8 | 4.8 | 4.7 | 4.9 | 5.0 | 5.2 | 5.1 | 4.9 | 4.8 | 4.9 |
| 1914..... | 3.9 | 3.9 | 3.8 | 3.7 | 4.0 | 4.2 | 4.2 | 6.5 | 6.8 | 5.9 | 4.9 | 4.8 | 4.7 |
| 1915..... | 4.9 | 5.5 | 5.7 | 5.8 | 5.9 | 5.9 | 5.8 | 5.5 | 5.1 | 5.0 | 5.7 | 5.9 | 5.6 |
| 1916..... | 5.7 | 6.0 | 6.6 | 7.1 | 7.5 | 7.4 | 7.5 | 7.0 | 6.4 | 7.1 | 7.4 | 6.9 | 6.9 |
| 1917..... | 6.6 | 6.9 | 7.1 | 8.2 | 7.9 | 7.6 | 7.6 | 8.2 | 8.2 | 8.2 | 8.2 | 8.0 | 7.7 |
| 1918..... | 7.4 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.4 | 7.4 | 8.5 | 8.8 | 8.8 | 8.8 | 7.8 |
| 1919..... | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 10.9 | 8.9 |
| 1920..... | 15.4 | 15.0 | 13.7 | ¹ 10.2 | ² 22.5 | ² 21.2 | ³ 19.1 | 16.7 | 14.3 | 10.8 | 9.6 | 8.1 | ----- |
| Average 1914-1920..... | 7.5 | 7.6 | 7.6 | ----- | ----- | ----- | ----- | 8.6 | 8.3 | 7.8 | 7.6 | 7.6 | ----- |
| 1921..... | 7.6 | 7.1 | 7.8 | 7.3 | 6.3 | 5.7 | 5.5 | 5.8 | 5.6 | 5.2 | 5.2 | 5.0 | 6.2 |
| 1922..... | 4.8 | 4.9 | 5.2 | 5.2 | 5.3 | 5.9 | 6.6 | 6.7 | 6.3 | 6.6 | 6.8 | 6.9 | 5.9 |
| 1923..... | 6.7 | 7.3 | 8.6 | 9.2 | 9.4 | 9.2 | 8.5 | 7.6 | 8.2 | 9.0 | 8.7 | 8.8 | 8.4 |
| 1924..... | 8.4 | 8.7 | 8.5 | 7.9 | 7.3 | 6.5 | 6.0 | 6.6 | 7.1 | 7.3 | 7.3 | 7.2 | 7.4 |
| 1925..... | 6.1 | 5.8 | 5.9 | 5.6 | 5.5 | 5.5 | 5.3 | 5.4 | 5.4 | 5.0 | 5.1 | 5.3 | 5.5 |
| Average 1921-1925..... | 6.7 | 6.8 | 7.2 | 7.0 | 6.8 | 6.6 | 6.5 | 6.4 | 6.5 | 6.6 | 6.6 | 6.6 | 6.7 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

¹ Derived from the figures upon which the monthly averages are based.

² No quotations. Prices shown estimated by Bureau of Labor Statistics by applying manufacturing differential to prices of raw sugar.

TABLE 414.—*Sugar, granulated: Average retail price per pound, United States, 1913-1925*

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Average |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1913..... | 5.8 | 5.5 | 5.4 | 5.4 | 5.4 | 5.3 | 5.5 | 5.6 | 5.7 | 5.5 | 5.4 | 5.4 | 5.5 |
| 1914..... | 5.2 | 5.2 | 5.1 | 5.0 | 5.0 | 5.1 | 5.2 | 7.9 | 8.0 | 7.2 | 6.2 | 6.1 | 5.9 |
| 1915..... | 6.0 | 6.5 | 6.6 | 6.7 | 6.8 | 6.9 | 7.0 | 6.7 | 6.5 | 6.1 | 6.6 | 6.8 | 6.6 |
| 1916..... | 6.7 | 6.9 | 7.5 | 8.0 | 8.6 | 8.7 | 8.8 | 8.5 | 7.7 | 8.2 | 8.6 | 8.3 | 8.0 |
| 1917..... | 8.0 | 8.1 | 8.8 | 9.6 | 10.1 | 9.4 | 9.2 | 10.0 | 9.9 | 9.8 | 9.6 | 9.5 | 9.3 |
| 1918..... | 9.5 | 10.6 | 9.2 | 9.1 | 9.1 | 9.1 | 9.2 | 9.3 | 9.6 | 10.6 | 10.8 | 10.8 | 9.7 |
| 1919..... | 10.8 | 10.7 | 10.6 | 10.6 | 10.6 | 10.6 | 10.9 | 11.1 | 11.0 | 11.4 | 12.5 | 14.5 | 11.3 |
| 1920..... | 17.8 | 18.8 | 18.7 | 20.2 | 25.4 | 26.7 | 26.5 | 22.9 | 18.3 | 13.9 | 12.8 | 10.5 | 19.4 |
| Av. 1914-1920..... | 9.1 | 9.5 | 9.5 | 9.9 | 10.8 | 10.9 | 11.0 | 10.9 | 10.1 | 9.6 | 9.6 | 9.5 | 10.0 |
| 1921..... | 9.7 | 8.9 | 9.7 | 8.7 | 8.4 | 7.8 | 7.1 | 7.5 | 7.3 | 6.9 | 6.7 | 6.5 | 8.0 |
| 1922..... | 6.2 | 6.4 | 6.5 | 6.7 | 6.6 | 7.1 | 7.6 | 8.1 | 7.9 | 7.9 | 8.1 | 8.3 | 7.3 |
| 1923..... | 8.3 | 8.7 | 10.2 | 10.6 | 11.2 | 11.1 | 10.5 | 9.6 | 9.6 | 10.6 | 10.3 | 10.4 | 10.1 |
| 1924..... | 10.2 | 10.3 | 10.4 | 9.9 | 9.2 | 8.3 | 8.4 | 8.2 | 8.6 | 8.8 | 8.8 | 8.8 | 9.2 |
| 1925..... | 8.1 | 7.7 | 7.7 | 7.5 | 7.2 | 7.2 | 7.1 | 7.0 | 7.0 | 6.8 | 6.6 | 6.7 | 7.2 |
| Av. 1921-1925..... | 8.5 | 8.4 | 8.9 | 8.9 | 8.5 | 8.3 | 8.1 | 8.1 | 8.1 | 8.2 | 8.1 | 8.1 | 8.4 |

Division of Statistical and Historical Research.
Compiled from Bureau of Labor Statistics reports.

TABLE 415.—*Sugar cane sirup: Acreage, production, and total farm value, by States, 1924 and 1925*

| State | Acreage | | Yield per acre | | Production | | Price per gallon received by producers Dec. 1 | | Total farm value, basis Dec. 1 price | |
|---------------------|--------------------|--------------------|----------------|--------------|--------------------|--------------------|---|--------------|--------------------------------------|-------------------|
| | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 |
| | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>Gals.</i> | <i>Gals.</i> | <i>1,000 gals.</i> | <i>1,000 gals.</i> | <i>Cents</i> | <i>Cents</i> | <i>1,000 dol.</i> | <i>1,000 dol.</i> |
| South Carolina..... | 10 | 9 | 125 | 90 | 1,250 | 810 | 87 | 100 | 1,088 | 810 |
| Georgia..... | 30 | 32 | 125 | 110 | 3,750 | 3,520 | 95 | 100 | 3,562 | 3,520 |
| Florida..... | 9 | 10 | 200 | 210 | 1,800 | 2,100 | 100 | 105 | 1,800 | 2,205 |
| Alabama..... | 20 | 22 | 106 | 140 | 2,120 | 3,030 | 110 | 110 | 2,332 | 3,388 |
| Mississippi..... | 8 | 14 | 55 | 143 | 440 | 2,002 | 135 | 105 | 504 | 2,102 |
| Arkansas..... | 3 | 3 | 70 | 120 | 210 | 360 | 110 | 120 | 231 | 432 |
| Louisiana..... | 47 | 18 | 202 | 289 | 9,512 | 5,208 | 100 | 72 | 9,512 | 3,750 |
| Texas..... | 18 | 14 | 82 | 165 | 1,476 | 2,310 | 125 | 130 | 1,845 | 3,003 |
| United States..... | 145 | 122 | 141.8 | 158.9 | 20,558 | 19,390 | 102.0 | 99.1 | 20,964 | 19,210 |

Division of Crop and Livestock Estimates.

SORGO FOR SIRUP

TABLE 416.—*Sorgo for sirup: Acreage, production, and farm value, United States, 1917-1925*

| Year | Acreage | Average yield per acre | Production | Price per gallon received by producers Dec. 1 | Farm value |
|-------------------------|-------------|------------------------|---------------|---|---------------|
| | 1,000 acres | Gallons | 1,000 gallons | Cents | 1,000 dollars |
| 1917..... | 415 | 90.3 | 37,472 | 69.5 | 26,055 |
| 1918..... | 422 | 79.2 | 33,387 | 93.4 | 31,191 |
| 1919..... | 487 | 80.9 | 39,413 | 110.8 | 43,683 |
| 1920..... | 536 | 92.4 | 49,505 | 106.9 | 52,943 |
| 1921..... | 518 | 88.0 | 45,568 | 62.9 | 28,681 |
| 1922..... | 447 | 81.5 | 36,440 | 71.0 | 25,855 |
| 1923..... | 380 | 84.2 | 32,001 | 86.2 | 27,595 |
| 1924..... | 385 | 68.3 | 26,284 | 94.4 | 24,821 |
| 1925 ¹ | 377 | 67.6 | 25,492 | 94.8 | 24,168 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 417.—*Sorgo for sirup: Acreage, production, and farm value, by States, 1924 and 1925*

| State | Acreage | | Average yield per acre | | Production | | Price per gallon received by producers Dec. 1 | | Farm value | |
|---------------------|-------------|-------------------|------------------------|--------|---------------|-------------------|---|-------|---------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ |
| | 1,000 acres | 1,000 acres | Galls. | Galls. | 1,000 gallons | 1,000 gallons | Cents | Cents | 1,000 dollars | 1,000 dollars |
| Ohio..... | 4 | 4 | 75 | 72 | 300 | 288 | 115 | 125 | 345 | 360 |
| Indiana..... | 3 | 2 | 85 | 88 | 255 | 176 | 105 | 112 | 268 | 197 |
| Illinois..... | 9 | 10 | 75 | 77 | 675 | 770 | 112 | 110 | 756 | 847 |
| Wisconsin..... | 2 | 2 | 54 | 70 | 108 | 140 | 120 | 135 | 130 | 189 |
| Minnesota..... | 2 | 2 | 56 | 71 | 112 | 142 | 108 | 115 | 121 | 163 |
| Iowa..... | 5 | 5 | 72 | 79 | 360 | 395 | 110 | 115 | 396 | 454 |
| Missouri..... | 22 | 22 | 81 | 76 | 1,782 | 1,672 | 99 | 102 | 1,764 | 1,705 |
| Nebraska..... | 2 | 2 | 80 | 70 | 160 | 140 | 100 | 100 | 160 | 140 |
| Kansas..... | 4 | 5 | 75 | 50 | 300 | 250 | 98 | 102 | 294 | 255 |
| Virginia..... | 12 | 11 | 95 | 78 | 1,140 | 858 | 90 | 95 | 1,026 | 815 |
| West Virginia..... | 8 | 8 | 92 | 80 | 736 | 640 | 105 | 115 | 773 | 736 |
| North Carolina..... | 31 | 28 | 87 | 68 | 2,697 | 1,904 | 90 | 98 | 2,427 | 1,866 |
| South Carolina..... | 21 | 20 | 62 | 39 | 1,302 | 780 | 80 | 92 | 1,042 | 718 |
| Georgia..... | 25 | 19 | 71 | 45 | 1,775 | 855 | 84 | 85 | 1,491 | 812 |
| Kentucky..... | 46 | 48 | 80 | 80 | 3,680 | 3,840 | 97 | 96 | 3,570 | 3,686 |
| Tennessee..... | 30 | 28 | 73 | 68 | 2,190 | 1,904 | 96 | 94 | 2,102 | 1,790 |
| Alabama..... | 35 | 42 | 50 | 70 | 1,750 | 2,940 | 98 | 90 | 1,715 | 2,646 |
| Mississippi..... | 36 | 34 | 55 | 76 | 1,980 | 2,584 | 93 | 75 | 1,841 | 1,938 |
| Arkansas..... | 36 | 38 | 58 | 68 | 2,068 | 2,584 | 93 | 93 | 1,942 | 2,403 |
| Louisiana..... | 1 | 1 | 30 | 75 | 30 | 75 | 89 | 80 | 27 | 60 |
| Oklahoma..... | 16 | 14 | 68 | 76 | 1,088 | 1,064 | 90 | 93 | 979 | 960 |
| Texas..... | 33 | 31 | 50 | 46 | 1,650 | 1,426 | 92 | 95 | 1,518 | 1,326 |
| New Mexico..... | 2 | 1 | 63 | 65 | 126 | 65 | 106 | 110 | 134 | 72 |
| United States..... | 385 | 377 | 68.3 | 67.6 | 26,284 | 25,492 | 94.4 | 94.8 | 24,821 | 24,168 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

MAPLE SUGAR AND SIRUP

TABLE 418.—*Maple sugar and sirup: Production by States, 1922-1925, United States, 1917-1925*

| State and year | Trees tapped | Sugar made | Sirup made | Total product in terms of sugar ¹ | Average per tree | |
|---------------------------------------|-----------------|---------------|----------------|---|------------------|----------------|
| | | | | | As sugar | As sirup |
| | <i>Number</i> | <i>Pounds</i> | <i>Gallons</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Gallons</i> |
| Maine: | | | | | | |
| 1922..... | 290,000 | 31,000 | 62,000 | 522,000 | 1.80 | .22 |
| 1923..... | 264,000 | 33,000 | 45,000 | 393,000 | 1.50 | .19 |
| 1924..... | 314,000 | 24,000 | 72,000 | 600,000 | 1.91 | .24 |
| 1925..... | 320,000 | 22,000 | 51,000 | 432,000 | 1.35 | .17 |
| New Hampshire: | | | | | | |
| 1922..... | 800,000 | 247,000 | 189,000 | 1,760,000 | 2.20 | .28 |
| 1923..... | 760,000 | 343,000 | 145,000 | 1,505,000 | 1.98 | .25 |
| 1924..... | 798,000 | 279,000 | 214,000 | 1,991,000 | 2.49 | .31 |
| 1925..... | 798,000 | 227,000 | 161,000 | 1,516,000 | 1.90 | .24 |
| Vermont: | | | | | | |
| 1922..... | 5,559,000 | 3,152,000 | 1,065,000 | 11,674,000 | 2.10 | .26 |
| 1923..... | 5,281,000 | 2,307,000 | 913,000 | 9,612,000 | 1.82 | .23 |
| 1924..... | 5,445,000 | 2,445,000 | 1,222,000 | 12,221,000 | 2.24 | .28 |
| 1925..... | 5,554,000 | 1,794,000 | 956,000 | 9,442,000 | 1.70 | .21 |
| Massachusetts: | | | | | | |
| 1922..... | 272,000 | 134,000 | 82,000 | 788,000 | 2.90 | .36 |
| 1923..... | 261,000 | 87,000 | 49,000 | 483,000 | 1.85 | .23 |
| 1924..... | 272,000 | 125,000 | 63,000 | 629,000 | 2.31 | .29 |
| 1925..... | 272,000 | 126,000 | 50,000 | 571,000 | 2.10 | .26 |
| Connecticut: | | | | | | |
| 1922..... | 10,000 | 2,000 | 4,000 | 35,000 | 3.50 | .44 |
| 1923..... | 9,000 | 6,000 | 1,000 | 15,000 | 1.68 | .21 |
| 1924..... | | | | | | |
| 1925..... | | | | | | |
| New York: | | | | | | |
| 1922..... | 4,487,000 | 1,185,000 | 1,085,000 | 9,865,000 | 2.20 | .28 |
| 1923..... | 4,000,000 | 1,376,000 | 903,000 | 8,600,000 | 2.15 | .27 |
| 1924..... | 4,080,000 | 861,000 | 1,069,000 | 9,413,000 | 2.31 | .29 |
| 1925..... | 3,998,000 | 624,000 | 896,000 | 7,792,000 | 1.95 | .24 |
| Pennsylvania: | | | | | | |
| 1922..... | 815,000 | 242,000 | 245,000 | 2,201,000 | 2.70 | .34 |
| 1923..... | 831,000 | 209,000 | 265,000 | 2,329,000 | 2.80 | .35 |
| 1924..... | 773,000 | 184,000 | 265,000 | 2,304,000 | 2.98 | .37 |
| 1925..... | 696,000 | 208,000 | 191,000 | 1,736,000 | 2.49 | .31 |
| Ohio: | | | | | | |
| 1922..... | 2,088,000 | 64,000 | 420,000 | 3,424,000 | 1.64 | .20 |
| 1923..... | 1,879,000 | 112,000 | 700,000 | 5,712,000 | 3.04 | .38 |
| 1924..... | 1,747,000 | 38,000 | 467,000 | 3,774,000 | 2.16 | .27 |
| 1925..... | 1,747,000 | 122,000 | 341,000 | 2,850,000 | 1.63 | .20 |
| Indiana: | | | | | | |
| 1922..... | 558,000 | 12,000 | 143,000 | 1,156,000 | 2.07 | .26 |
| 1923..... | 536,000 | 29,000 | 180,000 | 1,469,000 | 2.74 | .34 |
| 1924..... | 536,000 | 18,000 | 180,000 | 1,458,000 | 2.72 | .34 |
| 1925..... | 515,000 | 40,000 | 144,000 | 1,192,000 | 2.31 | .29 |
| Michigan: | | | | | | |
| 1922..... | 857,000 | 54,000 | 197,000 | 1,628,000 | 1.90 | .24 |
| 1923..... | 900,000 | 151,000 | 285,000 | 2,431,000 | 2.70 | .34 |
| 1924..... | 855,000 | 80,000 | 193,000 | 1,624,000 | 1.90 | .24 |
| 1925..... | 838,000 | 75,000 | 179,000 | 1,507,000 | 1.80 | .22 |
| Wisconsin: | | | | | | |
| 1922..... | 538,000 | 24,000 | 148,000 | 1,210,000 | 2.25 | .28 |
| 1923..... | 570,000 | 32,000 | 119,000 | 984,000 | 1.73 | .22 |
| 1924..... | 587,000 | 24,000 | 158,000 | 1,288,000 | 2.19 | .27 |
| 1925..... | 575,000 | 28,000 | 110,000 | 908,000 | 1.58 | .20 |
| Total, 11 States: ² | | | | | | |
| 1917..... | 17,313,000 | 10,525,000 | 4,258,000 | 44,589,000 | 2.58 | .32 |
| 1918..... | 19,132,000 | 12,944,000 | 4,863,000 | 51,848,000 | 2.71 | .34 |
| 1919..... | 18,798,000 | 9,787,000 | 3,804,000 | 40,223,000 | 2.14 | .27 |
| 1920..... | 18,895,000 | 7,324,000 | 3,580,000 | 30,400,000 | 1.90 | .24 |
| 1921..... | 15,114,000 | 4,730,000 | 2,386,000 | 23,820,000 | 1.58 | .20 |
| 1922..... | 16,274,000 | 5,147,000 | 3,640,000 | 34,263,000 | 2.11 | .26 |
| 1923..... | 15,291,000 | 4,685,000 | 3,605,000 | 33,533,000 | 2.19 | .27 |
| 1924..... | 15,407,000 | 4,078,000 | 3,903,000 | 35,302,000 | 2.29 | .29 |
| 1925..... | 15,313,000 | 3,266,000 | 3,085,000 | 27,946,000 | 1.82 | .23 |

Division of Crop and Livestock Estimates. Figures for 1925 subject to revision.

¹ One gallon of sirup taken as equivalent to 8 pounds of sugar.² These 11 States produced in 1919, 97.1 per cent of the maple sugar crops of the United States and 97.2 per cent of the maple sirup.³ Ten States.

TABLE 419.—Maple sugar and sirup: Estimated price received by producers, United States, 1917-1925

| Month | Sugar (cents per pound) | | | | | | | | | | Sirup (dollars per gallon) | | | | | | | | | |
|--------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------|-------|-------|-------|-------|-------|-------|-------|--|--|
| | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | | |
| Feb. 15..... | 14. 7 | 18. 8 | 22. 0 | 29. 3 | 24. 9 | 17. 5 | 22. 0 | 23. 4 | 23. 3 | 1. 22 | 1. 58 | 1. 86 | 2. 35 | 2. 27 | 1. 84 | 1. 89 | 2. 01 | 2. 05 | | |
| Mar. 15..... | 14. 7 | 20. 5 | 25. 3 | 31. 6 | 25. 7 | 21. 9 | 23. 2 | 25. 5 | 24. 4 | 1. 30 | 1. 76 | 1. 99 | 2. 58 | 2. 17 | 1. 94 | 1. 96 | 2. 04 | 2. 13 | | |
| Apr. 15..... | 16. 3 | 22. 5 | 26. 9 | 37. 0 | 25. 7 | 23. 1 | 26. 0 | 25. 6 | 27. 8 | 1. 33 | 1. 80 | 2. 03 | 2. 92 | 2. 21 | 1. 93 | 2. 09 | 2. 08 | 2. 10 | | |
| May 15..... | 16. 2 | 22. 6 | 26. 3 | 36. 0 | 21. 5 | 21. 6 | 25. 4 | 27. 8 | 27. 4 | 1. 34 | 1. 85 | 2. 02 | 2. 93 | 2. 08 | 1. 86 | 1. 75 | 2. 06 | 2. 10 | | |
| June 15..... | 15. 9 | 22. 0 | 26. 2 | 35. 1 | 20. 7 | 21. 3 | 25. 6 | 25. 6 | 26. 5 | 1. 33 | 1. 85 | 2. 19 | 2. 84 | 2. 10 | 1. 86 | 2. 05 | 1. 97 | 2. 10 | | |

Division of Crop and Livestock Estimates.

CLOVER, TIMOTHY, AND ALFALFA SEED

TABLE 420.—Clover seed: Acreage, production, and farm value, United States, 1916-1925

| Year | Acreage | Average yield per acre | Production | Average farm price per bushel Nov. 15 | Farm value |
|-------------------------|-------------|------------------------|---------------|---------------------------------------|---------------|
| | 1,000 acres | Bushels | 1,000 bushels | Dollars | 1,000 dollars |
| 1916..... | 939 | 1. 8 | 1, 706 | 0. 18 | 15, 661 |
| 1917..... | 821 | 1. 8 | 1, 488 | 12. 84 | 19, 107 |
| 1918..... | 820 | 1. 5 | 1, 197 | 10. 80 | 23, 705 |
| 1919..... | 942 | 1. 6 | 1, 484 | 26. 75 | 39, 700 |
| 1920..... | 1, 082 | 1. 8 | 1, 944 | 11. 05 | 23, 227 |
| 1921..... | 889 | 1. 7 | 1, 538 | 10. 75 | 16, 520 |
| 1922..... | 1, 170 | 1. 7 | 1, 955 | 9. 38 | 18, 372 |
| 1923..... | 775 | 1. 6 | 1, 228 | 10. 70 | 13, 218 |
| 1924..... | 809 | 1. 1 | 927 | 14. 51 | 13, 455 |
| 1925 ¹ | 789 | 1. 3 | 1, 029 | 14. 86 | 15, 288 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 421.—Clover seed: Acreage, production, and farm value, by States, 1924 and 1925

| State | Acreage | | Average yield per acre | | Production | | Price per bushel received by producers Dec. 1 | | Farm value | |
|--------------------------------|-------------|-------------------|------------------------|---------|---------------|-------------------|---|---------|---------------|-------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 | 1924 | 1925 ¹ | 1924 ² | 1925 | 1924 | 1925 ¹ |
| | 1,000 acres | 1,000 acres | Bushels | Bushels | 1,000 bushels | 1,000 bushels | Dollars | Dollars | 1,000 dollars | 1,000 dollars |
| New York..... | 8 | 7 | 2. 7 | 1. 7 | 22 | 12 | 14. 00 | 14. 30 | 308 | 172 |
| Pennsylvania..... | 17 | 16 | 1. 5 | 1. 8 | 26 | 29 | 14. 00 | 15. 70 | 364 | 435 |
| Ohio..... | 156 | 168 | 1. 0 | 1. 1 | 156 | 185 | 16. 00 | 15. 10 | 2, 496 | 2, 791 |
| Indiana..... | 171 | 115 | . 8 | . 7 | 137 | 80 | 14. 80 | 15. 40 | 2, 028 | 1, 232 |
| Illinois..... | 110 | 110 | 1. 1 | . 8 | 121 | 88 | 15. 80 | 15. 60 | 1, 912 | 1, 373 |
| Michigan..... | 90 | 72 | 1. 2 | 1. 4 | 108 | 101 | 14. 00 | 15. 00 | 1, 512 | 1, 515 |
| Wisconsin..... | 60 | 122 | 1. 1 | 1. 9 | 66 | 232 | 14. 50 | 14. 60 | 957 | 3, 387 |
| Minnesota..... | 63 | 43 | 1. 9 | 2. 0 | 120 | 86 | 13. 30 | 14. 40 | 1, 596 | 1, 238 |
| Iowa..... | 66 | 76 | . 7 | 1. 0 | 46 | 76 | 15. 20 | 16. 00 | 699 | 1, 216 |
| Missouri..... | 23 | 20 | 1. 4 | 1. 5 | 32 | 30 | 13. 00 | 13. 60 | 416 | 408 |
| Nebraska..... | 9 | 7 | 1. 2 | 2. 1 | 11 | 15 | 13. 00 | 12. 00 | 143 | 180 |
| Kansas..... | 14 | 14 | 2. 0 | 1. 8 | 28 | 25 | 13. 00 | 12. 20 | 364 | 305 |
| Tennessee..... | 4 | 5 | 1. 6 | 1. 4 | 6 | 7 | 14. 00 | 16. 00 | 84 | 112 |
| Mississippi ³ | 8 | 13 | 4. 5 | 5. 4 | 36 | 70 | 4. 25 | 4. 10 | 153 | 287 |
| Louisiana ³ | 8 | 7 | 4. 0 | 4. 0 | 32 | 28 | 6. 00 | 3. 64 | 192 | 102 |
| Idaho..... | 14 | 11 | 3. 0 | 5. 0 | 42 | 55 | 12. 00 | 14. 20 | 504 | 781 |
| Oregon..... | 4 | 3 | 1. 5 | 2. 5 | 6 | 8 | 12. 00 | 15. 00 | 72 | 120 |
| Total..... | 809 | 789 | 1. 1 | 1. 3 | 927 | 1, 029 | 14. 51 | 14. 86 | 13, 455 | 15, 288 |

Division of Crop and Livestock Estimates.

¹ Preliminary.² Price per bushel for 1924 is price Nov. 15, and values for 1924 are computed on that basis.³ Lespedeza, not included in totals.

TABLE 422.—*Clover seed: Receipts and shipments, Chicago, 1910-1925*

[Thousand pounds—i. e., 000 omitted]

RECEIPTS

| Year beginning September | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Total |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|------|------|-------|--------|
| 1910..... | 1,340 | 1,375 | 885 | 231 | 94 | 524 | 751 | 378 | 364 | 405 | 59 | 270 | 6,056 |
| 1911..... | 519 | 198 | 178 | 95 | 331 | 337 | 357 | 307 | 213 | 194 | 343 | 574 | 3,644 |
| 1912..... | 271 | 950 | 521 | 295 | 493 | 545 | 901 | 279 | 109 | 163 | 41 | 40 | 4,610 |
| 1913..... | 188 | 225 | 939 | 1,446 | 1,035 | 418 | 837 | 412 | 210 | 836 | 429 | 1,180 | 8,155 |
| 1914..... | 789 | 506 | 1,136 | 1,723 | 1,773 | 1,963 | 900 | 438 | 55 | 0 | 48 | 327 | 9,778 |
| 1915..... | 2,190 | 1,921 | 1,953 | 1,205 | 980 | 1,236 | 1,123 | 974 | 294 | 0 | 53 | 138 | 12,067 |
| 1916..... | 1,356 | 1,308 | 905 | 1,416 | 660 | 1,192 | 833 | 798 | 303 | 307 | 2 | 602 | 9,862 |
| 1917..... | 1,346 | 945 | 1,149 | 587 | 1,079 | 1,088 | 797 | 217 | 298 | 108 | 22 | 135 | 8,371 |
| 1918..... | 192 | 1,597 | 1,337 | 1,140 | 1,974 | 1,002 | 1,175 | 464 | 88 | 0 | 271 | 138 | 10,044 |
| 1919..... | 1,539 | 1,816 | 1,941 | 1,606 | 2,840 | 2,557 | 2,239 | 884 | 7 | 200 | 195 | 213 | 16,037 |
| 1920..... | 1,549 | 2,448 | 1,033 | 1,314 | 2,762 | 3,150 | 3,996 | 1,570 | 418 | 319 | 84 | 365 | 19,008 |
| Average 1914-1920..... | 1,280 | 1,519 | 1,303 | 1,285 | 1,724 | 1,831 | 1,580 | 764 | 223 | 133 | 96 | 368 | 12,167 |
| 1921..... | 759 | 1,235 | 2,040 | 2,064 | 1,585 | 1,662 | 2,448 | 1,050 | 352 | 169 | 77 | 997 | 14,448 |
| 1922..... | 1,368 | 1,209 | 1,479 | 1,214 | 1,044 | 629 | 1,825 | 845 | 348 | 109 | 8 | 271 | 10,439 |
| 1923..... | 641 | 1,681 | 1,105 | 1,039 | 633 | 1,672 | 2,054 | 1,352 | 239 | 41 | 1 | 42 | 10,504 |
| 1924..... | 360 | 893 | 2,078 | 1,723 | 1,537 | 1,507 | 1,574 | 740 | 9 | 27 | 68 | 328 | 10,814 |
| 1925..... | 393 | 1,027 | 1,092 | 2,003 | | | | | | | | | |

SHIPMENTS

| | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Total |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|------|------|------|--------|
| 1910..... | 165 | 183 | 244 | 224 | 480 | 682 | 504 | 252 | 185 | 52 | 12 | 118 | 3,101 |
| 1911..... | 51 | 111 | 204 | 131 | 426 | 621 | 420 | 383 | 106 | 48 | 144 | 59 | 2,684 |
| 1912..... | 141 | 309 | 862 | 372 | 502 | 835 | 1,525 | 707 | 90 | 78 | 33 | 65 | 5,519 |
| 1913..... | 138 | 152 | 264 | 668 | 882 | 1,576 | 1,591 | 740 | 544 | 301 | 381 | 204 | 7,501 |
| 1914..... | 309 | 124 | 484 | 1,665 | 1,197 | 1,583 | 1,290 | 793 | 188 | 13 | 69 | 104 | 7,818 |
| 1915..... | 714 | 596 | 1,506 | 879 | 1,125 | 1,438 | 2,027 | 1,481 | 415 | 39 | 73 | 88 | 10,385 |
| 1916..... | 279 | 902 | 1,021 | 902 | 1,065 | 1,696 | 2,086 | 1,006 | 583 | 157 | 309 | 429 | 10,795 |
| 1917..... | 425 | 463 | 430 | 1,144 | 908 | 1,923 | 1,116 | 182 | 246 | 4 | 60 | 167 | 7,086 |
| 1918..... | 191 | 527 | 1,447 | 787 | 884 | 1,139 | 1,108 | 653 | 18 | 94 | 25 | 136 | 7,110 |
| 1919..... | 271 | 386 | 952 | 888 | 2,589 | 1,019 | 926 | 842 | 248 | 98 | 118 | 61 | 8,998 |
| 1920..... | 107 | 589 | 691 | 769 | 1,554 | 2,997 | 3,164 | 1,694 | 370 | 167 | 239 | 528 | 12,809 |
| Average 1914-1920..... | 328 | 472 | 933 | 1,013 | 1,346 | 1,771 | 1,665 | 1,036 | 295 | 82 | 128 | 216 | 9,286 |
| 1921..... | 371 | 781 | 691 | 1,236 | 1,728 | 2,167 | 2,416 | 1,030 | 818 | 147 | 133 | 230 | 11,748 |
| 1922..... | 547 | 1,172 | 1,187 | 1,169 | 1,430 | 906 | 1,252 | 820 | 223 | 75 | 122 | 285 | 9,188 |
| 1923..... | 530 | 514 | 765 | 670 | 1,370 | 1,075 | 1,477 | 1,502 | 346 | 230 | 177 | 224 | 8,820 |
| 1924..... | 180 | 402 | 1,395 | 803 | 1,148 | 1,273 | 985 | 418 | 43 | 54 | 114 | 108 | 6,023 |
| 1925..... | 77 | 236 | | 917 | | | | | | | | | |

Division of Statistical and Historical Research. Compiled from Chicago Board of Trade and the Seed World.

TABLE 423.—*Timothy seed: Receipts and shipments, Chicago, 1910-1925*

[Thousand pounds—i. e., 000 omitted]

RECEIPTS

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Total |
|--------------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1910..... | 1,878 | 7,509 | 3,778 | 1,741 | 1,563 | 1,311 | 1,560 | 1,205 | 368 | 106 | 55 | 87 | 21,161 |
| 1911..... | 4,451 | 5,829 | 4,011 | 2,649 | 1,120 | 792 | 879 | 868 | 557 | 388 | 242 | 158 | 21,944 |
| 1912..... | 2,916 | 6,875 | 5,505 | 3,608 | 2,182 | 2,361 | 3,019 | 2,831 | 3,964 | 1,509 | 1,764 | 2,647 | 30,181 |
| 1913..... | 3,601 | 5,947 | 4,232 | 3,421 | 2,131 | 2,191 | 1,763 | 4,393 | 1,977 | 828 | 1,440 | 2,410 | 34,340 |
| 1914..... | 4,914 | 11,208 | 3,469 | 2,650 | 3,487 | 3,050 | 3,087 | 4,129 | 1,165 | 1,101 | 403 | 752 | 39,415 |
| 1915..... | 1,201 | 9,894 | 5,579 | 4,039 | 2,416 | 1,431 | 2,263 | 2,167 | 1,019 | 1,089 | 704 | 206 | 31,987 |
| 1916..... | 2,487 | 10,565 | 5,631 | 3,989 | 2,149 | 2,478 | 6,279 | 5,367 | 2,442 | 1,117 | 924 | 4,479 | |
| 1917..... | 3,810 | 6,525 | 5,172 | 2,960 | 1,915 | 2,006 | 2,242 | 2,554 | 1,434 | 1,250 | 302 | 677 | 30,943 |
| 1918..... | 764 | 3,198 | 5,175 | 3,242 | 1,463 | 1,578 | 2,234 | 2,985 | 3,772 | 2,388 | 1,348 | 891 | 29,048 |
| 1919..... | 7,450 | 13,191 | 6,124 | 2,582 | 1,643 | 3,186 | 3,381 | 3,118 | 1,338 | 1,093 | 641 | 1,135 | 44,882 |
| 1920..... | 3,313 | 12,777 | 9,013 | 5,269 | 3,445 | 2,343 | 3,386 | 4,056 | 2,601 | 2,368 | 1,249 | 531 | 50,351 |
| Average 1914-1920..... | 3,420 | 9,622 | 5,737 | 3,534 | 2,489 | 2,249 | 2,716 | 3,613 | 2,069 | 1,670 | 836 | 744 | 38,729 |
| 1921..... | 10,849 | 6,269 | 4,586 | 3,197 | 2,669 | 2,404 | 2,899 | 2,827 | 780 | 1,215 | 472 | 119 | 38,286 |
| 1922..... | 8,985 | 9,600 | 4,516 | 2,048 | 1,050 | 570 | 1,352 | 1,697 | 1,243 | 398 | 355 | 84 | 31,898 |
| 1923..... | 5,061 | 13,722 | 4,419 | 1,606 | 1,269 | 762 | 1,311 | 1,818 | 1,162 | 86 | 315 | 607 | 32,065 |
| 1924..... | 3,698 | 12,714 | 4,707 | 1,876 | 1,654 | 2,138 | 1,928 | 2,566 | 1,727 | 1,167 | 664 | 373 | 52,626 |
| 1925..... | 5,933 | 7,599 | 5,009 | 2,047 | 1,651 | | | | | | | | |

TABLE 423.—*Timothy seed: Receipts and shipments, Chicago, 1910-1925—Con.*

[Thousand pounds—i. e., 000 omitted]

SHIPMENTS

| Year beginning September | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Total |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1912..... | 1, 825 | 4, 186 | 1, 701 | 676 | 899 | 2, 078 | 2, 109 | 2, 751 | 1, 004 | 159 | 4 | 3 | 17, 407 |
| 1911..... | 2, 452 | 5, 038 | 2, 035 | 2, 051 | 688 | 482 | 958 | 1, 356 | 761 | 360 | 54 | 158 | 18, 393 |
| 1910..... | 1, 951 | 7, 504 | 4, 373 | 4, 912 | 2, 224 | 3, 313 | 3, 152 | 4, 429 | 4, 629 | 2, 229 | 1, 521 | 1, 344 | 41, 578 |
| 1913..... | 1, 774 | 3, 735 | 3, 285 | 1, 896 | 1, 893 | 2, 065 | 2, 021 | 3, 977 | 1, 955 | 888 | 789 | 2, 592 | 26, 807 |
| 1914..... | 2, 056 | 4, 845 | 2, 511 | 2, 124 | 3, 549 | 2, 565 | 1, 877 | 2, 430 | 2, 623 | 1, 727 | 955 | 1, 205 | 28, 467 |
| 1915..... | 1, 372 | 5, 344 | 5, 283 | 3, 796 | 2, 485 | 1, 892 | 3, 326 | 4, 203 | 2, 715 | 1, 212 | 162 | 395 | 31, 185 |
| 1916..... | 2, 820 | 7, 956 | 5, 363 | 4, 071 | 3, 128 | 2, 921 | 4, 082 | 7, 775 | 4, 321 | 2, 288 | 779 | 729 | 46, 239 |
| 1917..... | 2, 605 | 3, 857 | 2, 816 | 1, 511 | 1, 291 | 1, 720 | 2, 049 | 5, 160 | 1, 459 | 147 | 509 | 427 | 23, 681 |
| 1918..... | 1, 218 | 1, 774 | 2, 674 | 3, 903 | 2, 688 | 1, 659 | 3, 178 | 3, 621 | 4, 579 | 1, 817 | 780 | 1, 253 | 29, 144 |
| 1919..... | 2, 310 | 6, 301 | 3, 142 | 1, 964 | 2, 588 | 4, 007 | 3, 737 | 3, 404 | 1, 852 | 2, 497 | 735 | 1, 057 | 33, 024 |
| 1920..... | 2, 233 | 4, 072 | 4, 150 | 1, 787 | 1, 594 | 3, 810 | 4, 531 | 5, 410 | 2, 708 | 1, 550 | 587 | 1, 001 | 33, 433 |
| Average 1914-1920..... | 2, 093 | 4, 883 | 3, 706 | 2, 737 | 2, 475 | 2, 653 | 3, 111 | 4, 572 | 2, 894 | 1, 605 | 614 | 867 | 32, 239 |
| 1921..... | 5, 233 | 8, 567 | 3, 750 | 2, 340 | 2, 846 | 2, 551 | 4, 108 | 6, 187 | 2, 129 | 2, 598 | 326 | 352 | 39, 997 |
| 1922..... | 3, 896 | 6, 303 | 4, 580 | 3, 943 | 1, 895 | 2, 106 | 2, 451 | 3, 291 | 2, 221 | 1, 894 | 353 | 217 | 32, 650 |
| 1923..... | 2, 481 | 3, 926 | 1, 804 | 1, 573 | 1, 001 | 735 | 2, 040 | 3, 206 | 2, 904 | 1, 202 | 416 | 516 | 21, 804 |
| 1924..... | 1, 040 | 7, 546 | 4, 729 | 1, 295 | 1, 383 | 1, 430 | 3, 478 | 3, 270 | 2, 166 | 557 | 232 | 362 | 26, 485 |
| 1925..... | 2, 677 | 4, 021 | 3, 011 | 709 | 598 | | | | | | | | |

Division of Statistical and Historical Research. Compiled from Chicago Board of Trade and the Seed World.

TABLE 424.—*Forage plant seed: Imports into United States, 1913-1925¹*

[Thousand pounds—i. e., 000 omitted]

| Kind of seed | Year ended June 30 | | | | | | | | | | | | |
|-------------------------------------|--------------------|--------|---------|------------------|--------|---------|------------------|---------|---------|---------|------------------|------------------|---------|
| | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Alfalfa..... | 6, 104 | 5, 203 | 6, 030 | 3, 252 | 3, 170 | 45 | 770 | 18, 831 | 942 | 7, 259 | 8, 784 | 12, 818 | 4, 783 |
| Canada blue grass..... | 791 | 567 | 1, 043 | 698 | 495 | 1, 229 | 739 | 552 | 1, 148 | 1, 034 | 836 | 817 | 1, 150 |
| Kentucky blue grass..... | 5 | 3 | 1 | 1 | | 5 | | | | | | | |
| Awnless bromegrass..... | 75 | 139 | 7 | (²) | 1 | | | 169 | 9 | 14 | | | |
| Alsike clover..... | 766 | 2, 688 | 778 | 1, 113 | 4, 329 | 3, 528 | 7, 032 | 5, 648 | 4, 121 | 7, 057 | 5, 560 | 11, 056 | 10, 425 |
| Crimson clover..... | 5, 377 | 8, 534 | 11, 690 | 4, 504 | 5, 770 | 1, 603 | 1, 484 | 10, 053 | 5, 566 | 8, 443 | 2, 262 | 7, 745 | 4, 834 |
| Red clover..... | 5, 333 | 6, 921 | 8, 032 | 32, 509 | 5, 344 | 768 | 1, 051 | 19, 268 | 16, 332 | 10, 391 | 448 | 24, 739 | 6, 541 |
| White clover..... | 979 | 640 | 373 | 149 | 158 | 53 | 1 | 189 | 516 | 1, 623 | 520 | 1, 408 | 1, 227 |
| Biennial white sweet clover..... | 33 | 42 | 191 | (²) | 195 | 71 | 941 | 2, 215 | 3, 133 | | | 4, 039 | 3, 493 |
| Biennial yellow sweet clover..... | | 243 | 201 | (²) | 9 | | 1 | 202 | 235 | | | 222 | 52 |
| Clover mixtures..... | | | | | 26 | 169 | 550 | 265 | 23 | 57 | 20 | 74 | 13 |
| Grass mixtures..... | | | | | 124 | 6 | (²) | 3 | 6 | 43 | (²) | | 200 |
| Spring vetch and oats mixtures..... | | | | | | | | | 4 | | | | |
| Meadow fescue..... | | | | | | | | 3 | | 1 | | (²) | 600 |
| Broomcorn millet..... | 1, 194 | 1, 520 | 1, 305 | 1, 102 | 780 | 1, 584 | | 225 | 152 | 1, 496 | 5, 360 | 695 | 253 |
| Foxtail millet..... | 291 | 523 | 338 | 118 | 269 | 9 | 138 | 146 | 434 | 302 | 65 | 184 | 243 |
| Orchard grass..... | 119 | 1, 939 | 701 | 754 | 1, 286 | 58 | 177 | 2, 771 | | 2, 922 | 798 | 603 | 992 |
| Rape..... | 1, 194 | 2, 981 | 3, 966 | 4, 019 | 2, 280 | 11, 316 | 639 | 5, 766 | 4, 245 | 4, 763 | 6, 384 | 6, 600 | 4, 345 |
| Redtop..... | | | | | | | 831 | 7 | 2 | 11 | (²) | (²) | 700 |
| Perennial rye grass..... | 1, 117 | 1, 429 | 1, 342 | 1, 510 | 1, 668 | 1, 584 | | 1, 953 | 1, 523 | 1, 968 | 1, 834 | 1, 952 | 1, 335 |
| Italian rye grass..... | 345 | 311 | 485 | 353 | 451 | 606 | 208 | 890 | 677 | 823 | 860 | 1, 034 | 831 |
| Timothy..... | 40 | 23 | 18 | 117 | 4 | 22 | 153 | 37 | 391 | 96 | 32 | (²) | 500 |
| Hairy vetch..... | 1, 948 | 2, 477 | 466 | 68 | 298 | 231 | 257 | 1, 220 | 1, 387 | 1, 941 | 1, 599 | 3, 215 | 2, 038 |
| Spring vetch..... | 1, 390 | 682 | 221 | 62 | 30 | 118 | 435 | 1, 048 | 542 | 345 | 1, 858 | 1, 210 | 1, 266 |

Hay, Feed, and Seed Division.

¹Imports of all seeds up to and including the fiscal year 1913, also of perennial and Italian rye grass and hairy vetch up to and including 1917, and sweet clover for all years, are based on information furnished by U. S. Customs Service. All other figures represent imports of seed permitted entry under the seed importation act.

²Less than 500 pounds.

³Figures missing.

TABLE 425.—*Alfalfa seed: Estimated price per bushel, received by producers, United States, 1912-1925*

| Year beginning July | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Average |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1912..... | 8.32 | 8.58 | 9.02 | 7.87 | 8.23 | 7.86 | 7.66 | 8.16 | 8.19 | 8.36 | 8.21 | 8.08 | 8.21 |
| 1913..... | 8.20 | 7.96 | 7.42 | 6.96 | 6.36 | 6.60 | 6.55 | 6.48 | 6.60 | 6.77 | 6.77 | 6.83 | 6.96 |
| 1914..... | 6.92 | 6.81 | 7.21 | 7.29 | 7.29 | 7.57 | 7.61 | 7.80 | 7.92 | 8.46 | 8.38 | 8.31 | 7.62 |
| 1915..... | 8.51 | 8.30 | 7.94 | 8.37 | 8.65 | 8.88 | 8.84 | 9.20 | 10.32 | 10.39 | 10.70 | 10.10 | 9.16 |
| 1916..... | 10.30 | 9.33 | 9.27 | 8.61 | 8.30 | 8.56 | 7.97 | 7.75 | 8.53 | 9.03 | 8.85 | 8.61 | 8.76 |
| 1917..... | 8.71 | 8.09 | 9.04 | 9.04 | 9.43 | 9.58 | 10.14 | 9.90 | 10.60 | 10.53 | 10.09 | 10.13 | 9.66 |
| 1918..... | 9.67 | 9.88 | 10.04 | 9.91 | 9.38 | 9.65 | 10.07 | 10.48 | 10.64 | 11.18 | 12.13 | 11.79 | 10.40 |
| 1919..... | 10.88 | 11.34 | 12.34 | 14.90 | 13.23 | 16.68 | 16.60 | 19.57 | 21.43 | 21.80 | 22.40 | 20.42 | 16.97 |
| 1920..... | 19.41 | 16.03 | 14.89 | 13.35 | 12.25 | 10.24 | 9.95 | 9.01 | 9.31 | 8.71 | 8.97 | 8.73 | 11.74 |
| 1921..... | 7.89 | 8.51 | 8.53 | 8.33 | 8.09 | 7.63 | 7.39 | 8.46 | 7.50 | 9.00 | 8.89 | 8.48 | 8.22 |
| 1922..... | 9.00 | 7.74 | 8.00 | 7.94 | 8.50 | 9.45 | 9.58 | 9.86 | 10.56 | 10.44 | 10.59 | 10.57 | 9.36 |
| 1923..... | 10.25 | 10.38 | 9.20 | 10.75 | 10.21 | 10.19 | 10.43 | 10.51 | 11.17 | 11.41 | 11.67 | 11.39 | 10.63 |
| 1924..... | 11.13 | 10.99 | 10.74 | 10.39 | 10.16 | 10.33 | 10.52 | 11.05 | 11.72 | 12.73 | 12.00 | 10.99 | 11.06 |
| 1925..... | 11.41 | 9.88 | 10.51 | 10.30 | 10.65 | 9.87 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Crop and Livestock Estimates.

TABLE 426.—*Clover seed: Estimated price per bushel, received by producers, United States, 1910-1925*

| Year beginning Sept. | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Weighted av. |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 8.27 | 8.13 | 7.70 | 7.94 | 8.27 | 8.37 | 8.56 | 8.79 | 8.74 | 8.80 | 8.83 | 9.65 | 8.30 |
| 1911..... | 12.16 | 10.54 | 10.37 | 10.62 | 10.60 | 12.22 | 12.89 | 12.91 | 12.53 | 11.69 | 10.64 | 9.80 | 11.25 |
| 1912..... | 9.39 | 9.37 | 9.06 | 9.00 | 9.41 | 10.28 | 10.42 | 10.74 | 9.77 | 9.78 | 9.78 | 9.37 | 9.71 |
| 1913..... | 7.31 | 7.00 | 7.33 | 7.70 | 7.99 | 8.07 | 8.17 | 8.06 | 7.87 | 7.96 | 8.12 | 8.70 | 7.75 |
| A v. 1910-1913..... | 8.79 | 8.71 | 8.62 | 8.82 | 9.14 | 9.74 | 10.01 | 10.19 | 9.97 | 9.56 | 9.34 | 9.40 | 9.25 |
| 1914..... | 9.10 | 8.24 | 8.02 | 8.12 | 8.51 | 8.60 | 8.55 | 8.36 | 8.14 | 7.90 | 7.96 | 7.94 | 8.41 |
| 1915..... | 8.49 | 9.70 | 9.67 | 10.01 | 10.27 | 10.47 | 10.76 | 10.38 | 9.98 | 9.47 | 9.15 | 9.12 | 9.98 |
| 1916..... | 8.65 | 8.54 | 9.20 | 9.40 | 9.60 | 9.37 | 10.32 | 10.41 | 10.40 | 10.50 | 10.50 | 10.53 | 9.54 |
| 1917..... | 10.89 | 11.92 | 12.91 | 13.53 | 14.48 | 16.46 | 17.49 | 17.86 | 16.56 | 15.88 | 14.71 | 15.20 | 14.48 |
| 1918..... | 16.61 | 19.01 | 20.03 | 20.67 | 21.55 | 21.79 | 22.61 | 24.81 | 24.48 | 23.37 | 23.25 | 24.33 | 21.01 |
| 1919..... | 25.38 | 26.47 | 26.53 | 27.63 | 28.06 | 31.21 | 31.88 | 32.23 | 29.84 | 26.21 | 25.52 | 19.97 | 28.34 |
| 1920..... | 17.77 | 13.18 | 11.64 | 10.28 | 10.82 | 10.61 | 10.98 | 10.80 | 10.71 | 10.20 | 10.00 | 10.37 | 11.81 |
| A v. 1914-1920..... | 13.84 | 13.87 | 14.00 | 14.23 | 14.76 | 15.57 | 16.08 | 16.44 | 15.73 | 14.76 | 14.44 | 13.02 | 14.80 |
| 1921..... | 10.25 | 10.21 | 10.09 | 10.38 | 10.69 | 11.88 | 13.00 | 13.13 | 12.84 | 11.60 | 11.00 | 9.88 | 11.14 |
| 1922..... | 8.85 | 9.66 | 10.18 | 10.88 | 11.16 | 11.52 | 11.71 | 11.48 | 11.20 | 10.80 | 10.94 | 10.46 | 10.71 |
| 1923..... | 11.07 | 12.20 | 12.18 | 12.22 | 12.51 | 12.67 | 13.04 | 13.09 | 13.07 | 12.72 | 12.42 | 12.09 | 12.38 |
| 1924..... | 12.15 | 12.80 | 13.42 | 15.31 | 16.17 | 16.95 | 18.19 | 17.40 | 16.82 | 15.48 | 15.67 | 14.86 | 15.35 |
| 1925..... | 13.42 | 14.42 | 14.85 | 15.48 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Crop and Livestock Estimates.

TABLE 427.—*Timothy seed: Estimated price per bushel, received by producers, United States, 1910-1925*

| Year beginning August | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Weighted av. |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 3.77 | 4.03 | 4.08 | 4.11 | 4.12 | 4.51 | 4.93 | 5.17 | 5.24 | 5.24 | 5.48 | 4.88 | 4.28 |
| 1911..... | 6.52 | 6.65 | 6.91 | 6.90 | 6.92 | 7.26 | 7.33 | 7.27 | 7.16 | 6.68 | 5.96 | 6.87 | 6.87 |
| 1912..... | 3.20 | 2.09 | 1.95 | 1.82 | 1.79 | 1.79 | 1.78 | 1.72 | 1.74 | 1.76 | 1.77 | 1.94 | 2.01 |
| 1913..... | 2.01 | 2.13 | 2.02 | 2.08 | 2.10 | 2.07 | 2.12 | 2.30 | 2.28 | 2.38 | 2.23 | 2.32 | 2.13 |
| A v. 1910-1913..... | 3.91 | 3.66 | 3.72 | 3.72 | 3.68 | 3.74 | 3.92 | 4.07 | 4.12 | 4.14 | 3.98 | 3.92 | 3.82 |
| 1914..... | 2.43 | 2.46 | 2.34 | 2.34 | 2.18 | 2.63 | 2.66 | 2.78 | 2.69 | 2.76 | 2.65 | 2.57 | 2.49 |
| 1915..... | 2.56 | 2.62 | 2.72 | 2.91 | 2.86 | 3.05 | 3.19 | 3.28 | 3.51 | 3.33 | 3.26 | 3.08 | 2.89 |
| 1916..... | 2.36 | 2.22 | 2.27 | 2.25 | 2.31 | 2.44 | 2.46 | 2.70 | 2.76 | 3.09 | 3.09 | 3.04 | 2.42 |
| 1917..... | 3.23 | 3.31 | 3.61 | 3.25 | 3.37 | 3.57 | 3.78 | 3.84 | 3.74 | 3.84 | 3.56 | 3.67 | 3.50 |
| 1918..... | 3.87 | 3.79 | 4.08 | 4.26 | 4.21 | 4.34 | 4.51 | 4.54 | 4.69 | 5.05 | 4.63 | 4.49 | 4.19 |
| 1919..... | 4.58 | 4.55 | 4.78 | 4.67 | 4.98 | 5.35 | 5.62 | 5.61 | 5.63 | 5.61 | 5.46 | 5.44 | 4.98 |
| 1920..... | 4.44 | 3.52 | 3.25 | 3.06 | 3.16 | 3.04 | 2.75 | 2.97 | 2.84 | 2.90 | 2.99 | 2.98 | 3.29 |
| A v. 1914-1920..... | 3.35 | 3.21 | 3.29 | 3.25 | 3.30 | 3.49 | 3.57 | 3.69 | 3.69 | 3.80 | 3.66 | 3.61 | 3.39 |
| 1921..... | 2.71 | 2.31 | 2.70 | 2.41 | 2.57 | 2.70 | 2.82 | 2.95 | 3.11 | 3.21 | 2.81 | 2.53 | 2.64 |
| 1922..... | 2.20 | 2.28 | 2.48 | 2.49 | 2.69 | 3.06 | 2.98 | 3.00 | 2.87 | 2.92 | 3.16 | 2.60 | 2.60 |
| 1923..... | 2.63 | 3.01 | 3.12 | 3.15 | 3.19 | 3.37 | 3.56 | 3.60 | 3.54 | 3.48 | 3.44 | 3.23 | 3.19 |
| 1924..... | 3.20 | 3.12 | 3.16 | 2.83 | 3.03 | 3.04 | 3.03 | 3.15 | 3.24 | 3.10 | 3.05 | 3.47 | 3.11 |
| 1925..... | 3.36 | 3.21 | 3.21 | 3.31 | 3.41 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Crop and Livestock Estimates.

TABLE 428.—Field seeds: Average price per 100 pounds paid to growers for crops of 1920-1924

ALFALFA SEED

| State or State sub-division | 1920 | 1921 | 1922 | 1923 | 1924 | State or State sub-division | 1920 | 1921 | 1922 | 1923 | 1924 |
|-----------------------------|---------|---------|---------|---------|---------|-----------------------------|---------|---------|---------|---------|---------|
| Southern Arizona..... | \$17.00 | \$14.35 | \$15.50 | \$16.25 | \$16.25 | Montana..... | \$17.00 | \$17.85 | \$21.05 | \$19.25 | \$19.50 |
| California..... | 15.90 | 14.00 | 14.75 | 17.00 | 17.25 | Nebraska..... | 15.80 | 10.10 | 13.90 | ----- | ----- |
| Colorado..... | 13.00 | 11.85 | 11.60 | 15.25 | 15.40 | Eastern New Mexico..... | 14.00 | 10.80 | 13.00 | 14.30 | 15.80 |
| Southern Idaho..... | 11.80 | 12.00 | 14.95 | 15.50 | 15.00 | Western Oklahoma..... | 12.85 | 11.20 | 13.30 | 15.25 | 13.65 |
| Northeastern Kansas..... | 13.60 | 11.10 | ----- | ----- | ----- | Western Oregon..... | 18.00 | 13.00 | ----- | ----- | ----- |
| Northwestern Kansas..... | 14.25 | 10.65 | 12.10 | 15.50 | 14.65 | South Dakota..... | 18.75 | 13.20 | 17.00 | 18.35 | 10.50 |
| Southeastern Kansas..... | 16.40 | 13.60 | ----- | ----- | ----- | Western Texas..... | 20.65 | 14.75 | 13.10 | 14.50 | 15.50 |
| Southwestern Kansas..... | 14.70 | 11.35 | 12.90 | 15.00 | 14.70 | Northern Utah..... | 10.00 | 11.75 | 15.50 | 16.00 | 16.00 |

ALSIKE CLOVER SEED

| | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|-----------------------------|---------|---------|---------|---------|---------|
| Southern Idaho..... | \$22.00 | \$14.50 | \$13.60 | \$13.50 | \$14.10 | Northwestern Ohio..... | \$22.30 | \$13.30 | \$12.90 | \$13.05 | \$16.20 |
| Northern Illinois..... | 22.05 | 14.65 | 13.80 | 14.20 | 16.50 | Western Oregon..... | 23.50 | 13.65 | 15.20 | 13.25 | 13.55 |
| Northern Indiana..... | 21.75 | 14.80 | 14.55 | 12.85 | 15.25 | Northeastern Wisconsin..... | 18.95 | 14.30 | 11.80 | 12.45 | 13.80 |
| Iowa..... | 19.95 | 15.15 | ----- | ----- | ----- | Southeastern Wisconsin..... | 20.20 | 14.20 | 12.85 | 12.25 | 12.90 |
| Southern Michigan..... | 20.90 | 13.50 | 13.50 | 12.90 | 15.40 | | | | | | |
| Minnesota..... | 19.25 | 13.65 | 12.95 | 12.30 | 15.40 | | | | | | |
| Western New York..... | 21.10 | 14.50 | ----- | ----- | ----- | | | | | | |

RED CLOVER SEED

| | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|-----------------------------|---------|---------|---------|---------|---------|
| Idaho..... | \$13.95 | \$15.10 | \$16.75 | \$18.25 | \$21.30 | Minnesota..... | \$16.75 | \$15.50 | \$17.10 | \$19.00 | \$23.90 |
| Northern Illinois..... | 18.70 | 16.30 | 17.25 | 20.40 | 27.50 | Missouri..... | 15.85 | 16.05 | 15.55 | 18.35 | 21.80 |
| Central Illinois..... | 18.40 | 16.55 | 16.55 | 20.40 | 27.50 | Nebraska..... | 14.65 | 15.35 | 10.15 | ----- | ----- |
| Northern Indiana..... | 19.10 | 17.00 | 17.20 | 19.70 | 26.35 | Northwestern Ohio..... | 19.05 | 17.20 | 17.55 | 19.30 | 27.35 |
| Central Indiana..... | 18.50 | 16.55 | 16.15 | 19.70 | 26.35 | Western Oregon..... | 22.35 | 15.30 | 20.10 | 19.65 | 23.05 |
| Southern Indiana..... | 16.05 | 16.45 | 15.85 | ----- | ----- | Washington..... | 18.00 | 15.25 | ----- | ----- | ----- |
| Northeastern Iowa..... | 17.80 | 16.45 | 16.60 | ----- | ----- | Northeastern Wisconsin..... | 16.30 | 16.65 | 17.35 | 18.30 | 25.15 |
| Southeastern Iowa..... | 18.30 | 15.40 | 16.10 | 19.85 | 26.35 | Southwestern Wisconsin..... | 18.40 | 17.55 | 17.90 | 19.70 | 26.35 |
| Southwestern Iowa..... | 17.25 | 15.90 | 17.05 | ----- | ----- | Southwestern Wisconsin..... | 16.75 | 16.85 | 17.45 | 19.70 | 26.35 |
| Kansas..... | 15.65 | 15.30 | 16.30 | ----- | ----- | | | | | | |
| Southern Michigan..... | 17.10 | 16.60 | 17.35 | 18.70 | 27.20 | | | | | | |

SWEET CLOVER SEED

| | | | | | | | | | | | |
|----------------|--------|--------|--------|--------|--------|-------------------|---------|--------|--------|--------|--------|
| Colorado..... | \$9.90 | \$4.25 | \$4.55 | \$8.60 | \$8.25 | Nebraska..... | \$12.50 | \$6.50 | ----- | ----- | ----- |
| Idaho..... | 10.00 | 6.50 | ----- | ----- | ----- | North Dakota..... | 9.60 | 4.40 | \$7.35 | \$9.00 | \$8.35 |
| Illinois..... | 16.30 | 10.15 | 7.10 | 9.70 | 10.20 | Oklahoma..... | 9.00 | 5.00 | ----- | ----- | ----- |
| Kansas..... | 8.15 | 5.10 | 7.75 | 9.10 | 8.80 | South Dakota..... | 9.50 | 5.00 | 7.00 | 9.70 | 8.05 |
| Minnesota..... | 8.00 | 4.50 | 6.85 | 9.15 | 8.15 | Utah..... | 8.50 | 3.00 | ----- | 10.00 | 10.20 |
| Montana..... | 11.50 | 5.00 | 7.00 | 9.15 | 8.35 | | | | | | |

TIMOTHY SEED

| | | | | | | | | | | | |
|-----------------------------|--------|--------|--------|--------|--------|--------------------------------|--------|--------|--------|--------|--------|
| Southern Idaho..... | \$5.25 | \$4.10 | \$4.45 | \$5.50 | \$5.90 | West central Minnesota..... | \$5.25 | \$4.75 | \$4.75 | ----- | ----- |
| Northern Illinois..... | 6.50 | 4.50 | 4.70 | ----- | ----- | Northeastern Missouri..... | 5.75 | 4.30 | 4.05 | \$0.05 | \$5.95 |
| Central Illinois..... | 6.30 | 4.85 | 4.95 | 6.15 | 5.75 | Northwestern Missouri..... | 5.50 | 3.95 | 4.60 | 5.55 | 5.85 |
| Southern Illinois..... | 6.75 | 4.95 | 5.15 | 6.00 | 5.75 | Southwestern Missouri..... | 4.55 | 3.70 | ----- | ----- | ----- |
| Indiana..... | 6.25 | 4.70 | 5.15 | 5.50 | 5.75 | Nebraska..... | 5.50 | 5.50 | ----- | ----- | ----- |
| Northeastern Iowa..... | 5.40 | 4.20 | 4.70 | 6.30 | 5.55 | North Dakota..... | 5.80 | 5.20 | 4.55 | ----- | ----- |
| Northwestern Iowa..... | 5.90 | 4.15 | 4.50 | ----- | ----- | Northeastern Ohio..... | 6.65 | 4.85 | 4.95 | 6.55 | 5.70 |
| Southeastern Iowa..... | 6.05 | 4.50 | 4.60 | 5.95 | 5.60 | Northwestern Ohio..... | 5.85 | 4.70 | 5.00 | 6.55 | 5.70 |
| Southwestern Iowa..... | 5.60 | 4.10 | 4.55 | 5.90 | 5.70 | Northeastern South Dakota..... | 5.05 | 4.45 | 4.60 | 5.75 | 5.05 |
| Kansas..... | 5.25 | 5.60 | ----- | ----- | ----- | Southeastern South Dakota..... | 5.65 | 4.05 | 4.60 | 5.95 | 4.95 |
| Northwestern Minnesota..... | 5.10 | 4.35 | 4.55 | ----- | ----- | Wisconsin..... | 5.90 | 4.80 | 5.05 | ----- | ----- |
| East central Minnesota..... | 5.75 | 4.40 | 5.05 | ----- | ----- | | | | | | |
| Southern Minnesota..... | 5.50 | 4.45 | 4.85 | 6.25 | 5.40 | | | | | | |

Division of Statistical and Historical Research. Compiled from data of the Hay, Feed, and Seed Division. Weighted average price based on reports received annually from seed shippers.

TABLE 429.—*Alfalfa seed: Average wholesale selling price per 100 pounds at leading markets, 1920-1925*

| Year | Baltimore | | | | | | Minneapolis | | | | | |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | Jan. | Feb. | Mar. | Apr. | May | Av. | Jan. | Feb. | Mar. | Apr. | May | Av. |
| 1920..... | <i>Dols.</i> 40.00 | <i>Dols.</i> 40.00 | <i>Dols.</i> 39.00 | <i>Dols.</i> 35.75 | <i>Dols.</i> 31.60 | <i>Dols.</i> 37.27 | <i>Dols.</i> 45.60 | <i>Dols.</i> 46.00 | <i>Dols.</i> 44.00 | <i>Dols.</i> 41.65 | <i>Dols.</i> 38.30 | <i>Dols.</i> 43.29 |
| 1921..... | 38.50 | 16.00 | 16.00 | 16.00 | 16.00 | 16.50 | 19.00 | 19.00 | 19.40 | 21.40 | 21.00 | 19.60 |
| 1922..... | 17.10 | 17.50 | 18.25 | 18.80 | 19.50 | 18.23 | 19.00 | 19.50 | 19.50 | 19.80 | 20.25 | 19.61 |
| 1923..... | 20.25 | 20.00 | 20.00 | 20.00 | 20.00 | 20.05 | 21.25 | 21.00 | 20.50 | 20.75 | 21.00 | 20.90 |
| 1924..... | 21.00 | 21.00 | 20.70 | 22.00 | 22.50 | 21.44 | 22.50 | 22.50 | 23.00 | 24.00 | 24.80 | 23.72 |
| 1925..... | 21.80 | 22.50 | 22.50 | 22.50 | 22.50 | 22.36 | 23.80 | 23.60 | 23.40 | 23.50 | 23.10 | 23.48 |
| Av. 1921-1925. | 19.73 | 19.40 | 19.49 | 19.86 | 20.10 | 19.72 | 21.11 | 21.12 | 21.34 | 22.07 | 22.03 | 21.53 |
| Chicago | | | | | | New York | | | | | | |
| 1920..... | 41.00 | 42.00 | 41.65 | 40.15 | 38.00 | 40.56 | 36.20 | 38.50 | 36.50 | 34.65 | 30.40 | 35.25 |
| 1921..... | 17.25 | 17.65 | 17.90 | 17.90 | 18.65 | 18.17 | 16.00 | 15.00 | 16.25 | 16.40 | 16.00 | 15.93 |
| 1922..... | 17.15 | 18.45 | 19.20 | 19.35 | 19.15 | 18.66 | 17.50 | 17.90 | 18.50 | 18.60 | 19.00 | 18.30 |
| 1923..... | 19.50 | 19.05 | 19.75 | 20.00 | 20.00 | 19.66 | 19.90 | 19.40 | 19.00 | 19.15 | 19.00 | 19.29 |
| 1924..... | 22.25 | 22.20 | 22.45 | 23.75 | 24.30 | 22.99 | 20.90 | 20.40 | 20.10 | 21.75 | 22.00 | 21.03 |
| 1925..... | 22.60 | 22.75 | 22.75 | 23.00 | 23.00 | 23.82 | 20.30 | 21.00 | 20.50 | 19.75 | 19.50 | 20.21 |
| Av. 1921-1925. | 19.75 | 20.02 | 20.41 | 21.10 | 21.02 | 20.46 | 18.92 | 18.74 | 18.87 | 19.13 | 19.10 | 18.95 |
| Denver | | | | | | Richmond | | | | | | |
| 1920..... | 38.30 | 42.00 | 41.00 | 37.75 | 34.60 | 38.73 | 43.30 | 44.00 | 42.75 | 41.50 | 41.00 | 42.51 |
| 1921..... | 19.50 | 17.00 | 17.00 | 17.75 | 16.75 | 17.60 | 24.05 | 23.85 | 21.00 | 21.00 | 21.00 | 22.36 |
| 1922..... | 16.00 | 16.50 | 18.00 | 17.80 | 17.50 | 17.16 | 20.00 | 20.00 | 20.00 | 19.10 | 19.00 | 19.62 |
| 1923..... | 19.65 | 19.50 | 19.70 | 19.75 | 19.00 | 19.52 | 19.00 | 20.00 | 20.00 | 19.50 | 19.50 | 19.69 |
| 1924..... | 20.00 | 20.25 | 20.60 | 22.25 | 22.60 | 21.14 | 20.00 | 19.75 | 20.30 | 21.60 | 21.70 | 20.67 |
| 1925..... | 26.00 | 20.00 | 23.50 | 23.50 | 23.50 | 24.50 | 22.40 | 22.10 | 22.00 | 21.00 | 21.00 | 21.70 |
| Av. 1921-1925. | 20.23 | 19.85 | 19.76 | 20.21 | 19.87 | 19.98 | 21.27 | 21.14 | 20.60 | 20.44 | 20.44 | 20.79 |
| Kansas City | | | | | | St. Louis | | | | | | |
| 1920..... | 42.00 | 42.00 | 40.25 | 39.00 | 37.60 | 40.17 | 42.10 | 43.50 | 43.00 | 40.50 | 40.00 | 41.82 |
| 1921..... | 18.50 | 18.69 | 18.40 | 18.50 | 18.15 | 18.31 | 22.75 | 19.45 | 17.15 | 17.30 | 18.00 | 18.93 |
| 1922..... | 16.90 | 18.00 | 18.50 | 17.90 | 18.50 | 17.96 | 17.80 | 18.25 | 19.50 | 19.10 | 19.00 | 18.73 |
| 1923..... | 19.50 | 19.50 | 19.50 | 20.65 | 21.00 | 20.03 | 20.50 | 19.25 | 19.10 | 19.00 | 20.00 | 19.75 |
| 1924..... | 21.50 | 21.50 | 22.30 | 23.00 | 23.00 | 22.26 | 22.00 | 21.00 | 20.70 | 22.80 | 23.50 | 22.00 |
| 1925..... | 22.00 | 22.10 | 22.60 | 23.50 | 23.25 | 22.69 | 22.55 | 23.25 | 23.50 | 23.75 | 23.50 | 23.31 |
| Av. 1921-1925. | 19.68 | 19.82 | 20.26 | 20.71 | 20.78 | 20.25 | 21.12 | 20.24 | 19.99 | 20.57 | 20.80 | 20.54 |
| Louisville | | | | | | Toledo | | | | | | |
| 1920..... | 42.80 | 43.00 | 43.30 | 41.50 | 38.80 | 41.88 | 43.30 | 44.00 | 43.60 | 44.25 | 43.60 | 43.75 |
| 1921..... | 20.65 | 20.25 | 20.50 | 21.40 | 21.25 | 20.81 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 1922..... | 17.60 | 18.65 | 19.45 | 19.70 | 19.65 | 19.01 | 17.50 | 18.25 | 19.40 | 19.50 | 19.40 | 18.84 |
| 1923..... | 19.80 | 19.70 | 19.65 | 19.25 | 19.25 | 19.53 | 19.00 | 21.00 | 21.15 | 21.25 | 21.25 | 20.73 |
| 1924..... | 21.70 | 20.90 | 20.50 | 22.50 | 23.50 | 21.82 | 22.50 | 21.90 | 22.60 | 24.10 | 21.90 | 23.20 |
| 1925..... | 22.55 | 22.55 | 22.50 | 22.45 | 22.10 | 22.43 | 22.70 | 22.50 | 22.50 | 22.50 | 22.50 | 22.54 |
| Av. 1921-1925. | 20.46 | 20.41 | 20.52 | 21.06 | 21.15 | 20.72 | 20.34 | 20.73 | 21.13 | 21.47 | 21.61 | 21.06 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division. These prices are the average wholesale selling prices for high-quality seed, as reported to the Hay, Feed, and Seed Division weekly, by seedsmen in these markets.

TABLE 430.—Red clover seed: Average wholesale selling price per 100 pounds at leading markets, 1920-1925

| Year | Baltimore | | | | | | Minneapolis | | | | | |
|----------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Jan. | Feb. | Mar. | Apr. | May | Av. | Jan. | Feb. | Mar. | Apr. | May | Av. |
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dois</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1920..... | 54.20 | 56.00 | 56.25 | 54.50 | 45.00 | 53.21 | 50.50 | 59.40 | 57.40 | 51.75 | 45.40 | 51.09 |
| 1921..... | 21.40 | 19.50 | 20.75 | 19.80 | 18.25 | 19.90 | 21.55 | 18.95 | 21.65 | 21.50 | 21.50 | 21.08 |
| 1922..... | 22.70 | 24.65 | 25.75 | 23.60 | 23.00 | 23.94 | 24.00 | 25.75 | 23.65 | 25.10 | 24.00 | 25.10 |
| 1923..... | 22.50 | 22.50 | 21.35 | 19.95 | 19.50 | 21.16 | 23.40 | 23.25 | 22.50 | 21.75 | 21.15 | 22.41 |
| 1924..... | 22.25 | 21.95 | 20.50 | 20.25 | 19.70 | 20.93 | 24.75 | 25.00 | 24.70 | 24.00 | 23.40 | 24.37 |
| 1925..... | 33.60 | 34.50 | 34.00 | 33.00 | 32.50 | 33.52 | 34.80 | 36.00 | 36.00 | 35.75 | 32.75 | 35.06 |
| Av. 1921-1925. | 24.49 | 24.02 | 24.47 | 23.28 | 22.59 | 23.89 | 25.70 | 25.79 | 26.20 | 25.62 | 24.56 | 25.59 |
| | Chicago | | | | | | New York | | | | | |
| 1920..... | 55.20 | 57.00 | 56.30 | 50.25 | 43.20 | 52.39 | 54.30 | 57.40 | 56.75 | 54.25 | 46.40 | 53.82 |
| 1921..... | 21.25 | 18.05 | 20.80 | 19.95 | 18.55 | 19.72 | 21.00 | 18.75 | 21.40 | 19.60 | 18.50 | 19.85 |
| 1922..... | 22.20 | 24.55 | 25.45 | 23.35 | 21.95 | 23.50 | 22.50 | 25.00 | 25.90 | 23.90 | 22.75 | 24.01 |
| 1923..... | 22.55 | 22.45 | 20.60 | 19.70 | 19.35 | 20.93 | 23.40 | 22.40 | 21.55 | 20.25 | 19.50 | 21.42 |
| 1924..... | 23.10 | 21.55 | 21.10 | 19.60 | 19.00 | 20.87 | 22.75 | 21.75 | 20.95 | 19.95 | 19.55 | 20.81 |
| 1925..... | 34.20 | 36.00 | 34.30 | 33.40 | 32.00 | 33.98 | 32.50 | 32.60 | 30.50 | 29.00 | 28.25 | 30.57 |
| Av. 1921-1925. | 24.66 | 24.52 | 24.45 | 23.20 | 22.17 | 23.80 | 24.43 | 24.10 | 23.88 | 22.54 | 21.71 | 23.33 |
| | Denver | | | | | | Richmond | | | | | |
| 1920..... | 23.15 | 21.55 | 21.50 | 21.35 | 20.00 | 21.51 | 50.20 | 59.45 | 58.20 | 56.90 | 50.55 | 50.26 |
| 1921..... | 21.50 | 23.50 | 23.75 | 24.00 | 24.00 | 23.75 | 24.15 | 21.10 | 21.15 | 20.00 | 16.75 | 20.43 |
| 1922..... | 23.00 | 23.00 | 22.90 | 22.40 | 21.50 | 22.56 | 23.00 | 24.40 | 26.25 | 25.50 | 24.15 | 24.66 |
| 1923..... | 23.00 | 23.00 | 22.60 | 22.40 | 21.50 | 22.56 | 24.00 | 23.50 | 22.50 | 21.30 | 21.00 | 22.46 |
| 1924..... | 21.00 | 21.25 | 22.00 | 22.00 | 23.65 | 21.98 | 23.00 | 22.70 | 22.00 | 21.25 | 20.20 | 21.83 |
| 1925..... | 36.00 | 36.00 | 37.00 | 34.50 | 32.00 | 35.10 | 32.40 | 32.50 | 32.50 | 34.25 | 33.25 | 32.98 |
| Av. 1921-1925. | 25.33 | 25.06 | 25.43 | 24.85 | 24.23 | 24.98 | 25.31 | 24.84 | 24.88 | 24.46 | 23.08 | 24.51 |
| | Kansas City | | | | | | St. Louis | | | | | |
| 1920..... | 56.30 | 59.25 | 56.50 | 54.50 | 52.00 | 55.71 | 56.20 | 59.00 | 56.25 | 51.75 | 50.00 | 54.64 |
| 1921..... | 20.25 | 19.25 | 19.00 | 18.60 | 18.00 | 19.02 | 22.80 | 19.45 | 19.80 | 18.65 | 19.25 | 19.00 |
| 1922..... | 23.00 | 23.25 | 24.50 | 22.80 | 24.00 | 23.40 | 22.30 | 24.05 | 25.25 | 23.00 | 23.00 | 23.52 |
| 1923..... | 22.50 | 22.50 | 22.30 | 21.90 | 22.00 | 22.24 | 22.50 | 21.15 | 21.20 | 20.50 | 20.50 | 21.17 |
| 1924..... | 25.55 | 25.40 | 24.00 | 23.75 | 22.40 | 24.22 | 25.00 | 23.80 | 23.75 | 22.95 | 22.50 | 23.00 |
| 1925..... | 34.00 | 34.00 | 34.00 | 34.00 | 29.50 | 33.10 | 34.80 | 34.50 | 33.00 | 33.00 | 32.50 | 33.56 |
| Av. 1921-1925. | 25.04 | 24.88 | 24.76 | 24.21 | 23.18 | 24.41 | 25.48 | 24.59 | 24.60 | 23.62 | 23.55 | 24.37 |
| | Louisville | | | | | | Toledo | | | | | |
| 1920..... | 57.40 | 60.25 | 56.50 | 55.50 | 49.20 | 55.77 | 57.25 | 58.50 | 57.45 | 49.70 | 43.50 | 53.28 |
| 1921..... | 23.25 | 22.60 | 22.90 | 20.20 | 22.25 | 22.12 | 21.20 | 18.30 | 20.90 | 21.20 | 22.80 | 20.88 |
| 1922..... | 23.35 | 25.15 | 26.20 | 24.15 | 23.05 | 24.38 | 23.30 | 25.40 | 26.50 | 23.60 | 22.90 | 24.36 |
| 1923..... | 22.55 | 22.50 | 21.25 | 20.00 | 20.00 | 21.26 | 22.45 | 22.30 | 20.85 | 19.65 | 18.80 | 20.81 |
| 1924..... | 23.40 | 22.80 | 21.00 | 20.90 | 21.00 | 21.94 | 22.45 | 20.50 | 19.75 | 18.70 | 18.40 | 19.96 |
| 1925..... | 34.35 | 35.00 | 31.55 | 30.10 | 28.70 | 31.94 | 32.70 | 31.40 | 29.20 | 28.05 | 26.15 | 29.50 |
| Av. 1921-1925. | 25.38 | 25.49 | 24.70 | 23.07 | 23.00 | 24.33 | 24.42 | 23.58 | 23.46 | 22.24 | 21.81 | 23.10 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division. These prices are the average wholesale selling prices for high quality seed, as reported to the Hay, Feed, and Seed Division, weekly, by seedsmen in these markets.

TABLE 431.—*Alsike clover seed: Average wholesale selling price per 100 pounds at leading markets, 1920-1925*

| Year | Baltimore | | | | | | Minneapolis | | | | | |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Jan. | Feb. | Mar. | Apr. | May | Av. | Jan. | Feb. | Mar. | Apr. | May | Av. |
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1920..... | 56.20 | 58.00 | 57.40 | 55.25 | 46.00 | 54.57 | 57.90 | 60.90 | 58.75 | 55.00 | 46.00 | 55.71 |
| 1921..... | 26.25 | 24.00 | 23.15 | 19.60 | 18.50 | 22.30 | 25.75 | 23.25 | 24.00 | 23.20 | 22.50 | 23.74 |
| 1922..... | 18.40 | 19.15 | 18.75 | 17.80 | 18.00 | 18.42 | 20.20 | 21.00 | 21.00 | 20.10 | 20.00 | 20.46 |
| 1923..... | 17.00 | 16.65 | 16.40 | 16.00 | 16.00 | 16.41 | 18.00 | 18.00 | 17.50 | 17.25 | 17.00 | 17.55 |
| 1924..... | 16.00 | 15.70 | 15.80 | 16.00 | 16.00 | 15.90 | 17.50 | 17.40 | 17.00 | 17.00 | 17.00 | 17.18 |
| 1925..... | 21.70 | 21.50 | 22.25 | 24.10 | 24.25 | 22.76 | 22.60 | 23.50 | 23.75 | 25.50 | 25.50 | 24.17 |
| Av. 1921-1925. | 19.87 | 19.40 | 19.27 | 18.70 | 18.55 | 19.16 | 20.81 | 20.63 | 20.65 | 20.61 | 20.40 | 20.62 |
| | Chicago | | | | | | New York | | | | | |
| 1920..... | 55.80 | 57.50 | 58.00 | 53.25 | 43.20 | 53.55 | 50.00 | 57.75 | 58.25 | 56.75 | 48.40 | 55.43 |
| 1921..... | 25.65 | 22.40 | 22.45 | 21.60 | 19.60 | 22.32 | 26.75 | 24.65 | 23.75 | 21.50 | 19.50 | 23.23 |
| 1922..... | 18.20 | 19.25 | 19.00 | 17.30 | 17.30 | 18.21 | 18.55 | 19.00 | 19.05 | 17.95 | 17.50 | 18.41 |
| 1923..... | 16.50 | 16.50 | 16.50 | 16.45 | 16.35 | 16.46 | 17.40 | 16.80 | 16.65 | 16.25 | 16.00 | 16.62 |
| 1924..... | 15.55 | 15.45 | 15.45 | 15.90 | 16.00 | 15.67 | 16.40 | 15.55 | 15.55 | 15.00 | 16.00 | 15.90 |
| 1925..... | 21.75 | 22.40 | 23.05 | 24.75 | 25.00 | 23.39 | 21.50 | 21.90 | 22.30 | 24.80 | 25.00 | 23.10 |
| Av. 1921-1925. | 19.53 | 19.20 | 19.29 | 19.20 | 18.83 | 19.21 | 20.12 | 19.58 | 19.46 | 19.30 | 18.80 | 19.45 |
| | Denver | | | | | | Richmond | | | | | |
| 1920..... | 53.20 | 58.65 | 58.75 | 58.00 | 56.60 | 57.04 | 57.30 | 59.50 | 58.20 | 57.65 | 51.10 | 56.75 |
| 1921..... | 32.40 | 28.50 | 27.25 | 24.20 | 23.00 | 27.07 | 31.25 | 29.70 | 29.60 | 24.20 | 23.00 | 27.43 |
| 1922..... | 19.50 | 19.50 | 19.75 | 20.00 | 20.00 | 19.75 | 21.70 | 21.65 | 21.40 | 21.00 | 21.00 | 21.35 |
| 1923..... | 18.50 | 19.00 | 19.00 | 18.75 | 17.50 | 18.55 | 17.50 | 17.40 | 17.20 | 16.75 | 16.50 | 17.07 |
| 1924..... | 17.00 | 17.00 | 17.00 | 17.00 | 17.15 | 17.03 | 17.50 | 17.40 | 17.00 | 17.00 | 17.70 | 17.32 |
| 1925..... | 24.00 | 24.00 | 21.75 | 21.75 | 21.75 | 22.65 | 22.00 | 22.00 | 22.75 | 26.00 | 26.00 | 23.75 |
| Av. 1921-1925. | 22.28 | 21.60 | 20.95 | 20.34 | 19.88 | 21.01 | 21.99 | 21.63 | 21.47 | 20.99 | 20.84 | 21.38 |
| | Kansas City | | | | | | St. Louis | | | | | |
| 1920..... | 50.50 | 60.00 | 58.50 | 58.00 | 53.50 | 57.30 | 50.30 | 61.50 | 58.75 | 54.25 | 51.20 | 56.40 |
| 1921..... | 28.00 | 26.00 | 25.00 | 24.60 | 24.00 | 25.52 | 27.25 | 24.90 | 23.00 | 23.00 | 23.00 | 24.23 |
| 1922..... | 18.80 | 19.50 | 19.50 | 18.00 | 18.00 | 18.76 | 17.80 | 19.15 | 19.00 | 18.50 | 18.50 | 18.59 |
| 1923..... | 19.00 | 19.00 | 18.75 | 18.00 | 18.00 | 18.55 | 18.25 | 17.15 | 17.50 | 17.60 | 17.50 | 17.58 |
| 1924..... | 17.50 | 17.50 | 17.60 | 17.50 | 16.00 | 17.22 | 17.40 | 16.75 | 16.00 | 16.00 | 16.00 | 16.43 |
| 1925..... | 22.05 | 22.05 | 22.50 | 23.00 | 23.00 | 22.52 | 22.50 | 22.60 | 22.25 | 22.90 | 22.75 | 22.60 |
| Av. 1921-1925. | 21.07 | 20.81 | 20.67 | 20.22 | 19.80 | 20.51 | 20.64 | 20.11 | 19.55 | 19.58 | 19.55 | 19.80 |
| | Louisville | | | | | | Toledo | | | | | |
| 1920..... | 57.80 | 60.25 | 58.25 | 57.00 | 49.90 | 50.64 | 57.70 | 58.60 | 59.30 | 52.60 | 42.50 | 54.14 |
| 1921..... | 28.90 | 26.40 | 26.65 | 26.60 | 22.25 | 24.96 | 26.60 | 25.45 | 25.15 | 23.10 | 22.50 | 24.56 |
| 1922..... | 18.50 | 20.00 | 20.20 | 18.75 | 18.30 | 19.15 | 19.35 | 20.70 | 19.90 | 18.80 | 18.95 | 19.54 |
| 1923..... | 18.00 | 17.95 | 16.95 | 16.40 | 16.50 | 17.16 | 17.90 | 17.00 | 17.50 | 17.50 | 17.40 | 17.68 |
| 1924..... | 16.95 | 16.55 | 15.80 | 15.60 | 15.95 | 16.17 | 15.55 | 15.40 | 14.80 | 15.25 | 16.15 | 15.43 |
| 1925..... | 22.20 | 22.45 | 22.60 | 24.00 | 24.25 | 23.22 | 22.15 | 21.45 | 22.70 | 24.90 | 24.80 | 23.20 |
| Av. 1921-1925. | 20.91 | 20.67 | 20.44 | 19.19 | 19.45 | 20.13 | 20.31 | 20.12 | 20.01 | 19.91 | 19.96 | 20.06 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division. These prices are the average wholesale selling prices for high quality seed, as reported to the Hay, Feed, and Seed Division, weekly, by seedsmen in these markets.

TABLE 432.—*Timothy seed: Average wholesale selling price per 100 pounds at leading markets, 1920-1925*

| Year | Baltimore | | | | | | Minneapolis | | | | | |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | Jan. | Feb. | Mar. | Apr. | May | Av. | Jan. | Feb. | Mar. | Apr. | May | Av. |
| 1920..... | Dols. 14.10 | Dols. 14.90 | Dols. 13.70 | Dols. 13.20 | Dols. 12.35 | Dols. 13.65 | Dols. 13.85 | Dols. 14.20 | Dols. 13.45 | Dols. 12.55 | Dols. 12.00 | Dols. 13.21 |
| 1921..... | 7.60 | 7.25 | 7.05 | 7.15 | 7.25 | 7.26 | 7.15 | 6.55 | 6.30 | 6.35 | 6.50 | 6.57 |
| 1922..... | 7.15 | 7.25 | 7.20 | 6.80 | 6.80 | 7.04 | 6.80 | 6.95 | 6.80 | 6.20 | 6.25 | 6.60 |
| 1923..... | 7.25 | 7.20 | 7.10 | 7.10 | 7.20 | 7.17 | 6.90 | 6.75 | 6.75 | 6.65 | 6.70 | 6.75 |
| 1924..... | 8.50 | 8.50 | 8.50 | 8.50 | 8.30 | 8.46 | 8.30 | 8.55 | 8.30 | 7.75 | 7.55 | 8.09 |
| 1925..... | 7.25 | 7.10 | 7.00 | 7.10 | 7.50 | 7.19 | 7.00 | 6.90 | 6.70 | 6.95 | 7.00 | 6.91 |
| Av. 1921-1925. | 7.55 | 7.46 | 7.37 | 7.33 | 7.41 | 7.42 | 7.23 | 7.14 | 6.97 | 6.78 | 6.80 | 6.98 |
| Chicago | | | | | | New York | | | | | | |
| 1920..... | 13.50 | 13.90 | 13.30 | 12.65 | 12.30 | 13.13 | 14.25 | 14.75 | 14.40 | 13.65 | 13.30 | 14.07 |
| 1921..... | 7.10 | 6.50 | 6.40 | 6.40 | 6.45 | 6.57 | 8.15 | 7.30 | 7.15 | 7.10 | 7.05 | 7.35 |
| 1922..... | 7.05 | 7.30 | 7.30 | 6.60 | 6.70 | 6.99 | 7.70 | 7.75 | 7.50 | 7.25 | 7.05 | 7.45 |
| 1923..... | 7.00 | 7.00 | 7.05 | 7.05 | 7.00 | 7.02 | 7.70 | 7.40 | 7.50 | 7.25 | 7.30 | 7.43 |
| 1924..... | 8.15 | 8.25 | 8.10 | 7.75 | 7.55 | 7.96 | 9.10 | 8.95 | 8.60 | 8.50 | 8.25 | 8.68 |
| 1925..... | 6.95 | 6.70 | 6.50 | 6.85 | 7.00 | 6.80 | 7.25 | 7.20 | 7.05 | 7.25 | 7.30 | 7.21 |
| Av. 1921-1925. | 7.25 | 7.15 | 7.07 | 6.93 | 6.94 | 7.07 | 7.98 | 7.72 | 7.56 | 7.47 | 7.39 | 7.62 |
| Denver | | | | | | Richmond | | | | | | |
| 1920..... | 13.60 | 15.00 | 14.05 | 12.95 | 12.30 | 13.58 | 14.15 | 15.00 | 14.25 | 13.95 | 13.90 | 14.25 |
| 1921..... | 9.15 | 8.00 | 7.25 | 7.00 | 6.90 | 7.66 | 9.50 | 8.80 | 8.00 | 7.75 | 7.75 | 8.30 |
| 1922..... | 6.95 | 8.00 | 7.80 | 7.50 | 7.05 | 7.46 | 7.80 | 8.00 | 8.00 | 7.46 | 7.15 | 7.67 |
| 1923..... | 7.95 | 7.75 | 7.70 | 7.50 | 7.50 | 7.68 | 7.50 | 7.50 | 7.35 | 7.30 | 7.30 | 7.39 |
| 1924..... | 8.90 | 8.95 | 9.00 | 8.90 | 8.60 | 8.87 | 9.00 | 8.75 | 8.75 | 8.75 | 8.60 | 8.77 |
| 1925..... | 9.00 | 9.00 | 8.00 | 8.00 | 8.00 | 8.40 | 7.95 | 7.85 | 7.75 | 8.00 | 8.05 | 7.92 |
| Av. 1921-1925. | 8.39 | 8.34 | 7.95 | 7.78 | 7.61 | 8.01 | 8.35 | 8.18 | 7.97 | 7.84 | 7.77 | 8.02 |
| Kansas City | | | | | | St Louis | | | | | | |
| 1920..... | 14.40 | 14.80 | 13.45 | 12.75 | 12.50 | 13.58 | 14.05 | 14.75 | 13.65 | 12.80 | 12.50 | 13.55 |
| 1921..... | 7.30 | 7.00 | 6.90 | 6.50 | 6.90 | 6.92 | 7.50 | 7.00 | 6.60 | 6.95 | 7.15 | 7.04 |
| 1922..... | 7.05 | 7.20 | 7.15 | 6.40 | 6.50 | 6.86 | 7.00 | 7.30 | 7.00 | 6.45 | 6.35 | 6.82 |
| 1923..... | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.30 | 7.15 | 7.25 | 7.25 | 7.29 |
| 1924..... | 8.50 | 8.50 | 8.50 | 8.40 | 7.70 | 8.32 | 8.45 | 8.45 | 8.25 | 8.20 | 8.00 | 8.27 |
| 1925..... | 7.50 | 7.35 | 7.00 | 7.00 | 7.00 | 7.17 | 7.25 | 7.05 | 6.90 | 6.90 | 6.90 | 7.00 |
| Av. 1921-1925. | 7.57 | 7.51 | 7.41 | 7.16 | 7.12 | 7.35 | 7.54 | 7.42 | 7.18 | 7.15 | 7.13 | 7.28 |
| Louisville | | | | | | Toledo | | | | | | |
| 1920..... | 14.10 | 14.55 | 13.70 | 13.25 | 12.60 | 13.64 | 14.45 | 14.80 | 13.80 | 12.50 | 12.35 | 13.63 |
| 1921..... | 8.00 | 7.65 | 7.50 | 7.50 | 8.25 | 7.78 | 7.20 | 6.55 | 6.40 | 6.40 | 6.85 | 6.68 |
| 1922..... | 7.40 | 7.50 | 7.40 | 6.80 | 6.90 | 7.20 | 7.15 | 7.20 | 6.90 | 6.55 | 6.80 | 6.92 |
| 1923..... | 7.30 | 7.25 | 7.10 | 7.05 | 7.00 | 7.14 | 7.35 | 7.40 | 7.55 | 7.30 | 7.35 | 7.39 |
| 1924..... | 8.55 | 8.70 | 8.40 | 8.20 | 7.85 | 8.34 | 8.90 | 8.50 | 8.40 | 8.30 | 7.60 | 8.34 |
| 1925..... | 7.25 | 7.05 | 6.90 | 7.15 | 7.20 | 7.11 | 7.30 | 6.75 | 6.50 | 6.90 | 6.75 | 6.84 |
| Av. 1921-1925. | 7.70 | 7.63 | 7.46 | 7.34 | 7.44 | 7.51 | 7.58 | 7.28 | 7.15 | 7.09 | 7.07 | 7.23 |

Division of Statistical and Historical Research. Compiled from weekly reports of the Hay, Feed, and Seed Division. These prices are the average wholesale selling prices for high quality seed, as reported to the Hay, Feed, and Seed Division, weekly, by seedmen in these markets.

TABLE 433.—*Alfalfa seed: Price per bushel paid by farmers, United States, 1912-1925*

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1912..... | | | | | | 18.25 | 10.07 | 10.07 | 10.52 | 9.84 | 9.73 | 9.49 |
| 1913..... | 8.25 | 9.60 | 9.78 | 9.99 | 9.75 | 9.73 | 9.41 | 10.06 | 8.96 | 8.73 | 7.65 | 7.25 |
| 1914..... | 8.30 | 7.98 | 8.01 | 8.17 | 8.38 | 8.31 | 8.29 | 7.79 | 8.85 | 8.97 | 8.45 | 8.81 |
| 1915..... | 8.79 | 9.29 | 9.58 | 9.50 | 9.62 | 9.61 | 9.61 | 9.14 | 9.60 | 10.00 | 9.71 | 9.75 |
| 1916..... | 10.27 | 11.04 | 12.21 | 12.54 | 12.10 | 12.10 | 11.67 | 11.51 | 11.30 | 10.67 | 10.00 | 10.31 |
| 1917..... | 9.72 | 9.98 | 10.34 | 10.32 | 10.52 | 10.79 | 10.87 | 10.52 | 10.72 | 11.00 | 10.94 | 11.16 |
| 1918..... | 11.84 | 12.00 | 12.24 | 12.34 | 12.35 | 12.04 | 11.70 | 13.06 | 12.43 | 11.82 | 11.66 | 12.00 |
| 1919..... | 12.68 | 12.70 | 13.12 | 13.65 | 14.32 | 14.24 | 14.51 | 14.11 | 15.47 | 16.57 | 17.51 | 20.27 |
| 1920..... | 21.65 | 22.62 | 24.61 | 25.22 | 25.08 | 24.22 | 23.70 | 23.05 | 21.19 | 18.32 | 16.87 | 12.99 |
| 1921..... | 10.91 | 12.74 | 12.47 | 11.62 | 11.43 | 11.84 | 10.70 | 11.00 | 11.14 | 10.51 | 10.14 | 10.38 |
| 1922..... | 10.33 | 10.76 | 11.37 | 11.72 | 11.45 | 11.24 | 11.38 | 10.38 | 10.67 | 10.94 | 11.19 | 11.09 |
| 1923..... | 11.99 | 12.42 | 12.50 | 12.85 | 13.19 | 12.64 | 12.17 | 12.05 | 12.15 | 12.86 | 12.31 | 12.44 |
| 1924..... | 12.75 | 12.74 | 13.21 | 13.49 | 13.37 | 13.34 | 12.98 | 13.01 | 13.10 | 12.77 | 11.68 | 12.63 |
| 1925..... | 12.82 | 13.14 | 13.54 | 14.02 | 14.03 | 14.04 | 14.27 | 14.11 | 12.93 | 13.26 | 12.32 | 12.39 |

Division of Crop and Livestock Estimates.

TABLE 434.—*Clover seed: Price per bushel paid by farmers, United States, 1912-1925*

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1912..... | | | | | | 13.49 | 12.82 | 11.78 | 11.61 | 11.28 | 11.23 | 11.10 |
| 1913..... | 11.39 | 11.62 | 12.30 | 12.90 | 12.90 | 12.47 | 12.12 | 11.94 | 10.22 | 9.32 | 9.13 | 9.43 |
| 1914..... | 9.82 | 9.77 | 9.45 | 9.84 | 9.77 | 9.86 | 9.79 | 10.39 | 10.76 | 10.32 | 10.06 | 10.01 |
| 1915..... | 10.34 | 10.32 | 10.33 | 10.08 | 9.99 | 9.89 | 10.05 | 9.79 | 10.18 | 11.14 | 10.25 | 11.56 |
| 1916..... | 11.98 | 12.22 | 12.58 | 12.59 | 12.14 | 11.71 | 11.20 | 11.27 | 10.90 | 10.61 | 10.87 | 11.10 |
| 1917..... | 11.29 | 11.67 | 12.07 | 12.28 | 12.30 | 12.23 | 12.35 | 12.38 | 12.61 | 13.26 | 14.26 | 14.99 |
| 1918..... | 16.45 | 18.90 | 20.13 | 20.35 | 19.71 | 19.15 | 18.71 | 17.84 | 19.42 | 20.84 | 21.25 | 23.10 |
| 1919..... | 24.25 | 25.04 | 25.72 | 28.24 | 28.07 | 27.87 | 27.22 | 27.82 | 28.73 | 28.82 | 29.63 | 31.04 |
| 1920..... | 32.09 | 35.00 | 35.64 | 35.73 | 34.28 | 32.05 | 31.38 | 27.64 | 23.81 | 18.94 | 16.13 | 14.66 |
| 1921..... | 14.09 | 13.62 | 13.52 | 13.56 | 13.48 | 13.38 | 13.17 | 13.55 | 13.00 | 12.84 | 12.89 | 12.82 |
| 1922..... | 13.44 | 14.10 | 15.39 | 15.40 | 15.12 | 14.48 | 14.04 | 13.20 | 12.11 | 12.64 | 12.85 | 13.32 |
| 1923..... | 13.76 | 14.08 | 14.12 | 14.02 | 13.94 | 13.66 | 13.55 | 13.41 | 13.84 | 14.38 | 13.40 | 14.30 |
| 1924..... | 13.49 | 15.08 | 15.36 | 15.37 | 15.25 | 14.92 | 14.73 | 14.67 | 14.46 | 15.05 | 16.14 | 16.53 |
| 1925..... | 18.15 | 18.74 | 21.09 | 20.66 | 20.49 | 20.33 | 20.25 | 19.30 | 17.32 | 16.84 | 18.20 | 18.12 |

Division of Crop and Livestock Estimates.

TABLE 435.—*Timothy seed: Price per bushel paid by farmers, United States, 1912-1925*

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1912..... | | | | | | 7.37 | 6.59 | 3.89 | 3.06 | 2.84 | 2.67 | 2.47 |
| 1913..... | 2.51 | 2.47 | 2.33 | 2.43 | 2.40 | 2.44 | 2.57 | 2.76 | 2.84 | 2.85 | 2.87 | 2.84 |
| 1914..... | 2.90 | 2.94 | 2.97 | 2.95 | 2.97 | 2.98 | 2.99 | 3.17 | 3.25 | 3.19 | 3.11 | 3.05 |
| 1915..... | 3.42 | 3.56 | 3.60 | 3.57 | 3.46 | 3.48 | 3.49 | 3.48 | 3.59 | 3.74 | 3.69 | 3.73 |
| 1916..... | 3.80 | 3.96 | 3.98 | 4.03 | 4.04 | 4.01 | 3.99 | 3.50 | 3.08 | 3.01 | 3.05 | 3.11 |
| 1917..... | 3.17 | 3.22 | 3.24 | 3.27 | 3.60 | 3.81 | 3.98 | 3.98 | 4.12 | 4.14 | 4.12 | 4.20 |
| 1918..... | 4.49 | 4.55 | 4.67 | 4.58 | 4.55 | 4.56 | 4.55 | 4.77 | 4.96 | 5.19 | 5.29 | 5.23 |
| 1919..... | 5.43 | 5.45 | 5.59 | 5.56 | 5.73 | 5.63 | 5.79 | 5.96 | 5.92 | 6.05 | 6.06 | 6.29 |
| 1920..... | 6.43 | 6.87 | 6.94 | 7.03 | 6.91 | 6.88 | 6.83 | 6.01 | 5.41 | 4.84 | 4.70 | 1.54 |
| 1921..... | 4.40 | 4.27 | 4.05 | 4.08 | 4.02 | 4.10 | 3.91 | 3.65 | 3.41 | 3.48 | 3.52 | 3.63 |
| 1922..... | 3.83 | 4.04 | 4.00 | 4.03 | 4.04 | 3.88 | 3.79 | 3.56 | 3.34 | 3.48 | 3.69 | 3.74 |
| 1923..... | 3.93 | 3.94 | 3.97 | 3.95 | 3.99 | 4.03 | 4.03 | 3.61 | 3.93 | 4.13 | 4.24 | 4.14 |
| 1924..... | 4.23 | 4.30 | 4.44 | 4.40 | 4.36 | 4.32 | 4.17 | 4.18 | 4.16 | 4.02 | 3.95 | 4.15 |
| 1925..... | 4.07 | 4.05 | 3.95 | 3.97 | 3.99 | 4.02 | 4.16 | 4.39 | 4.27 | 4.21 | 4.19 | 4.17 |

Division of Crop and Livestock Estimates.

TOBACCO

TABLE 436.—*Tobacco: Acreage, production, value, exports, etc., United States, 1909-1925*

| Year | Acreage | Average yield per acre | Production | Price per pound received by producers Dec. 1 | Farm value Dec. 1 | Value per acre ¹ | Domestic exports of unmanufactured, fiscal year beginning July 1 ² | Imports of unmanufactured, fiscal year beginning July 1 ² |
|------------------------|------------------|------------------------|----------------------|--|--------------------|-----------------------------|---|--|
| | <i>Acres</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Cents</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Pounds</i> | <i>Pounds</i> |
| 1909..... | <i>1,295,000</i> | 814.8 | 1,055,133,000 | 10.1 | 106,374,000 | 82.14 | 357,196,074 | 46,853,389 |
| 1910..... | 1,306,000 | 807.7 | 1,103,415,000 | 9.3 | 102,142,000 | 74.77 | 355,327,072 | 48,203,288 |
| 1911..... | 1,013,000 | 893.7 | 905,109,000 | 9.4 | 85,210,000 | 84.12 | 379,845,320 | 54,740,380 |
| 1912..... | 1,226,000 | 785.5 | 962,855,000 | 10.8 | 104,063,000 | 84.88 | 418,756,906 | 67,977,118 |
| 1913..... | 1,216,000 | 784.3 | 953,734,000 | 12.8 | 122,481,000 | 100.72 | 449,749,982 | 61,174,751 |
| <i>A v. 1909-1913.</i> | <i>1,223,000</i> | <i>814.3</i> | <i>996,049,000</i> | <i>10.4</i> | <i>104,054,000</i> | <i>85.07</i> | <i>392,183,071</i> | <i>55,789,785</i> |
| 1914..... | 1,224,000 | 845.7 | 1,031,679,000 | 9.8 | 101,411,000 | 82.85 | 348,346,061 | 45,809,213 |
| 1915..... | 1,370,000 | 775.4 | 1,062,237,000 | 9.1 | 96,281,000 | 70.28 | 443,203,156 | 48,077,956 |
| 1916..... | 1,413,000 | 810.0 | 1,153,278,000 | 14.7 | 169,672,000 | 120.48 | 411,508,860 | 49,105,651 |
| 1917..... | 1,518,000 | 823.1 | 1,249,276,000 | 24.0 | 300,449,000 | 197.92 | 289,170,686 | 80,900,511 |
| 1918..... | 1,647,000 | 873.7 | 1,439,071,000 | 29.0 | 402,264,000 | 244.24 | 629,287,761 | 83,951,103 |
| 1919..... | 1,951,000 | 751.1 | 1,455,481,000 | 39.0 | 570,868,000 | 292.60 | 648,037,655 | 94,005,182 |
| 1920..... | 1,960,000 | 807.3 | 1,582,226,000 | 21.2 | 335,675,000 | 171.26 | 506,526,449 | 58,923,217 |
| <i>A v. 1914-1920.</i> | <i>1,583,000</i> | <i>810.8</i> | <i>1,283,750,000</i> | <i>22.0</i> | <i>282,374,000</i> | <i>178.35</i> | <i>468,037,237</i> | <i>66,604,695</i> |
| 1921..... | 1,427,000 | 749.6 | 1,069,693,000 | 19.9 | 212,728,000 | 149.07 | 463,388,521 | 65,225,437 |
| 1922..... | 1,695,000 | 735.6 | 1,246,837,000 | 23.2 | 280,248,000 | 170.65 | 454,364,150 | 75,785,715 |
| 1923..... | 1,877,000 | 807.2 | 1,515,110,000 | 19.9 | 301,096,000 | 160.41 | 507,630,387 | 54,497,204 |
| 1924..... | 1,706,000 | 728.3 | 1,242,456,000 | 20.7 | 256,834,000 | 150.55 | 430,701,868 | 76,869,612 |
| 1925..... | 1,747,000 | 772.6 | 1,349,660,000 | 18.3 | 247,413,000 | 141.62 | | |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

¹ Based upon farm price Dec. 1.

² Compiled from Commerce and Navigation of United States, 1909-1918, and June issues of Monthly Summary of Foreign Commerce, 1919-1925.

³ Preliminary.

TABLE 437.—*Tobacco: Acreage, production, and total farm value, by States, 1924 and 1925*

| | Acreage | | Production | | Total value, basis Dec. 1 price | |
|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------------------|----------------------|
| | 1924 | 1925 ¹ | 1924 | 1925 ¹ | 1924 | 1925 ¹ |
| | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Massachusetts..... | 9 | 9 | 12,950 | 12,420 | 3,232 | 1,937 |
| Connecticut..... | 29 | 29 | 39,730 | 39,900 | 12,623 | 7,581 |
| New York..... | 2 | 2 | 2,350 | 2,240 | 524 | 484 |
| Pennsylvania..... | 46 | 41 | 57,500 | 57,400 | 9,028 | 8,610 |
| Ohio..... | 58 | 52 | 40,890 | 50,960 | 7,933 | 7,644 |
| Indiana..... | 21 | 17 | 18,753 | 14,807 | 3,113 | 2,605 |
| Wisconsin..... | 38 | 32 | 35,720 | 44,000 | 4,644 | 7,260 |
| Missouri..... | 5 | 5 | 5,560 | 4,075 | 1,375 | 1,100 |
| Maryland..... | 32 | 30 | 22,528 | 24,690 | 6,060 | 4,691 |
| Virginia..... | 210 | 189 | 136,500 | 119,070 | 29,211 | 20,956 |
| West Virginia..... | 8 | 9 | 6,200 | 6,975 | 1,327 | 1,269 |
| North Carolina..... | 497 | 547 | 278,320 | 361,020 | 71,807 | 83,035 |
| South Carolina..... | 94 | 96 | 45,690 | 71,040 | 7,750 | 12,077 |
| Georgia..... | 40 | 67 | 31,060 | 48,030 | 8,267 | 7,206 |
| Florida..... | 6 | 7 | 4,500 | 5,490 | 1,692 | 1,693 |
| Kentucky..... | 485 | 485 | 405,460 | 392,850 | 60,334 | 62,856 |
| Tennessee..... | 126 | 130 | 99,375 | 94,250 | 18,484 | 16,022 |
| Louisiana..... | 1 | 1 | 400 | 504 | 220 | 277 |
| United States..... | 1,706 | 1,747 | 1,242,456 | 1,349,660 | 256,834 | 247,413 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 438.—Tobacco: Acreage, yield, and production, by types and districts, 1924 and 1925

| Class and type of tobacco | U. S. type No. | Acreage | | Yield per acre | | Production | | Average price per pound 1 | | Farm value | | Value per acre | |
|---|----------------|------------------|------------------|----------------|---------------|----------------------|----------------------|---------------------------|---------------|------------------------|------------------------|-------------------|------------------|
| | | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 |
| Flue cured: | | | | | | | | | | | | | |
| Old Belt— | | | | | | | | | | | | | |
| Virginia..... | 11 | Acres 142,300 | Acres 128,200 | Pounds 598 | Pounds 576 | 1,000 lbs. 85,045 | 1,000 lbs. 73,842 | Cents 21.3 | Cents 17.0 | 1,000 dolls. 18,115 | 1,000 dolls. 12,553 | Dollars 127.30 | Dollars 97.92 |
| North Carolina..... | 11 | 224,000 | 240,000 | 588 | 579 | 131,790 | 138,865 | 22.0 | 18.6 | 28,994 | 25,834 | 129.44 | 107.64 |
| Total, Old Belt..... | | 366,300 | 368,200 | 592.0 | 577.8 | 216,835 | 212,737 | 21.7 | 18.0 | 47,109 | 38,387 | 128.61 | 104.26 |
| New Belt— | | | | | | | | | | | | | |
| North Carolina..... | 12, 13 | 288,500 | 301,000 | 534 | 725 | 143,380 | 218,225 | 25.5 | 26.9 | 36,562 | 58,703 | 136.17 | 185.03 |
| South Carolina..... | 13 | 94,000 | 96,000 | 455 | 740 | 45,390 | 71,040 | 17.0 | 17.0 | 7,750 | 12,077 | 82.50 | 125.80 |
| Georgia..... | 14 | 38,450 | 66,250 | 767 | 716 | 29,596 | 47,433 | 21.7 | 14.4 | 6,422 | 6,630 | 167.03 | 103.10 |
| Florida..... | 14 | 2,500 | 4,500 | 560 | 700 | 1,400 | 3,150 | 19.0 | 15.0 | 266 | 473 | 106.40 | 105.11 |
| Total, New Belt..... | | 403,450 | 467,750 | 545.2 | 726.6 | 219,969 | 339,848 | 23.2 | 23.0 | 51,000 | 78,083 | 126.41 | 166.93 |
| Total, flue cured..... | | 769,750 | 835,950 | 567.5 | 661.0 | 436,801 | 552,585 | 22.5 | 21.1 | 98,109 | 116,470 | 127.46 | 139.33 |
| Fire cured: | | | | | | | | | | | | | |
| Virginia dark..... | 21, 25 | 57,500 | 51,200 | 750 | 731 | 43,125 | 37,427 | 19.4 | 19.0 | 8,366 | 7,111 | 145.50 | 138.89 |
| Clarksville and Hopkinsville— | | | | | | | | | | | | | |
| Kentucky..... | 22 | 49,400 | 58,000 | 800 | 795 | 39,520 | 46,110 | 12.7 | 11.5 | 5,019 | 5,303 | 101.60 | 91.43 |
| Tennessee..... | 22 | 65,000 | 69,000 | 806 | 739 | 52,390 | 51,000 | 17.6 | 17.0 | 9,221 | 8,670 | 141.86 | 125.66 |
| Total, Clarksville and Hop- kinsville..... | | 114,400 | 127,000 | 803.4 | 765 | 91,910 | 97,110 | 15.5 | 14.4 | 14,240 | 13,973 | 124.48 | 110.02 |
| Paducah— | | | | | | | | | | | | | |
| Kentucky..... | 23 | 61,500 | 58,000 | 812 | 780 | 49,938 | 45,240 | 9.8 | 9.0 | 4,894 | 4,072 | 79.88 | 70.21 |
| Tennessee..... | 23 | 20,000 | 16,000 | 721 | 730 | 14,420 | 12,000 | 10.0 | 10.0 | 1,442 | 1,200 | 72.21 | 75.00 |
| Total, Paducah..... | | 81,500 | 74,000 | 789.7 | 773.5 | 64,358 | 57,240 | 9.8 | 9.2 | 6,336 | 5,272 | 77.74 | 71.24 |
| Henderson— | | | | | | | | | | | | | |
| Henderson..... | | 17,167 | 18,000 | 825 | 775 | 14,163 | 13,950 | 12.0 | 10.0 | 1,700 | 1,395 | 99.08 | 77.50 |
| Total, fire cured..... | 24 | 270,567 | 270,200 | 789.3 | 761.4 | 213,556 | 205,727 | 14.3 | 13.5 | 30,642 | 27,751 | 113.70 | 102.71 |

[illegible]

Division of Crop and Livestock Estimates.

¹ Average prices per pound represent season averages for 1924 and season averages to date for 1925. Complete season averages may change the 1925 prices and values.

TABLE 439.—Tobacco: Yield per acre, by States, 1909–1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 |
|---------------------|-------------|-------------|-------------|-------------|-------------|----------------------|-------------|-------------|-------------|-------------|
| | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> |
| Massachusetts..... | 1,600 | 1,730 | 1,660 | 1,700 | 1,550 | 1,646 | 1,750 | 1,100 | 1,660 | 1,400 |
| Connecticut..... | 1,650 | 1,730 | 1,625 | 1,700 | 1,550 | 1,651 | 1,770 | 1,350 | 1,630 | 1,400 |
| New York..... | 1,175 | 1,250 | 1,350 | 1,300 | 1,020 | 1,215 | 1,300 | 1,200 | 1,230 | 1,250 |
| Pennsylvania..... | 985 | 1,800 | 1,420 | 1,450 | 1,200 | 1,311 | 1,450 | 1,350 | 1,360 | 1,400 |
| Ohio..... | 925 | 810 | 925 | 920 | 750 | 868 | 900 | 900 | 950 | 960 |
| Indiana..... | 950 | 880 | 910 | 800 | 750 | 858 | 900 | 840 | 930 | 950 |
| Wisconsin..... | 1,180 | 1,050 | 1,250 | 1,290 | 1,180 | 1,190 | 1,180 | 900 | 1,270 | 1,000 |
| Missouri..... | 885 | 1,050 | 800 | 1,000 | 650 | 877 | 1,200 | 900 | 950 | 940 |
| Maryland..... | 710 | 690 | 735 | 680 | 740 | 707 | 800 | 740 | 770 | 790 |
| Virginia..... | 775 | 780 | 800 | 600 | 770 | 745 | 650 | 750 | 680 | 700 |
| West Virginia..... | 875 | 640 | 750 | 760 | 680 | 741 | 820 | 870 | 900 | 800 |
| North Carolina..... | 600 | 900 | 710 | 620 | 670 | 640 | 650 | 620 | 550 | 630 |
| South Carolina..... | 800 | 630 | 810 | 700 | 760 | 740 | 730 | 580 | 520 | 710 |
| Georgia..... | 700 | 680 | 900 | 830 | 1,000 | 822 | 1,000 | 880 | 1,180 | 1,000 |
| Florida..... | 710 | 680 | 940 | 840 | 1,000 | 834 | 1,000 | 910 | 1,210 | 1,100 |
| Kentucky..... | 835 | 810 | 880 | 780 | 760 | 813 | 910 | 810 | 900 | 900 |
| Tennessee..... | 730 | 760 | 810 | 660 | 720 | 736 | 820 | 750 | 800 | 810 |
| Louisiana..... | 550 | 550 | 450 | 300 | 450 | 460 | 400 | 420 | 450 | 350 |
| United States..... | 814.8 | 807.7 | 893.7 | 785.5 | 784.3 | 817.2 | 845.7 | 775.4 | 816.0 | 823.1 |

| State | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|---------------------|-------------|-------------|-------------|----------------------|-------------|-------------|-------------|-------------|-------------|----------------------|
| | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> |
| Massachusetts..... | 1,500 | 1,540 | 1,550 | 1,500 | 1,370 | 1,068 | 1,410 | 1,340 | 1,380 | 1,314 |
| Connecticut..... | 1,500 | 1,565 | 1,480 | 1,528 | 1,454 | 1,045 | 1,388 | 1,370 | 1,425 | 1,336 |
| New York..... | 1,250 | 1,290 | 1,280 | 1,257 | 1,250 | 1,110 | 1,125 | 1,175 | 1,100 | 1,152 |
| Pennsylvania..... | 1,420 | 1,320 | 1,510 | 1,401 | 1,460 | 1,320 | 1,310 | 1,250 | 1,400 | 1,348 |
| Ohio..... | 980 | 800 | 960 | 930 | 920 | 900 | 910 | 705 | 980 | 883 |
| Indiana..... | 930 | 800 | 900 | 893 | 875 | 900 | 899 | 893 | 871 | 888 |
| Wisconsin..... | 1,330 | 1,270 | 1,248 | 1,171 | 1,281 | 1,140 | 1,063 | 940 | 1,375 | 1,166 |
| Missouri..... | 900 | 1,000 | 1,000 | 984 | 925 | 900 | 1,100 | 1,100 | 815 | 968 |
| Maryland..... | 830 | 675 | 875 | 783 | 715 | 770 | 792 | 704 | 823 | 761 |
| Virginia..... | 770 | 530 | 730 | 687 | 550 | 750 | 740 | 650 | 630 | 664 |
| West Virginia..... | 720 | 700 | 800 | 801 | 750 | 825 | 860 | 775 | 775 | 797 |
| North Carolina..... | 705 | 616 | 694 | 638 | 561 | 500 | 700 | 580 | 660 | 596 |
| South Carolina..... | 720 | 722 | 650 | 662 | 630 | 640 | 730 | 485 | 740 | 645 |
| Georgia..... | 800 | 530 | 600 | 856 | 564 | 540 | 661 | 777 | 717 | 652 |
| Florida..... | 960 | 950 | 1,050 | 1,026 | 900 | 1,100 | 1,073 | 750 | 780 | 921 |
| Kentucky..... | 960 | 800 | 850 | 876 | 845 | 850 | 855 | 836 | 810 | 830 |
| Tennessee..... | 800 | 810 | 730 | 789 | 750 | 725 | 750 | 795 | 725 | 749 |
| Louisiana..... | 420 | 434 | 500 | 425 | 450 | 450 | 465 | 400 | 504 | 454 |
| United States..... | 873.7 | 751.1 | 807.3 | 813.2 | 749.6 | 735.6 | 807.2 | 728.3 | 772.6 | 758.7 |

Division of Crop and Livestock Estimates.

TABLE 440.—Tobacco: Percentage reduction from full yield per acre, from stated causes, as reported by crop correspondents, 1909-1924

| Year | Adverse weather conditions | | | | | | | | | Plant diseases | Insect pests | Animal pests | Defective seed | Other and unknown causes | Total |
|--------|----------------------------|--------------------|------------|-----------------|------------|------------|------------|----------------|----------------|----------------|--------------|--------------|----------------|--------------------------|-------------|
| | Deficient moisture | Excessive moisture | Floods | Frost or freeze | Hail | Hot winds | Storms | Other climatic | Total climatic | | | | | | |
| 1909.. | P. ct. 5.5 | P. ct. 6.8 | P. ct. 1.1 | P. ct. 0.7 | P. ct. 0.8 | P. ct. 0.1 | P. ct. 0.2 | P. ct. 0.1 | P. ct. 15.3 | P. ct. 0.7 | P. ct. 2.6 | P. ct. — | P. ct. (1) | P. ct. 1.0 | P. ct. 19.6 |
| 1910.. | 4.8 | 6.8 | 1.2 | .4 | .3 | (1) | .1 | .8 | 14.1 | .7 | 2.8 | — | 0.1 | 2.6 | 20.6 |
| 1911.. | 16.7 | .9 | — | .8 | .1 | .6 | — | .4 | 19.5 | .3 | 1.0 | — | .2 | 1.6 | 22.6 |
| 1912.. | 7.6 | 4.8 | .8 | .5 | 1.0 | .2 | .2 | .2 | 15.3 | .7 | 2.8 | — | .1 | 2.3 | 21.2 |
| 1913.. | 15.3 | .7 | .4 | 1.2 | 1.2 | .3 | .6 | .3 | 20.0 | .2 | 3.0 | — | (1) | 1.8 | 25.0 |
| 1914.. | 18.1 | .2 | .1 | .4 | .6 | .3 | .1 | .3 | 20.1 | (1) | 2.7 | — | .1 | 1.9 | 24.8 |
| 1915.. | 3.9 | 8.2 | .9 | 1.3 | .8 | .1 | .9 | .3 | 10.3 | .6 | 4.0 | — | .1 | 2.5 | 23.6 |
| 1916.. | 3.5 | 5.5 | 1.3 | 1.3 | 1.0 | .1 | .8 | .5 | 14.0 | .3 | 2.9 | — | (1) | 1.2 | 18.4 |
| 1917.. | 3.3 | 2.2 | .5 | 3.3 | 1.2 | .1 | .2 | .3 | 11.1 | .2 | 2.1 | — | .1 | 1.7 | 15.2 |
| 1918.. | 8.6 | .4 | .2 | .7 | 1.1 | .2 | .2 | — | 11.4 | .3 | 2.1 | — | .1 | .3 | 14.2 |
| 1919.. | 8.9 | 7.9 | .6 | .2 | 1.1 | .1 | .2 | .2 | 19.2 | .6 | 2.8 | — | (1) | .4 | 23.0 |
| 1920.. | 2.3 | 7.0 | .6 | .7 | 1.0 | (1) | .1 | .1 | 11.7 | 5.5 | 2.6 | — | (1) | 1.2 | 21.0 |
| 1921.. | 18.9 | 2.2 | .1 | .4 | .7 | .4 | .2 | .2 | 22.9 | 1.6 | 3.2 | — | (1) | .5 | 28.2 |
| 1922.. | 7.0 | 4.5 | .3 | .4 | 1.4 | .1 | .2 | .4 | 14.3 | 1.7 | 2.5 | — | (1) | .2 | 18.7 |
| 1923.. | 4.1 | 3.9 | .4 | 1.6 | .5 | .1 | .3 | — | 10.9 | 2.5 | 2.7 | — | .1 | .7 | 10.9 |
| 1924.. | 7.3 | 10.2 | .5 | 1.8 | .9 | .1 | .2 | .1 | 21.1 | 1.8 | 2.7 | — | (1) | .2 | 25.8 |

Division of Crop and Livestock Estimates.

¹ Less than 0.05 per cent.

TABLE 441.—Tobacco: Acreage and yield per acre in specified countries, average 1909-1913, annual 1922-1925

| Country | Acreage | | | | | Yield per acre | | | | |
|----------------------------|--------------------------------|-------------|-------------|-------------|------------------|-------------------|--------|--------|--------|------------------|
| | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary | Average 1909-1913 | 1922 | 1923 | 1924 | 1925 preliminary |
| NORTHERN HEMISPHERE | | | | | | | | | | |
| NORTH AMERICA | | | | | | | | | | |
| Canada..... | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Pounds | Pounds | Pounds | Pounds | Pounds |
| United States..... | 15 | 26 | 24 | 21 | 28 | 1,004 | 908 | 887 | 891 | 1,045 |
| Porto Rico..... | 1,223 | 1,695 | 1,877 | 1,706 | 1,747 | 814 | 736 | 807 | 727 | 724 |
| | 19 | 35 | 35 | 40 | 34 | 492 | 706 | 700 | 700 | 688 |
| EUROPE | | | | | | | | | | |
| Belgium..... | 10 | 4 | 5 | 7 | 8 | 2,077 | 1,833 | 1,900 | 2,147 | 2,110 |
| France..... | 41 | 38 | 41 | 43 | 32 | 1,307 | 1,618 | 1,353 | 1,833 | 1,350 |
| Italy..... | 20 | 55 | 76 | 89 | 95 | 1,148 | 918 | 908 | 1,139 | 1,035 |
| Germany..... | 32 | 28 | 20 | 24 | 20 | 2,004 | 1,657 | 1,571 | 1,837 | — |
| Czechoslovakia..... | 8 | 4 | 6 | 10 | 13 | 1,183 | 1,137 | 1,027 | 1,272 | 1,270 |
| Hungary..... | 93 | 44 | 38 | 38 | — | 1,203 | 782 | 783 | 1,001 | — |
| Yugoslavia..... | 35 | 31 | 54 | 87 | — | 912 | 668 | 708 | 904 | — |
| Greece..... | 76 | 114 | 148 | 148 | — | 776 | 342 | 803 | 662 | — |
| Bulgaria..... | 36 | 83 | 131 | 116 | 101 | 651 | 700 | 673 | 831 | 716 |
| Rumania..... | 53 | 53 | 44 | 78 | 91 | 909 | 524 | 485 | 606 | 494 |
| Poland..... | 8 | — | — | 2 | 4 | 1,091 | — | — | 935 | 825 |
| Russia..... | 167 | — | 96 | 94 | (118) | 1,378 | — | 339 | 209 | — |

¹ Averages for European countries are estimates for territory within present boundaries.² Two-year average.³ Four-year average.⁴ Year 1910 only. Census figure.⁵ Unofficial.⁶ One-year only.⁷ Includes Asiatic Russia.⁸ Estimate as reported by the Russian Bureau of Information. The figure for 1925 is a rough estimate based on a reported increase of 25 per cent over 1924.

TABLE 441.—*Tobacco: Acreage and yield per acre in specified countries, average 1909-1913, annual 1922-1925—Continued*

| Country | Acreage | | | | | Yield per acre | | | | |
|-------------------------------------|---------------------------------------|------------------------|------------------------|------------------------|--------------------------|--------------------------|-------------------|-------------------|---------------------|--------------------------|
| | Average 1909- 1913 ¹ | 1922 | 1923 | 1924 | 1925 prelimi- nary | Average 1909- 1913 | 1922 | 1923 | 1924 | 1925 prelimi- nary |
| NORTHERN HEMISPHERE—Con. | | | | | | | | | | |
| NORTH AFRICA | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| Algeria..... | 25 | 27 | 54 | 73 | 67 | 924 | 773 | 854 | 906 | 823 |
| ASIA | | | | | | | | | | |
| India..... | 1,057 | 1,332 | | | | | | | | |
| Ceylon..... | 14 | 13 | 13 | 13 | | | 769 | 769 | 769 | |
| Japanese Empire— | | | | | | | | | | |
| Japan..... | 72 | 97 | 88 | 93 | 91 | 1,302 | 1,581 | 1,547 | 1,333 | 1,545 |
| Chosen (Korea)..... | 51 | 30 | 31 | 29 | 37 | 500 | 775 | 844 | 835 | 742 |
| Taiwan (Formosa)..... | 1 | 3 | 3 | | | 1,120 | 1,252 | 1,203 | | |
| Siam..... | ² 20 | 29 | 25 | | | 490 | 602 | | | |
| Philippine Islands..... | 154 | 148 | 160 | 178 | | 422 | 446 | 452 | 537 | |
| SOUTHERN HEMISPHERE | | | | | | | | | | |
| SOUTH AMERICA | | | | | | | | | | |
| Brazil..... | | 155 | 195 | 166 | | | 1,008 | 673 | 785 | |
| Paraguay..... | ³ 17 | 33 | 27 | 29 | | ⁴ 1,000 | 748 | 848 | 877 | |
| Argentina..... | 27 | 17 | 22 | 21 | | 468 | 1,043 | 1,152 | 973 | |
| SOUTH AFRICA | | | | | | | | | | |
| Union of South Africa..... | ⁵ 10 | 19 | | | | ⁶ 787 | 509 | | | |
| Southern Rhodesia..... | ⁷ 4 | 9 | 8 | | | ⁸ 614 | 312 | 485 | | |
| Nyasaland..... | 7 | 18 | ⁹ 17 | ¹⁰ 21 | | 431 | 361 | 231 | 404 | |
| OCEANIA | | | | | | | | | | |
| Java and Madura..... | 466 | 334 | 351 | 533 | | ¹⁰ 795 | ¹⁰ 778 | ¹⁰ 743 | ¹⁰ 1,080 | |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Acreage figures given correspond to crop production of the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ Four-year average.

² Unofficial.

³ One-year only.

⁴ Three-year average.

¹⁰ Yield on land cultivated by Europeans. See note 13 of tobacco production table.

TABLE 442.—Tobacco: Production in specified countries, average 1909-1913, annual 1922-1925

(Thousand pounds—i. e., 000 omitted)

| Country | Average 1909-1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
|----------------------------|-----------------------------------|------------------------|------------------------|------------------------|------------------------|
| NORTHERN HEMISPHERE | | | | | |
| NORTH AMERICA | | | | | |
| Canada..... | ² 15,066 | 25,948 | 21,297 | 18,711 | 20,255 |
| United States..... | 906,087 | 1,246,837 | 1,515,110 | 1,240,513 | 1,264,000 |
| Mexico..... | ³ 29,096 | 23,085 | 24,326 | ⁴ 14,000 | ⁵ 7,187 |
| Guatemala..... | ⁶ 256 | 380 | | | |
| Costa Rica..... | | | | 680 | |
| Salvador..... | | 1,213 | 1,213 | | |
| Cuba..... | 73,666 | 51,808 | 39,903 | ⁷ 77,000 | ⁸ 47,000 |
| Dominican Republic..... | ⁹ 25,417 | 15,000 | ¹⁰ 20,000 | ¹¹ 20,000 | ¹² 45,000 |
| Porto Rico..... | ¹³ 10,828 | 24,712 | 24,500 | 28,000 | 23,402 |
| Jamaica..... | ¹⁴ 490 | | | | |
| EUROPE | | | | | |
| Sweden..... | 1,744 | 1,166 | 1,510 | 1,299 | |
| Denmark..... | ¹⁵ 258 | 0 | 0 | ¹⁶ 49 | |
| Belgium..... | 20,767 | 7,333 | 0,502 | 15,031 | 16,876 |
| France..... | 53,508 | 61,495 | 55,464 | 78,829 | 43,185 |
| Italy..... | 22,964 | 50,485 | 69,004 | ¹⁷ 101,351 | ¹⁸ 98,300 |
| Switzerland..... | 1,296 | 794 | 794 | 790 | 840 |
| Germany..... | 64,116 | 46,387 | 31,421 | 44,092 | |
| Austria..... | 590 | | | | |
| Czechoslovakia..... | 9,467 | 4,548 | 6,160 | 12,720 | 16,515 |
| Hungary..... | 111,883 | 34,392 | 29,762 | 38,045 | |
| Yugoslavia..... | 31,920 | 20,704 | 38,231 | 78,071 | ¹⁹ 31,000 |
| Greece..... | ²⁰ 58,987 | 38,936 | 118,884 | ²¹ 97,923 | ²² 134,900 |
| Bulgaria..... | 23,435 | 58,077 | 84,184 | 96,340 | 72,310 |
| Rumania..... | ²³ 48,174 | 27,750 | 21,356 | 47,290 | ²⁴ 44,000 |
| Poland..... | 8,725 | | ²⁵ 110 | ²⁶ 1,870 | ²⁷ 3,300 |
| Russia..... | 230,142 | ²⁸ 2,889 | ²⁹ 32,501 | ³⁰ 25,300 | |
| NORTH AFRICA | | | | | |
| Algeria..... | 23,097 | 20,868 | 46,007 | 60,140 | 55,170 |
| Tunis..... | 266 | 722 | 733 | 856 | 770 |
| ASIA | | | | | |
| Turkey..... | ³¹ 88,180 | ³² 44,092 | ³³ 50,646 | ³⁴ 170,000 | ³⁵ 105,571 |
| Persia..... | | ³⁶ (23,000) | ³⁷ (23,000) | ³⁸ (23,000) | ³⁹ (23,000) |
| Palestine..... | | 1,530 | 1,422 | 4,067 | 1,630 |
| Syria..... | ⁴⁰ 10,360 | ⁴¹ 2,315 | ⁴² 2,374 | ⁴³ 2,603 | ⁴⁴ 1,760 |
| Cyprus..... | | 60 | 29 | 6 | |
| British India..... | ⁴⁵ 450,000 | | | | |
| Ceylon..... | | 10,000 | 10,000 | 10,000 | |
| Japanese Empire: | | | | | |
| Japan..... | 93,717 | 153,364 | 130,114 | 124,010 | 140,550 |
| Chosen (Korea)..... | 25,510 | 23,244 | 26,170 | ⁴⁶ 24,221 | ⁴⁷ 27,465 |
| Taiwan (Formosa)..... | | 3,755 | 3,610 | | |
| Indo-China..... | ⁴⁸ 15,939 | | | | |
| Siam..... | | 14,202 | 15,057 | | |
| Philippine Islands..... | 65,005 | 66,004 | 72,324 | 95,509 | |
| SOUTHERN HEMISPHERE | | | | | |
| SOUTH AMERICA | | | | | |
| Chile..... | 4,493 | 8,768 | 9,715 | | |
| Brazil..... | ⁴⁹ 110,000 | 156,208 | 131,285 | 130,311 | |
| Uruguay..... | 2,045 | 78 | 194 | 503 | |
| Paraguay..... | ⁵⁰ 17,844 | 24,672 | 22,884 | 25,441 | |
| Argentina..... | 12,635 | 17,730 | 25,344 | 21,226 | |

¹ Averages for European countries are estimates for territory within present boundaries.

² 2-year average.

³ Unofficial estimate.

⁴ 3-year average.

⁵ 1-year average.

⁶ 4-year average.

⁷ Includes Asiatic Russia.

⁸ Incomplete data, yellow tobacco only. According to another source the total production of both yellow tobacco and mahorka in 1924 amounted to 43,335,000 pounds.

⁹ Rough estimate of annual production.

¹⁰ Lebanon only. According to the International Institute of Agriculture this district produced 1,102,000 pounds in 1922, 882,000 in 1923, and 1,587,000 pounds in 1924.

¹¹ Exclusive of Aleppo.

¹² Exclusive of Tonking.

TABLE 442.—Tobacco: Production in specified countries, average 1909–1913, annual 1922–1925—Continued

[Thousand pounds—1. c., 000 omitted]

| Country | Average 1909–1913 ¹ | 1922 | 1923 | 1924 | 1925 preliminary |
|---|-----------------------------------|-----------|---------------------|-----------|---------------------|
| SOUTHERN HEMISPHERE—Continued | | | | | |
| SOUTH AFRICA | | | | | |
| French Equatorial Africa..... | | 558 | 600 | 772 | |
| Belgian Congo..... | | 926 | 882 | | |
| Union of South Africa..... | ² 14,961 | 9,671 | 8,220 | 13,000 | |
| Southern Rhodesia..... | ² 1,992 | 2,811 | 3,878 | | |
| Northern Rhodesia..... | | 19 | 1,140 | | |
| Nyasaland..... | ² 3,017 | 6,490 | 3,919 | 8,488 | |
| Madagascar..... | ² 4,203 | | 16,490 | 19,840 | |
| OCEANIA | | | | | |
| Dutch East Indies: | | | | | |
| Java and Madura ³ | 218,733 | 144,742 | 151,090 | 200,344 | |
| Sumatra (east coast)..... | 46,278 | 35,413 | 37,295 | 40,014 | |
| British North Borneo..... | | 1,208 | 1,281 | | |
| Australia..... | 2,135 | 3,666 | ¹⁴ 1,246 | | |
| Fiji..... | 42 | 58 | 59 | | |
| Total, all countries reporting for all periods listed (1909–1913 to 1925)..... | 1,651,508 | 1,899,802 | 2,312,475 | 2,321,396 | 2,203,296 |
| Estimated world total exclusive of India and China ¹⁵ | 2,671,000 | 2,568,000 | 2,996,000 | 3,110,000 | |

Division of Statistical and Historical Research. Official sources and International Institute of Agriculture except as otherwise stated. Production figures are for the crop harvested in the calendar year in the Northern Hemisphere and the succeeding harvest in the Southern Hemisphere.

¹ 3-year average.² 1 year only.³ 4-year average.

¹² The figures quoted here include a rough estimate of the crops produced by natives, on the basis of an average yield of 4 piculs per bouw (311 pounds per acre), as quoted by Trade Commissioner J. F. Van Wickel, Batavia, Java, to which is added the official estimate of production by Europeans.

¹⁴ Exclusive of Victoria.

¹⁵ No reliable data is available on production in India or China. The acreage devoted to tobacco in India would indicate a production next to the United States in the size of the crop. China is also of considerable importance.

TABLE 443.—Tobacco: Estimated price per pound received by producers, December 1, average 1909–1913, annual 1914–1925

| State | Av. 1909– 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | Av. 1914– 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | Av. 1921– 1925 |
|---------------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------|-------------|-------------|-------------|-------------|-------------|----------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| Massachusetts..... | 18.8 | 17.7 | 14.5 | 25.0 | 38.4 | 40.0 | 40.3 | 40.6 | 31.8 | 36.0 | 37.8 | 43.8 | 26.8 | 16.0 | 32.1 |
| Connecticut..... | 19.7 | 18.5 | 17.0 | 27.0 | 38.4 | 44.0 | 46.3 | 35.0 | 32.3 | 41.0 | 40.3 | 46.5 | 32.3 | 19.0 | 35.8 |
| New York..... | 10.3 | 12.0 | 9.5 | 13.0 | 22.0 | 18.0 | 22.5 | 27.0 | 17.7 | 19.3 | 37.0 | 20.0 | 22.3 | 22.0 | 24.1 |
| Pennsylvania..... | 8.8 | 8.5 | 9.2 | 14.2 | 21.0 | 14.0 | 17.0 | 20.0 | 14.8 | 14.4 | 16.0 | 18.1 | 15.7 | 15.0 | 15.8 |
| Ohio..... | 9.4 | 8.8 | 9.0 | 13.0 | 25.0 | 19.5 | 33.7 | 13.0 | 17.4 | 15.0 | 19.0 | 14.4 | 19.4 | 15.0 | 16.6 |
| Indiana..... | 9.7 | 9.0 | 7.3 | 13.0 | 20.0 | 20.7 | 35.2 | 14.0 | 17.6 | 15.0 | 17.0 | 14.0 | 16.6 | 13.0 | 16.1 |
| Wisconsin..... | 9.9 | 11.0 | 6.0 | 12.5 | 17.5 | 22.0 | 22.2 | 25.9 | 16.7 | 12.5 | 20.0 | 11.0 | 13.0 | 16.5 | 14.6 |
| Missouri..... | 12.3 | 13.0 | 12.0 | 15.0 | 21.2 | 25.0 | 36.0 | 33.0 | 22.2 | 20.0 | 29.0 | 28.0 | 25.0 | 27.0 | 23.8 |
| Maryland..... | 8.2 | 8.0 | 8.5 | 16.0 | 20.0 | 30.0 | 30.0 | 29.0 | 20.2 | 19.0 | 17.5 | 23.1 | 26.9 | 19.0 | 22.1 |
| Virginia..... | 10.6 | 9.0 | 9.4 | 14.6 | 23.5 | 27.0 | 47.4 | 24.0 | 22.6 | 20.5 | 24.0 | 19.6 | 21.4 | 17.6 | 20.6 |
| West Virginia..... | 10.9 | 11.0 | 10.0 | 15.0 | 26.0 | 36.6 | 50.0 | 25.0 | 25.4 | 24.0 | 22.0 | 22.0 | 21.4 | 18.2 | 21.5 |
| North Carolina..... | 13.2 | 11.5 | 11.2 | 20.0 | 31.5 | 35.1 | 53.6 | 25.3 | 26.9 | 26.0 | 30.3 | 23.1 | 25.8 | 23.0 | 25.6 |
| South Carolina..... | 10.6 | 9.7 | 7.0 | 14.0 | 23.1 | 31.1 | 22.8 | 15.0 | 17.5 | 11.0 | 23.0 | 19.0 | 17.0 | 17.0 | 17.4 |
| Georgia..... | 28.6 | 25.0 | 23.0 | 27.0 | 57.0 | 46.0 | 21.5 | 37.0 | 33.8 | 25.0 | 26.0 | 31.0 | 28.6 | 15.0 | 24.7 |
| Florida..... | 29.2 | 30.0 | 23.0 | 30.0 | 57.0 | 46.0 | 54.5 | 48.0 | 41.2 | 40.0 | 47.0 | 50.9 | 37.6 | 31.0 | 41.3 |
| Kentucky..... | 9.1 | 8.4 | 7.8 | 12.7 | 20.0 | 26.3 | 38.2 | 15.0 | 18.7 | 15.5 | 19.5 | 16.6 | 17.1 | 16.0 | 16.9 |
| Tennessee..... | 8.0 | 7.5 | 6.3 | 10.1 | 17.0 | 21.4 | 25.1 | 20.0 | 15.3 | 20.0 | 22.0 | 14.3 | 18.6 | 17.0 | 18.4 |
| Louisiana..... | 29.6 | 35.0 | 30.0 | 28.0 | 35.0 | 65.0 | 65.0 | 40.0 | 42.6 | 55.0 | 55.0 | 50.0 | 55.0 | 55.0 | 54.0 |
| United States..... | 10.5 | 9.8 | 9.1 | 14.7 | 24.0 | 23.0 | 39.0 | 21.2 | 20.8 | 19.9 | 23.2 | 19.9 | 20.7 | 18.3 | 20.4 |

Division of Crop and Livestock Estimates.

TABLE 444.—Tobacco (unmanufactured): International trade, average 1909–1913, annual 1922–1924

[Thousand pounds—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|------------------|------------------|---------------------------------|------------------|------------------|------------------|------------------|
| | Average, 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 4, 776 | 11, 681 | 8, 506 | 33, 549 | 8, 596 | 17, 516 | 10, 546 | 30, 112 |
| Brazil..... | 620 | 59, 991 | 2, 321 | 97, 434 | 2, 030 | 79, 976 | | 65, 225 |
| British India..... | 6, 538 | 28, 874 | 3, 053 | 26, 890 | 9, 205 | 37, 891 | 1 5, 774 | 1 45, 985 |
| Bulgaria..... | (¹) | 4, 310 | | 63, 989 | | 37, 808 | | 69, 063 |
| Ceylon..... | | 4, 063 | 4 | 4, 335 | 4 | 2, 361 | 2 | 4, 150 |
| Cuba..... | 141 | 38, 035 | (²) | 34, 998 | (²) | 20, 212 | | |
| Dominican Republic..... | | 23, 395 | | 16, 602 | | 35, 976 | | 34, 745 |
| Dutch East Indies..... | 8, 074 | 163, 823 | 617 | 113, 076 | 1, 174 | 115, 736 | 2 4, 641 | 2 111, 652 |
| Greece..... | 12, 024 | 18, 113 | 128 | 81, 036 | 57 | 47, 104 | 45 | 92, 225 |
| Hungary..... | | | 5, 430 | 7, 560 | 2, 814 | 5, 738 | | |
| Paraguay..... | | 11, 361 | 69 | 11, 462 | 99 | 18, 059 | | |
| Philippine Islands..... | 45 | 26, 018 | 181 | 35, 433 | 132 | 55, 736 | 269 | 49, 505 |
| Russia..... | 1, 084 | 21, 285 | | | | | | |
| United States..... | 52, 703 | 381, 127 | 77, 767 | 441, 856 | 57, 070 | 497, 317 | 68, 589 | 575, 104 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 14, 988 | 41 | 22, 180 | 50 | 28, 183 | 517 | 13, 346 | 4, 136 |
| Australia..... | 13, 740 | (³) | 15, 756 | (³ , ⁴) | 26, 234 | | | |
| Austria..... | | | 31, 556 | 854 | 30, 101 | 81 | 18, 606 | 1, 484 |
| Austria-Hungary..... | 49, 984 | 23, 192 | | | | | | |
| Belgium..... | 22, 094 | 33 | 46, 244 | 728 | 41, 454 | 848 | 45, 974 | 114 |
| Canada..... | 17, 891 | 433 | 14, 454 | 1, 735 | 13, 996 | 1, 837 | 18, 035 | 4, 913 |
| China..... | 15, 113 | 25, 487 | 35, 871 | 26, 269 | 42, 042 | 20, 607 | 91, 087 | 27, 764 |
| Czechoslovakia..... | | | 57, 702 | | 39, 480 | 23 | 40, 687 | (⁵) |
| Denmark..... | 8, 774 | 100 | 9, 570 | 43 | 11, 883 | 1, 189 | 9, 578 | 39 |
| Egypt..... | 19, 005 | | 16, 457 | 6 | 15, 845 | (⁵) | 16, 356 | |
| Finland..... | 9, 597 | | 4, 509 | | 6, 339 | | 6, 837 | |
| France..... | 63, 914 | 26 | 128, 797 | 1, 717 | 65, 019 | 775 | 58, 414 | 625 |
| Germany..... | 168, 437 | 116 | 175, 323 | 989 | 140, 579 | 633 | 230, 068 | 522 |
| Irish Free State..... | | | | | | | 10, 318 | |
| Italy..... | 47, 732 | 3, 008 | 49, 333 | 2 | 41, 304 | 869 | 35, 712 | 2, 531 |
| Japan..... | 1, 707 | 696 | 5, 793 | 1, 655 | 4, 296 | 2, 298 | 18, 724 | 4, 532 |
| Netherlands..... | 57, 218 | 3, 786 | 49, 643 | 4, 667 | 62, 847 | 5, 395 | 65, 808 | 5, 549 |
| Norway..... | 3, 994 | | 5, 236 | | 5, 944 | | 6, 455 | |
| Poland..... | | | 23, 030 | 491 | 26, 253 | 753 | 29, 005 | 247 |
| Portugal..... | 6, 565 | 270 | | | 9, 593 | | 9, 581 | |
| Spain..... | 51, 026 | | 27, 058 | | 71, 200 | | 20, 560 | |
| Sweden..... | 9, 772 | 1 | 9, 500 | 2, 160 | 9, 813 | 508 | 12, 598 | 883 |
| Switzerland..... | 17, 949 | 47 | 10, 641 | 11 | 22, 986 | | 4, 281 | |
| United Kingdom..... | 117, 956 | 4, 603 | 173, 722 | 7, 104 | 158, 404 | 8, 682 | 162, 947 | 7, 520 |
| Other countries..... | 43, 403 | 73, 657 | 31, 396 | 11, 919 | 29, 113 | 19, 094 | 28, 412 | 13, 419 |
| Total..... | 846, 929 | 928, 609 | 1, 044, 916 | 1, 028, 500 | 990, 600 | 1, 064, 338 | 1, 060, 955 | 1, 152, 353 |

Division of Statistical and Historical Research. Official sources. Tobacco comprises leaf, stems, and strippings, but not snuff.

¹ Sea-trade only.

² Less than 500 pounds.

³ Java and Madura only.

⁴ Year beginning July 1.

⁵ Six months.

COFFEE

TABLE 445.—Coffee: International trade, average 1909–1913, annual 1922–1924

(Thousand pounds—1, e., 000 omitted)

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|---------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Brazil..... | | 1, 672, 282 | | 1, 676, 331 | | 1, 913, 512 | | 1, 881, 758 |
| British India..... | ¹ 605 | 27, 780 | 5, 595 | 19, 459 | 5, 486 | 22, 424 | 3, 126 | 23, 435 |
| Colombia..... | | 104, 398 | ² 3 | ² 233, 401 | | ² 272, 576 | | ² 203, 074 |
| Costa Rica..... | | 27, 515 | | 41, 155 | | 24, 455 | | 27, 807 |
| Dutch East Indies..... | 4, 227 | 54, 149 | 4, 921 | 120, 457 | 663 | 85, 116 | ² 70 | 86, 569 |
| Guatemala..... | | 85, 951 | | ² 95, 192 | | ² 100, 501 | | ² 89, 279 |
| Haiti..... | | 61, 943 | | ² 58, 425 | | ² 79, 031 | | ² 64, 820 |
| Jamaica..... | | 8, 263 | | ² 7, 081 | | ² 8, 633 | | ² 5, 815 |
| Mexico..... | ¹ 167 | 48, 991 | 805 | 55, 726 | 2, 030 | 38, 733 | 4, 463 | 31, 744 |
| Nicaragua..... | ¹ 138 | 19, 033 | ² 56 | 19, 563 | ² 90 | ² 30, 000 | | ² 35, 000 |
| Salvador..... | ¹ 1, 593 | 62, 830 | (³) | 94, 972 | (³) | 92, 580 | | 107, 603 |
| Venezuela..... | | 111, 326 | | 114, 832 | | 102, 366 | | ² 84, 736 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 28, 125 | | 46, 434 | | 45, 140 | | 55, 788 | |
| Austria..... | 128, 304 | 8 | 9, 801 | 185 | 11, 880 | 13 | 15, 828 | ² 26 |
| Austria-Hungary..... | 111, 738 | 33, 627 | 84, 904 | 2, 440 | 91, 015 | 1, 203 | 87, 176 | 1, 183 |
| Belgium..... | ² 7, 524 | ² 7, 137 | 23, 304 | 19, 254 | 21, 133 | 14, 508 | 16, 494 | 10, 893 |
| British Malaya..... | 13, 878 | 55 | 21, 303 | 21 | 20, 818 | 27 | 22, 810 | 42 |
| Canada..... | 24, 906 | 4 | 19, 209 | (⁴) | 37, 259 | 1 | | |
| Czechoslovakia..... | | | 23, 973 | | 31, 082 | 13 | 32, 371 | ² 1 |
| Denmark..... | 33, 102 | 152 | 51, 069 | 216 | 48, 825 | 120 | 51, 108 | 103 |
| Egypt..... | 15, 054 | | 21, 838 | 37 | 22, 461 | 26 | 24, 257 | 138 |
| Finland..... | 28, 624 | | 30, 448 | | 31, 448 | | 37, 038 | |
| France..... | 245, 752 | 41 | 382, 093 | 705 | 379, 396 | 822 | 376, 593 | 779 |
| Germany..... | 399, 965 | 1, 757 | 81, 162 | 172 | 85, 414 | 109 | 122, 221 | 139 |
| Hungary..... | 58, 278 | 458 | 7, 136 | ² 197 | 2, 632 | ² 144 | 4, 335 | ² 60 |
| Italy..... | 283, 633 | 180, 288 | 104, 195 | 5 | 105, 963 | 10 | 103, 874 | 22 |
| Netherlands..... | 20, 309 | | 129, 148 | 55, 944 | 115, 563 | 46, 951 | 141, 809 | 58, 109 |
| Norway..... | 20, 073 | | 39, 651 | | 38, 205 | | 35, 549 | |
| Russia..... | 20, 317 | | | | | | ² 2, 469 | |
| Spain..... | 29, 317 | 9 | 41, 235 | 17 | 53, 773 | 7 | ² 27, 546 | ² 1 |
| Sweden..... | 74, 486 | 24 | 77, 874 | 162 | 92, 812 | 102 | 95, 543 | 41 |
| Switzerland..... | 25, 029 | 62 | 20, 259 | 43 | 28, 272 | 60 | 32, 453 | 72 |
| Union of South Africa..... | 26, 458 | 36 | 20, 924 | 17 | 32, 934 | 12 | 30, 724 | 16 |
| United Kingdom..... | 28, 681 | | 88, 828 | 59 | ² 32, 697 | 156 | 32, 251 | 212 |
| United States..... | 907, 899 | ² 44, 251 | 1, 246, 061 | 26, 750 | 1, 409, 755 | 20, 367 | 1, 420, 870 | 28, 731 |
| Yugoslavia..... | | | ² 17, 095 | | ² 20, 235 | | ² 18, 382 | |
| Other countries..... | 81, 989 | 46, 736 | 148, 888 | 98, 330 | 166, 014 | 93, 880 | 114, 356 | 67, 811 |
| Total..... | 2, 614, 854 | 2, 608, 347 | 2, 766, 812 | 2, 747, 148 | 2, 868, 201 | 2, 954, 458 | 2, 909, 204 | 2, 900, 109 |

Division of Statistical and Historical Research. Compiled from official sources except where otherwise noted. The item coffee comprises unhulled and hulled, ground or otherwise prepared, but imitation or "surrogate" coffee and chicory are excluded.

¹ Four-year average.

² International Institute of Agriculture.

³ Java and Madura only.

⁴ Three-year average.

⁵ One year only.

⁶ Less than 500 pounds.

⁷ Six months.

⁸ Reexports in excess of imports.

⁹ Chiefly from Porto Rico.

TABLE 446.—Coffee, Rio, No. 7: Average wholesale price per pound, New York, 1909-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average! |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1909 | 7.1 | 7.7 | 8.2 | 8.2 | 8.3 | 8.1 | 7.4 | 7.5 | 7.3 | 7.3 | 8.3 | 8.6 | 7.8 |
| 1910 | 8.7 | 8.7 | 8.8 | 8.8 | 8.4 | 8.2 | 8.4 | 8.7 | 10.2 | 11.1 | 11.1 | 13.2 | 9.5 |
| 1911 | 13.4 | 13.1 | 12.6 | 12.3 | 12.4 | 12.3 | 13.3 | 13.2 | 13.4 | 14.2 | 15.8 | 14.9 | 13.4 |
| 1912 | 14.5 | 14.2 | 14.4 | 14.8 | 14.4 | 14.2 | 14.8 | 14.3 | 14.6 | 14.8 | 15.0 | 15.4 | 14.6 |
| 1913 | 13.9 | 13.5 | 12.5 | 11.9 | 11.4 | 11.1 | 9.8 | 9.6 | 9.2 | 10.2 | 10.8 | 9.6 | 11.1 |
| Av. 1909-1913 | 11.5 | 11.4 | 11.3 | 11.2 | 11.0 | 10.8 | 10.7 | 10.9 | 11.5 | 12.2 | 12.3 | 11.3 | |
| 1914 | 9.1 | 9.5 | 9.2 | 8.9 | 8.8 | 9.1 | 8.8 | 7.5 | 7.6 | 6.8 | 6.4 | 6.3 | 8.2 |
| 1915 | 7.2 | 8.2 | 7.8 | 8.1 | 7.8 | 7.0 | 7.4 | 7.4 | 6.8 | 6.8 | 7.5 | 7.6 | 7.5 |
| 1916 | 7.6 | 8.2 | 9.2 | 9.5 | 9.8 | 9.9 | 9.0 | 9.5 | 9.9 | 9.5 | 9.5 | 9.2 | 9.2 |
| 1917 | 9.8 | 10.0 | 9.8 | 9.5 | 10.1 | 10.4 | 9.5 | 9.1 | 9.1 | 8.5 | 7.9 | 7.6 | 9.3 |
| 1918 | 8.5 | 8.4 | 8.9 | 9.0 | 8.7 | 8.4 | 8.6 | 8.5 | 9.6 | 10.4 | 10.7 | 17.3 | 9.4 |
| 1919 | 15.5 | 15.4 | 16.0 | 17.0 | 19.3 | 21.1 | 23.0 | 15.2 | 16.6 | 16.5 | 17.0 | 15.2 | 17.9 |
| 1920 | 16.3 | 14.8 | 15.0 | 15.1 | 15.6 | 15.0 | 13.1 | 9.4 | 8.2 | 7.6 | 7.5 | 6.6 | 12.0 |
| Av. 1914-1920 | 10.6 | 10.6 | 10.8 | 11.0 | 11.4 | 11.6 | 11.3 | 10.4 | 9.7 | 9.4 | 9.5 | 10.0 | 10.5 |
| 1921 | 6.7 | 6.7 | 6.4 | 6.0 | 6.2 | 6.7 | 6.5 | 7.0 | 7.0 | 8.1 | 8.8 | 9.3 | 7.2 |
| 1922 | 9.6 | 9.0 | 9.6 | 10.8 | 11.0 | 11.0 | 10.4 | 10.0 | 10.2 | 10.2 | 10.8 | 11.1 | 10.3 |
| 1923 | 11.9 | 13.0 | 13.0 | 11.5 | 11.6 | 11.7 | 10.9 | 10.7 | 10.7 | 11.1 | 11.0 | 10.9 | 11.5 |
| 1924 | 10.9 | 14.2 | 15.6 | 15.3 | 14.8 | 14.6 | 16.5 | 16.6 | 17.7 | 20.7 | 22.6 | 22.6 | 16.8 |
| 1925 | 23.4 | 22.4 | 21.2 | 20.2 | 18.6 | 21.6 | 19.7 | 20.7 | 21.2 | 19.5 | 18.5 | 17.1 | 20.3 |
| Av. 1921-1925 | 12.5 | 13.1 | 13.2 | 12.8 | 12.4 | 13.1 | 12.8 | 13.0 | 13.5 | 13.9 | 14.3 | 14.2 | 13.2 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

! Derived from the figures upon which the monthly averages are based.

TEA

TABLE 447.—Tea: International trade, average 1909-1913, annual 1922-1924
[Thousand pounds—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|-------------------------------|--------------------|------------------|---------|---------|---------|---------|------------------|------------------|
| | Average 1909-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| British India | 8,002 | 267,887 | 14,604 | 311,693 | 17,713 | 331,611 | 12,164 | 346,111 |
| Ceylon | 1 | 189,016 | 1 | 171,808 | | 181,940 | (¹) | 204,930 |
| China | 18,890 | 197,997 | 13,656 | 76,463 | 129 | 99,492 | 5,072 | 94,211 |
| Dutch East Indies | 6,742 | 46,075 | 6,516 | 89,085 | 6,602 | 104,871 | 6,538 | 105,541 |
| Formosa | 68 | 23,640 | 73 | 19,767 | 82 | 21,205 | 58 | 21,267 |
| Japan | 590 | 35,823 | 1,469 | 29,148 | 1,684 | 27,359 | 1,267 | 24,036 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina | 3,890 | | 3,054 | | 3,772 | | 4,379 | |
| Australia | 35,442 | (²) | 47,666 | | 48,502 | | 48,935 | |
| Austria | | 3 | 1,001 | 11 | 955 | 2 | 1,463 | 2 |
| Austria-Hungary | | 3 | | | | | | |
| British Malaya | 11,983 | 5,318 | 6,865 | 1,081 | 8,227 | 1,394 | 8,425 | 1,241 |
| Canada | 37,927 | | 40,050 | | 41,289 | | 35,861 | |
| Chile | 3,505 | | 1,613 | | 5,228 | | 4,476 | |
| Czechoslovakia | | | 1,016 | 2 | 1,165 | 2 | 1,423 | (³) |
| Egypt | 1,950 | | 4,503 | 157 | 6,602 | 239 | 8,156 | 274 |
| France | 2,806 | 61 | 2,742 | 113 | 2,985 | 237 | 3,662 | 171 |
| French Indo-China | 3,295 | 1,145 | 3,391 | 1,136 | 3,836 | 1,933 | 4,036 | 1,668 |
| Germany | 8,964 | 23 | 6,178 | 23 | 5,463 | 10 | 8,954 | 6 |
| Hungary | | | 1,075 | 35 | 416 | 16 | 8,515 | 4 |
| Irish Free State | | | | | | | 24,400 | |
| Morocco | 6,696 | | 9,581 | | 8,224 | 1 | 10,556 | |
| Netherlands | 11,382 | 45 | 20,226 | 31 | 35,468 | 15 | 23,933 | 29 |
| New Zealand | 7,642 | | 8,708 | | 9,968 | | 10,787 | |
| Persia | 9,446 | 125 | 11,357 | 1,965 | 12,964 | 2,422 | | |
| Poland | | | 4,409 | 253 | 5,313 | 127 | 3,201 | 43 |
| Russia | 157,704 | 866 | 3,322 | | 3,106 | | 13,600 | |
| Union of South Africa | 5,192 | 61 | 9,326 | 256 | 8,963 | 133 | 9,407 | 10 |
| United Kingdom | 293,045 | | 377,039 | | 392,531 | | 434,621 | |
| United States | 98,997 | | 97,097 | | 105,138 | | 92,773 | |
| Other countries | 31,268 | 7,237 | 33,105 | 4,371 | 37,945 | 6,556 | 37,721 | 21,860 |
| Total | 768,652 | 775,922 | 735,644 | 708,298 | 774,271 | 770,565 | 824,392 | 821,434 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. "Tea" includes tea leaves only, and excludes dust, sweepings, and yerba mate.

¹ Twelve months' sea-trade, three months' land-trade.

² Two-year average.

³ Less than 500 pounds.

⁴ Java and Madura only.

⁵ International Institute of Agriculture.

⁶ Year beginning July 1.

TABLE 448.—*Tea, Formosa, fine: Average wholesale price per pound, New York, 1909-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average ¹ |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1909..... | 24.0 | 18.5 | 18.5 | 23.5 | 25.0 | 25.0 | 25.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 23.3 |
| 1910..... | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| 1911..... | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| 1912..... | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| 1913..... | 24.5 | 24.5 | 24.5 | 24.5 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 24.8 |
| Av. 1909-1913..... | 24.2 | 23.1 | 23.1 | 24.1 | 24.5 | 24.5 | 24.5 | 24.4 | 24.4 | 24.4 | 24.4 | 24.4 | 24.2 |
| 1914..... | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 24.0 | 24.0 | 24.0 | 24.8 |
| 1915..... | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| 1916..... | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| 1917..... | 24.0 | 24.0 | 24.0 | 24.0 | 26.3 | 28.3 | 36.5 | 36.5 | 36.5 | 36.5 | 35.5 | 35.5 | 30.6 |
| 1918..... | 35.5 | 35.5 | 35.5 | 35.5 | 35.5 | 35.5 | 35.5 | 35.5 | 36.3 | 36.5 | 36.5 | 36.5 | 35.8 |
| 1919..... | 36.5 | 36.5 | 35.3 | 34.0 | 34.3 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 36.1 | 36.5 | 35.3 |
| 1920..... | 36.5 | 36.5 | 36.5 | 36.5 | 36.5 | 36.5 | 36.5 | 34.3 | 31.0 | 31.0 | 28.6 | 23.8 | 33.7 |
| Av. 1914-1920..... | 29.4 | 29.4 | 29.2 | 29.0 | 29.4 | 29.8 | 30.9 | 30.6 | 30.3 | 30.3 | 29.8 | 29.2 | 29.8 |
| 1921..... | 24.5 | 24.5 | 24.5 | 24.1 | 22.4 | 22.0 | 22.0 | 22.0 | 22.3 | 23.0 | 28.0 | 29.0 | 24.0 |
| 1922..... | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.5 | 31.0 | 31.0 | 30.2 |
| 1923..... | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 |
| 1924..... | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.3 | 32.5 | 32.9 | 35.0 | 31.7 |
| 1925..... | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.3 | 35.0 |
| Av. 1921-1925..... | 30.3 | 30.3 | 30.3 | 30.2 | 29.9 | 29.8 | 29.8 | 29.8 | 30.0 | 30.4 | 31.6 | 32.3 | 30.4 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

¹ Derived from the figures upon which the monthly averages are based.TABLE 449.—*Oil cake and oil-cake meal: International trade, average 1909-1913, annual 1922-1924*

[Thousand pounds—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|-----------|-----------|-----------|-----------|-----------|------------------|-----------|
| | Average 1909-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | | 42,587 | | 65,382 | | 80,486 | | 102,113 |
| Australia..... | 148 | 1,347 | 1,098 | 17,462 | 1,518 | 15,860 | | |
| Austria-Hungary..... | 53,673 | 124,873 | | | | | | |
| Brazil..... | | 16,574 | | 38,450 | | 24,196 | | |
| British India..... | 1,262 | 268,648 | 2,189 | 311,854 | 2,226 | 359,079 | 1,029 | 446,723 |
| Canada..... | 7,752 | 51,370 | 3,873 | 45,727 | 3,548 | 40,114 | 6,124 | 31,303 |
| China..... | 174 | 147,468 | | 144,285 | | 190,685 | | 188,903 |
| Dutch East Indies..... | 2,509 | 13,242 | | 38,587 | | 42,361 | | 52,100 |
| Egypt..... | | 161,624 | | 267,039 | | 267,508 | | 260,478 |
| France..... | 288,068 | 476,963 | 82,465 | 213,239 | 128,237 | 328,003 | 113,447 | 298,448 |
| Germany..... | 1,686,416 | 525,108 | 209,655 | 371,291 | 90,202 | 521,098 | 285,465 | 457,647 |
| Hungary..... | | | 224 | 27,755 | 935 | 106,624 | | |
| Italy..... | 10,550 | 55,115 | 3,919 | 158,688 | 752 | 147,911 | 268 | 282,802 |
| Peru..... | | 10,030 | | 37,323 | | 35,695 | | 48,684 |
| Russia..... | | 1,453,413 | | | | | | |
| Spain..... | | 2,164 | 87 | 20,445 | 147 | 15,157 | 1,319 | 8,882 |
| United States..... | | 1,704,124 | 88,605 | 926,144 | 124,124 | 917,394 | 154,572 | 1,289,948 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | | | | | 7,016 | | 12,532 | 921 |
| Belgium..... | 543,648 | 155,373 | 262,125 | 52,931 | 215,540 | 73,509 | 249,286 | 62,696 |
| Ceylon..... | 140,404 | 28,509 | 41,292 | 12,935 | 41,830 | 13,056 | 43,072 | 17,533 |
| Denmark..... | 1,002,329 | 15,777 | 846,355 | 2,837 | 1,241,054 | 5,799 | 1,547,660 | 18,833 |
| Finland..... | 26,333 | 2,125 | 17,963 | 572 | 107,415 | 144 | 22,843 | |
| Irish Free State..... | | | | | | | 108,901 | |
| Japan..... | 189,868 | | 259,709 | 13,707 | 332,319 | 10,619 | 322,879 | 21,720 |
| Netherlands..... | 707,116 | 219,819 | 414,635 | 116,659 | 493,590 | 95,195 | 574,900 | 79,046 |
| Norway..... | 55,112 | 2,586 | 43,810 | 271 | 84,798 | 189 | 118,527 | |
| Sweden..... | 346,735 | 1,535 | 169,594 | 10,992 | 245,640 | 4,748 | 276,096 | 5,546 |
| Switzerland..... | 60,352 | 1,413 | 91,677 | 1,526 | 85,908 | 1,243 | 87,487 | 6,651 |
| United Kingdom..... | 790,865 | 161,798 | 707,838 | 85,053 | 697,894 | 111,964 | 802,286 | 201,620 |
| Other countries..... | 30,172 | 41,595 | 41,380 | 40,244 | 14,308 | 8,966 | 10,454 | 15,937 |
| Total..... | 5,852,496 | 5,676,283 | 3,288,063 | 3,020,458 | 3,919,191 | 3,416,603 | 4,747,146 | 3,901,63 |

Division of Statistical and Historical Research. Official sources.

The class called here "oil cake and oil-cake meal" includes the edible cake and meal remaining after making oil from such products as cottonseed, flaxseed, peanuts, corn, etc. Soy-bean cake is not included in this table.

¹ Year beginning July 1² Three-year average.³ Six months.⁴ Four-year average.⁵ Java and Madura only.⁶ One year only.⁷ Twelve months' sea-trade, three months' land-trade.

STATISTICS OF FARM ANIMALS AND THEIR PRODUCTS

TABLE 450.—All cattle and calves: Number and value on farms, by States, 1920-1926

| State | Number Jan. 1— | | | | Average value per head Jan. 1— | | | | Farm value Jan. 1— | | | |
|---------------------|----------------|----------------|----------------|----------------|--------------------------------|--------------|--------------|--------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 |
| | Thou- sands | Thou- sands | Thou- sands | Thou- sands | Dol- lars | Dol- lars | Dol- lars | Dol- lars | Thou- sand dollars | Thou- sand dollars | Thou- sand dollars | Thou- sand dollars |
| Maine..... | 301 | 276 | 259 | 247 | 60.30 | 47.20 | 38.30 | 44.00 | 18,141 | 13,040 | 9,830 | 10,871 |
| N. Hampshire..... | 164 | 165 | 169 | 157 | 63.60 | 56.00 | 44.60 | 45.40 | 10,923 | 9,236 | 7,642 | 7,122 |
| Vermont..... | 435 | 444 | 449 | 445 | 70.80 | 50.90 | 42.80 | 44.30 | 30,802 | 22,594 | 19,211 | 19,719 |
| Massachusetts..... | 216 | 219 | 225 | 220 | 85.60 | 76.30 | 63.90 | 61.20 | 18,483 | 16,711 | 14,378 | 13,475 |
| Rhode Island..... | 31 | 31 | 31 | 31 | 92.90 | 82.40 | 67.00 | 70.40 | 2,879 | 2,554 | 2,078 | 2,183 |
| Connecticut..... | 174 | 172 | 176 | 177 | 84.00 | 73.00 | 59.00 | 61.90 | 14,614 | 12,555 | 10,390 | 10,982 |
| New York..... | 2,144 | 2,104 | 2,090 | 2,030 | 88.20 | 60.30 | 54.40 | 52.20 | 189,085 | 126,848 | 113,725 | 105,917 |
| New Jersey..... | 179 | 178 | 173 | 168 | 108.20 | 93.20 | 73.40 | 75.20 | 19,374 | 16,585 | 12,690 | 12,642 |
| Pennsylvania..... | 1,546 | 1,490 | 1,482 | 1,448 | 76.90 | 61.10 | 48.00 | 48.90 | 118,841 | 91,024 | 71,162 | 70,827 |
| Ohio..... | 1,927 | 1,880 | 1,840 | 1,770 | 69.40 | 54.40 | 42.80 | 44.40 | 133,822 | 102,360 | 78,795 | 78,557 |
| Indiana..... | 1,546 | 1,531 | 1,446 | 1,410 | 66.60 | 49.30 | 39.10 | 41.30 | 103,002 | 75,422 | 56,372 | 58,190 |
| Illinois..... | 2,788 | 2,515 | 2,413 | 2,465 | 68.50 | 40.80 | 38.30 | 42.50 | 193,762 | 117,695 | 92,346 | 105,533 |
| Michigan..... | 1,586 | 1,536 | 1,506 | 1,460 | 69.90 | 51.00 | 39.00 | 42.20 | 110,864 | 78,303 | 58,789 | 61,573 |
| Wisconsin..... | 3,051 | 3,091 | 3,040 | 2,979 | 74.00 | 49.60 | 39.70 | 44.00 | 225,801 | 153,520 | 120,631 | 133,149 |
| Minnesota..... | 3,021 | 2,940 | 2,950 | 2,940 | 55.70 | 39.30 | 32.70 | 33.80 | 168,417 | 115,415 | 97,434 | 98,687 |
| Iowa..... | 4,558 | 4,347 | 4,311 | 4,545 | 58.00 | 40.30 | 34.80 | 39.00 | 264,157 | 175,000 | 150,012 | 151,022 |
| Missouri..... | 2,782 | 2,760 | 2,700 | 2,700 | 55.90 | 40.00 | 30.70 | 33.40 | 155,021 | 110,472 | 84,752 | 90,164 |
| North Dakota..... | 1,335 | 1,350 | 1,400 | 1,370 | 49.10 | 33.70 | 25.50 | 27.50 | 65,489 | 45,490 | 35,720 | 37,660 |
| South Dakota..... | 2,388 | 2,061 | 2,123 | 2,070 | 48.90 | 34.90 | 28.40 | 33.70 | 110,777 | 71,900 | 60,279 | 69,820 |
| Nebraska..... | 3,154 | 2,963 | 3,026 | 3,224 | 50.60 | 37.70 | 31.60 | 35.60 | 150,724 | 111,228 | 95,726 | 114,666 |
| Kansas..... | 2,975 | 3,012 | 2,991 | 3,058 | 52.70 | 37.90 | 28.70 | 30.80 | 156,911 | 114,247 | 85,930 | 94,116 |
| Delaware..... | 47 | 47 | 47 | 47 | 74.10 | 69.00 | 48.30 | 47.60 | 3,481 | 3,242 | 2,269 | 2,236 |
| Maryland..... | 283 | 283 | 262 | 230 | 73.60 | 65.40 | 51.40 | 50.30 | 20,788 | 18,512 | 14,502 | 14,079 |
| Virginia..... | 910 | 915 | 805 | 882 | 58.60 | 45.30 | 32.50 | 34.00 | 53,333 | 41,407 | 28,110 | 29,940 |
| West Virginia..... | 587 | 597 | 607 | 617 | 58.20 | 49.30 | 36.10 | 39.70 | 34,143 | 29,415 | 21,066 | 24,525 |
| North Carolina..... | 680 | 670 | 660 | 580 | 51.90 | 40.20 | 29.60 | 28.50 | 35,275 | 26,533 | 17,758 | 16,597 |
| South Carolina..... | 454 | 418 | 416 | 382 | 56.20 | 37.00 | 25.50 | 23.10 | 24,401 | 15,475 | 10,022 | 8,817 |
| Georgia..... | 1,157 | 1,137 | 1,117 | 1,057 | 30.50 | 28.00 | 17.10 | 16.90 | 45,754 | 31,875 | 19,136 | 17,940 |
| Florida..... | 880 | 840 | 810 | 770 | 30.70 | 26.40 | 20.20 | 20.50 | 27,029 | 22,193 | 16,350 | 15,748 |
| Kentucky..... | 1,093 | 1,088 | 1,074 | 1,000 | 52.80 | 39.80 | 28.30 | 30.20 | 57,669 | 43,298 | 30,352 | 30,176 |
| Tennessee..... | 1,162 | 1,124 | 1,114 | 1,070 | 46.20 | 31.30 | 23.20 | 23.50 | 53,714 | 35,170 | 25,705 | 25,131 |
| Alabama..... | 1,044 | 1,022 | 1,000 | 950 | 33.70 | 23.80 | 17.60 | 16.70 | 37,204 | 24,302 | 17,550 | 15,868 |
| Mississippi..... | 1,250 | 1,190 | 1,180 | 1,090 | 37.50 | 26.20 | 18.00 | 16.40 | 46,911 | 31,235 | 21,104 | 17,897 |
| Arkansas..... | 1,073 | 1,030 | 1,030 | 940 | 37.30 | 25.90 | 18.50 | 15.10 | 40,057 | 26,670 | 19,073 | 14,169 |
| Louisiana..... | 840 | 800 | 780 | 740 | 30.80 | 30.60 | 22.20 | 20.60 | 33,463 | 24,465 | 17,291 | 15,279 |
| Oklahoma..... | 2,074 | 2,000 | 2,050 | 1,900 | 44.10 | 31.00 | 23.10 | 21.40 | 91,398 | 62,088 | 47,294 | 40,592 |
| Texas..... | 6,890 | 7,165 | 7,318 | 7,248 | 46.80 | 34.80 | 22.60 | 20.70 | 322,160 | 248,985 | 165,540 | 149,731 |
| Montana..... | 1,370 | 1,269 | 1,389 | 1,300 | 50.50 | 30.50 | 39.70 | 33.60 | 69,248 | 50,118 | 42,428 | 45,524 |
| Idaho..... | 715 | 675 | 685 | 685 | 49.60 | 39.10 | 34.30 | 33.90 | 35,368 | 29,387 | 23,473 | 23,253 |
| Wyoming..... | 950 | 899 | 898 | 881 | 49.60 | 40.30 | 32.40 | 33.10 | 47,066 | 34,576 | 29,080 | 26,101 |
| Colorado..... | 1,757 | 1,683 | 1,680 | 1,614 | 50.80 | 37.70 | 30.10 | 28.90 | 89,318 | 63,474 | 50,578 | 48,634 |
| New Mexico..... | 1,709 | 1,860 | 1,900 | 1,900 | 48.70 | 37.20 | 25.90 | 23.10 | 79,381 | 67,016 | 49,178 | 34,690 |
| Arizona..... | 1,159 | 1,135 | 1,099 | 1,138 | 45.30 | 30.60 | 29.80 | 34.10 | 52,045 | 45,340 | 32,440 | 28,782 |
| Utah..... | 556 | 535 | 525 | 550 | 44.60 | 35.60 | 31.60 | 33.10 | 24,789 | 19,027 | 16,527 | 18,204 |
| Nevada..... | 466 | 436 | 445 | 460 | 45.70 | 38.70 | 33.10 | 35.20 | 20,832 | 16,800 | 14,721 | 16,196 |
| Washington..... | 613 | 583 | 587 | 587 | 60.20 | 51.10 | 45.50 | 42.20 | 36,895 | 29,781 | 27,293 | 24,761 |
| Oregon..... | 891 | 828 | 846 | 834 | 53.70 | 45.80 | 36.90 | 35.40 | 47,899 | 37,946 | 31,182 | 29,496 |
| California..... | 2,008 | 2,006 | 2,048 | 2,080 | 63.50 | 57.90 | 45.50 | 46.00 | 127,417 | 115,770 | 93,228 | 95,600 |
| United States..... | 68,871 | 67,184 | 67,264 | 66,156 | 55.68 | 41.28 | 32.16 | 33.62 | 3,834,517 | 2,773,555 | 2,163,022 | 2,217,751 |

TABLE 450.—All cattle and calves: Number and value on farms, by States, 1920—1926—Continued

| State | Number Jan. 1— | | | Average value per head Jan. 1— | | | Farm value Jan. 1— | | |
|---------------------|----------------|--------|-------------------|--------------------------------|---------|---------|--------------------|----------------|-------------------|
| | 1924 | 1925 | 1926 ¹ | 1924 | 1925 | 1926 | 1924 | 1925 | 1926 ¹ |
| | Thous. | Thous. | Thous. | Dollars | Dollars | Dollars | Thous. dollars | Thous. dollars | Thous. dollars |
| Maine..... | 245 | 238 | 233 | 45.60 | 42.10 | 51.30 | 11,173 | 10,020 | 11,952 |
| New Hampshire..... | 142 | 121 | 121 | 49.80 | 48.20 | 58.00 | 7,066 | 5,832 | 7,018 |
| Vermont..... | 429 | 393 | 389 | 45.40 | 46.00 | 55.80 | 19,474 | 18,078 | 21,696 |
| Massachusetts..... | 208 | 192 | 190 | 63.60 | 63.60 | 74.10 | 13,234 | 12,211 | 14,078 |
| Rhode Island..... | 28 | 27 | 28 | 75.00 | 70.40 | 74.60 | 2,101 | 1,901 | 2,088 |
| Connecticut..... | 170 | 155 | 155 | 66.60 | 66.80 | 78.00 | 11,324 | 10,354 | 12,091 |
| New York..... | 1,040 | 1,851 | 1,814 | 54.70 | 53.50 | 68.60 | 106,096 | 99,023 | 124,465 |
| New Jersey..... | 160 | 156 | 147 | 74.60 | 68.20 | 87.30 | 11,916 | 10,639 | 12,830 |
| Pennsylvania..... | 1,387 | 1,340 | 1,340 | 50.70 | 51.10 | 59.70 | 70,359 | 68,474 | 80,041 |
| Ohio..... | 1,710 | 1,675 | 1,642 | 44.60 | 45.80 | 51.00 | 76,157 | 70,715 | 83,708 |
| Indiana..... | 1,358 | 1,296 | 1,322 | 42.90 | 44.80 | 49.00 | 58,208 | 58,061 | 64,718 |
| Illinois..... | 2,425 | 2,345 | 2,368 | 44.20 | 44.40 | 50.20 | 107,162 | 104,118 | 118,950 |
| Michigan..... | 1,420 | 1,417 | 1,381 | 46.10 | 46.50 | 51.00 | 65,412 | 65,890 | 70,416 |
| Wisconsin..... | 3,039 | 3,035 | 3,005 | 40.30 | 44.40 | 53.70 | 140,776 | 134,754 | 161,411 |
| Minnesota..... | 2,890 | 2,863 | 2,834 | 36.70 | 37.20 | 43.20 | 106,030 | 105,504 | 122,305 |
| Iowa..... | 4,533 | 4,372 | 4,372 | 40.30 | 39.20 | 43.50 | 182,844 | 171,382 | 190,241 |
| Missouri..... | 2,450 | 2,442 | 2,369 | 34.60 | 33.20 | 36.40 | 91,820 | 81,074 | 86,285 |
| North Dakota..... | 1,370 | 1,345 | 1,265 | 28.50 | 28.50 | 32.80 | 39,076 | 38,332 | 41,486 |
| South Dakota..... | 2,147 | 2,074 | 1,919 | 31.20 | 30.60 | 34.00 | 67,026 | 63,464 | 65,326 |
| Nebraska..... | 3,386 | 3,314 | 3,248 | 34.30 | 32.90 | 36.20 | 116,006 | 109,031 | 117,601 |
| Kansas..... | 3,200 | 3,143 | 3,080 | 31.10 | 31.30 | 35.20 | 99,555 | 98,376 | 108,357 |
| Delaware..... | 46 | 46 | 48 | 48.20 | 53.10 | 56.80 | 2,215 | 2,443 | 2,724 |
| Maryland..... | 279 | 278 | 281 | 51.00 | 50.40 | 54.90 | 14,237 | 14,011 | 15,420 |
| Virginia..... | 847 | 827 | 786 | 33.20 | 33.00 | 34.10 | 28,161 | 27,291 | 26,783 |
| West Virginia..... | 600 | 587 | 575 | 35.60 | 33.20 | 35.70 | 21,340 | 19,498 | 20,509 |
| North Carolina..... | 562 | 545 | 529 | 31.20 | 29.80 | 32.00 | 17,524 | 16,241 | 16,944 |
| South Carolina..... | 362 | 340 | 313 | 25.90 | 24.90 | 25.10 | 9,381 | 8,469 | 7,871 |
| Georgia..... | 906 | 938 | 854 | 17.00 | 18.20 | 19.10 | 17,527 | 17,072 | 16,311 |
| Florida..... | 740 | 710 | 675 | 19.80 | 18.50 | 21.10 | 14,620 | 13,135 | 12,150 |
| Kentucky..... | 970 | 938 | 910 | 28.60 | 28.60 | 32.90 | 27,725 | 26,827 | 29,905 |
| Tennessee..... | 1,040 | 1,023 | 962 | 22.40 | 22.10 | 24.60 | 23,260 | 22,608 | 23,624 |
| Alabama..... | 900 | 840 | 739 | 16.80 | 16.30 | 18.70 | 15,155 | 13,692 | 13,827 |
| Mississippi..... | 1,010 | 938 | 845 | 16.50 | 15.00 | 17.00 | 16,605 | 14,070 | 14,876 |
| Arkansas..... | 880 | 837 | 804 | 13.20 | 15.90 | 18.50 | 11,637 | 13,404 | 14,835 |
| Louisiana..... | 720 | 720 | 648 | 20.80 | 19.50 | 19.80 | 14,906 | 14,098 | 12,819 |
| Oklahoma..... | 1,750 | 1,695 | 1,610 | 19.50 | 21.80 | 27.00 | 34,112 | 36,951 | 43,531 |
| Texas..... | 6,550 | 6,275 | 5,900 | 20.90 | 21.80 | 22.40 | 136,630 | 136,795 | 132,412 |
| Montana..... | 1,360 | 1,340 | 1,250 | 30.60 | 30.00 | 32.00 | 41,660 | 40,200 | 40,945 |
| Idaho..... | 705 | 650 | 624 | 33.10 | 29.00 | 37.40 | 23,304 | 18,850 | 23,364 |
| Wyoming..... | 825 | 795 | 795 | 31.30 | 28.90 | 34.40 | 25,849 | 22,976 | 27,383 |
| Colorado..... | 1,540 | 1,465 | 1,277 | 28.30 | 26.20 | 33.00 | 43,531 | 38,383 | 42,116 |
| New Mexico..... | 1,350 | 1,290 | 1,161 | 23.50 | 22.20 | 26.70 | 31,692 | 28,638 | 31,012 |
| Arizona..... | 1,116 | 1,064 | 919 | 31.10 | 26.10 | 34.70 | 34,740 | 27,770 | 31,850 |
| Utah..... | 540 | 607 | 472 | 33.20 | 27.70 | 36.80 | 17,942 | 14,044 | 17,373 |
| Nevada..... | 440 | 418 | 395 | 34.70 | 25.40 | 35.30 | 15,276 | 10,617 | 13,930 |
| Washington..... | 586 | 586 | 508 | 48.30 | 45.30 | 45.50 | 28,302 | 26,546 | 25,848 |
| Oregon..... | 814 | 796 | 772 | 36.00 | 35.00 | 37.80 | 29,334 | 27,860 | 29,146 |
| California..... | 2,142 | 1,908 | 1,965 | 45.20 | 43.40 | 47.30 | 96,715 | 82,807 | 92,939 |
| United States..... | 64,507 | 62,150 | 59,829 | 34.05 | 33.46 | 38.40 | 2,196,465 | 2,079,367 | 2,297,510 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 451.—Cows and heifers 2 years old and over kept for milk: Number and value on farms, by States, January 1, 1920-1926

| State | Number Jan. 1— | | | | Average value per head Jan. 1— | | | | Farm value Jan. 1— | | | |
|---------------------|----------------|----------------|----------------|----------------|--------------------------------|--------------|--------------|--------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 |
| | Thou- sands | Thou- sands | Thou- sands | Thou- sands | Dol- lars | Dol- lars | Dol- lars | Dol- lars | Thou- sand Dollars | Thou- sand dollars | Thou- sand dollars | Thou- sand dollars |
| Maine..... | 176 | 171 | 165 | 162 | 79.00 | 60.00 | 48.00 | 55.00 | 13,904 | 10,260 | 7,920 | 8,910 |
| N. Hampshire..... | 98 | 96 | 94 | 90 | 86.00 | 74.00 | 60.00 | 59.00 | 8,428 | 7,104 | 5,640 | 5,310 |
| Vermont..... | 292 | 298 | 302 | 303 | 89.00 | 65.00 | 55.00 | 56.00 | 25,988 | 19,370 | 16,010 | 16,968 |
| Massachusetts..... | 150 | 154 | 160 | 164 | 105.00 | 94.00 | 79.00 | 74.00 | 15,750 | 14,476 | 12,640 | 12,136 |
| Rhode Island..... | 22 | 22 | 23 | 23 | 110.00 | 100.00 | 79.00 | 84.00 | 2,420 | 2,200 | 1,817 | 1,932 |
| Connecticut..... | 114 | 115 | 115 | 116 | 105.00 | 90.00 | 74.00 | 78.00 | 11,970 | 10,350 | 8,510 | 9,048 |
| New York..... | 1,499 | 1,477 | 1,462 | 1,449 | 107.00 | 73.00 | 67.00 | 63.00 | 160,393 | 107,821 | 97,054 | 91,287 |
| New Jersey..... | 131 | 130 | 127 | 126 | 128.00 | 110.00 | 88.00 | 87.00 | 16,768 | 14,800 | 10,922 | 10,962 |
| Pennsylvania..... | 893 | 893 | 900 | 925 | 98.00 | 77.00 | 60.00 | 60.00 | 87,514 | 68,761 | 54,000 | 55,500 |
| Ohio..... | 918 | 927 | 936 | 930 | 92.00 | 72.00 | 56.00 | 56.00 | 84,456 | 66,744 | 52,416 | 52,416 |
| Indiana..... | 659 | 653 | 659 | 652 | 88.00 | 65.00 | 53.00 | 53.00 | 57,992 | 42,445 | 34,927 | 34,556 |
| Illinois..... | 1,047 | 1,027 | 997 | 1,029 | 96.00 | 63.00 | 52.00 | 56.00 | 100,512 | 64,701 | 51,844 | 57,624 |
| Michigan..... | 824 | 815 | 823 | 831 | 96.00 | 70.00 | 53.00 | 55.00 | 79,104 | 57,050 | 43,619 | 45,705 |
| Wisconsin..... | 1,832 | 1,858 | 1,822 | 1,921 | 97.00 | 65.00 | 52.00 | 57.00 | 177,704 | 120,770 | 97,804 | 109,497 |
| Minnesota..... | 1,359 | 1,405 | 1,503 | 1,525 | 82.00 | 58.00 | 48.00 | 47.00 | 111,438 | 81,490 | 72,144 | 71,675 |
| Iowa..... | 1,120 | 1,120 | 1,160 | 1,230 | 88.00 | 62.00 | 53.00 | 58.00 | 98,560 | 69,440 | 61,480 | 70,762 |
| Missouri..... | 860 | 792 | 799 | 799 | 79.00 | 58.00 | 44.00 | 45.00 | 63,200 | 45,930 | 35,156 | 35,065 |
| North Dakota..... | 436 | 426 | 440 | 457 | 77.00 | 55.00 | 43.00 | 44.00 | 33,110 | 25,430 | 18,920 | 20,108 |
| South Dakota..... | 467 | 462 | 480 | 500 | 75.00 | 56.00 | 47.00 | 51.00 | 35,025 | 25,872 | 22,500 | 25,500 |
| Nebraska..... | 535 | 540 | 594 | 606 | 83.00 | 63.00 | 53.00 | 57.00 | 44,465 | 34,020 | 31,482 | 34,542 |
| Kansas..... | 695 | 709 | 723 | 730 | 81.00 | 62.00 | 46.00 | 46.00 | 56,205 | 43,958 | 33,258 | 33,580 |
| Delaware..... | 33 | 32 | 32 | 33 | 85.00 | 81.00 | 57.00 | 55.00 | 2,805 | 2,592 | 1,824 | 1,815 |
| Maryland..... | 166 | 169 | 172 | 174 | 89.00 | 79.00 | 63.00 | 60.00 | 14,774 | 13,351 | 10,830 | 10,440 |
| Virginia..... | 377 | 384 | 392 | 402 | 76.00 | 59.00 | 43.00 | 42.00 | 28,652 | 22,656 | 16,856 | 16,884 |
| West Virginia..... | 193 | 197 | 201 | 207 | 76.00 | 66.00 | 50.00 | 48.00 | 14,668 | 13,002 | 10,050 | 9,930 |
| North Carolina..... | 300 | 306 | 312 | 309 | 78.00 | 58.00 | 42.00 | 39.00 | 23,400 | 17,744 | 13,104 | 12,051 |
| South Carolina..... | 195 | 193 | 187 | 185 | 85.00 | 58.00 | 40.00 | 35.00 | 16,575 | 11,194 | 7,480 | 6,475 |
| Georgia..... | 408 | 396 | 396 | 376 | 65.00 | 45.00 | 29.00 | 28.00 | 26,220 | 17,820 | 11,484 | 10,528 |
| Florida..... | 73 | 75 | 78 | 82 | 72.00 | 74.00 | 58.00 | 56.00 | 5,256 | 6,550 | 4,524 | 4,592 |
| Kentucky..... | 455 | 450 | 450 | 462 | 73.00 | 57.00 | 40.00 | 40.00 | 33,215 | 25,650 | 18,000 | 18,480 |
| Tennessee..... | 445 | 445 | 453 | 467 | 70.00 | 49.00 | 35.00 | 34.00 | 31,150 | 21,805 | 15,855 | 15,878 |
| Alabama..... | 420 | 410 | 390 | 380 | 57.00 | 40.00 | 29.00 | 27.00 | 23,940 | 16,409 | 11,310 | 10,260 |
| Mississippi..... | 475 | 451 | 440 | 437 | 62.00 | 47.00 | 30.00 | 27.00 | 29,450 | 21,197 | 13,380 | 11,799 |
| Arkansas..... | 450 | 428 | 436 | 396 | 56.00 | 43.00 | 29.00 | 24.00 | 25,200 | 18,404 | 12,644 | 9,504 |
| Louisiana..... | 220 | 209 | 204 | 203 | 67.00 | 52.00 | 43.00 | 38.00 | 14,740 | 10,808 | 8,772 | 7,714 |
| Oklahoma..... | 564 | 530 | 556 | 564 | 68.00 | 62.00 | 39.00 | 34.00 | 38,352 | 27,872 | 21,684 | 19,176 |
| Texas..... | 930 | 948 | 995 | 1,004 | 77.00 | 63.00 | 43.00 | 36.00 | 71,610 | 59,724 | 42,785 | 36,144 |
| Montana..... | 148 | 148 | 155 | 162 | 83.00 | 75.00 | 58.00 | 55.00 | 12,284 | 11,100 | 8,960 | 8,910 |
| Idaho..... | 118 | 122 | 128 | 134 | 85.00 | 72.00 | 65.00 | 63.00 | 10,030 | 8,784 | 8,320 | 8,442 |
| Wyoming..... | 55 | 57 | 60 | 62 | 93.00 | 75.00 | 71.00 | 67.00 | 5,115 | 4,275 | 4,169 | 4,154 |
| Colorado..... | 202 | 202 | 206 | 209 | 87.00 | 70.00 | 57.00 | 53.00 | 17,574 | 14,140 | 11,742 | 11,077 |
| New Mexico..... | 58 | 61 | 63 | 63 | 83.00 | 73.00 | 60.00 | 50.00 | 4,814 | 4,453 | 3,780 | 3,150 |
| Arizona..... | 35 | 30 | 35 | 36 | 95.00 | 105.00 | 95.00 | 93.00 | 3,325 | 3,150 | 3,325 | 3,348 |
| Utah..... | 72 | 72 | 75 | 80 | 78.00 | 70.00 | 61.00 | 63.00 | 5,616 | 5,040 | 4,575 | 5,040 |
| Nevada..... | 14 | 15 | 16 | 17 | 88.00 | 86.00 | 69.00 | 74.00 | 1,232 | 1,290 | 1,104 | 1,258 |
| Washington..... | 245 | 250 | 255 | 270 | 88.00 | 75.00 | 70.00 | 61.00 | 21,560 | 18,750 | 17,850 | 16,470 |
| Oregon..... | 200 | 202 | 202 | 205 | 83.00 | 75.00 | 62.00 | 60.00 | 16,800 | 15,150 | 12,624 | 12,300 |
| California..... | 515 | 530 | 550 | 580 | 97.00 | 95.00 | 76.00 | 76.00 | 49,955 | 50,350 | 41,800 | 44,080 |
| United States..... | 21,427 | 21,408 | 21,788 | 22,063 | 85.56 | 64.13 | 50.97 | 50.94 | 1,833,348 | 1,372,813 | 1,110,470 | 1,123,876 |

TABLE 451.—Cows and heifers 2 years old and over kept for milk: Number and value on farms, by States, January 1, 1920-1926—Continued

| State | Number, Jan. 1— | | | Average value per head, Jan. 1— | | | Farm value, Jan. 1— | | |
|---------------------|-----------------|--------------|-------------------|---------------------------------|----------------|----------------|---------------------|----------------|-------------------|
| | 1924 | 1925 | 1926 ¹ | 1924 | 1925 | 1926 | 1924 | 1925 | 1926 ¹ |
| | <i>Thou-</i> | <i>Thou-</i> | <i>Thou-</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Thou-</i> | <i>Thou-</i> | <i>Thou-</i> |
| | <i>sands</i> | <i>sands</i> | <i>sands</i> | | | | <i>sand</i> | <i>sand</i> | <i>sand</i> |
| | | | | | | | <i>dollars</i> | <i>dollars</i> | <i>dollars</i> |
| Maine..... | 160 | 155 | 149 | 56.00 | 52.00 | 66.00 | 8,960 | 8,060 | 9,834 |
| New Hampshire..... | 86 | 83 | 83 | 63.00 | 59.00 | 72.00 | 5,418 | 4,897 | 5,976 |
| Vermont..... | 298 | 281 | 272 | 57.00 | 57.00 | 70.00 | 16,986 | 16,017 | 19,040 |
| Massachusetts..... | 157 | 148 | 142 | 76.00 | 75.00 | 90.00 | 11,932 | 11,100 | 12,780 |
| Rhode Island..... | 22 | 22 | 22 | 88.00 | 80.00 | 87.00 | 1,936 | 1,700 | 1,914 |
| Connecticut..... | 116 | 117 | 118 | 83.00 | 78.00 | 92.00 | 9,628 | 9,126 | 10,856 |
| New York..... | 1,422 | 1,395 | 1,374 | 65.00 | 62.00 | 80.00 | 92,430 | 86,490 | 100,920 |
| New Jersey..... | 124 | 124 | 124 | 85.00 | 75.00 | 95.00 | 10,540 | 9,300 | 11,780 |
| Pennsylvania..... | 898 | 889 | 853 | 82.00 | 61.00 | 74.00 | 55,676 | 54,229 | 63,122 |
| Ohio..... | 964 | 964 | 945 | 58.00 | 57.00 | 64.00 | 53,984 | 54,948 | 60,480 |
| Indiana..... | 650 | 679 | 665 | 55.00 | 57.00 | 62.00 | 36,245 | 38,703 | 41,230 |
| Illinois..... | 1,029 | 1,049 | 1,039 | 60.00 | 59.00 | 66.00 | 61,740 | 61,891 | 68,574 |
| Michigan..... | 947 | 852 | 860 | 60.00 | 60.00 | 64.00 | 50,820 | 51,120 | 55,616 |
| Wisconsin..... | 1,981 | 2,016 | 2,055 | 58.00 | 55.00 | 66.00 | 114,898 | 110,825 | 135,630 |
| Minnesota..... | 1,535 | 1,563 | 1,579 | 52.00 | 51.00 | 50.00 | 79,820 | 79,713 | 93,161 |
| Iowa..... | 1,280 | 1,341 | 1,369 | 60.00 | 58.00 | 63.00 | 76,800 | 77,778 | 86,247 |
| Missouri..... | 803 | 835 | 827 | 46.00 | 44.00 | 47.00 | 37,030 | 36,740 | 38,869 |
| North Dakota..... | 494 | 520 | 530 | 47.00 | 44.00 | 47.00 | 23,218 | 22,850 | 24,910 |
| South Dakota..... | 520 | 544 | 544 | 50.00 | 47.00 | 52.00 | 26,000 | 25,568 | 28,288 |
| Nebraska..... | 612 | 625 | 625 | 56.00 | 54.00 | 58.00 | 34,272 | 33,750 | 36,250 |
| Kansas..... | 737 | 766 | 766 | 50.00 | 49.00 | 52.00 | 36,850 | 37,534 | 39,832 |
| Delaware..... | 34 | 34 | 34 | 56.00 | 60.00 | 65.00 | 1,904 | 2,040 | 2,210 |
| Maryland..... | 179 | 184 | 182 | 63.00 | 60.00 | 66.00 | 11,277 | 11,040 | 12,012 |
| Virginia..... | 385 | 393 | 385 | 42.00 | 40.00 | 41.00 | 16,170 | 15,720 | 15,785 |
| West Virginia..... | 215 | 219 | 215 | 43.00 | 40.00 | 43.00 | 9,245 | 8,760 | 9,245 |
| North Carolina..... | 306 | 312 | 318 | 43.00 | 40.00 | 42.00 | 13,158 | 12,480 | 13,356 |
| South Carolina..... | 182 | 175 | 157 | 38.00 | 36.00 | 36.00 | 6,916 | 6,300 | 5,652 |
| Georgia..... | 366 | 354 | 340 | 30.00 | 30.00 | 30.00 | 10,980 | 10,620 | 10,200 |
| Florida..... | 82 | 81 | 83 | 55.00 | 54.00 | 50.00 | 4,510 | 4,374 | 4,150 |
| Kentucky..... | 457 | 473 | 454 | 38.00 | 37.00 | 41.00 | 17,366 | 17,501 | 18,614 |
| Tennessee..... | 458 | 462 | 434 | 32.00 | 31.00 | 34.00 | 14,656 | 14,322 | 14,756 |
| Alabama..... | 370 | 365 | 340 | 27.00 | 26.00 | 29.00 | 9,990 | 9,490 | 9,800 |
| Mississippi..... | 433 | 411 | 379 | 27.00 | 24.00 | 28.00 | 11,691 | 9,861 | 10,612 |
| Arkansas..... | 378 | 382 | 367 | 21.00 | 25.00 | 28.00 | 7,938 | 9,550 | 10,276 |
| Louisiana..... | 205 | 206 | 198 | 37.00 | 37.00 | 34.00 | 7,585 | 7,622 | 6,732 |
| Oklahoma..... | 554 | 582 | 570 | 31.00 | 34.00 | 40.00 | 17,174 | 19,788 | 22,800 |
| Texas..... | 1,014 | 985 | 936 | 33.00 | 33.00 | 34.00 | 33,462 | 32,505 | 32,164 |
| Montana..... | 174 | 187 | 192 | 53.00 | 50.00 | 54.00 | 9,222 | 9,350 | 10,368 |
| Idaho..... | 147 | 160 | 163 | 62.00 | 50.00 | 64.00 | 9,114 | 8,000 | 10,432 |
| Wyoming..... | 64 | 66 | 69 | 57.00 | 50.00 | 55.00 | 3,648 | 3,300 | 3,705 |
| Colorado..... | 217 | 224 | 222 | 50.00 | 45.00 | 50.00 | 10,850 | 10,080 | 11,100 |
| New Mexico..... | 63 | 64 | 64 | 50.00 | 45.00 | 46.00 | 3,150 | 2,880 | 2,944 |
| Arizona..... | 36 | 37 | 32 | 85.00 | 70.00 | 70.00 | 3,060 | 2,590 | 2,240 |
| Utah..... | 84 | 87 | 88 | 72.00 | 58.00 | 68.00 | 6,048 | 5,046 | 5,894 |
| Nevada..... | 18 | 19 | 20 | 83.00 | 60.00 | 75.00 | 1,494 | 1,140 | 1,500 |
| Washington..... | 275 | 284 | 275 | 71.00 | 65.00 | 66.00 | 19,525 | 18,460 | 18,150 |
| Oregon..... | 218 | 225 | 220 | 61.00 | 60.00 | 60.00 | 13,298 | 13,500 | 13,200 |
| California..... | 595 | 585 | 603 | 76.00 | 73.00 | 77.00 | 45,220 | 42,705 | 46,431 |
| United States..... | 22,255 | 22,523 | 22,290 | 52.30 | 50.68 | 57.37 | 1,168,834 | 1,141,456 | 1,278,877 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 452.—*Heifers 1 to 2 years old being kept for milk cows: Number January 1, 1920–1926*

| State | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Thou- sands | Thou- sands | Thou- sands | Thou- sands | Thou- sands | Thou- sands | Thou- sands |
| Maine..... | 42 | 44 | 37 | 35 | 32 | 32 | 20 |
| New Hampshire..... | 24 | 25 | 22 | 20 | 18 | 16 | 14 |
| Vermont..... | 56 | 54 | 46 | 47 | 43 | 46 | 39 |
| Massachusetts..... | 27 | 25 | 21 | 25 | 24 | 20 | 18 |
| Rhode Island..... | 4 | 3 | 3 | 4 | 3 | 2 | 2 |
| Connecticut..... | 23 | 19 | 18 | 17 | 18 | 17 | 14 |
| New York..... | 253 | 203 | 193 | 206 | 191 | 188 | 151 |
| New Jersey..... | 18 | 16 | 14 | 15 | 15 | 13 | 12 |
| Pennsylvania..... | 165 | 147 | 130 | 137 | 124 | 129 | 106 |
| Ohio..... | 177 | 171 | 154 | 163 | 133 | 162 | 140 |
| Indiana..... | 129 | 114 | 177 | 108 | 88 | 111 | 98 |
| Illinois..... | 208 | 184 | 164 | 179 | 196 | 189 | 164 |
| Michigan..... | 170 | 152 | 149 | 148 | 150 | 150 | 153 |
| Wisconsin..... | 392 | 370 | 337 | 371 | 363 | 364 | 331 |
| Minnesota..... | 336 | 333 | 341 | 331 | 270 | 307 | 278 |
| Iowa..... | 245 | 249 | 252 | 237 | 236 | 273 | 245 |
| Missouri..... | 158 | 141 | 134 | 150 | 170 | 172 | 162 |
| North Dakota..... | 105 | 95 | 92 | 101 | 119 | 127 | 122 |
| South Dakota..... | 96 | 99 | 89 | 112 | 106 | 127 | 110 |
| Nebraska..... | 95 | 112 | 112 | 112 | 119 | 124 | 131 |
| Kansas..... | 129 | 150 | 142 | 144 | 160 | 155 | 139 |
| Delaware..... | 5 | 4 | 4 | 4 | 5 | 5 | 5 |
| Maryland..... | 27 | 26 | 25 | 28 | 32 | 29 | 29 |
| Virginia..... | 63 | 60 | 58 | 61 | 62 | 55 | 50 |
| West Virginia..... | 20 | 27 | 27 | 30 | 32 | 30 | 23 |
| North Carolina..... | 67 | 66 | 63 | 59 | 52 | 56 | 49 |
| South Carolina..... | 42 | 38 | 33 | 36 | 37 | 37 | 30 |
| Georgia..... | 100 | 93 | 89 | 92 | 97 | 84 | 73 |
| Florida..... | 19 | 21 | 19 | 21 | 19 | 16 | 17 |
| Kentucky..... | 76 | 66 | 62 | 68 | 75 | 65 | 61 |
| Tennessee..... | 85 | 77 | 64 | 64 | 81 | 88 | 74 |
| Alabama..... | 103 | 93 | 80 | 90 | 91 | 83 | 77 |
| Mississippi..... | 114 | 111 | 112 | 97 | 94 | 87 | 77 |
| Arkansas..... | 110 | 96 | 106 | 101 | 98 | 91 | 80 |
| Louisiana..... | 51 | 44 | 47 | 43 | 35 | 44 | 34 |
| Oklahoma..... | 128 | 127 | 110 | 112 | 115 | 127 | 101 |
| Texas..... | 188 | 163 | 151 | 203 | 220 | 194 | 194 |
| Montana..... | 30 | 33 | 30 | 30 | 35 | 36 | 35 |
| Idaho..... | 28 | 27 | 31 | 31 | 33 | 38 | 38 |
| Wyoming..... | 10 | 11 | 11 | 13 | 13 | 14 | 14 |
| Colorado..... | 44 | 38 | 44 | 41 | 42 | 48 | 47 |
| New Mexico..... | 12 | 15 | 18 | 15 | 10 | 11 | 13 |
| Arizona..... | 9 | 6 | 7 | 9 | 11 | 10 | 8 |
| Utah..... | 15 | 14 | 16 | 16 | 19 | 21 | 19 |
| Nevada..... | 3 | 3 | 4 | 4 | 5 | 6 | 6 |
| Washington..... | 53 | 53 | 51 | 51 | 50 | 59 | 57 |
| Oregon..... | 40 | 36 | 34 | 43 | 45 | 44 | 45 |
| California..... | 114 | 102 | 100 | 123 | 151 | 142 | 147 |
| United States..... | 4, 418 | 4, 155 | 4, 023 | 4, 147 | 4, 137 | 4, 234 | 3, 861 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 453.—*Cattle: Numbers in countries having 150,000 or over, pre-war and years 1921-1926*

[Thousands—1. e. 000 omitted]

| Countries | Month of estimate | Pre-war ¹ | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 |
|--|---------------------|----------------------|---------------------|--------|--------|----------------------|---------------------|---------------------|
| NORTH AMERICA | | | | | | | | |
| Canada..... | June..... | 6,551 | 10,206 | 9,720 | 9,246 | 9,461 | 9,307 | ----- |
| United States ² | ----- | 58,676 | 67,184 | 67,264 | 66,156 | 64,507 | 62,150 | 59,820 |
| Mexico..... | June..... | ³ 5,142 | ----- | ----- | 1,750 | 2,188 | ----- | ----- |
| CENTRAL AMERICA AND WEST INDIES | | | | | | | | |
| Guatemala..... | July..... | 557 | 297 | 319 | 246 | 233 | ----- | ----- |
| Honduras (Republic of)..... | ----- | 411 | ⁴ 466 | ----- | ----- | ----- | ----- | ----- |
| Salvador..... | ----- | 350 | ----- | ----- | ----- | ----- | ----- | ----- |
| Nicaragua..... | ----- | ⁵ 252 | 1,200 | ----- | ----- | ----- | ----- | ----- |
| Costa Rica..... | ----- | 553 | ----- | 477 | 426 | 404 | ----- | ----- |
| Cuba..... | December..... | 2,017 | ----- | 4,771 | 4,877 | 5,085 | 4,653 | ----- |
| Dominican Republic..... | May..... | ----- | 647 | ----- | ----- | ----- | ----- | ----- |
| Porto Rico..... | ----- | ⁶ 316 | ⁶ 279 | ----- | ----- | ----- | ----- | ----- |
| SOUTH AMERICA | | | | | | | | |
| Colombia..... | ----- | 4,000 | ⁷ 3,428 | ----- | ----- | ⁷ 6,391 | ----- | ----- |
| Venezuela..... | ----- | 2,004 | 2,600 | 2,778 | ----- | ----- | ----- | ----- |
| Peru..... | February-April..... | ----- | ⁸ 1,000 | 1,302 | 1,293 | ----- | ----- | ----- |
| Bolivia..... | ----- | 734 | ----- | ----- | ----- | ----- | ----- | ----- |
| Chile..... | ----- | 1,780 | ----- | 1,906 | ----- | ----- | ----- | ----- |
| Brazil ⁹ | September..... | 30,705 | ⁹ 34,271 | ----- | ----- | ----- | ----- | ----- |
| Uruguay..... | ----- | ¹⁰ 8,193 | ¹⁰ 7,802 | ----- | ----- | ¹⁰ 8,452 | ----- | ----- |
| Paraguay..... | December..... | 4,172 | ----- | ----- | ----- | ¹¹ 4,000 | ¹¹ 4,300 | ¹¹ 5,000 |
| Argentina..... | do..... | ¹² 26,897 | 27,933 | 28,138 | 57,065 | ----- | ----- | ----- |
| EUROPE | | | | | | | | |
| England and Wales..... | June..... | 5,843 | 5,517 | 5,723 | 5,823 | 5,894 | 6,163 | ----- |
| Scotland..... | do..... | 1,203 | 1,143 | 1,147 | 1,194 | 1,164 | 1,197 | ----- |
| Ireland..... | do..... | 4,847 | 5,197 | 5,157 | 4,963 | 5,004 | 4,657 | ----- |
| Norway ¹³ | do..... | ¹³ 1,134 | 1,095 | ----- | 1,131 | 1,114 | 1,151 | ----- |
| Sweden..... | do..... | 3,069 | ¹⁴ 2,736 | ----- | ----- | ----- | ----- | ----- |
| Denmark..... | July..... | 2,717 | 2,501 | 2,525 | 2,523 | 2,667 | 2,756 | ----- |
| Holland..... | May-June..... | 2,097 | 2,063 | ----- | ----- | ----- | ----- | ----- |
| Belgium..... | December..... | 1,925 | 1,487 | 1,515 | 1,517 | 1,603 | 1,628 | ----- |
| France..... | do..... | 15,338 | 13,217 | 13,313 | 13,576 | 13,749 | 14,025 | ----- |
| Spain..... | do..... | 2,587 | ----- | 5,718 | 3,297 | 3,435 | 3,436 | ----- |
| Portugal..... | ----- | ¹⁵ 703 | ¹⁵ 741 | ----- | ----- | ----- | ----- | ----- |
| Italy ¹⁶ | March-April..... | 6,590 | ¹⁶ 6,624 | ----- | ----- | ----- | ----- | ----- |
| Switzerland..... | April..... | 1,445 | 1,485 | ----- | ----- | ----- | ----- | ----- |
| Germany..... | December..... | 18,474 | 16,807 | 16,791 | 16,816 | ¹⁷ 16,691 | 17,326 | 17,183 |
| Austria..... | December-April..... | 2,350 | 2,320 | ----- | 2,162 | ----- | ----- | ----- |
| Czechoslovakia..... | December..... | 4,596 | 4,577 | ----- | ----- | ¹⁸ 4,607 | ----- | ----- |
| Hungary..... | April..... | 2,150 | ----- | 1,828 | 1,819 | 1,896 | ----- | ----- |
| Yugoslavia ¹⁹ | January..... | 5,155 | 5,011 | 4,036 | 4,085 | 3,870 | ----- | ----- |
| Greece ²⁰ | ----- | 665 | 689 | ----- | ----- | ----- | ----- | ----- |
| Bulgaria ²¹ | December..... | 2,048 | ²¹ 2,295 | ----- | ----- | ----- | 1,560 | ----- |
| Rumania ²² | ----- | 5,648 | 5,721 | 5,932 | 5,734 | 5,583 | ----- | ----- |
| Poland..... | ----- | 8,351 | 8,132 | ----- | ----- | 8,800 | ----- | ----- |
| Lithuania..... | ----- | 918 | 849 | 1,021 | 1,285 | 1,252 | ----- | ----- |
| Latvia..... | June..... | 912 | 800 | 810 | 911 | 905 | 907 | ----- |

¹ Average for 5-year period immediately preceding war if available, otherwise for any years within this period, except as otherwise stated. In countries having changed boundaries the figures are estimates for one year only of numbers within present boundaries.

² Revised estimates of Division of Crop and Livestock Estimates, 1921-1926. These figures are made on the basis of census figures of 1920 and 1925, of annual assessment data and other information. The estimates prepared in the Bureau of Animal Industry by adjustment of the census figures to a January 1 basis and including all animals in towns and villages as well as on farms and ranges are as follows: Average, 58,900; 1921, 67,200; 1922, 67,700; 1923, 68,900; 1924, 68,200; and 1925, 66,600.

³ Year 1902.

⁴ Year 1918.

⁵ Year 1908.

⁶ Year 1920.

⁷ Unofficial.

⁸ Year 1917.

⁹ Buffaloes included.

¹⁰ Year 1916.

¹¹ June, 1914.

¹² Numbers in rural communities only.

¹³ Year 1917.

¹⁴ Year 1906.

¹⁵ Estimated for present boundaries. The estimate for former boundaries on Apr. 6, 1918, is 6,239,741.

¹⁶ No census was made as of December, 1923, which estimate would have been considered as of January, 1924, in this table, as explained in the general note, so the figure for October, 1923, has been used.

TABLE 453.—Cattle: Numbers in countries having 150,000 or over, pre-war and years 1921-1926—Continued

[Thousands—i. e., 000 omitted]

| Countries | Month of estimate | Pre-war | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 |
|---|-------------------|---------------------|---------------------|---------------------|---------------------|-------------------|----------------------|------|
| EUROPE—continued | | | | | | | | |
| Estonia..... | | 528 | 443 | 527 | 513 | 501 | | |
| Finland..... | September | 1,605 | 1,792 | 1,844 | 1,865 | 1,864 | | |
| Russia..... | Summer | 30,132 | 29,750 | 27,747 | 33,042 | 37,717 | 30,669 | |
| AFRICA | | | | | | | | |
| Morocco..... | | ¹⁷ 676 | 1,517 | 1,558 | 1,683 | 1,640 | | |
| Algeria..... | September | 1,112 | 851 | 837 | 794 | ¹⁸ 873 | | |
| Tunis..... | | 195 | 488 | 487 | 400 | 383 | | |
| French West Africa (excluding Sudan)..... | | | 1,834 | 2,142 | | | | |
| French Sudan..... | | | 1,019 | 1,025 | 1,215 | | | |
| Nigeria..... | | | 2,824 | 2,910 | 2,747 | | | |
| Egypt..... | September | 1,316 | 1,242 | 1,201 | 1,201 | 1,410 | | |
| Anglo Egyptian Sudan..... | | | 874 | 843 | 852 | 814 | | |
| Eritrea (Italian)..... | | 517 | ⁶ 468 | 553 | | | | |
| Kenya Colony..... | March-June | 754 | 2,559 | 2,814 | 3,190 | 3,211 | | |
| Uganda..... | | 556 | 682 | 920 | 1,227 | 1,372 | | |
| French Equatorial Africa..... | | | 665 | 712 | 910 | 1,000 | | |
| Belgian Congo..... | | 500 | 500 | 500 | 510 | | | |
| British Southwest Africa..... | | 206 | 620 | 586 | 550 | 567 | | |
| Bechuanaland..... | | 321 | ¹⁹ 195 | | | | | |
| Union of South Africa..... | April-May | 5,707 | 8,557 | 9,201 | 9,607 | 9,608 | | |
| Basutoland..... | | 437 | 581 | 589 | 603 | 617 | | |
| Rhodesia: | | | | | | | | |
| Northern..... | December | 255 | | ²¹ 251 | | 351 | | |
| Southern..... | do. | 509 | 1,517 | 1,751 | 1,801 | 1,921 | 2,000 | |
| Swaziland..... | | 60 | ²¹ 11 | 225 | 268 | 270 | | |
| Tanganyika Territory..... | | 1,489 | 3,147 | | 3,800 | | | |
| Madagascar..... | February | 4,890 | 7,519 | 7,829 | 7,819 | 7,367 | | |
| ASIA | | | | | | | | |
| Turkey, European and Asiatic..... | | ¹⁹ 6,438 | | | 3,651 | | | |
| India: ⁶ | | | | | | | | |
| British..... | December-April | 128,451 | 145,103 | 145,000 | 146,220 | | | |
| Native States..... | do. | 13,258 | 33,323 | 34,119 | 32,950 | | | |
| Ceylon..... | | 1,494 | 1,599 | 1,355 | 1,500 | 1,383 | | |
| Russia..... | | 15,609 | ²⁰ 7,067 | ²⁰ 5,230 | ²⁰ 8,227 | 13,703 | ²⁰ 10,247 | |
| China..... | | 21,907 | | | | | | |
| Japan..... | December | 1,385 | 1,370 | 1,440 | 1,459 | 1,469 | | |
| Chosen..... | do. | 906 | 1,490 | 1,624 | 1,608 | | 1,606 | |
| Formosa..... | do. | 473 | 429 | 423 | 409 | | | |
| French Indo-China..... | | ¹⁰ 4,616 | 3,099 | 3,680 | | | | |
| Siam..... | | 4,501 | 5,229 | 6,137 | 6,270 | 7,805 | | |
| Philippine Islands..... | | 322 | 761 | 806 | 816 | 874 | | |
| Dutch East Indies: | | | | | | | | |
| Java and Madura..... | | 5,091 | 5,060 | 5,269 | 5,421 | | | |
| Outer possessions..... | | 1,640 | 1,874 | 1,948 | 1,942 | | | |
| OCEANIA | | | | | | | | |
| Australia..... | December | 11,535 | 13,500 | 14,441 | 14,337 | 13,358 | | |
| New Zealand..... | January | ²² 020 | 3,129 | 3,323 | 3,481 | 3,563 | 3,504 | |

Division of Statistical and Historical Research. Census returns are in italics; other returns in roman. All estimates for countries reporting as of December have been considered as of January of the following year.

⁶ Year 1920.

⁹ Buffaloes included.

¹⁰ Year 1916.

¹¹ Year 1915.

¹² Excludes southern territory where there were 15,580 cattle in 1923.

¹³ In addition there were 832,163 buffaloes.

¹⁴ Excludes Transcaucasia and Turkestan. The number in Turkestan and Azerbaijan (part of Transcaucasia) in 1920 amounted to 2,048,000.

TABLE 454.—*Cattle: Yearly losses per 1,000 from disease and exposure, 1909–1925*

| Year ended Apr. 30 | From disease | From exposure | Year ended Apr. 30 | From disease | From exposure | Year ended Apr. 30 | From disease | From exposure |
|-----------------------|-----------------|------------------|-----------------------|-----------------|------------------|-----------------------|-----------------|------------------|
| 1909..... | 19.2 | 14.8 | 1915..... | | | 1921..... | 17.0 | 9.2 |
| 1910..... | 21.0 | 17.6 | 1916..... | 19.5 | 10.7 | 1922..... | 17.8 | 13.1 |
| 1911..... | 19.7 | 13.3 | 1917..... | 19.4 | 14.6 | 1923..... | 16.7 | 13.1 |
| 1912..... | 21.6 | 21.5 | 1918..... | 18.2 | 13.3 | 1924..... | 17.7 | 12.6 |
| 1913..... | 20.5 | 14.1 | 1919..... | 17.4 | 15.9 | 1925..... | 14.2 | 11.7 |
| 1914..... | 18.8 | 10.9 | 1920..... | 19.5 | 18.5 | | | |

Division of Crop and Livestock Estimates. As reported by crop reporters on May 1 for year ending April 30.

TABLE 455.—*Cattle and calves: Receipts and shipments at principal markets and at all markets, 1909–1925*

[Thousands—i. e., 000 omitted]

RECEIPTS

| Year | Chi- cago | Den- ver | East St. Louis | Fort Worth | Kansas City | Oma- ha | South St. Joseph | South St. Paul | Sioux City | Total | All other markets report- ing | Total all mar- kets re- porting |
|-----------|--------------|-------------|----------------------|---------------|----------------|------------|------------------------|----------------------|---------------|--------|---|--|
| 1909..... | 3,340 | 426 | 1,241 | 1,197 | 2,660 | 1,125 | 592 | 497 | 426 | 11,504 | (1) | (1) |
| 1910..... | 3,553 | 399 | 1,208 | 1,071 | 2,507 | 1,224 | 565 | 604 | 439 | 11,570 | (1) | (1) |
| 1911..... | 3,453 | 298 | 1,072 | 884 | 2,370 | 1,174 | 513 | 539 | 487 | 10,790 | (1) | (1) |
| 1912..... | 3,138 | 416 | 1,200 | 1,039 | 2,147 | 1,017 | 494 | 524 | 431 | 10,426 | (1) | (1) |
| 1913..... | 2,888 | 499 | 1,100 | 1,185 | 2,319 | 962 | 450 | 532 | 304 | 10,329 | (1) | (1) |
| 1914..... | 2,601 | 443 | 1,041 | 1,176 | 1,957 | 939 | 356 | 585 | 368 | 9,466 | (1) | (1) |
| 1915..... | 2,685 | 424 | 992 | 944 | 1,963 | 1,218 | 441 | 856 | 534 | 10,057 | 4,496 | 14,553 |
| 1916..... | 3,250 | 601 | 1,200 | 1,081 | 2,331 | 1,434 | 480 | 941 | 602 | 11,920 | 5,756 | 17,676 |
| 1917..... | 3,820 | 653 | 1,405 | 1,960 | 2,902 | 1,720 | 670 | 1,197 | 707 | 15,034 | 8,032 | 23,066 |
| 1918..... | 4,448 | 728 | 1,609 | 1,665 | 3,320 | 1,903 | 870 | 1,430 | 818 | 16,781 | 8,514 | 25,295 |
| 1919..... | 4,253 | 824 | 1,473 | 1,267 | 3,085 | 1,975 | 750 | 1,491 | 814 | 15,932 | 8,691 | 24,623 |
| 1920..... | 3,849 | 617 | 1,254 | 1,131 | 2,900 | 1,603 | 643 | 1,373 | 752 | 13,725 | 8,472 | 22,197 |
| 1921..... | 3,540 | 482 | 1,077 | 984 | 2,469 | 1,435 | 558 | 985 | 620 | 12,150 | 7,637 | 19,787 |
| 1922..... | 3,934 | 656 | 1,400 | 1,084 | 2,583 | 1,744 | 655 | 1,387 | 747 | 14,590 | 8,627 | 23,217 |
| 1923..... | 3,918 | 620 | 1,399 | 1,268 | 3,208 | 1,793 | 709 | 1,349 | 759 | 15,013 | 8,198 | 23,211 |
| 1924..... | 3,997 | 630 | 1,385 | 1,392 | 3,043 | 1,863 | 720 | 1,323 | 836 | 15,189 | 8,506 | 23,695 |
| 1925..... | 3,871 | 587 | 1,444 | 1,370 | 2,958 | 1,709 | 734 | 1,636 | 897 | 15,206 | 8,861 | 24,067 |

SHIPMENTS

| Year | Chi- cago | Den- ver | East St. Louis | Fort Worth | Kansas City | Oma- ha | South St. Joseph | South St. Paul | Sioux City | Total | All other markets report- ing | Total all mar- kets re- porting |
|-----------|--------------|-------------|----------------------|---------------|----------------|------------|------------------------|----------------------|---------------|-------|---|--|
| 1909..... | 1,297 | (1) | 374 | (1) | (1) | 374 | 185 | 322 | 232 | 2,784 | (1) | (1) |
| 1910..... | 1,347 | (1) | 370 | (1) | (1) | 425 | 161 | 369 | 213 | 2,885 | (1) | (1) |
| 1911..... | 1,245 | (1) | 309 | (1) | (1) | 446 | 157 | 318 | 249 | 2,724 | (1) | (1) |
| 1912..... | 994 | (1) | 315 | (1) | (1) | 418 | 158 | 293 | 240 | 2,418 | (1) | (1) |
| 1913..... | 1,001 | (1) | 344 | (1) | (1) | 432 | 157 | 322 | 228 | 2,484 | (1) | (1) |
| 1914..... | 824 | (1) | 306 | (1) | (1) | 394 | 124 | 328 | 197 | 2,173 | (1) | (1) |
| 1915..... | 392 | 359 | 269 | 506 | 1,032 | 536 | 175 | 523 | 289 | 4,081 | 1,771 | 5,852 |
| 1916..... | 726 | 512 | 313 | 511 | 1,028 | 591 | 149 | 556 | 369 | 4,755 | 2,198 | 6,953 |
| 1917..... | 867 | 521 | 317 | 838 | 1,202 | 723 | 211 | 723 | 410 | 5,812 | 3,661 | 9,473 |
| 1918..... | 1,025 | 544 | 370 | 562 | 1,422 | 855 | 299 | 896 | 432 | 6,405 | 3,906 | 10,311 |
| 1919..... | 1,221 | 642 | 454 | 475 | 1,467 | 840 | 220 | 935 | 459 | 6,713 | 4,044 | 10,757 |
| 1920..... | 1,247 | 471 | 510 | 544 | 1,209 | 689 | 224 | 634 | 410 | 5,948 | 3,883 | 9,831 |
| 1921..... | 1,163 | 360 | 611 | 412 | 1,244 | 635 | 188 | 391 | 346 | 5,350 | 3,250 | 8,600 |
| 1922..... | 1,137 | 532 | 871 | 467 | 1,534 | 829 | 251 | 609 | 447 | 6,677 | 3,968 | 10,665 |
| 1923..... | 1,105 | 490 | 855 | 463 | 1,599 | 794 | 265 | 496 | 417 | 6,484 | 3,576 | 10,060 |
| 1924..... | 1,107 | 471 | 841 | 420 | 1,440 | 759 | 280 | 396 | 435 | 6,119 | 3,572 | 9,691 |
| 1925..... | 1,002 | 412 | 804 | 383 | 1,289 | 630 | 206 | 482 | 411 | 5,709 | 3,729 | 9,438 |

Division of Statistical and Historical Research. Prior to 1915 receipts compiled from yearbooks of stockyard companies; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool. Prior to 1915 shipments compiled from yearbooks of stockyard companies, except East St. Louis (1909 to 1914, from Merchants Exchange Annual Report); subsequent figures from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Figures not available prior to 1915.

TABLE 456.—*Cattle and calves: Receipts at all public stockyards, 1915-1925*

[Thousands—i. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1915 ¹ | 1,029 | 768 | 1,017 | 987 | 1,111 | 1,113 | 1,039 | 1,246 | 1,531 | 1,818 | 1,724 | 1,170 | 14,553 |
| 1916 ¹ | 1,202 | 1,055 | 1,201 | 1,151 | 1,385 | 1,319 | 1,154 | 1,584 | 1,779 | 2,409 | 1,977 | 1,460 | 17,676 |
| 1917..... | 1,696 | 1,302 | 1,330 | 1,539 | 1,961 | 1,759 | 1,729 | 1,814 | 2,357 | 3,054 | 2,626 | 1,809 | 23,066 |
| 1918..... | 1,727 | 1,498 | 1,713 | 2,048 | 1,863 | 1,815 | 2,128 | 2,024 | 2,826 | 2,865 | 2,648 | 2,142 | 25,295 |
| 1919..... | 2,119 | 1,453 | 1,617 | 1,767 | 1,836 | 1,688 | 2,016 | 2,039 | 2,308 | 3,008 | 2,702 | 2,182 | 24,623 |
| 1920..... | 1,841 | 1,480 | 1,663 | 1,557 | 1,778 | 1,879 | 1,671 | 1,962 | 2,204 | 2,209 | 2,428 | 1,395 | 22,197 |
| 1921..... | 1,644 | 1,190 | 1,566 | 1,404 | 1,542 | 1,580 | 1,343 | 1,867 | 1,906 | 2,310 | 1,928 | 1,417 | 19,787 |
| 1922..... | 1,628 | 1,417 | 1,622 | 1,470 | 1,878 | 1,769 | 1,709 | 2,149 | 2,397 | 2,936 | 2,427 | 1,825 | 23,217 |
| 1923..... | 1,877 | 1,427 | 1,502 | 1,670 | 1,900 | 1,629 | 1,903 | 2,214 | 2,205 | 2,802 | 2,182 | 1,810 | 23,211 |
| 1924..... | 1,888 | 1,457 | 1,556 | 1,751 | 1,890 | 1,673 | 1,798 | 1,934 | 2,568 | 2,736 | 2,363 | 2,083 | 24,695 |
| 1925..... | 1,869 | 1,530 | 1,890 | 1,826 | 1,737 | 1,746 | 1,970 | 2,245 | 2,157 | 2,789 | 2,282 | 2,056 | 24,067 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Complete information for 1915 and 1916, particularly on disposition of stock, is not obtainable from many of the markets.

TABLE 457.—*Cattle and calves: Receipts at Chicago, East St. Louis, Kansas City, and Omaha, combined, 1909-1925*

[Thousands—i. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---------------------|------|------|------|------|-----|------|------|-------|-------|-------|-------|-------|
| 1909..... | 628 | 491 | 593 | 489 | 558 | 553 | 610 | 810 | 879 | 982 | 914 | 753 |
| 1910..... | 641 | 515 | 590 | 498 | 553 | 630 | 662 | 915 | 995 | 1,040 | 834 | 617 |
| 1911..... | 700 | 516 | 555 | 498 | 612 | 620 | 680 | 764 | 766 | 1,044 | 757 | 555 |
| 1912..... | 660 | 486 | 502 | 515 | 484 | 462 | 516 | 667 | 868 | 1,010 | 674 | 676 |
| 1913..... | 606 | 486 | 481 | 523 | 452 | 525 | 568 | 688 | 923 | 824 | 606 | 588 |
| A v. 1909-1913..... | 647 | 499 | 544 | 505 | 532 | 559 | 607 | 769 | 880 | 980 | 757 | 638 |
| 1914..... | 536 | 446 | 482 | 446 | 405 | 473 | 457 | 560 | 785 | 813 | 558 | 581 |
| 1915..... | 518 | 377 | 523 | 465 | 461 | 474 | 462 | 611 | 730 | 834 | 798 | 605 |
| 1916..... | 606 | 534 | 558 | 452 | 558 | 530 | 535 | 807 | 861 | 1,146 | 915 | 716 |
| 1917..... | 807 | 567 | 533 | 600 | 708 | 701 | 733 | 808 | 1,029 | 1,309 | 1,148 | 864 |
| 1918..... | 763 | 709 | 779 | 881 | 698 | 705 | 967 | 911 | 1,347 | 1,320 | 1,167 | 1,032 |
| 1919..... | 998 | 682 | 646 | 706 | 608 | 641 | 881 | 926 | 1,131 | 1,362 | 1,169 | 976 |
| 1920..... | 847 | 642 | 698 | 532 | 642 | 696 | 869 | 868 | 1,032 | 932 | 1,029 | 618 |
| A v. 1914-1920..... | 724 | 565 | 603 | 583 | 590 | 603 | 678 | 785 | 988 | 1,102 | 969 | 770 |
| 1921..... | 744 | 520 | 679 | 608 | 625 | 675 | 542 | 863 | 866 | 1,019 | 705 | 585 |
| 1922..... | 717 | 617 | 682 | 577 | 748 | 750 | 719 | 981 | 1,096 | 1,338 | 1,045 | 789 |
| 1923..... | 833 | 641 | 652 | 720 | 793 | 692 | 856 | 1,082 | 1,116 | 1,263 | 892 | 780 |
| 1924..... | 826 | 641 | 675 | 722 | 784 | 717 | 791 | 857 | 1,204 | 1,222 | 939 | 908 |
| 1925..... | 768 | 623 | 767 | 692 | 676 | 715 | 870 | 980 | 974 | 1,172 | 922 | 822 |
| A v. 1921-1925..... | 778 | 606 | 691 | 664 | 725 | 710 | 756 | 953 | 1,051 | 1,203 | 919 | 777 |

Division of Statistical and Historical Research. Figures prior to 1915 compiled from yearbooks of stock-yard companies; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 458.—Cattle and calves: Receipts, local slaughter, and stocker and feeder shipments, public stockyards, 1916-1925

[Thousands—i. e., 000 omitted]

RECEIPTS

| Market | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------------|
| Albany, N. Y. | 42 | 107 | 46 | 39 | 36 | 23 | 21 | 14 | 13 | 10 |
| Amarillo, Tex. | 133 | 352 | 272 | 185 | 147 | 113 | 140 | 115 | 130 | 163 |
| Atlanta, Ga. | 27 | 22 | 18 | 21 | 29 | 30 | 59 | 50 | 55 | 55 |
| Augusta, Ga. | 14 | 14 | 14 | 13 | 12 | 14 | 12 | 9 | 9 | 9 |
| Baltimore, Md. | 178 | 228 | 227 | 249 | 287 | 279 | 241 | 228 | 233 | 247 |
| Boston, Mass. | 90 | 91 | 104 | 98 | 75 | 61 | 77 | 67 | 101 | 127 |
| Buffalo, N. Y. | 477 | 531 | 668 | 749 | 677 | 609 | 637 | 589 | 550 | 599 |
| Chattanooga, Tenn. | 24 | 25 | 13 | 12 | 13 | 15 | 19 | 17 | 15 | 15 |
| Cheyenne, Wyo. | 40 | 47 | 47 | 47 | 23 | 9 | 9 | 22 | 15 | 10 |
| Chicago, Ill. | 3,250 | 3,820 | 4,448 | 4,253 | 3,849 | 3,540 | 3,934 | 3,918 | 3,907 | 3,871 |
| Cincinnati, Ohio. | 352 | 453 | 455 | 460 | 441 | 454 | 446 | 426 | 442 | 432 |
| Cleveland, Ohio. | 181 | 296 | 302 | 305 | 281 | 248 | 281 | 278 | 286 | 293 |
| Dallas, Tex. | 9 | 8 | 12 | 9 | 8 | 8 | 8 | 7 | 7 | 12 |
| Dayton, Ohio. | 21 | 26 | 30 | 31 | 33 | 31 | 33 | 34 | 34 | 34 |
| Denver, Colo. | 601 | 653 | 728 | 824 | 617 | 482 | 656 | 620 | 630 | 587 |
| Detroit, Mich. | 200 | 263 | 252 | 227 | 234 | 201 | 253 | 268 | 283 | 303 |
| East St. Louis, Ill. | 1,200 | 1,408 | 1,509 | 1,473 | 1,254 | 1,077 | 1,400 | 1,399 | 1,385 | 1,444 |
| El Paso, Tex. | 130 | 190 | 212 | 203 | 152 | 170 | 149 | 103 | 142 | 177 |
| Evansville, Ind. | 23 | 35 | 45 | 38 | 45 | 35 | 44 | 39 | 36 | 42 |
| Fort Wayne, Ind. | | | | | | | | 8 | 14 | 18 |
| Fort Worth, Tex. | 1,081 | 1,960 | 1,665 | 1,267 | 1,134 | 984 | 1,084 | 1,258 | 1,392 | 1,370 |
| Fostoria, Ohio. | 12 | 12 | 10 | 11 | 14 | 11 | 15 | 12 | 11 | 12 |
| Indianapolis, Ind. | 405 | 501 | 504 | 515 | 597 | 483 | 509 | 528 | 560 | 547 |
| Jacksonville, Fla. | 3 | 9 | 40 | 16 | 7 | 6 | 5 | 7 | 5 | 7 |
| Jersey City, N. J. | 746 | 755 | 650 | 745 | 833 | 844 | 906 | 673 | 711 | 745 |
| Kansas City, Mo. | 2,331 | 2,902 | 3,320 | 3,085 | 2,500 | 2,469 | 2,983 | 3,208 | 3,043 | 2,958 |
| Knoxville, Tenn. | 17 | 20 | 19 | 21 | 21 | 18 | 24 | 22 | 25 | 27 |
| Lafayette, Ind. | 10 | 14 | 14 | 17 | 19 | 18 | 13 | 13 | 14 | 16 |
| Lancaster, Pa. | 144 | 258 | 304 | 239 | 287 | 205 | 234 | 229 | 223 | 233 |
| Laredo, Tex. | | | | | | | | 15 | 12 | 16 |
| Los Angeles, Calif. | | | | | | | | 183 | 252 | 247 |
| Louisville, Ky. | 203 | 221 | 218 | 246 | 245 | 246 | 283 | 255 | 231 | 240 |
| Marion, Ohio. | | | 2 | 13 | 32 | 7 | 16 | 9 | 6 | 5 |
| Memphis, Tenn. | 2 | 5 | 4 | 6 | 19 | 8 | 13 | 22 | 19 | 24 |
| Milwaukee, Wis. | 244 | 295 | 370 | 398 | 444 | 439 | 504 | 512 | 532 | 588 |
| Montgomery, Ala. | | 7 | 34 | 52 | 68 | 50 | 59 | 75 | 77 | 73 |
| Moultrie, Ga. | | | | | | 4 | 5 | 5 | 7 | 15 |
| Muncie, Ind. | | | | | | | | | | 15 |
| Nashville, Tenn. | 39 | 118 | 88 | 83 | 99 | 96 | 109 | 96 | 100 | 110 |
| Newark, N. J. | | | | | | | | 41 | 46 | 41 |
| New Orleans, La. | 154 | 166 | 174 | 191 | 213 | 188 | 193 | 207 | 212 | 205 |
| New York, N. Y. | 322 | 276 | 385 | 402 | 316 | 301 | 258 | 216 | 218 | 222 |
| North Salt Lake, Utah. | 12 | 42 | 54 | 67 | 49 | 57 | 88 | 74 | 90 | 100 |
| Ogden, Utah. | | 61 | 117 | 104 | 64 | 76 | 91 | 122 | 155 | 163 |
| Oklahoma City, Okla. | 325 | 620 | 690 | 593 | 400 | 315 | 382 | 414 | 388 | 404 |
| Omaha, Nebr. | 1,434 | 1,720 | 1,993 | 1,975 | 1,603 | 1,435 | 1,744 | 1,793 | 1,863 | 1,709 |
| Pasco, Wash. | | | 3 | 6 | 8 | 3 | 6 | 2 | 5 | 7 |
| Peoria, Ill. | 20 | 25 | 32 | 27 | 36 | 43 | 40 | 38 | 46 | 56 |
| Philadelphia, Pa. | 180 | 192 | 194 | 201 | 226 | 227 | 264 | 179 | 192 | 188 |
| Pittsburgh, Pa. | 169 | 500 | 523 | 616 | 733 | 745 | 807 | 821 | 900 | 887 |
| Portland, Oreg. | 83 | 105 | 120 | 125 | 141 | 120 | 140 | 168 | 175 | 176 |
| ueblo, Colo. | 130 | 186 | 205 | 217 | 178 | 79 | 199 | 151 | 108 | 112 |
| Richmond, Va. | 29 | 28 | 22 | 29 | 30 | 28 | 32 | 32 | 33 | 39 |
| South St. Joseph, Mo. | 480 | 670 | 870 | 750 | 643 | 558 | 655 | 709 | 720 | 734 |
| South St. Paul, Minn. | 941 | 1,197 | 1,430 | 1,491 | 1,373 | 985 | 1,387 | 1,349 | 1,323 | 1,636 |
| San Antonio, Tex. | 208 | 193 | 176 | 250 | 233 | 151 | 198 | 163 | 183 | 167 |
| Seattle, Wash. | 25 | 39 | 56 | 66 | 58 | 47 | 46 | 55 | 64 | 57 |
| Sioux City, Iowa. | 602 | 707 | 818 | 814 | 752 | 620 | 747 | 759 | 836 | 807 |
| Sioux Falls, S. Dak. | | 7 | 7 | 8 | 14 | 17 | 33 | 80 | 14 | 24 |
| Spokane, Wash. | 17 | 26 | 51 | 74 | 67 | 41 | 49 | 45 | 55 | 60 |
| Springfield, Ohio. | | | | | | | | 7 | 9 | 12 |
| Toledo, Ohio. | 26 | 32 | 44 | 57 | 64 | 25 | 25 | 25 | 25 | 24 |
| Washington, D. C. | 15 | 16 | 18 | 23 | 27 | 28 | 29 | 32 | 33 | 35 |
| Wichita, Kans. | 220 | 371 | 394 | 311 | 242 | 285 | 407 | 417 | 389 | 417 |
| Discontinued ¹ | 137 | 182 | 271 | 278 | 202 | 129 | 185 | 17 | 4 | (¹) |
| Total | 17,676 | 23,066 | 25,295 | 24,623 | 22,197 | 19,787 | 23,218 | 23,211 | 23,695 | 24,067 |

¹ Not over 500.² Includes only those markets which have been totally discontinued.

TABLE 458.—Cattle and calves: Receipts, local slaughter, and stocker and feeder shipments, public stockyards, 1916-1925—Continued

[Thousands—i. e., 000 omitted]

LOCAL SLAUGHTER:

| Market | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Albany, N. Y. | | 8 | 6 | 4 | 3 | 2 | 1 | 1 | 1 | 1 |
| Amarillo, Tex. | | | | 1 | 1 | 1 | (1) | (1) | | (1) |
| Atlanta, Ga. | | 15 | 11 | 11 | 15 | 18 | 19 | 33 | 29 | 29 |
| Augusta, Ga. | | 10 | 8 | 9 | 8 | 8 | 11 | 9 | 7 | 8 |
| Baltimore, Md. | 112 | 122 | 126 | 145 | 170 | 156 | 157 | 158 | 165 | 168 |
| Buffalo, N. Y. | 107 | 212 | 205 | 202 | 190 | 167 | 192 | 189 | 199 | 212 |
| Chattanooga, Tenn. | | | 9 | 10 | 10 | 11 | 13 | 13 | 11 | 13 |
| Chicago, Ill. | 2,524 | 2,853 | 3,422 | 3,032 | 2,603 | 2,377 | 2,797 | 2,813 | 2,800 | 2,869 |
| Cincinnati, Ohio | 233 | 300 | 303 | 305 | 283 | 302 | 252 | 230 | 242 | 246 |
| Cleveland, Ohio. | 164 | 223 | 223 | 244 | 228 | 228 | 253 | 256 | 256 | 264 |
| Dallas, Tex. | 9 | 8 | 12 | 9 | 8 | 8 | 8 | 7 | 7 | 12 |
| Dayton, Ohio. | 18 | 23 | 26 | 25 | 26 | 27 | 29 | 30 | 30 | 30 |
| Denver, Colo. | 89 | 131 | 185 | 174 | 153 | 122 | 121 | 131 | 159 | 175 |
| Detroit, Mich. | 165 | 174 | 192 | 189 | 202 | 168 | 201 | 239 | 248 | 262 |
| East St. Louis, Ill. | 888 | 1,087 | 1,140 | 1,019 | 744 | 466 | 630 | 544 | 544 | 550 |
| El Paso, Tex. | | 10 | 19 | 24 | 21 | 24 | 20 | 26 | 30 | 31 |
| Evansville, Ind. | 13 | 15 | 16 | 16 | 24 | 21 | 23 | 22 | 21 | 17 |
| Fort Wayne, Ind. | | | | | | | | 4 | 4 | 4 |
| Fort Worth, Tex. | 474 | 991 | 954 | 715 | 858 | 576 | 620 | 795 | 972 | 987 |
| Fostoria, Ohio. | | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 1 | 1 |
| Indianapolis, Ind. | 208 | 270 | 268 | 245 | 257 | 230 | 233 | 247 | 209 | 216 |
| Jacksonville, Fla. | | 6 | 39 | 16 | 6 | 3 | 3 | 4 | 4 | 5 |
| Jersey City, N. J. | 746 | 755 | 650 | 745 | 833 | 843 | 903 | 673 | 711 | 745 |
| Kansas City, Mo. | 1,301 | 1,677 | 1,915 | 1,617 | 1,264 | 1,200 | 1,407 | 1,559 | 1,562 | 1,631 |
| Knoxville, Tenn. | 13 | 10 | 9 | 9 | 11 | 10 | 13 | 12 | 13 | 16 |
| Lafayette, Ind. | 6 | 6 | 5 | 7 | 8 | 9 | 8 | 8 | 8 | 8 |
| Lancaster, Pa. | | | 28 | 45 | 55 | 37 | 48 | 47 | 45 | 53 |
| Laredo, Tex. | | | | | | | | 2 | 3 | 3 |
| Los Angeles, Calif. | | | | | | | | 173 | 242 | 245 |
| Louisville, Ky. | 70 | 76 | 74 | 87 | 87 | 81 | 80 | 98 | 93 | 103 |
| Marion, Ohio. | | | (1) | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Memphis, Tenn. | | | | 1 | (1) | 5 | 8 | 11 | 11 | 17 |
| Milwaukee, Wis. | 214 | 263 | 321 | 334 | 390 | 402 | 458 | 471 | 494 | 547 |
| Montgomery, Ala. | | | | 3 | 4 | 4 | 4 | 7 | 10 | 6 |
| Montrie, Ga. | | | | | | 1 | 2 | 2 | 4 | 4 |
| Muncie, Ind. | | | | | | | | | | 5 |
| Nashville, Tenn. | 7 | 27 | 32 | 41 | 46 | 42 | 47 | 51 | 51 | 56 |
| Newark, N. J. | | | | | | | | 37 | 43 | 37 |
| New Orleans, La. | 141 | 155 | 160 | 162 | 174 | 160 | 159 | 168 | 178 | 173 |
| New York, N. Y. | 322 | 276 | 385 | 400 | 315 | 300 | 257 | 215 | 217 | 222 |
| North Salt Lake, Utah | 1 | 11 | 23 | 19 | 14 | 25 | 14 | 16 | 36 | 40 |
| Ogden, Utah. | | 12 | 12 | 11 | 16 | 13 | 12 | 16 | 14 | 10 |
| Oklahoma City, Okla. | 221 | 415 | 528 | 368 | 228 | 203 | 219 | 279 | 280 | 306 |
| Omaha, Nebr. | 843 | 996 | 1,138 | 1,136 | 914 | 797 | 916 | 997 | 1,104 | 1,080 |
| Pasco, Wash. | | | (1) | (1) | (1) | | | | (1) | |
| Peoria, Ill. | 14 | 14 | 26 | 18 | 18 | 21 | 20 | 17 | 18 | 17 |
| Pittsdelphia, Pa. | | 183 | 186 | 196 | 221 | 225 | 261 | 172 | 189 | 185 |
| Pittsburgh, Pa. | 92 | 168 | 163 | 151 | 171 | 175 | 161 | 175 | 172 | 179 |
| Portland, Oreg. | 42 | 56 | 65 | 62 | 70 | 59 | 67 | 68 | 106 | 112 |
| Pueblo, Colo. | | | (1) | | | 1 | (1) | 1 | 1 | 1 |
| Richmond, Va. | 13 | 14 | 13 | 17 | 19 | 20 | 25 | 24 | 25 | 27 |
| South St. Joseph, Mo. | 331 | 459 | 569 | 531 | 410 | 370 | 444 | 469 | 529 | |
| South St. Paul, Minn. | 381 | 487 | 616 | 530 | 710 | 564 | 783 | 851 | 928 | 1,152 |
| San Antonio, Tex. | | 55 | 20 | 14 | 37 | 36 | 54 | 53 | 60 | 57 |
| Seattle, Wash. | 25 | 39 | 56 | 64 | 56 | 46 | 45 | 55 | 62 | 56 |
| Sioux City, Iowa. | 233 | 296 | 385 | 303 | 342 | 273 | 301 | 341 | 402 | 485 |
| Sioux Falls, S. Dak. | | (1) | 1 | 1 | 6 | 7 | 13 | 11 | 5 | 10 |
| Spokane, Wash. | 3 | 14 | 36 | 36 | 35 | 23 | 26 | 28 | 28 | 35 |
| Springfield, Ohio. | | | | | | | | 2 | 3 | 2 |
| Toledo, Ohio. | 12 | 11 | 13 | 13 | 18 | 14 | 12 | 13 | 13 | 11 |
| Washington, D. C. | 15 | 12 | 16 | 20 | 25 | 27 | 28 | 31 | 32 | 37 |
| Wichita, Kans. | 88 | 122 | 145 | 133 | 84 | 83 | 93 | 104 | 125 | 139 |
| Discontinued ¹ | 68 | 106 | 119 | 101 | 99 | 85 | 80 | 14 | 2 | (1) |
| Total. | 10,204 | 13,275 | 14,874 | 13,633 | 12,194 | 11,078 | 12,435 | 13,030 | 13,850 | 14,462 |

¹ Not over 500.

² Includes only those markets which have been totally discontinued.

³ Compiled from reports of stock sold and driven out for local slaughter, made by stockyards to the Division of Livestock, Meats, and Wool.

TABLE 458.—Cattle and calves: Receipts, local slaughter, and stocker and feeder shipments, public stockyards, 1916-1925—Continued

[Thousands—1. e., 000 omitted]

STOCKER AND FEEDER SHIPMENTS

| Market | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Albany, N. Y. | ----- | 1 | 1 | 1 | 1 | (1) | (1) | (1) | (1) | (1) |
| Amarillo, Tex. | 110 | 262 | 197 | 122 | 91 | 84 | 163 | 74 | 87 | 132 |
| Atlanta, Ga. | ----- | 2 | 4 | 1 | 3 | 2 | 6 | 2 | 2 | 1 |
| Augusta, Ga. | ----- | 1 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 |
| Baltimore, Md. | 7 | 8 | 11 | 5 | 5 | 3 | 3 | 2 | 5 | 7 |
| Buffalo, N. Y. | 26 | 25 | 31 | 39 | 14 | 8 | 7 | 4 | 12 | 13 |
| Chattanooga, Tenn. | ----- | ----- | 2 | 2 | 2 | 4 | 4 | 3 | 4 | 2 |
| Chicago, Ill. | 256 | 358 | 401 | 509 | 417 | 332 | 343 | 295 | 258 | 231 |
| Cincinnati, Ohio. | 26 | 22 | 30 | 28 | 28 | 22 | 26 | 23 | 21 | 21 |
| Cleveland, Ohio. | ----- | 3 | 4 | 6 | 3 | 6 | 5 | 4 | 5 | 2 |
| Dayton, Ohio. | 2 | (1) | 1 | (1) | (1) | ----- | ----- | ----- | ----- | ----- |
| Denver, Colo. | 386 | 307 | 402 | 483 | 407 | 274 | 413 | 361 | 359 | 289 |
| Detroit, Mich. | 9 | 8 | 6 | 17 | 16 | 14 | 14 | 11 | 10 | 6 |
| East St. Louis, Ill. | 161 | 221 | 225 | 234 | 168 | 185 | 275 | 281 | 199 | 143 |
| El Paso, Tex. | ----- | 159 | 178 | 151 | 115 | 102 | 84 | 40 | 59 | 85 |
| Evansville, Ind. | ----- | 1 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 4 |
| Fort Wayne, Ind. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | (1) | (1) | (1) |
| Fort Worth, Tex. | 312 | 437 | 393 | 327 | 278 | 172 | 225 | 169 | 158 | 191 |
| Fostoria, Ohio. | 6 | 4 | 3 | 5 | 5 | 3 | 7 | 5 | 4 | 2 |
| Indianapolis, Ind. | 45 | 46 | 56 | 50 | 48 | 41 | 44 | 44 | 48 | 45 |
| Jacksonville, Fla. | 1 | 1 | 1 | (1) | (1) | ----- | 1 | (1) | ----- | (1) |
| Kansas City, Mo. | 893 | 948 | 1,053 | 1,036 | 778 | 788 | 1,151 | 1,162 | 998 | 908 |
| Knoxville, Tenn. | 1 | 6 | 8 | 8 | 4 | 3 | 6 | 4 | 2 | 4 |
| Lafayette, Ind. | (1) | 1 | 1 | 2 | 1 | 1 | 1 | 1 | (1) | (1) |
| Lancaster, Pa. | ----- | ----- | 93 | 95 | 87 | 1 | ----- | 53 | 63 | 82 |
| Laredo, Tex. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 10 | 6 | 10 |
| Los Angeles, Calif. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 9 | 9 | 11 |
| Louisville, Ky. | ----- | ----- | 24 | 36 | 31 | 37 | 42 | 32 | 22 | 24 |
| Marion, Ohio. | ----- | ----- | 1 | 1 | (1) | (1) | (1) | (1) | (1) | (1) |
| Memphis, Tenn. | (1) | ----- | ----- | (1) | 2 | 1 | 2 | 7 | 5 | 4 |
| Milwaukee, Wis. | 5 | 9 | 11 | 16 | 15 | 12 | 13 | 16 | 14 | 11 |
| Montgomery, Ala. | ----- | (1) | 6 | 9 | 28 | 10 | 9 | 7 | 10 | 6 |
| Moultrie, Ga. | ----- | ----- | ----- | ----- | ----- | (1) | (1) | (1) | (1) | 1 |
| Muncie, Ind. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 1 |
| Nashville, Tenn. | 6 | 3 | 3 | 11 | 14 | 12 | 15 | 9 | 10 | 11 |
| Newark, N. J. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 3 | 3 | 4 |
| New Orleans, La. | 8 | 6 | 6 | 18 | 17 | 16 | 21 | 21 | 11 | 10 |
| North Salt Lake, Utah. | 2 | 25 | 23 | 25 | 16 | 12 | 15 | 11 | 9 | 12 |
| Ogden, Utah. | ----- | 5 | 27 | 48 | 28 | 25 | 23 | 45 | 59 | 64 |
| Oklahoma City, Okla. | 88 | 172 | 155 | 136 | 106 | 80 | 80 | 70 | 46 | 58 |
| Omaha, Nebr. | 533 | 561 | 526 | 656 | 451 | 443 | 621 | 586 | 467 | 383 |
| Pasco, Wash. | ----- | ----- | (1) | ----- | (1) | ----- | ----- | ----- | ----- | (1) |
| Peoria, Ill. | 2 | 2 | 2 | (1) | 1 | 4 | 7 | 4 | 7 | 6 |
| Portland, Oreg. | 12 | 18 | 18 | 21 | 26 | 9 | 12 | 10 | 10 | 10 |
| Pueblo, Colo. | ----- | ----- | 79 | 7 | 5 | 4 | 16 | 45 | 41 | 45 |
| Richmond, Va. | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 1 |
| South St. Joseph, Mo. | 95 | 127 | 116 | 124 | 103 | 103 | 176 | 170 | 142 | 118 |
| South St. Paul, Minn. | 358 | 357 | 337 | 416 | 316 | 270 | 439 | 348 | 272 | 322 |
| San Antonio, Tex. | 59 | 43 | 53 | 138 | 96 | 26 | 83 | 66 | 63 | 63 |
| Seattle, Wash. | ----- | (1) | (1) | (1) | ----- | (1) | (1) | (1) | ----- | (1) |
| Sioux City, Iowa. | 328 | 348 | 303 | 329 | 238 | 240 | 335 | 308 | 264 | 260 |
| Sioux Falls, S. Dak. | ----- | 6 | 4 | 1 | 1 | 4 | 11 | 14 | 7 | 12 |
| Spokane, Wash. | ----- | 9 | 12 | 28 | 23 | 7 | 12 | 8 | 13 | 12 |
| Springfield, Ohio. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 2 |
| Toledo, Ohio. | 1 | 2 | 5 | 4 | 5 | 4 | 4 | 4 | 4 | 3 |
| Washington, D. C. | ----- | ----- | (1) | 1 | (1) | (1) | ----- | ----- | ----- | ----- |
| Wichita, Kans. | 107 | 192 | 188 | 116 | 104 | 132 | 203 | 198 | 183 | 199 |
| Discontinued ¹ | 1 | 9 | 8 | 15 | 2 | 1 | 4 | 1 | (1) | ----- |
| Total | 3,847 | 4,803 | 5,013 | 5,286 | 4,102 | 3,504 | 4,864 | 4,553 | 3,978 | 3,823 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats and Wool.

¹ Not over 500.² Includes only those markets which have been totally discontinued.

TABLE 459.—Cattle and calves: Slaughter in United States, by States, 1909, 1914, 1919, 1921, and 1923¹

CATTLE

| State | 1909 | | | | 1914 ² | | 1919 ³ | | 1921 ⁴ | 1923 |
|-----------------------|--|------------------|---------------------|-----------------|--|--|----------------------------------|--|--|--|
| | In whole-sale slaughtering and meat-packing establishments | Retail slaughter | On farms and ranges | Total slaughter | In whole-sale slaughtering and meat-packing establishments | In whole-sale slaughtering and meat-packing establishments | On farms and ranges ⁴ | Total whole-sale and farm slaughter ⁴ | In whole-sale slaughtering and meat-packing establishments | In whole-sale slaughtering and meat-packing establishments |
| | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number |
| Calif..... | 341,017 | 276,666 | 30,319 | 654,602 | 315,762 | 395,524 | 46,737 | 442,261 | 442,750 | 549,155 |
| Colo..... | 64,308 | 53,478 | 26,818 | 144,604 | 62,735 | 145,694 | 29,972 | 175,666 | 109,102 | 120,753 |
| Ill..... | 2,181,199 | 195,588 | 38,466 | 2,415,253 | 1,864,082 | 2,887,414 | 71,732 | 2,959,146 | 1,898,692 | 2,573,721 |
| Ind..... | 252,697 | 138,729 | 27,122 | 418,548 | 200,180 | 271,004 | 42,394 | 313,398 | 243,066 | 285,516 |
| Iowa..... | 252,821 | 160,688 | 73,454 | 486,963 | 219,359 | 437,055 | 67,705 | 504,760 | 383,570 | 455,894 |
| Kans..... | 1,362,572 | 103,860 | 30,660 | 1,497,092 | 990,188 | 1,479,805 | 43,247 | 1,528,052 | 1,088,178 | 1,227,130 |
| Mich..... | 50,157 | 165,527 | 43,619 | 259,303 | 62,035 | 106,975 | 117,210 | 224,194 | 87,497 | 135,894 |
| Minn..... | 125,852 | 100,844 | 79,226 | 314,922 | 166,903 | 299,462 | 111,276 | 410,738 | 296,453 | 340,810 |
| Mo..... | 630,356 | 86,258 | 32,059 | 648,673 | 359,910 | 674,287 | 43,909 | 718,196 | 524,917 | 583,837 |
| Nebr..... | 551,258 | 78,350 | 42,083 | 771,691 | 491,632 | 1,006,654 | 41,350 | 1,048,004 | 722,609 | 943,916 |
| N. J..... | 53,234 | 35,492 | 3,175 | 91,901 | 37,903 | 110,066 | 5,924 | 115,990 | 111,468 | 107,098 |
| N. Y..... | 668,447 | 163,533 | 68,793 | 900,773 | 636,389 | 661,518 | 117,746 | 779,264 | 517,953 | 581,751 |
| Ohio..... | 265,191 | 275,401 | 54,040 | 594,632 | 269,719 | 410,680 | 78,071 | 488,754 | 363,630 | 304,317 |
| Pa..... | 252,897 | 247,740 | 88,505 | 589,142 | 236,949 | 257,608 | 148,861 | 406,472 | 301,741 | 310,929 |
| Tex..... | 527,469 | 277,064 | 64,031 | 868,564 | 554,479 | 550,550 | 61,543 | 612,093 | 304,175 | 426,342 |
| Wash..... | 117,522 | 56,497 | 27,087 | 199,106 | 85,774 | 132,213 | 71,700 | 203,913 | 108,819 | 137,973 |
| Wis..... | 73,049 | 144,160 | 51,040 | 268,249 | 70,900 | 123,316 | 101,973 | 225,289 | 133,948 | 148,571 |
| All other States..... | 344,214 | 1,519,047 | 624,143 | 2,487,404 | 523,243 | 868,686 | 698,216 | 1,566,902 | 631,527 | 880,850 |
| Total..... | 8,114,860 | 4,087,922 | 1,408,640 | 13,611,422 | 7,149,042 | 10,818,511 | 1,904,581 | 12,723,092 | 8,263,575 | 10,178,496 |

CALVES

| | | | | | | | | | | |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|-------|-----------|-----------|
| Calif..... | 81,344 | 96,520 | 50,538 | 228,402 | 31,834 | 86,980 | ----- | ----- | 115,460 | 175,410 |
| Ill..... | 513,639 | 162,913 | 81,079 | 757,631 | 439,616 | 839,604 | ----- | ----- | 732,526 | 739,505 |
| Ind..... | 60,578 | 84,792 | 21,731 | 167,101 | 61,500 | 65,557 | ----- | ----- | 59,440 | 71,511 |
| Kans..... | 269,357 | 24,518 | 11,536 | 245,411 | 130,102 | 386,971 | ----- | ----- | 272,794 | 428,829 |
| Md..... | 23,137 | 70,337 | 2,110 | 95,584 | 26,278 | 60,530 | ----- | ----- | 66,504 | 79,842 |
| Mass..... | 129,162 | 59,050 | 14,187 | 202,399 | 115,724 | 244,304 | ----- | ----- | 174,570 | 166,223 |
| Mich..... | 27,284 | 133,174 | 61,806 | 222,354 | 24,505 | 74,242 | ----- | ----- | 43,092 | 104,002 |
| Minn..... | 55,991 | 106,126 | 80,493 | 244,610 | 79,580 | 288,623 | ----- | ----- | 392,290 | 567,061 |
| Mo..... | 81,551 | 100,375 | 8,779 | 190,705 | 45,213 | 167,753 | ----- | ----- | 138,242 | 148,810 |
| Nebr..... | 58,158 | 28,000 | 5,458 | 91,706 | 23,914 | 131,896 | ----- | ----- | 66,714 | 78,344 |
| N. J..... | 95,604 | 77,927 | 14,025 | 187,556 | 68,492 | 101,975 | ----- | ----- | 143,966 | 154,674 |
| N. Y..... | 377,121 | 237,694 | 212,962 | 827,777 | 378,197 | 572,955 | ----- | ----- | 681,399 | 644,764 |
| Ohio..... | 150,223 | 240,145 | 31,180 | 421,548 | 141,358 | 249,487 | ----- | ----- | 244,104 | 253,600 |
| Pa..... | 152,851 | 332,704 | 68,936 | 554,491 | 115,446 | 164,415 | ----- | ----- | 225,266 | 282,131 |
| Tex..... | 234,172 | 99,390 | 22,443 | 356,007 | 145,391 | 353,417 | ----- | ----- | 348,946 | 389,590 |
| Wis..... | 129,207 | 289,694 | 93,107 | 612,008 | 101,936 | 293,249 | ----- | ----- | 358,125 | 441,785 |
| All other States..... | 125,849 | 734,199 | 351,078 | 1,211,026 | 89,909 | 313,628 | ----- | ----- | 251,412 | 373,922 |
| Total..... | 2,504,728 | 2,879,648 | 1,131,600 | 6,515,976 | 2,019,004 | 4,395,675 | ----- | ----- | 4,314,850 | 5,100,012 |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of Census.

¹In addition there were 377,957 heaves and 243,360 calves slaughtered on a custom basis in 1914, and 553,839 heaves and 387,692 calves for 1919. No corresponding data for 1909, 1921, or 1923.

²No data collected by the Bureau of Census for 1914, 1921, or 1923 on farm or retail slaughter.

³No data obtainable for retail slaughter in 1919.

⁴Including calves.

TABLE 460.—Cattle and calves: Stocker and feeder shipments from public stockyards, 1916-1925

[Thousands—1. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| 1916 ¹ | 221 | 197 | 250 | 262 | 289 | 264 | 171 | 330 | 464 | 682 | 461 | 256 | 3,847 |
| 1917..... | 260 | 213 | 249 | 306 | 401 | 353 | 262 | 330 | 588 | 708 | 720 | 344 | 4,803 |
| 1918..... | 222 | 214 | 319 | 385 | 491 | 393 | 274 | 418 | 604 | 704 | 623 | 366 | 5,013 |
| 1919..... | 364 | 264 | 277 | 391 | 442 | 272 | 236 | 397 | 611 | 830 | 723 | 470 | 5,286 |
| 1920..... | 349 | 240 | 241 | 244 | 323 | 272 | 218 | 314 | 488 | 580 | 553 | 280 | 4,102 |
| 1921..... | 205 | 166 | 236 | 238 | 214 | 209 | 122 | 355 | 395 | 622 | 497 | 245 | 3,504 |
| 1922..... | 233 | 243 | 282 | 235 | 359 | 259 | 223 | 499 | 630 | 864 | 710 | 357 | 4,864 |
| 1923..... | 281 | 210 | 199 | 233 | 300 | 234 | 223 | 480 | 631 | 785 | 624 | 353 | 4,583 |
| 1924..... | 243 | 170 | 174 | 239 | 275 | 201 | 169 | 306 | 580 | 763 | 549 | 309 | 3,978 |
| 1925..... | 207 | 176 | 230 | 271 | 216 | 154 | 243 | 360 | 427 | 717 | 489 | 333 | 3,823 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹Complete information for 1916 not obtainable from many markets.

TABLE 461.—Cattle and calves: Receipts, local slaughter, and stocker and feeder shipments at certain public stockyards, 1925

[Thousands—1. e., 000 omitted]

| Stockyard | January | February | March | April | May | June | July | August | September | October | November | December | Total |
|-----------------------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|-------|
| Baltimore, Md.: | | | | | | | | | | | | | |
| Receipts..... | 17 | 14 | 17 | 17 | 19 | 16 | 23 | 28 | 29 | 30 | 20 | 17 | 247 |
| Local slaughter..... | 12 | 11 | 14 | 14 | 15 | 13 | 17 | 14 | 15 | 17 | 13 | 13 | 163 |
| Stocker and feeder shipments..... | (1) | (1) | (1) | (1) | 1 | (1) | (1) | 1 | 1 | 2 | 1 | 1 | 7 |
| Buffalo, N. Y.: | | | | | | | | | | | | | |
| Receipts..... | 50 | 40 | 46 | 50 | 57 | 54 | 47 | 50 | 43 | 60 | 53 | 49 | 599 |
| Local slaughter..... | 15 | 13 | 16 | 21 | 19 | 18 | 18 | 18 | 18 | 21 | 18 | 17 | 212 |
| Stocker and feeder shipments..... | 1 | (1) | (1) | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 13 |
| Chicago, Ill.: | | | | | | | | | | | | | |
| Receipts..... | 352 | 282 | 332 | 313 | 309 | 287 | 278 | 305 | 309 | 398 | 353 | 350 | 3,871 |
| Local slaughter..... | 248 | 201 | 256 | 244 | 244 | 232 | 220 | 238 | 219 | 274 | 252 | 241 | 2,899 |
| Stocker and feeder shipments..... | 17 | 12 | 13 | 12 | 7 | 6 | 9 | 10 | 28 | 53 | 20 | 20 | 231 |
| Cincinnati, Ohio: | | | | | | | | | | | | | |
| Receipts..... | 30 | 26 | 31 | 32 | 35 | 34 | 41 | 45 | 43 | 50 | 33 | 32 | 432 |
| Local slaughter..... | 19 | 17 | 19 | 19 | 21 | 22 | 23 | 24 | 20 | 25 | 18 | 19 | 246 |
| Stocker and feeder shipments..... | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 4 | 2 | 1 | 21 |
| Cleveland, Ohio: | | | | | | | | | | | | | |
| Receipts..... | 23 | 19 | 22 | 24 | 25 | 27 | 31 | 29 | 26 | 25 | 19 | 23 | 293 |
| Local slaughter..... | 20 | 16 | 20 | 22 | 23 | 25 | 28 | 26 | 23 | 22 | 18 | 21 | 264 |
| Stocker and feeder shipments..... | 1 | (1) | (1) | (1) | 1 | (1) | (1) | (1) | (1) | (1) | 0 | (1) | 2 |
| Denver, Colo.: | | | | | | | | | | | | | |
| Receipts..... | 42 | 28 | 38 | 33 | 43 | 46 | 27 | 33 | 42 | 104 | 103 | 48 | 587 |
| Local slaughter..... | 12 | 11 | 14 | 13 | 12 | 15 | 14 | 14 | 15 | 20 | 19 | 16 | 175 |
| Stocker and feeder shipments..... | 18 | 7 | 10 | 5 | 26 | 30 | 12 | 13 | 18 | 62 | 54 | 35 | 289 |
| Detroit, Mich.: | | | | | | | | | | | | | |
| Receipts..... | 22 | 22 | 27 | 28 | 27 | 28 | 27 | 20 | 21 | 26 | 26 | 30 | 303 |
| Local slaughter..... | 18 | 19 | 23 | 24 | 24 | 25 | 23 | 19 | 20 | 22 | 21 | 24 | 262 |
| Stocker and feeder shipments..... | 0 | (1) | (1) | (1) | (1) | (1) | 1 | 1 | 1 | 2 | 1 | (1) | 6 |
| East St. Louis, Ill.: | | | | | | | | | | | | | |
| Receipts..... | 83 | 74 | 87 | 85 | 103 | 118 | 148 | 165 | 152 | 159 | 138 | 132 | 1,444 |
| Local slaughter..... | 27 | 30 | 36 | 34 | 44 | 50 | 53 | 62 | 62 | 57 | 54 | 51 | 560 |
| Stocker and feeder shipments..... | 7 | 6 | 7 | 6 | 4 | 6 | 15 | 18 | 21 | 23 | 17 | 13 | 143 |
| Fort Worth, Tex.: | | | | | | | | | | | | | |
| Receipts..... | 91 | 70 | 89 | 101 | 85 | 130 | 147 | 155 | 117 | 117 | 133 | 135 | 1,370 |
| Local slaughter..... | 71 | 52 | 58 | 53 | 56 | 105 | 116 | 120 | 91 | 80 | 86 | 90 | 987 |
| Stocker and feeder shipments..... | 11 | 9 | 15 | 30 | 16 | 10 | 6 | 16 | 13 | 20 | 25 | 21 | 191 |
| Indianapolis, Ind.: | | | | | | | | | | | | | |
| Receipts..... | 47 | 37 | 43 | 47 | 46 | 44 | 50 | 46 | 48 | 53 | 40 | 46 | 547 |
| Local slaughter..... | 23 | 17 | 21 | 22 | 21 | 20 | 20 | 19 | 20 | 23 | 18 | 22 | 246 |
| Stocker and feeder shipments..... | 2 | 2 | 3 | 3 | 2 | 3 | 5 | 6 | 4 | 6 | 6 | 3 | 45 |
| Jersey City, N. J.: | | | | | | | | | | | | | |
| Receipts..... | 75 | 61 | 60 | 81 | 62 | 55 | 48 | 66 | 57 | 70 | 46 | 64 | 745 |
| Local slaughter..... | 75 | 61 | 60 | 81 | 62 | 55 | 48 | 66 | 57 | 70 | 46 | 64 | 745 |
| Kansas City, Mo.: | | | | | | | | | | | | | |
| Receipts..... | 195 | 160 | 209 | 170 | 154 | 197 | 324 | 358 | 321 | 389 | 279 | 201 | 2,958 |
| Local slaughter..... | 117 | 98 | 113 | 102 | 99 | 129 | 170 | 175 | 165 | 179 | 145 | 130 | 1,681 |
| Stocker and feeder shipments..... | 49 | 43 | 61 | 51 | 32 | 35 | 88 | 107 | 117 | 172 | 95 | 58 | 908 |

¹ Not over 500.

TABLE 461.—Cattle and calves: Receipts, local slaughter, and stocker and feeder shipments at certain public stockyards, 1925—Continued

[Thousands—i. e., 600 omitted]

| Stockyard | January | February | March | April | May | June | July | August | September | October | November | December | Total |
|-----------------------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|-------|
| Los Angeles, Calif.: | | | | | | | | | | | | | |
| Receipts..... | 25 | 18 | 20 | 16 | 15 | 19 | 15 | 21 | 20 | 28 | 26 | 24 | 247 |
| Local slaughter..... | 23 | 17 | 19 | 16 | 15 | 19 | 15 | 19 | 21 | 26 | 23 | 22 | 235 |
| Stocker and feeder shipments..... | 2 | 1 | 1 | (1) | (1) | (1) | (1) | (1) | 1 | 2 | 2 | 2 | 11 |
| Milwaukee, Wis.: | | | | | | | | | | | | | |
| Receipts..... | 50 | 47 | 68 | 74 | 57 | 45 | 31 | 23 | 32 | 46 | 55 | 60 | 588 |
| Local slaughter..... | 48 | 45 | 65 | 72 | 54 | 42 | 29 | 21 | 29 | 40 | 47 | 55 | 547 |
| Stocker and feeder shipments..... | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 11 |
| Oklahoma City, Okla.: | | | | | | | | | | | | | |
| Receipts..... | 30 | 29 | 38 | 36 | 23 | 32 | 42 | 37 | 31 | 30 | 34 | 33 | 404 |
| Local slaughter..... | 28 | 22 | 29 | 21 | 17 | 27 | 37 | 30 | 26 | 27 | 25 | 24 | 306 |
| Stocker and feeder shipments..... | 4 | 4 | 7 | 14 | 3 | 1 | 3 | 3 | 3 | 7 | 6 | 4 | 58 |
| Omaha, Nebr.: | | | | | | | | | | | | | |
| Receipts..... | 138 | 107 | 139 | 124 | 110 | 113 | 120 | 149 | 192 | 226 | 153 | 138 | 1,700 |
| Local slaughter..... | 91 | 69 | 91 | 81 | 81 | 83 | 84 | 76 | 104 | 131 | 92 | 97 | 1,080 |
| Stocker and feeder shipments..... | 23 | 20 | 20 | 17 | 8 | 6 | 18 | 2 | 65 | 90 | 43 | 31 | 383 |
| Pittsburgh, Pa.: | | | | | | | | | | | | | |
| Receipts..... | 84 | 62 | 58 | 65 | 71 | 61 | 73 | 81 | 74 | 90 | 83 | 85 | 887 |
| Local slaughter..... | 14 | 11 | 14 | 16 | 17 | 17 | 17 | 15 | 16 | 16 | 12 | 14 | 179 |
| Port and, Oreg.: | | | | | | | | | | | | | |
| Receipts..... | 15 | 14 | 17 | 12 | 12 | 16 | 12 | 18 | 18 | 14 | 15 | 13 | 176 |
| Local slaughter..... | 10 | 8 | 12 | 9 | 8 | 10 | 8 | 10 | 10 | 9 | 10 | 8 | 112 |
| Stocker and feeder shipments..... | (1) | 1 | (1) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 |
| South St. Joseph, Mo.: | | | | | | | | | | | | | |
| Receipts..... | 53 | 49 | 57 | 47 | 41 | 48 | 70 | 76 | 75 | 96 | 61 | 61 | 734 |
| Local slaughter..... | 38 | 35 | 43 | 35 | 32 | 36 | 54 | 55 | 53 | 57 | 45 | 46 | 529 |
| Stocker and feeder shipments..... | 7 | 4 | 6 | 5 | 3 | 4 | 9 | 12 | 10 | 33 | 11 | 8 | 118 |
| South St. Paul, Minn.: | | | | | | | | | | | | | |
| Receipts..... | 100 | 98 | 128 | 126 | 121 | 106 | 116 | 151 | 135 | 236 | 172 | 149 | 1,636 |
| Local slaughter..... | 86 | 81 | 100 | 105 | 100 | 89 | 86 | 82 | 85 | 124 | 103 | 111 | 1,152 |
| Stocker and feeder shipments..... | 9 | 11 | 15 | 16 | 15 | 12 | 25 | 42 | 38 | 65 | 43 | 31 | 322 |
| Sioux City, Iowa: | | | | | | | | | | | | | |
| Receipts..... | 75 | 61 | 74 | 61 | 59 | 48 | 53 | 85 | 89 | 116 | 85 | 91 | 897 |
| Local slaughter..... | 44 | 35 | 43 | 39 | 39 | 30 | 33 | 35 | 42 | 53 | 43 | 49 | 485 |
| Stocker and feeder shipments..... | 13 | 13 | 17 | 14 | 12 | 9 | 12 | 26 | 36 | 50 | 30 | 28 | 260 |
| Wichita, Kans.: | | | | | | | | | | | | | |
| Receipts..... | 29 | 35 | 48 | 44 | 28 | 16 | 27 | 39 | 28 | 45 | 44 | 34 | 417 |
| Local slaughter..... | 11 | 12 | 14 | 11 | 9 | 0 | 11 | 12 | 11 | 13 | 13 | 13 | 139 |
| Stocker and feeder shipments..... | 12 | 16 | 23 | 30 | 15 | 4 | 7 | 11 | 16 | 24 | 24 | 18 | 199 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool. Local slaughter data from stockyards.

1 Not over 500.

TABLE 462.—Dairy cattle: Inspected shipments from public stockyards, 1925

| Origin and destination | January | February | March | April | May | June | July | August | September | October | November | December | Total |
|---------------------------|---------|----------|--------|--------|--------|--------|--------|--------|-----------|---------|----------|----------|---------|
| MARKET ORIGIN | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number |
| Baltimore, Md. | 36 | 50 | 122 | 330 | 374 | 115 | 150 | 236 | 361 | 187 | 200 | 190 | 2,941 |
| Boston, Mass. | 876 | 1,047 | 1,860 | 1,211 | 1,116 | 1,559 | 1,488 | 1,702 | 2,240 | 1,642 | 1,545 | 1,484 | 17,770 |
| Buffalo, N. Y. | 417 | 281 | 689 | 662 | 604 | 708 | 937 | 1,103 | 1,556 | 968 | 789 | 694 | 9,438 |
| Cincinnati, Ohio | 672 | 662 | 593 | 798 | 1,289 | 896 | 1,071 | 1,480 | 1,193 | 821 | 673 | 447 | 10,965 |
| Detroit, Mich. | 72 | 104 | 51 | 46 | 104 | 211 | 137 | 123 | 83 | 190 | 183 | 67 | 1,261 |
| Fort Worth, Tex. | 987 | 877 | 742 | 342 | 1,343 | 1,064 | 1,254 | 1,346 | 671 | 841 | 1,188 | 1,605 | 12,880 |
| Indianapolis, Ind. | 275 | 256 | 226 | 217 | 300 | 500 | 700 | 900 | 498 | 1,708 | 400 | 245 | 4,317 |
| Kansas City, Kans. | 224 | 319 | 438 | 660 | 814 | 533 | 672 | 709 | 1,708 | 1,559 | 703 | 560 | 4,899 |
| Louisville, Ky. | 123 | 68 | 155 | 191 | 191 | 250 | 305 | 387 | 250 | 404 | 237 | 96 | 2,535 |
| Memphis, Tenn. | 113 | 82 | 39 | 84 | 320 | 98 | 258 | 278 | 441 | 261 | 126 | 13 | 2,113 |
| Montgomery, Wis. | 597 | 596 | 1,086 | 908 | 838 | 836 | 866 | 910 | 828 | 894 | 686 | 756 | 9,731 |
| National Stockyards, Ill. | 284 | 107 | 70 | 706 | 971 | 2,108 | 3,767 | 4,435 | 4,680 | 3,427 | 1,522 | 19 | 28,881 |
| New Orleans, La. | 496 | 334 | 525 | 262 | 261 | 308 | 265 | 219 | 396 | 379 | 338 | 600 | 3,809 |
| Omaha, Neb. | 73 | 99 | 99 | 89 | 29 | 47 | 97 | 119 | 110 | 477 | 81 | 177 | 1,079 |
| Pittsburgh, Pa. | 235 | 181 | 348 | 472 | 523 | 825 | 442 | 512 | 915 | 472 | 312 | 200 | 5,543 |
| South St. Paul, Minn. | 1,121 | 1,274 | 2,716 | 2,752 | 3,600 | 2,561 | 4,938 | 4,706 | 4,460 | 5,673 | 2,847 | 1,877 | 38,483 |
| All other inspected | 640 | 637 | 990 | 778 | 735 | 2,582 | 4,938 | 1,156 | 1,307 | 880 | 882 | 823 | 10,130 |
| Total | 7,651 | 7,272 | 10,898 | 10,482 | 13,418 | 13,202 | 18,117 | 19,921 | 21,730 | 19,203 | 12,718 | 10,454 | 165,068 |
| STATE DESTINATION | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number |
| Illinois | 1,075 | 663 | 1,125 | 1,265 | 2,242 | 2,084 | 3,801 | 3,026 | 4,875 | 2,734 | 1,610 | 1,090 | 26,090 |
| Indiana | 326 | 264 | 910 | 318 | 318 | 318 | 1,935 | 2,030 | 1,682 | 1,239 | 876 | 379 | 11,183 |
| Iowa | 304 | 568 | 488 | 488 | 1,091 | 810 | 1,265 | 1,540 | 1,736 | 2,815 | 861 | 719 | 13,107 |
| Kansas | 735 | 443 | 458 | 548 | 458 | 456 | 600 | 673 | 804 | 695 | 331 | 268 | 6,571 |
| Kentucky | 161 | 166 | 214 | 163 | 307 | 321 | 339 | 279 | 311 | 601 | 296 | 173 | 3,261 |
| Louisiana | 373 | 306 | 383 | 262 | 289 | 308 | 295 | 219 | 396 | 642 | 358 | 281 | 4,112 |
| Maryland | 74 | 50 | 199 | 480 | 548 | 159 | 173 | 480 | 333 | 333 | 220 | 190 | 3,247 |
| Massachusetts | 773 | 945 | 1,737 | 1,109 | 971 | 1,446 | 1,311 | 1,569 | 1,964 | 1,440 | 1,317 | 1,310 | 16,892 |
| Michigan | 72 | 104 | 161 | 172 | 145 | 188 | 157 | 142 | 183 | 266 | 61 | 67 | 1,720 |
| Minnesota | 157 | 234 | 267 | 611 | 628 | 609 | 1,124 | 587 | 263 | 1,786 | 1,117 | 709 | 6,094 |
| Missouri | 296 | 333 | 229 | 496 | 1,074 | 1,173 | 1,002 | 918 | 764 | 720 | 336 | 446 | 7,997 |
| Nebraska | 68 | 81 | 141 | 132 | 172 | 47 | 277 | 171 | 259 | 279 | 63 | 137 | 1,797 |
| New Jersey | 512 | 482 | 758 | 190 | 153 | 280 | 400 | 600 | 300 | 300 | 300 | 208 | 4,135 |
| New York | 277 | 227 | 473 | 464 | 569 | 523 | 685 | 910 | 1,000 | 700 | 600 | 464 | 7,380 |
| North Dakota | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 10 |
| Ohio | 611 | 524 | 432 | 700 | 80 | 718 | 906 | 1,182 | 1,095 | 583 | 680 | 330 | 8,883 |
| Oklahoma | 351 | 328 | 371 | 106 | 1,104 | 143 | 421 | 468 | 81 | 81 | 685 | 620 | 3,491 |
| Oregon | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Pennsylvania | 260 | 260 | 260 | 389 | 543 | 1,069 | 789 | 1,081 | 1,743 | 572 | 715 | 464 | 8,538 |
| Rhode Island | 311 | 102 | 123 | 99 | 87 | 154 | 135 | 175 | 256 | 108 | 227 | 193 | 1,646 |

| | | | | | | | | | | | | |
|-------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| South Dakota..... | 41 | 29 | 22 | 55 | 39 | 28 | 44 | 27 | 82 | 80 | 13 | 375 |
| Tennessee..... | 59 | 29 | 25 | 27 | 251 | 258 | 281 | 21 | 19 | 30 | 1,050 | 343 |
| Texas..... | 87 | 74 | 74 | 284 | 150 | 178 | 76 | 473 | 266 | 592 | 17 | 3,596 |
| Virginia..... | 15 | 222 | 413 | 339 | 4 | 8 | 12 | 247 | 82 | 98 | 22 | 1,877 |
| Washington..... | 6 | 13 | 18 | 6 | 1,197 | 1,782 | 1,804 | 26 | 10 | 28 | 1,063 | 161 |
| Wisconsin..... | 530 | 1,747 | 1,676 | 1,675 | 297 | 308 | 268 | 1,729 | 1,835 | 1,069 | 244 | 16,758 |
| All other..... | 247 | 238 | 314 | 116 | 13,202 | 18,117 | 19,921 | 421 | 218 | 263 | 244 | 3,802 |
| Total..... | 7,272 | 10,893 | 10,482 | 13,418 | 13,202 | 18,117 | 19,921 | 21,730 | 19,205 | 12,718 | 10,464 | 165,068 |

Division of Statistical and Historical Research. Compiled from Bureau of Animal Industry inspection records.

* Including 15 head shipped to Porto Rico.

* Includes 8 head shipped to Spain.

* Includes 15 shipped to Porto Rico in June and 8 to Spain in September.

TABLE 463.—Feeding cattle: Inspected shipments from public stockyards, 1925

| Origin and destination | January | February | March | April | May | June | July | August | September | October | November | December | Total |
|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
| MARKET ORIGIN | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number |
| Chicago, Ill. | 16,944 | 12,225 | 12,650 | 15,699 | 7,242 | 6,164 | 8,723 | 8,404 | 28,561 | 52,859 | 25,813 | 25,040 | 229,953 |
| Davenport, Colo. | 13,387 | 3,439 | 9,206 | 30,934 | 27,671 | 29,039 | 11,142 | 11,353 | 17,706 | 59,134 | 40,327 | 33,155 | 280,744 |
| Fort Worth, Tex. | 11,851 | 8,220 | 14,240 | 20,028 | 17,102 | 8,907 | 11,443 | 10,218 | 13,053 | 18,684 | 24,800 | 21,560 | 195,935 |
| Indianapolis, Ind. | 3,821 | 3,065 | 5,368 | 4,098 | 4,187 | 4,503 | 5,343 | 3,067 | 3,011 | 3,988 | 5,320 | 3,267 | 55,440 |
| Kansas City, Kans. | 45,626 | 38,501 | 55,415 | 45,710 | 26,362 | 28,716 | 7,991 | 97,252 | 103,873 | 161,620 | 90,661 | 54,541 | 824,668 |
| Louisville, Ky. | 767 | 1,037 | 1,241 | 1,778 | 2,255 | 889 | 2,459 | 3,691 | 3,492 | 10,590 | 2,166 | 947 | 27,138 |
| National S. V., Ill. | 5,940 | 5,615 | 6,638 | 13,195 | 7,121 | 4,067 | 10,855 | 14,567 | 10,431 | 10,969 | 15,430 | 12,694 | 112,653 |
| Oklahoma, Okla. | 3,554 | 5,554 | 8,025 | 13,195 | 7,121 | 1,462 | 3,872 | 3,741 | 4,538 | 10,899 | 8,136 | 8,003 | 78,403 |
| Omaha, Nebr. | 22,474 | 20,069 | 21,664 | 16,401 | 10,511 | 6,421 | 19,349 | 42,445 | 65,300 | 92,143 | 43,698 | 32,456 | 300,109 |
| St. Joseph, Mo. | 13,553 | 12,934 | 16,164 | 13,719 | 10,211 | 7,535 | 10,360 | 25,816 | 32,600 | 46,270 | 23,680 | 24,894 | 246,075 |
| So. St. Joseph, Mo. | 3,735 | 2,405 | 2,913 | 2,916 | 1,542 | 2,078 | 3,814 | 6,975 | 11,054 | 19,745 | 6,403 | 3,347 | 70,800 |
| So. St. Paul, Minn. | 6,908 | 8,081 | 10,272 | 9,330 | 7,725 | 5,811 | 13,039 | 27,392 | 25,989 | 41,765 | 23,455 | 22,665 | 207,895 |
| Wichita, Kans. | 12,428 | 17,039 | 23,256 | 29,903 | 14,533 | 3,678 | 10,651 | 10,651 | 15,489 | 23,834 | 23,717 | 18,179 | 199,534 |
| All other inspected | 10,462 | 8,132 | 8,338 | 13,164 | 6,805 | 7,863 | 10,572 | 19,580 | 18,265 | 29,069 | 26,146 | 16,742 | 177,468 |
| Total | 175,663 | 149,456 | 195,699 | 218,004 | 140,568 | 117,150 | 194,942 | 235,152 | 362,852 | 579,296 | 389,771 | 279,491 | 3,098,044 |
| STATE DESTINATION | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number |
| Colorado | 5,334 | 3,998 | 3,871 | 5,107 | 6,046 | 9,337 | 5,540 | 4,597 | 6,792 | 25,939 | 30,539 | 22,790 | 130,830 |
| Illinois | 17,132 | 17,500 | 22,621 | 20,984 | 11,187 | 12,484 | 34,670 | 53,400 | 63,632 | 89,158 | 52,362 | 22,790 | 437,349 |
| Indiana | 8,526 | 6,469 | 11,695 | 11,862 | 6,353 | 5,371 | 11,094 | 17,977 | 15,305 | 27,173 | 16,946 | 11,008 | 150,139 |
| Iowa | 31,500 | 28,388 | 30,183 | 21,197 | 12,308 | 12,137 | 23,505 | 67,159 | 76,368 | 94,745 | 47,563 | 36,176 | 487,334 |
| Kansas | 35,852 | 28,450 | 30,243 | 49,803 | 24,838 | 11,912 | 23,505 | 27,943 | 43,834 | 80,693 | 60,870 | 41,324 | 467,713 |
| Kentucky | 2,063 | 8,812 | 2,732 | 2,386 | 2,824 | 1,336 | 4,132 | 8,057 | 4,129 | 6,019 | 3,331 | 1,575 | 40,780 |
| Michigan | 7,706 | 1,806 | 2,306 | 3,369 | 3,870 | 1,771 | 2,345 | 2,893 | 5,022 | 8,408 | 9,550 | 3,053 | 48,678 |
| Minnesota | 1,368 | 804 | 1,309 | 1,380 | 748 | 1,931 | 2,598 | 3,310 | 5,627 | 8,005 | 6,286 | 2,267 | 33,952 |
| Missouri | 15,290 | 14,021 | 17,093 | 16,395 | 9,173 | 8,553 | 25,989 | 25,293 | 36,297 | 53,144 | 29,285 | 21,738 | 278,836 |
| Nebraska | 22,714 | 15,631 | 23,623 | 21,305 | 27,373 | 21,284 | 24,337 | 34,690 | 55,730 | 88,108 | 51,977 | 40,346 | 428,470 |
| Ohio | 3,125 | 6,535 | 6,622 | 4,037 | 5,720 | 3,355 | 5,180 | 10,535 | 8,942 | 20,519 | 12,300 | 8,253 | 97,003 |
| Oklahoma | 10,515 | 9,910 | 17,139 | 38,458 | 10,833 | 4,021 | 7,407 | 13,004 | 8,810 | 14,073 | 15,411 | 16,283 | 167,550 |
| Pennsylvania | 778 | 945 | 435 | 799 | 1,388 | 1,520 | 2,211 | 3,215 | 4,180 | 5,203 | 7,077 | 3,665 | 31,904 |
| Texas | 1,881 | 2,445 | 2,675 | 3,922 | 3,684 | 2,945 | 4,320 | 3,634 | 3,016 | 4,495 | 2,660 | 2,121 | 38,515 |
| South Dakota | 8,609 | 5,556 | 4,399 | 6,185 | 4,814 | 5,310 | 6,069 | 8,522 | 10,612 | 17,107 | 24,488 | 14,568 | 116,333 |
| Wisconsin | 1,359 | 2,415 | 1,629 | 1,629 | 1,629 | 1,073 | 1,629 | 2,157 | 4,160 | 4,160 | 3,060 | 1,619 | 26,156 |
| All other | 5,853 | 5,269 | 6,035 | 7,231 | 6,565 | 12,945 | 6,349 | 8,846 | 8,806 | 24,567 | 16,076 | 10,756 | 119,303 |
| Total | 175,663 | 149,456 | 195,699 | 218,004 | 140,568 | 117,150 | 194,942 | 235,152 | 362,852 | 579,296 | 389,771 | 279,491 | 3,098,044 |

Division of Statistical and Historical Research. Compiled from Bureau of Animal Industry inspection records.

TABLE 464.—Farm value of cattle other than milk cows, by age groups, United States, January 1, 1910-1926

| Jan. 1 | Under 1 year old | 1 and under 2 years | 2 years and over | Jan. 1 | Under 1 year old | 1 and under 2 years | 2 years and over |
|-----------|------------------|---------------------|------------------|-----------|------------------|---------------------|------------------|
| | Dollars | Dollars | Dollars | | Dollars | Dollars | Dollars |
| 1910..... | 10.92 | 17.89 | 25.96 | 1919..... | 24.97 | 41.74 | 60.41 |
| 1911..... | 11.72 | 19.37 | 27.90 | 1920..... | 24.48 | 41.00 | 59.08 |
| 1912..... | 12.14 | 20.09 | 29.12 | 1921..... | 17.44 | 29.05 | 43.59 |
| 1913..... | 14.90 | 25.11 | 36.38 | 1922..... | 13.41 | 22.29 | 32.31 |
| 1914..... | 17.84 | 29.77 | 42.77 | 1923..... | 14.69 | 24.13 | 34.14 |
| 1915..... | 19.06 | 31.21 | 45.92 | 1924..... | 14.38 | 24.10 | 33.34 |
| 1916..... | 19.08 | 31.48 | 45.81 | 1925..... | 14.17 | 23.50 | 32.57 |
| 1917..... | 20.71 | 33.93 | 48.63 | 1926..... | 16.83 | 27.24 | 36.48 |
| 1918..... | 23.44 | 38.63 | 55.62 | | | | |

Division of Crop and Livestock Estimates.

TABLE 465.—Milk cows: Estimated price¹ per head received by producers, 15th of month, United States, 1910-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1910..... | 41.18 | 40.35 | 41.75 | 42.22 | 42.38 | 43.46 | 42.86 | 42.77 | 42.68 | 43.20 | 43.34 | 43.41 | 42.47 |
| 1911..... | 44.70 | 44.48 | 45.42 | 44.81 | 44.54 | 43.86 | 42.44 | 42.26 | 42.22 | 42.69 | 42.70 | 42.72 | 43.57 |
| 1912..... | 42.80 | 43.40 | 44.09 | 45.14 | 45.63 | 45.84 | 45.41 | 46.11 | 46.79 | 47.30 | 47.38 | 48.62 | 45.72 |
| 1913..... | 49.51 | 51.42 | 54.02 | 55.34 | 54.80 | 55.20 | 54.80 | 54.78 | 55.78 | 56.47 | 57.71 | 57.19 | 54.75 |
| Average 1910-1913.. | 44.57 | 44.91 | 46.32 | 46.88 | 46.84 | 47.09 | 46.38 | 46.48 | 46.87 | 47.42 | 47.78 | 47.98 | 47.99 |
| 1914..... | 57.99 | 59.09 | 59.23 | 59.60 | 59.85 | 59.82 | 59.67 | 60.72 | 59.58 | 59.53 | 58.77 | 58.23 | 59.84 |
| 1915..... | 58.47 | 57.99 | 58.00 | 57.78 | 58.29 | 58.59 | 60.31 | 58.34 | 58.39 | 58.76 | 57.35 | 56.79 | 58.25 |
| 1916..... | 57.79 | 57.99 | 59.51 | 60.68 | 60.96 | 61.63 | 62.04 | 61.32 | 61.41 | 62.19 | 62.67 | 63.18 | 60.95 |
| 1917..... | 63.92 | 65.93 | 68.46 | 72.09 | 72.78 | 72.87 | 72.81 | 72.53 | 73.93 | 75.79 | 75.00 | 76.16 | 71.86 |
| 1918..... | 76.54 | 78.36 | 80.71 | 82.46 | 84.11 | 84.74 | 84.97 | 84.06 | 85.21 | 85.41 | 84.51 | 85.78 | 83.07 |
| 1919..... | 86.10 | 86.15 | 88.15 | 90.91 | 93.43 | 93.84 | 94.51 | 94.72 | 93.42 | 93.43 | 93.27 | 95.54 | 91.04 |
| 1920..... | 94.42 | 95.27 | 94.94 | 95.36 | 94.56 | 94.56 | 91.23 | 90.50 | 89.40 | 85.90 | 77.56 | 70.42 | 89.54 |
| Average 1914-1920.. | 70.75 | 71.54 | 72.71 | 74.12 | 74.86 | 75.15 | 75.08 | 74.60 | 74.48 | 74.43 | 72.73 | 72.30 | 73.56 |
| 1921..... | 66.82 | 63.44 | 65.37 | 64.35 | 62.63 | 59.89 | 56.56 | 55.85 | 54.33 | 53.39 | 53.28 | 53.30 | 59.16 |
| 1922..... | 52.83 | 53.54 | 54.87 | 54.46 | 54.76 | 54.87 | 54.20 | 52.67 | 52.79 | 52.86 | 51.62 | 53.21 | 53.56 |
| 1923..... | 54.01 | 54.15 | 55.29 | 56.14 | 55.91 | 56.34 | 56.22 | 55.45 | 56.13 | 55.51 | 55.39 | 54.95 | 55.43 |
| 1924..... | 55.87 | 55.49 | 55.88 | 55.92 | 56.37 | 55.45 | 55.46 | 55.74 | 55.84 | 54.30 | 55.05 | 54.00 | 55.48 |
| 1925..... | 54.81 | 54.79 | 56.19 | 56.85 | 57.88 | 57.70 | 57.95 | 58.25 | 58.58 | 60.17 | 60.69 | 60.38 | 57.87 |

Division of Crop and Livestock Estimates.

¹ As reported by country dealers.

TABLE 466.—Cattle, beef: Estimated price received by producers per 100 pounds by States, 1925

| State | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Aver- age |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | |
| Maine..... | 7.30 | 7.40 | 6.80 | 8.10 | 7.40 | 6.20 | 6.50 | 7.50 | 6.80 | 7.90 | 7.00 | 8.00 | 7.24 |
| New Hampshire..... | 6.90 | 7.30 | 7.00 | 8.10 | 7.10 | 6.80 | 7.30 | 7.00 | 6.80 | 6.00 | 7.00 | 6.70 | 7.02 |
| Vermont..... | 4.20 | 4.80 | 5.80 | 5.00 | 5.50 | 5.00 | 4.80 | 4.80 | 5.00 | 4.80 | 5.20 | 4.98 | 4.98 |
| Massachusetts..... | 5.50 | 5.80 | 5.80 | 5.80 | 6.00 | 4.00 | 6.70 | 5.00 | 5.00 | 8.00 | 6.00 | 4.60 | 5.79 |
| Rhode Island..... | 5.80 | 5.60 | 5.50 | 5.50 | 5.50 | 5.50 | 6.00 | 5.00 | 6.00 | 5.00 | 6.50 | 5.00 | 5.53 |
| Connecticut..... | 5.50 | 6.50 | 4.70 | 4.60 | 5.80 | 6.50 | 5.80 | 6.50 | 7.30 | 5.80 | 6.20 | 5.04 | 5.94 |
| New York..... | 5.40 | 5.70 | 5.50 | 6.00 | 6.30 | 5.90 | 6.40 | 6.20 | 5.80 | 5.90 | 5.80 | 5.90 | 5.90 |
| New Jersey..... | 5.50 | 6.00 | 4.20 | 5.80 | 5.80 | 8.10 | 7.20 | 6.60 | 7.20 | 6.50 | 7.50 | 5.00 | 6.41 |
| Pennsylvania..... | 7.30 | 7.30 | 7.50 | 8.20 | 8.10 | 8.10 | 8.20 | 8.30 | 7.90 | 7.80 | 7.30 | 7.70 | 7.81 |
| Ohio..... | 6.70 | 6.90 | 7.66 | 8.20 | 7.50 | 7.90 | 7.50 | 7.70 | 7.30 | 7.20 | 7.10 | 7.30 | 7.41 |
| Indiana..... | 6.70 | 6.60 | 6.90 | 7.30 | 7.40 | 7.20 | 7.50 | 7.60 | 7.40 | 7.20 | 7.30 | 7.20 | 7.19 |
| Illinois..... | 6.90 | 6.90 | 7.30 | 7.20 | 7.80 | 7.70 | 7.70 | 8.70 | 7.80 | 7.60 | 7.90 | 7.50 | 7.58 |
| Michigan..... | 5.70 | 5.90 | 6.40 | 6.60 | 6.50 | 6.50 | 6.60 | 6.20 | 6.56 | 6.00 | 6.30 | 6.20 | 6.28 |
| Wisconsin..... | 4.70 | 4.50 | 4.90 | 5.30 | 5.30 | 5.60 | 5.70 | 5.50 | 5.00 | 5.20 | 5.20 | 5.30 | 5.18 |
| Minnesota..... | 5.20 | 5.30 | 6.00 | 6.20 | 6.70 | 6.40 | 6.40 | 6.30 | 6.10 | 6.40 | 5.90 | 5.80 | 6.06 |
| Iowa..... | 7.40 | 7.30 | 8.00 | 8.90 | 8.20 | 8.50 | 9.20 | 9.00 | 9.30 | 9.30 | 8.30 | 8.20 | 8.52 |
| Missouri..... | 6.70 | 6.80 | 6.90 | 7.30 | 7.30 | 7.00 | 7.20 | 7.70 | 7.30 | 7.60 | 7.40 | 7.10 | 7.19 |
| North Dakota..... | 4.40 | 4.50 | 5.20 | 5.20 | 5.50 | 5.40 | 5.30 | 5.30 | 5.10 | 5.20 | 4.80 | 5.20 | 5.00 |
| South Dakota..... | 5.50 | 6.20 | 6.80 | 7.00 | 6.90 | 6.90 | 7.60 | 7.90 | 6.80 | 6.80 | 6.50 | 6.70 | 6.82 |
| Nebraska..... | 7.10 | 7.50 | 8.10 | 8.30 | 7.80 | 8.50 | 8.90 | 9.00 | 8.20 | 8.10 | 7.70 | 7.90 | 8.09 |
| Kansas..... | 6.50 | 6.40 | 7.40 | 7.80 | 7.60 | 7.20 | 7.60 | 7.60 | 6.90 | 7.10 | 7.00 | 7.20 | 7.19 |
| Delaware..... | 7.80 | 7.60 | 7.50 | 7.30 | 8.00 | 8.00 | 6.90 | 6.10 | 7.00 | 7.10 | 8.00 | 7.60 | 7.87 |
| Maryland..... | 7.10 | 7.00 | 8.50 | 8.10 | 7.60 | 8.30 | 7.60 | 7.80 | 7.00 | 8.00 | 7.40 | 7.60 | 7.60 |
| Virginia..... | 6.10 | 6.00 | 6.10 | 6.90 | 6.20 | 6.30 | 6.10 | 6.50 | 6.00 | 6.10 | 5.90 | 6.00 | 6.10 |
| West Virginia..... | 5.50 | 6.50 | 6.20 | 6.60 | 7.00 | 6.30 | 6.20 | 6.60 | 6.20 | 6.40 | 6.40 | 6.30 | 6.35 |
| North Carolina..... | 5.00 | 5.20 | 5.30 | 5.70 | 5.40 | 5.90 | 5.50 | 6.20 | 5.80 | 5.70 | 5.50 | 5.80 | 5.63 |
| South Carolina..... | 3.90 | 4.30 | 4.20 | 4.60 | 4.90 | 4.40 | 4.60 | 4.20 | 4.20 | 4.40 | 4.10 | 4.30 | 4.34 |
| Georgia..... | 3.50 | 3.80 | 4.10 | 4.30 | 4.00 | 4.20 | 4.10 | 3.90 | 3.90 | 3.90 | 4.00 | 4.30 | 4.05 |
| Florida..... | 3.50 | 3.70 | 4.40 | 4.70 | 4.20 | 3.70 | 4.10 | 3.10 | 3.60 | 4.10 | 4.60 | 4.20 | 3.99 |
| Kentucky..... | 5.40 | 5.70 | 5.60 | 6.10 | 6.30 | 5.60 | 5.90 | 6.20 | 6.20 | 5.70 | 5.70 | 6.20 | 5.98 |
| Tennessee..... | 4.20 | 4.70 | 5.20 | 5.10 | 4.80 | 5.10 | 4.70 | 4.80 | 4.70 | 4.90 | 4.70 | 4.80 | 4.81 |
| Alabama..... | 3.10 | 3.10 | 3.50 | 3.90 | 3.60 | 3.60 | 3.70 | 3.40 | 3.60 | 3.60 | 3.60 | 3.60 | 3.62 |
| Mississippi..... | 3.00 | 3.50 | 3.20 | 3.10 | 3.60 | 3.10 | 2.90 | 3.10 | 3.20 | 3.10 | 3.50 | 3.30 | 3.22 |
| Arkansas..... | 3.30 | 3.80 | 3.50 | 3.00 | 3.80 | 3.20 | 3.60 | 3.45 | 3.80 | 3.90 | 3.50 | 3.80 | 3.59 |
| Louisiana..... | 4.70 | 4.20 | 5.30 | 5.50 | 4.80 | 5.50 | 4.70 | 4.20 | 4.50 | 4.60 | 5.00 | 4.50 | 4.79 |
| Oklahoma..... | 4.30 | 4.80 | 5.00 | 5.40 | 5.20 | 4.90 | 4.60 | 4.60 | 4.70 | 4.90 | 5.10 | 5.00 | 4.92 |
| Texas..... | 4.10 | 4.00 | 4.50 | 4.70 | 5.00 | 5.10 | 5.20 | 4.50 | 4.70 | 4.70 | 4.40 | 4.90 | 4.65 |
| Montana..... | 6.20 | 5.80 | 5.90 | 6.40 | 6.60 | 6.30 | 5.90 | 6.20 | 6.00 | 6.30 | 6.00 | 5.60 | 6.10 |
| Idaho..... | 5.00 | 5.20 | 5.70 | 5.80 | 6.00 | 6.00 | 5.40 | 5.60 | 5.40 | 5.80 | 5.30 | 5.30 | 5.48 |
| Wyoming..... | 5.70 | 5.00 | 6.00 | 6.60 | 6.90 | 7.00 | 6.00 | 6.70 | 7.00 | 6.00 | 6.80 | 6.70 | 6.37 |
| Colorado..... | 5.60 | 5.60 | 6.90 | 7.80 | 6.90 | 7.10 | 6.80 | 7.10 | 6.30 | 6.90 | 6.40 | 6.20 | 6.62 |
| New Mexico..... | 5.10 | 4.70 | 5.00 | 6.30 | 5.80 | 5.20 | 5.20 | 6.30 | 4.70 | 4.60 | 4.40 | 4.00 | 5.15 |
| Arizona..... | 4.90 | 4.80 | 5.00 | 6.80 | 6.50 | 6.20 | 5.50 | 5.70 | 5.30 | 5.50 | 5.70 | 5.10 | 5.72 |
| Utah..... | 5.40 | 5.30 | 5.70 | 5.60 | 6.20 | 6.00 | 5.70 | 5.20 | 5.50 | 5.90 | 5.70 | 5.90 | 5.65 |
| Nevada..... | 6.00 | 5.90 | 7.70 | 6.60 | 7.00 | 6.40 | 6.20 | 7.20 | 6.30 | 7.00 | 6.80 | 6.70 | 6.63 |
| Washington..... | 5.80 | 5.60 | 6.50 | 6.60 | 6.50 | 6.30 | 6.00 | 6.60 | 6.30 | 5.90 | 5.60 | 5.50 | 6.12 |
| Oregon..... | 6.70 | 6.00 | 5.80 | 6.50 | 7.30 | 6.60 | 5.90 | 6.80 | 6.00 | 6.20 | 6.40 | 6.20 | 6.37 |
| California..... | 6.30 | 6.80 | 6.70 | 7.20 | 7.10 | 7.50 | 6.90 | 6.50 | 6.70 | 6.50 | 6.60 | 6.80 | 6.80 |
| United States..... | 5.63 | 5.69 | 6.18 | 6.55 | 6.48 | 6.46 | 6.55 | 6.58 | 6.27 | 6.31 | 6.14 | 6.18 | 6.25 |

Division of Crop and Livestock Estimates.

TABLE 467.—*Calves, veal: Estimated price per 100 pounds, received by producers, by States, 1925*

| State | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Aver- age |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Maine..... | 12.50 | 10.90 | 11.30 | 11.50 | 10.50 | 9.20 | 10.50 | 9.80 | 9.90 | 11.60 | 10.50 | 11.00 | 10.59 |
| New Hampshire..... | 11.30 | 11.00 | 9.50 | 10.30 | 11.30 | 10.60 | 10.50 | 10.60 | 10.60 | 11.00 | 11.30 | 10.90 | 10.75 |
| Vermont..... | 10.30 | 10.20 | 9.20 | 10.10 | 10.00 | 9.10 | 9.30 | 9.50 | 10.00 | 10.50 | 11.50 | 10.30 | 10.00 |
| Massachusetts..... | 11.50 | 12.00 | 11.60 | 11.80 | 11.20 | 11.60 | 11.60 | 11.00 | 11.20 | 12.50 | 11.00 | 11.10 | 11.53 |
| Rhode Island..... | 12.00 | 12.20 | 11.70 | 12.60 | 12.60 | 11.90 | 12.50 | 13.00 | 13.00 | 12.40 | 11.00 | 13.00 | 12.40 |
| Connecticut..... | 11.50 | 12.25 | 12.00 | 12.30 | 12.70 | 12.00 | 13.00 | 11.80 | 13.00 | 12.60 | 12.60 | 12.70 | 12.43 |
| New York..... | 12.00 | 11.50 | 11.50 | 10.90 | 9.70 | 10.10 | 10.60 | 11.80 | 11.70 | 12.30 | 12.00 | 12.20 | 11.29 |
| New Jersey..... | 12.70 | 12.20 | 12.60 | 13.10 | 13.80 | 12.40 | 12.50 | 13.30 | 13.30 | 12.40 | 13.70 | 13.50 | 13.04 |
| Pennsylvania..... | 11.00 | 11.30 | 11.20 | 11.50 | 10.40 | 10.50 | 10.60 | 11.40 | 11.40 | 11.60 | 11.60 | 12.10 | 11.22 |
| Ohio..... | 11.10 | 11.50 | 11.40 | 10.60 | 9.50 | 9.20 | 10.00 | 10.50 | 11.20 | 11.40 | 11.10 | 11.40 | 10.74 |
| Indiana..... | 10.40 | 10.90 | 11.20 | 10.60 | 9.00 | 8.40 | 9.10 | 9.70 | 10.30 | 10.60 | 10.30 | 10.90 | 10.07 |
| Illinois..... | 9.50 | 10.70 | 10.70 | 9.80 | 9.20 | 8.90 | 9.30 | 10.30 | 10.10 | 10.40 | 10.00 | 10.30 | 9.62 |
| Michigan..... | 10.00 | 11.20 | 11.90 | 10.90 | 10.30 | 9.70 | 10.80 | 10.50 | 11.70 | 12.00 | 11.20 | 11.70 | 10.99 |
| Wisconsin..... | 8.50 | 9.00 | 9.80 | 8.30 | 7.70 | 8.10 | 9.20 | 9.50 | 9.80 | 10.80 | 10.00 | 9.40 | 9.18 |
| Minnesota..... | 7.50 | 8.00 | 9.20 | 8.60 | 8.10 | 7.80 | 8.40 | 8.40 | 8.90 | 9.90 | 9.20 | 8.20 | 8.54 |
| Iowa..... | 8.90 | 9.30 | 9.50 | 8.90 | 8.40 | 8.20 | 9.70 | 9.00 | 9.70 | 10.20 | 9.50 | 9.10 | 8.20 |
| Missouri..... | 8.40 | 9.20 | 8.60 | 8.50 | 7.80 | 7.70 | 7.70 | 8.20 | 8.60 | 9.80 | 9.20 | 9.10 | 8.68 |
| North Dakota..... | 7.10 | 8.90 | 7.90 | 7.40 | 7.00 | 7.30 | 7.50 | 8.60 | 7.90 | 8.90 | 7.90 | 7.40 | 7.48 |
| South Dakota..... | 7.50 | 8.60 | 8.80 | 8.40 | 8.30 | 7.70 | 8.30 | 8.10 | 8.20 | 8.10 | 8.00 | 8.30 | 8.19 |
| Nebraska..... | 8.40 | 8.50 | 9.00 | 8.30 | 8.30 | 9.00 | 8.60 | 8.40 | 8.30 | 8.60 | 8.80 | 8.40 | 8.65 |
| Kansas..... | 7.20 | 7.60 | 8.80 | 7.90 | 7.50 | 7.60 | 7.70 | 8.10 | 8.40 | 8.90 | 8.60 | 8.30 | 8.05 |
| Delaware..... | 12.00 | 13.60 | 12.80 | 13.00 | 12.10 | 10.70 | 12.30 | 12.70 | 12.00 | 12.60 | 13.00 | 13.60 | 12.52 |
| Maryland..... | 12.00 | 12.40 | 12.00 | 11.60 | 10.00 | 9.40 | 10.00 | 10.00 | 11.10 | 12.20 | 12.50 | 12.00 | 11.89 |
| Virginia..... | 9.40 | 10.00 | 9.40 | 9.50 | 9.30 | 8.70 | 8.30 | 8.30 | 8.60 | 9.50 | 9.30 | 9.40 | 9.14 |
| West Virginia..... | 8.00 | 8.70 | 9.20 | 8.70 | 8.50 | 8.20 | 8.70 | 8.00 | 8.90 | 9.50 | 9.10 | 9.50 | 8.82 |
| North Carolina..... | 7.90 | 7.20 | 8.40 | 7.30 | 7.40 | 7.50 | 7.20 | 9.00 | 7.50 | 9.00 | 8.10 | 8.60 | 7.92 |
| South Carolina..... | 5.50 | 6.30 | 6.00 | 6.20 | 5.90 | 6.50 | 6.10 | 6.70 | 6.10 | 5.30 | 6.10 | 5.70 | 5.95 |
| Georgia..... | 5.40 | 5.40 | 5.30 | 6.40 | 5.40 | 6.00 | 5.80 | 5.40 | 6.20 | 5.40 | 6.50 | 5.50 | 5.72 |
| Florida..... | ..... | ..... | 6.30 | 7.00 | 8.00 | 6.50 | ..... | 4.50 | 6.00 | 5.50 | 4.70 | 5.70 | 6.02 |
| Kentucky..... | 8.30 | 8.80 | 9.40 | 8.00 | 7.90 | 7.00 | 7.80 | 8.10 | 8.80 | 9.40 | 8.60 | 6.70 | 8.55 |
| Tennessee..... | 6.70 | 6.50 | 6.30 | 6.30 | 6.10 | 6.70 | 6.20 | 6.80 | 6.70 | 6.80 | 6.40 | 6.80 | 6.52 |
| Alabama..... | 4.50 | 4.90 | 4.70 | 5.60 | 5.40 | 5.10 | 5.80 | 4.70 | 4.80 | 5.90 | 5.40 | 5.10 | 5.07 |
| Mississippi..... | 4.80 | 5.00 | 4.80 | 5.10 | 5.80 | 4.10 | 4.90 | 5.20 | 5.30 | 5.50 | 5.30 | 5.20 | 5.08 |
| Arkansas..... | 4.80 | 6.00 | 5.90 | 6.10 | 5.30 | 5.30 | 6.20 | 5.50 | 6.30 | 5.90 | 5.30 | 5.60 | 5.69 |
| Louisiana..... | 5.20 | 6.00 | 6.00 | 7.20 | 6.30 | 6.50 | 5.90 | 4.30 | 5.30 | 7.00 | 7.00 | 5.90 | 6.05 |
| Oklahoma..... | 5.50 | 6.70 | 7.50 | 7.30 | 6.50 | 6.80 | 6.80 | 6.40 | 6.50 | 7.00 | 6.30 | 7.00 | 6.69 |
| Texas..... | 5.40 | 5.30 | 6.30 | 6.40 | 7.30 | 6.20 | 6.30 | 6.00 | 6.10 | 6.50 | 5.90 | 6.50 | 6.18 |
| Montana..... | 8.60 | 8.30 | 8.10 | 8.70 | 8.70 | 8.30 | 7.90 | 8.30 | 8.80 | 8.30 | 8.10 | 8.20 | 8.36 |
| Idaho..... | 6.50 | 7.50 | 8.00 | 7.40 | 7.20 | 7.00 | 8.00 | 8.00 | 7.10 | 7.50 | 6.80 | 7.20 | 7.41 |
| Wyoming..... | 8.20 | 7.00 | 9.40 | 8.00 | 10.00 | 8.50 | 10.00 | 10.50 | 10.20 | 8.70 | 9.00 | 8.60 | 9.01 |
| Colorado..... | 7.90 | 7.90 | 8.80 | 8.70 | 9.00 | 8.60 | 8.20 | 8.50 | 7.90 | 8.60 | 8.60 | 7.80 | 8.38 |
| New Mexico..... | ..... | 6.30 | ..... | 8.60 | 8.10 | 6.70 | 9.00 | 9.30 | 7.00 | 6.70 | 5.30 | 7.00 | 7.40 |
| Arizona..... | 6.70 | 7.50 | 6.60 | 8.20 | 7.90 | 8.60 | 8.00 | 7.80 | 6.80 | 6.90 | 7.00 | 7.10 | 7.35 |
| Utah..... | 9.30 | 8.50 | 8.60 | 8.80 | 9.20 | 8.90 | 9.70 | 8.20 | 8.70 | 8.40 | 8.20 | 8.30 | 8.73 |
| Nevada..... | ..... | 9.00 | 9.30 | 8.50 | ..... | 8.60 | 9.30 | 9.90 | 10.10 | 10.00 | 9.00 | 8.50 | 9.19 |
| Washington..... | 8.20 | 8.00 | 8.30 | 9.10 | 8.40 | 9.10 | 8.50 | 9.10 | 9.10 | 9.50 | 8.20 | 8.60 | 8.68 |
| Oregon..... | 8.60 | 9.00 | 9.20 | 9.20 | 10.00 | 10.00 | 9.70 | 9.70 | 9.20 | 9.50 | 9.40 | 10.50 | 9.30 |
| California..... | 8.30 | 8.60 | 9.20 | 9.10 | 9.20 | 9.50 | 9.40 | 9.50 | 9.00 | 9.20 | 8.50 | 8.90 | 9.06 |
| United States..... | 8.50 | 8.87 | 9.21 | 8.80 | 8.36 | 8.18 | 8.65 | 8.80 | 9.07 | 9.52 | 9.18 | 9.17 | 8.96 |

Division of Crop and Livestock Estimates.

TABLE 468.—*Cattle, beef: Estimated price per 100 pounds, received by producers in the United States, 1910–1925*

| Year beginning August | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Weighted average |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 4.64 | 4.65 | 4.64 | 4.48 | 4.45 | 4.58 | 4.87 | 4.66 | 4.67 | 4.59 | 4.43 | 4.28 | 4.55 |
| 1911..... | 4.39 | 4.43 | 4.32 | 4.36 | 4.37 | 4.46 | 4.61 | 4.75 | 5.15 | 5.36 | 5.23 | 5.17 | 4.69 |
| 1912..... | 5.37 | 5.55 | 5.56 | 5.22 | 5.33 | 5.40 | 5.55 | 5.88 | 6.08 | 6.01 | 6.02 | 5.98 | 5.60 |
| 1913..... | 5.91 | 5.92 | 6.03 | 5.99 | 5.96 | 6.04 | 6.16 | 6.28 | 6.29 | 6.33 | 6.32 | 6.38 | 6.12 |
| Av. 1910–1913.... | 5.08 | 5.09 | 5.09 | 5.01 | 5.03 | 5.12 | 5.22 | 5.39 | 5.55 | 5.57 | 5.50 | 5.45 | 5.24 |
| 1914..... | 6.47 | 6.38 | 6.23 | 6.02 | 6.01 | 5.99 | 5.93 | 5.92 | 5.96 | 6.13 | 6.20 | 6.07 | 0.12 |
| 1915..... | 6.18 | 6.06 | 6.04 | 5.85 | 5.75 | 5.85 | 5.99 | 6.37 | 6.66 | 6.73 | 6.91 | 6.78 | 6.24 |
| 1916..... | 6.51 | 6.55 | 6.37 | 6.44 | 6.56 | 6.86 | 7.36 | 7.91 | 8.57 | 8.70 | 8.65 | 8.30 | 7.81 |
| 1917..... | 8.17 | 8.40 | 8.35 | 8.21 | 8.24 | 8.33 | 8.55 | 8.85 | 9.73 | 10.38 | 10.40 | 10.07 | 8.92 |
| 1918..... | 9.71 | 9.63 | 9.33 | 9.14 | 9.28 | 9.65 | 10.02 | 10.34 | 10.81 | 10.84 | 10.20 | 9.96 | 9.85 |
| 1919..... | 9.82 | 9.02 | 8.65 | 8.65 | 8.63 | 8.99 | 8.98 | 9.06 | 9.20 | 8.97 | 9.32 | 8.93 | 9.00 |
| 1920..... | 8.56 | 8.29 | 7.77 | 7.15 | 6.36 | 6.32 | 6.02 | 6.36 | 6.08 | 5.98 | 5.65 | 5.40 | 6.76 |
| Av. 1914–1920.... | 7.92 | 7.70 | 7.53 | 7.35 | 7.26 | 7.43 | 7.55 | 7.83 | 8.14 | 8.25 | 8.19 | 7.93 | 7.74 |
| 1921..... | 5.39 | 4.98 | 4.81 | 4.69 | 4.62 | 4.75 | 5.07 | 5.40 | 5.53 | 5.70 | 5.84 | 5.76 | 5.18 |
| 1922..... | 5.81 | 5.44 | 5.48 | 5.29 | 5.28 | 5.51 | 5.85 | 5.62 | 5.78 | 5.77 | 5.82 | 5.72 | 5.55 |
| 1923..... | 5.60 | 5.70 | 5.48 | 5.23 | 5.26 | 5.38 | 5.47 | 5.63 | 5.82 | 5.94 | 5.79 | 5.65 | 5.67 |
| 1924..... | 5.67 | 5.53 | 5.52 | 5.43 | 5.35 | 5.63 | 5.69 | 6.18 | 6.56 | 6.48 | 6.46 | 6.55 | 5.88 |
| 1925..... | 6.58 | 6.29 | 6.31 | 6.14 | 6.18 | | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 469.—*Calves, veal: Estimated price per 100 pounds, received by producers in the United States, 1910–1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Weighted average |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 6.41 | 6.28 | 6.59 | 6.54 | 6.30 | 6.57 | 6.37 | 6.29 | 6.43 | 6.41 | 6.39 | 6.38 | 6.42 |
| 1911..... | 6.50 | 6.38 | 6.48 | 6.56 | 6.68 | 6.72 | 6.74 | 6.93 | 6.11 | 6.15 | 6.10 | 5.98 | 6.04 |
| 1912..... | 6.06 | 6.07 | 6.11 | 6.22 | 6.23 | 6.33 | 6.33 | 6.62 | 6.83 | 6.90 | 6.77 | 6.88 | 6.45 |
| 1913..... | 7.06 | 7.23 | 7.49 | 7.38 | 7.17 | 7.53 | 7.46 | 7.53 | 7.73 | 7.72 | 7.70 | 7.74 | 7.48 |
| Av. 1910–1913.... | 6.51 | 6.49 | 6.67 | 6.52 | 6.34 | 6.54 | 6.43 | 6.59 | 6.78 | 6.80 | 6.74 | 6.74 | 6.00 |
| 1914..... | 7.89 | 7.90 | 7.92 | 7.68 | 7.59 | 7.69 | 7.80 | 8.08 | 8.06 | 7.97 | 7.78 | 7.61 | 7.83 |
| 1915..... | 7.66 | 7.62 | 7.50 | 7.31 | 7.35 | 7.53 | 7.87 | 7.75 | 7.80 | 7.91 | 7.69 | 7.61 | 7.63 |
| 1916..... | 7.67 | 7.87 | 8.11 | 8.00 | 8.08 | 8.39 | 8.54 | 8.59 | 8.77 | 8.59 | 8.60 | 8.79 | 8.35 |
| 1917..... | 9.15 | 9.88 | 9.94 | 10.49 | 10.48 | 10.60 | 10.77 | 10.56 | 11.08 | 11.10 | 10.66 | 10.98 | 10.51 |
| 1918..... | 11.16 | 11.17 | 11.33 | 11.71 | 11.62 | 11.88 | 12.33 | 12.22 | 12.57 | 12.35 | 11.94 | 12.31 | 11.91 |
| 1919..... | 12.39 | 12.18 | 12.65 | 12.78 | 12.11 | 12.40 | 13.38 | 12.43 | 13.39 | 12.87 | 12.65 | 12.67 | 12.76 |
| 1920..... | 12.89 | 13.12 | 12.98 | 12.72 | 11.69 | 11.68 | 11.44 | 11.64 | 11.88 | 11.64 | 10.77 | 9.27 | 11.80 |
| Av. 1914–1920.... | 9.83 | 9.96 | 10.06 | 10.10 | 9.85 | 10.02 | 10.30 | 10.32 | 10.61 | 10.35 | 10.01 | 9.89 | 10.11 |
| 1921..... | 9.34 | 9.08 | 9.05 | 7.73 | 7.55 | 7.43 | 7.37 | 7.31 | 7.67 | 7.61 | 7.20 | 7.14 | 7.81 |
| 1922..... | 7.23 | 7.84 | 7.85 | 7.26 | 7.28 | 7.67 | 7.49 | 7.67 | 8.10 | 8.17 | 7.62 | 7.78 | 7.68 |
| 1923..... | 8.05 | 8.37 | 8.20 | 7.78 | 7.69 | 7.66 | 8.00 | 8.00 | 8.34 | 8.37 | 7.85 | 7.75 | 7.99 |
| 1924..... | 8.36 | 8.51 | 8.43 | 8.33 | 8.14 | 7.91 | 7.88 | 7.94 | 8.09 | 7.87 | 7.89 | 7.84 | 8.12 |
| 1925..... | 8.50 | 8.87 | 9.21 | 8.80 | 8.35 | 8.18 | 8.65 | 8.80 | 9.07 | 9.52 | 9.16 | 9.17 | 8.85 |

Division of Crop and Livestock Estimates.

TABLE 470.—Cattle and calves: Monthly average price per 100 pounds, Chicago, 1909-1925

GOOD BEEF STEERS¹

| Year | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Average ² |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1909..... | 6.00 | 5.85 | 6.10 | 6.10 | 6.45 | 6.45 | 6.45 | 6.70 | 6.75 | 6.60 | 6.45 | 6.20 | 6.34 |
| 1910..... | 6.20 | 6.35 | 7.35 | 7.55 | 7.50 | 7.50 | 7.10 | 6.85 | 6.80 | 6.60 | 6.20 | 6.00 | 6.83 |
| 1911..... | 6.15 | 6.15 | 6.20 | 6.10 | 5.95 | 6.05 | 6.30 | 6.95 | 6.80 | 6.75 | 6.70 | 6.65 | 6.40 |
| 1912..... | 6.85 | 6.60 | 7.20 | 7.65 | 7.95 | 8.00 | 7.90 | 8.50 | 9.15 | 7.90 | 8.10 | 7.85 | 7.80 |
| 1913..... | 7.80 | 8.25 | 8.30 | 8.15 | 8.00 | 8.15 | 8.25 | 8.30 | 8.50 | 8.40 | 8.25 | 8.20 | 8.21 |
| Av. 1909-1913..... | 6.60 | 6.64 | 7.03 | 7.11 | 7.17 | 7.23 | 7.20 | 7.46 | 7.60 | 7.25 | 7.14 | 6.98 | 7.12 |
| 1914..... | 8.45 | 8.30 | 8.35 | 8.50 | 8.40 | 8.60 | 8.80 | 9.10 | 9.35 | 9.05 | 8.60 | 8.35 | 8.65 |
| 1915..... | 8.05 | 7.50 | 7.65 | 7.70 | 8.35 | 8.80 | 9.20 | 9.05 | 8.95 | 8.90 | 8.70 | 8.35 | 8.43 |
| 1916..... | 8.35 | 8.35 | 8.75 | 9.10 | 9.50 | 9.85 | 9.25 | 9.45 | 9.40 | 9.75 | 10.15 | 10.00 | 9.33 |
| 1917..... | 10.15 | 10.50 | 11.25 | 11.75 | 11.90 | 12.15 | 12.35 | 12.70 | 13.10 | 11.70 | 11.10 | 11.40 | 11.67 |
| 1918..... | 12.10 | 12.00 | 12.60 | 14.70 | 15.40 | 15.85 | 16.05 | 15.75 | 16.00 | 14.80 | 15.05 | 14.90 | 14.60 |
| 1919..... | 15.80 | 15.95 | 16.05 | 15.85 | 15.00 | 13.55 | 15.60 | 16.45 | 15.50 | 16.15 | 15.10 | 14.35 | 15.45 |
| 1920..... | 13.95 | 13.05 | 13.10 | 12.30 | 12.25 | 14.95 | 14.68 | 14.30 | 14.95 | 14.61 | 11.65 | 10.08 | 13.32 |
| Av. 1914-1920..... | 10.98 | 10.81 | 11.11 | 11.41 | 11.54 | 11.96 | 12.28 | 12.40 | 12.46 | 12.12 | 11.48 | 11.06 | 11.64 |
| 1921..... | 8.94 | 8.67 | 9.41 | 8.22 | 8.83 | 7.94 | 8.09 | 8.32 | 7.67 | 7.89 | 7.52 | 7.31 | 8.16 |
| 1922..... | 7.37 | 7.60 | 8.01 | 7.94 | 8.20 | 8.83 | 9.48 | 9.62 | 9.98 | 10.53 | 9.42 | 8.89 | 8.82 |
| 1923..... | 9.17 | 8.96 | 8.83 | 9.01 | 9.41 | 9.94 | 10.06 | 10.46 | 10.12 | 9.90 | 9.36 | 8.92 | 9.50 |
| 1924..... | 9.14 | 9.33 | 9.59 | 9.83 | 9.83 | 9.83 | 9.91 | 9.54 | 9.47 | 9.57 | 9.18 | 8.98 | 9.40 |
| 1925..... | 9.28 | 9.54 | 10.06 | 10.12 | 10.03 | 10.28 | 11.29 | 11.26 | 10.73 | 10.28 | 9.74 | 9.71 | 10.19 |
| Av. 1921-1925..... | 8.78 | 8.78 | 9.18 | 9.02 | 9.16 | 9.30 | 9.76 | 9.84 | 9.59 | 9.57 | 9.04 | 8.70 | 9.23 |

CALVES

| Year | Jan. | Feb. | Mar. | Apr. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Average ² |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1909..... | 7.60 | 6.85 | 7.00 | 6.30 | 6.35 | 6.50 | 7.00 | 7.50 | 7.60 | 8.10 | 7.40 | 8.25 | 7.20 |
| 1910..... | 8.60 | 8.65 | 9.00 | 7.85 | 7.35 | 7.85 | 7.60 | 7.75 | 8.50 | 8.65 | 8.75 | 8.50 | 8.25 |
| 1911..... | 8.75 | 8.40 | 7.40 | 6.60 | 7.25 | 7.60 | 7.40 | 8.00 | 8.75 | 8.60 | 8.35 | 7.85 | 7.91 |
| 1912..... | 8.75 | 7.50 | 8.00 | 7.40 | 7.75 | 8.00 | 8.75 | 9.75 | 11.25 | 10.00 | 9.85 | 10.25 | 8.94 |
| 1913..... | 9.75 | 9.85 | 10.50 | 8.50 | 9.25 | 9.75 | 10.40 | 11.50 | 11.25 | 10.50 | 10.35 | 10.75 | 10.20 |
| Av. 1909-1913..... | 8.69 | 8.25 | 8.38 | 7.33 | 7.59 | 7.94 | 8.23 | 8.90 | 9.47 | 9.17 | 8.94 | 9.12 | 8.50 |
| 1914..... | 11.00 | 10.75 | 9.00 | 8.85 | 9.50 | 9.40 | 10.00 | 11.00 | 11.40 | 10.65 | 10.35 | 8.65 | 10.10 |
| 1915..... | 9.35 | 10.35 | 10.00 | 8.40 | 9.15 | 9.69 | 10.25 | 11.50 | 11.25 | 10.85 | 10.15 | 9.65 | 10.08 |
| 1916..... | 10.15 | 10.65 | 9.65 | 8.75 | 10.40 | 11.25 | 11.40 | 12.00 | 12.40 | 11.60 | 11.85 | 11.75 | 10.98 |
| 1917..... | 13.40 | 12.65 | 13.40 | 12.50 | 13.25 | 13.40 | 13.00 | 15.15 | 15.00 | 14.85 | 13.50 | 15.25 | 13.78 |
| 1918..... | 15.35 | 14.15 | 15.25 | 14.50 | 13.50 | 16.02 | 16.67 | 17.28 | 18.63 | 16.83 | 16.86 | 16.01 | 15.92 |
| 1919..... | 15.62 | 15.75 | 15.01 | 14.31 | 14.66 | 16.37 | 17.88 | 19.02 | 20.52 | 18.05 | 17.60 | 16.56 | 16.83 |
| 1920..... | 17.74 | 16.73 | 16.73 | 14.22 | 12.12 | 13.68 | 13.98 | 15.08 | 16.39 | 14.18 | 13.74 | 10.39 | 14.58 |
| Av. 1914-1920..... | 13.30 | 13.00 | 12.72 | 11.65 | 11.80 | 12.82 | 13.40 | 14.52 | 15.08 | 13.84 | 13.44 | 12.61 | 13.18 |
| 1921..... | 11.49 | 11.02 | 10.33 | 8.12 | 8.66 | 8.72 | 9.73 | 9.39 | 10.71 | 8.68 | 7.70 | 7.81 | 9.36 |
| 1922..... | 8.36 | 9.16 | 8.26 | 6.97 | 8.46 | 8.89 | 8.00 | 10.88 | 11.92 | 9.65 | 8.91 | 9.42 | 9.15 |
| 1923..... | 10.08 | 10.63 | 9.32 | 8.68 | 9.51 | 9.31 | 9.60 | 10.01 | 9.98 | 9.39 | 7.82 | 8.09 | 9.42 |
| 1924..... | 10.10 | 9.82 | 9.24 | 8.57 | 8.64 | 8.00 | 8.57 | 9.62 | 9.72 | 9.24 | 8.28 | 9.04 | 9.06 |
| 1925..... | 9.82 | 10.92 | 10.35 | 8.76 | 8.79 | 8.87 | 10.91 | 11.94 | 12.18 | 11.10 | 10.60 | 11.30 | 10.47 |
| Av. 1921-1925..... | 9.98 | 10.31 | 9.50 | 8.22 | 8.81 | 8.76 | 9.54 | 10.37 | 10.90 | 9.63 | 8.66 | 9.25 | 9.50 |

Division of Statistical and Historical Research.

Figures prior to July, 1920, for good beef steers, and prior to June, 1918, for calves, compiled from Chicago Drovers Journal Yearbook; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Bulk of sales, 1,100 pounds up. July 1, 1925 classification changed to 1,100-1,500 pounds.

² Simple average of monthly average prices.

TABLE 471.—Cattle, choice steers for chilled beef: Average price per 100 pounds by months, Buenos Aires, 1909–1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1909..... | \$3.00 | \$3.03 | \$3.07 | \$3.00 | \$3.07 | \$3.20 | \$3.41 | \$3.64 | \$3.95 | \$4.38 | \$4.21 | \$3.81 | \$3.48 |
| 1910..... | 3.34 | 3.30 | 3.61 | 3.61 | 3.54 | 3.64 | 3.71 | 3.96 | 4.28 | 4.62 | 4.32 | 3.47 | 3.78 |
| 1911..... | 3.37 | 3.61 | 3.84 | 3.81 | 3.84 | 3.95 | 4.15 | 4.19 | 4.21 | 4.18 | 4.01 | 3.47 | 3.99 |
| 1912..... | 3.58 | 3.78 | 3.42 | 3.73 | 3.72 | 3.71 | 3.71 | 4.05 | 4.15 | 4.15 | 4.15 | 4.06 | 3.87 |
| 1913..... | 4.22 | 4.19 | 4.44 | 4.93 | 5.20 | 5.02 | 5.10 | 5.12 | 5.12 | 5.22 | 5.35 | 5.18 | 4.93 |
| Av. 1909–1913..... | 3.54 | 3.58 | 3.72 | 3.82 | 3.89 | 3.90 | 4.02 | 4.19 | 4.34 | 4.51 | 4.41 | 4.00 | 3.90 |
| 1914..... | 4.96 | 5.27 | 5.47 | 5.69 | 5.47 | 5.67 | 5.73 | 6.01 | 6.21 | 6.29 | 5.86 | 5.80 | 5.70 |
| 1915..... | 5.72 | 6.61 | 5.56 | 5.65 | 5.44 | 5.54 | 5.97 | 6.71 | 7.45 | 7.52 | 7.11 | 6.59 | 6.24 |
| 1916..... | 6.93 | 7.15 | 6.91 | 6.93 | 6.84 | 6.31 | 6.42 | 6.54 | 6.84 | 7.16 | 6.95 | 6.74 | 6.81 |
| 1917..... | 6.69 | 6.56 | 6.49 | 6.31 | 6.46 | 6.34 | 6.37 | 6.40 | 6.16 | 6.54 | 6.09 | 5.55 | 6.32 |
| 1918..... | 5.39 | 5.83 | 5.88 | 6.06 | 6.04 | 5.98 | 6.21 | 7.49 | 8.41 | 8.49 | 8.03 | 8.06 | 6.82 |
| 1919..... | 7.96 | 7.75 | 7.74 | 7.85 | 8.03 | 7.21 | 8.60 | 8.92 | 9.63 | 9.20 | 8.25 | 7.72 | 8.24 |
| 1920..... | 7.96 | 7.97 | 8.20 | 8.06 | 7.88 | 7.56 | 7.47 | 7.42 | 7.15 | 7.27 | 6.28 | 5.98 | 7.43 |
| Av. 1914–1920..... | 6.52 | 6.59 | 6.51 | 6.65 | 6.59 | 6.37 | 6.68 | 7.97 | 7.41 | 7.50 | 6.93 | 6.63 | 6.80 |
| 1921..... | 5.93 | 6.95 | 5.71 | 5.41 | 4.40 | 4.10 | 3.69 | 4.12 | 4.74 | 4.96 | 4.90 | 4.39 | 4.86 |
| 1922..... | 4.68 | 4.53 | 3.97 | 3.30 | 3.31 | 3.90 | 4.41 | 4.50 | 4.24 | 3.84 | 3.30 | 3.25 | 3.94 |
| 1923..... | 3.08 | 3.25 | 3.42 | 4.06 | 2.53 | 3.56 | 3.62 | 3.36 | 2.82 | 4.10 | 3.48 | 3.23 | 3.60 |
| 1924..... | 3.19 | 3.40 | 3.61 | 3.50 | 3.56 | 3.76 | 4.51 | 4.98 | 5.15 | 5.95 | 5.62 | 5.42 | 4.38 |
| 1925..... | 5.54 | 5.54 | 6.20 | 6.20 | 6.51 | 6.48 | 6.54 | 6.72 | 6.91 | 6.25 | 5.66 | 5.32 | 6.16 |
| Av. 1921–1925..... | 4.48 | 4.53 | 4.66 | 4.49 | 4.32 | 4.36 | 4.55 | 4.73 | 4.97 | 5.02 | 4.59 | 4.32 | 4.69 |

Division of Statistical and Historical Research. Calculated from quotations in the Review of the River Plate. Prices prior to May, 1924, originally quoted on basis of price per head supplemented from 1916 by price per pound of dressed carcass weight. Calculations assume average dressed weight of 730 pounds or live weight of 1,250 pounds. Live-weight quotations per pound from May, 1924. Converted from Argentine currency at average monthly rate of exchange.

TABLE 472.—Cattle and calves: Trend of average farm prices and average market prices at Chicago, 1910–1925

| Year | Farm price | | Average market price at Chicago | | Price relatives, 1913=100 | | | |
|-----------|-------------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------|-------------|--------------|-------------|
| | Beef cattle, weighted average | Veal calves, simple average | Beef cattle, simple average | Veal calves, simple average | Farm price | | Market price | |
| | | | | | Beef cattle | Veal calves | Beef cattle | Veal calves |
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | | | | |
| 1910..... | 4.76 | 6.41 | 6.83 | 8.25 | 80.5 | 85.7 | 83.2 | 81.0 |
| 1911..... | 4.45 | 6.96 | 6.40 | 7.91 | 75.8 | 81.0 | 78.0 | 77.6 |
| 1912..... | 5.15 | 6.45 | 7.89 | 8.94 | 87.1 | 86.2 | 95.0 | 87.7 |
| 1913..... | 5.91 | 7.48 | 8.21 | 10.19 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1914..... | 6.24 | 7.83 | 8.66 | 10.10 | 105.6 | 104.7 | 105.4 | 98.1 |
| 1915..... | 6.60 | 7.63 | 8.43 | 10.98 | 101.5 | 102.0 | 102.7 | 98.9 |
| 1916..... | 6.47 | 8.33 | 9.33 | 10.98 | 109.5 | 111.4 | 113.6 | 107.8 |
| 1917..... | 8.16 | 10.47 | 11.67 | 13.78 | 138.1 | 140.0 | 142.1 | 135.2 |
| 1918..... | 9.44 | 11.88 | 14.60 | 15.92 | 159.7 | 158.8 | 177.8 | 155.2 |
| 1919..... | 9.56 | 12.74 | 15.45 | 15.85 | 161.8 | 170.2 | 188.2 | 165.4 |
| 1920..... | 8.32 | 11.81 | 13.32 | 14.58 | 140.5 | 187.9 | 162.2 | 143.1 |
| 1921..... | 5.46 | 7.87 | 8.16 | 9.36 | 92.4 | 105.2 | 99.4 | 91.9 |
| 1922..... | 5.48 | 7.69 | 8.62 | 9.15 | 92.7 | 102.8 | 107.4 | 89.8 |
| 1923..... | 5.57 | 7.99 | 9.50 | 9.42 | 94.2 | 106.8 | 115.7 | 92.4 |
| 1924..... | 5.59 | 8.13 | 9.49 | 9.08 | 94.6 | 108.7 | 115.6 | 89.1 |
| 1925..... | 6.26 | 8.86 | 10.19 | 10.47 | 105.9 | 118.4 | 124.1 | 102.7 |

Division of Statistical and Historical Research. Farm prices from Division of Crop and Livestock Estimates; market prices compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 473.—Cattle and calves: Average price per 100 pounds at six markets, by months, 1925

CHICAGO

| Classification | January | February | March | April | May | June | Average, January to June |
|--|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers (1,100 lbs. up)— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Choice and prime..... | 11.94 | 11.53 | 11.80 | 11.25 | 11.15 | 11.46 | 11.51 |
| Good..... | 11.09 | 10.55 | 10.76 | 10.51 | 10.45 | 10.81 | 10.70 |
| Medium..... | 9.90 | 8.65 | 9.54 | 9.49 | 9.48 | 9.69 | 9.34 |
| Common..... | 6.72 | 6.89 | 7.79 | 7.95 | 8.02 | 7.90 | 7.51 |
| Beef steers (1,100 lbs. down)— | | | | | | | |
| Choice and prime..... | 13.29 | 12.29 | 12.08 | 11.70 | 11.56 | 11.75 | 12.10 |
| Good..... | 11.84 | 10.86 | 11.05 | 10.76 | 10.74 | 11.01 | 11.04 |
| Medium..... | 9.28 | 8.63 | 9.49 | 9.45 | 9.42 | 9.53 | 9.29 |
| Common..... | 6.68 | 6.48 | 7.53 | 7.75 | 7.87 | 7.52 | 7.30 |
| Canner and cutter..... | 4.74 | 4.61 | 5.59 | 5.95 | 6.30 | 5.92 | 5.52 |
| Light yearling steers and heifers (800 lbs. down), good and prime..... | 11.38 | 10.72 | 10.86 | 10.68 | 10.68 | 10.90 | 10.88 |
| Heifers, 850 lbs. up (good and choice)..... | 9.07 | 9.16 | 9.74 | 9.79 | 9.90 | 10.65 | 9.82 |
| All weights (common and medium)..... | 5.86 | 6.49 | 7.06 | 7.13 | 7.42 | 7.46 | 6.90 |
| Cows— | | | | | | | |
| Good and choice..... | 6.29 | 6.37 | 6.86 | 7.37 | 7.64 | 7.66 | 7.03 |
| Common and medium..... | 4.41 | 4.66 | 5.01 | 5.31 | 5.55 | 5.25 | 5.03 |
| Canner and cutter..... | 3.03 | 3.32 | 3.58 | 3.62 | 3.80 | 3.39 | 3.46 |
| Bulls— | | | | | | | |
| Good and choice ¹ | 5.40 | 5.38 | 5.59 | 6.17 | 6.48 | 6.40 | 5.90 |
| Canner to medium (canner and bologna)..... | 4.09 | 4.22 | 4.26 | 4.58 | 5.02 | 4.66 | 4.47 |
| Slaughter calves: | | | | | | | |
| Medium to choice— | | | | | | | |
| 190 lbs. down..... | 10.72 | 11.94 | 11.24 | 9.49 | 9.42 | 9.56 | 10.40 |
| 190-260 lbs..... | 8.91 | 9.90 | 9.46 | 8.02 | 8.16 | 8.18 | 8.77 |
| 260 lbs. up..... | 6.32 | 6.74 | 6.80 | 6.06 | 6.22 | 6.80 | 6.46 |
| Cull and common— | | | | | | | |
| 190 lbs. down..... | 7.20 | 7.99 | 7.60 | 6.29 | 6.37 | 6.85 | 7.05 |
| 190 lbs. up..... | 5.53 | 5.66 | 5.46 | 5.12 | 5.24 | 5.08 | 5.35 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers— | | | | | | | |
| Common to choice (750 lbs. up)..... | 6.46 | 6.88 | 7.57 | 7.87 | 7.55 | 6.92 | 7.16 |
| Common to choice (750 lbs. down)..... | 6.20 | 6.55 | 7.25 | 7.05 | 7.14 | 6.73 | 6.82 |
| Inferior (all weights)..... | 4.32 | 4.78 | 5.64 | 5.38 | 5.34 | 4.99 | 5.07 |
| Cows and heifers (common to choice)..... | 3.84 | 4.42 | 4.90 | 4.90 | 5.06 | 4.76 | 4.65 |

| Classification | July | August | September | October | November | December | Average, July to December |
|---|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| 1,800 lbs. up, good and choice..... | 13.05 | 14.40 | 14.81 | 14.00 | 12.56 | 12.02 | 13.62 |
| 1,100-1,800 lbs.— | | | | | | | |
| Choice..... | 13.65 | 14.94 | 15.42 | 15.38 | 13.64 | 12.44 | 14.24 |
| Good..... | 12.03 | 12.32 | 12.64 | 12.67 | 11.24 | 10.66 | 11.94 |
| Medium..... | 9.78 | 9.26 | 9.36 | 9.52 | 9.00 | 9.24 | 9.33 |
| Common..... | 7.57 | 6.86 | 6.83 | 7.00 | 7.01 | 7.65 | 7.15 |
| 1,100 lbs. down— | | | | | | | |
| Choice..... | 13.53 | 14.62 | 14.78 | 14.51 | 13.28 | 11.98 | 13.78 |
| Good..... | 11.88 | 11.85 | 12.01 | 11.76 | 11.02 | 10.37 | 11.49 |
| Medium..... | 9.57 | 8.72 | 8.81 | 8.57 | 8.73 | 8.59 | 8.68 |
| Common..... | 7.07 | 6.25 | 6.39 | 6.60 | 6.78 | 7.23 | 6.74 |
| Canner and cutter..... | 5.14 | 4.70 | 4.71 | 4.94 | 4.90 | 5.35 | 4.95 |
| Light yearling steers and heifers (850 lbs. down), good and choice..... | 12.60 | 12.28 | 12.11 | 11.74 | 11.03 | 10.42 | 11.59 |
| Heifers— | | | | | | | |
| (850 lbs. up), good and choice..... | 10.57 | 10.33 | 10.03 | 9.60 | 9.15 | 9.03 | 9.78 |
| All weights, common and medium..... | 7.55 | 6.79 | 6.66 | 6.14 | 6.07 | 6.69 | 6.63 |
| Cows— | | | | | | | |
| Good and choice..... | 7.80 | 7.78 | 7.54 | 7.14 | 7.15 | 7.44 | 7.48 |
| Common and medium..... | 4.87 | 4.86 | 4.78 | 4.64 | 4.84 | 5.27 | 4.88 |
| Canner and cutter..... | 3.31 | 3.33 | 3.35 | 3.42 | 3.65 | 3.91 | 3.49 |

¹Beef yearlings excluded.

TABLE 473.—*Cattle and calves: Average price per 100 pounds at six markets, by months, 1925—Continued*

CHICAGO—Continued

| Classification | July | August | September | October | November | December | Average, July to December |
|--|--------------|--------------|--------------|--------------|--------------|--------------|---------------------------|
| Slaughter cattle—Continued. | | | | | | | |
| Bulls— | | | | | | | |
| Beef, 1,500 lbs. up, good and choice..... | Dollars 5.86 | Dollars 5.80 | Dollars 5.81 | Dollars 5.84 | Dollars 5.82 | Dollars 6.02 | Dollars 5.86 |
| Beef, 1,500 lbs. down (yearlings excluded), good and choice..... | 6.41 | 6.12 | 6.16 | 6.12 | 6.15 | 6.39 | 6.22 |
| Canner to medium, canner and bologna..... | 4.56 | 4.12 | 4.11 | 4.33 | 4.49 | 4.79 | 4.40 |
| Slaughter calves (milk-fed excluded): | | | | | | | |
| Medium to choice..... | 7.00 | 6.29 | 6.31 | 6.62 | 6.48 | 6.61 | 6.55 |
| Cull and common..... | 4.36 | 4.20 | 4.25 | 4.25 | 4.40 | 4.88 | 4.39 |
| Vealers— | | | | | | | |
| Medium to choice..... | 10.91 | 11.94 | 12.18 | 11.19 | 10.60 | 11.30 | 11.35 |
| Cull and common..... | 7.55 | 7.72 | 7.75 | 7.12 | 7.02 | 7.82 | 7.50 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers, 800 lbs. up— | | | | | | | |
| Good and choice..... | 7.76 | 8.20 | 8.02 | 8.02 | 8.18 | 8.20 | 8.06 |
| Common and medium..... | 6.52 | 6.70 | 6.33 | 6.45 | 6.63 | 6.82 | 6.58 |
| Steers, 800 lbs. down— | | | | | | | |
| Good and choice..... | 7.50 | 7.78 | 7.62 | 7.78 | 7.94 | 7.96 | 7.76 |
| Common and medium..... | 6.12 | 6.18 | 5.91 | 6.03 | 6.32 | 6.55 | 6.18 |
| Heifers, common to choice..... | 5.15 | 5.16 | 4.97 | 5.21 | 5.32 | 5.38 | 5.20 |
| Cows, common to choice..... | 3.82 | 3.96 | 3.86 | 4.00 | 4.06 | 4.12 | 3.97 |

EAST ST LOUIS

| Classification | January | February | March | April | May | June | Average, January to June |
|--|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers (1,100 lbs. up)— | | | | | | | |
| Choice and prime..... | Dollars 12.00 | Dollars 11.40 | Dollars 11.42 | Dollars 11.13 | Dollars 10.98 | Dollars 11.36 | Dollars 11.38 |
| Good..... | 10.64 | 10.40 | 10.76 | 10.42 | 10.13 | 10.61 | 10.49 |
| Medium..... | 8.22 | 8.28 | 9.38 | 9.40 | 9.37 | 9.67 | 9.05 |
| Common..... | 6.02 | 6.38 | 7.68 | 7.84 | 7.70 | 7.58 | 7.20 |
| Beef steers (1,100 lbs. down)— | | | | | | | |
| Choice and prime..... | 12.98 | 12.26 | 11.93 | 11.57 | 11.23 | 11.60 | 11.93 |
| Good..... | 11.35 | 10.81 | 10.93 | 10.73 | 10.46 | 10.89 | 10.86 |
| Medium..... | 8.69 | 8.44 | 9.38 | 9.38 | 9.37 | 9.56 | 9.14 |
| Common..... | 5.84 | 6.13 | 7.44 | 7.65 | 7.56 | 7.36 | 7.00 |
| Canner and cutter..... | 3.92 | 4.35 | 5.35 | 5.70 | 5.53 | 5.29 | 5.02 |
| Light yearling steers and heifers (800 lbs. down), good and prime..... | 10.64 | 10.54 | 10.81 | 10.66 | 10.56 | 10.67 | 10.65 |
| Heifers— | | | | | | | |
| 850 lbs. up (good and choice)..... | 7.62 | 7.84 | 8.71 | 9.34 | 9.38 | 9.16 | 8.68 |
| All weights (common and medium) .. | 4.89 | 5.05 | 6.22 | 6.92 | 7.04 | 6.48 | 6.10 |
| Cows— | | | | | | | |
| Good and choice..... | 6.04 | 6.45 | 7.22 | 7.53 | 7.46 | 7.02 | 6.95 |
| Common and medium..... | 4.60 | 4.91 | 5.60 | 5.88 | 5.80 | 5.24 | 5.34 |
| Canner and cutter..... | 2.95 | 3.15 | 3.56 | 3.60 | 3.67 | 3.26 | 3.36 |
| Bulls— | | | | | | | |
| Good and choice ¹ | 5.39 | 5.55 | 5.71 | 5.95 | 6.25 | 6.14 | 5.83 |
| Canner to medium (canner and bologna)..... | 3.71 | 3.92 | 4.00 | 4.15 | 4.35 | 4.13 | 4.04 |
| Slaughter calves: | | | | | | | |
| Medium to choice— | | | | | | | |
| 100 lbs. down..... | 9.78 | 9.94 | 9.93 | 8.96 | 8.50 | 8.23 | 9.22 |
| 190-260 lbs..... | 9.22 | 9.50 | 9.27 | 8.11 | 7.67 | 7.33 | 8.50 |
| 260 lbs. up..... | 5.65 | 5.75 | 6.35 | 6.66 | 6.70 | 6.61 | 6.29 |
| Cull and common— | | | | | | | |
| 100 lbs. down..... | 5.31 | 5.50 | 5.80 | 5.57 | 5.25 | 4.88 | 5.38 |
| 100 lbs. up..... | 3.31 | 3.50 | 4.10 | 4.32 | 4.14 | 3.93 | 3.88 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers— | | | | | | | |
| Common to choice (760 lbs. up)..... | 5.81 | 6.47 | 6.76 | 6.87 | 6.72 | 6.28 | 6.50 |
| Common to choice (760 lbs. down)..... | 5.49 | 6.17 | 6.51 | 6.68 | 6.60 | 6.25 | 6.28 |
| Inferior (all weights)..... | 3.77 | 4.28 | 4.68 | 4.62 | 4.48 | 4.24 | 4.34 |
| Cows and heifers (common to choice)..... | 3.78 | 4.24 | 4.74 | 5.00 | 4.84 | 4.29 | 4.49 |

¹ Beef yearlings excluded.

TABLE 473.—Cattle and calves: Average price per 100 pounds at six markets, by months, 1925—Continued

EAST ST. LOUIS—Continued

| Classification | July | August | September | October | November | December | Average, July to December |
|---|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| 1,500 lbs. up, good and choice..... | 12.75 | 13.66 | 13.92 | 13.82 | 12.73 | 11.77 | 13.11 |
| 1,100-1,500 lbs.— | | | | | | | |
| Choice..... | 13.17 | 14.25 | 14.61 | 14.63 | 13.48 | 12.32 | 13.73 |
| Good..... | 12.01 | 12.31 | 12.50 | 12.32 | 11.42 | 10.61 | 11.86 |
| Medium..... | 9.66 | 9.24 | 9.13 | 8.99 | 8.60 | 8.73 | 9.06 |
| Common..... | 6.88 | 6.36 | 5.83 | 5.94 | 6.19 | 6.90 | 6.35 |
| 1,100 lbs. down— | | | | | | | |
| Choice..... | 13.07 | 14.07 | 14.35 | 14.28 | 13.40 | 12.32 | 13.58 |
| Good..... | 11.91 | 12.09 | 12.22 | 12.08 | 11.27 | 10.57 | 11.99 |
| Medium..... | 9.52 | 9.03 | 8.87 | 8.74 | 8.40 | 8.67 | 8.86 |
| Common..... | 6.64 | 6.11 | 5.59 | 5.68 | 5.93 | 6.65 | 6.10 |
| Canner and cutter..... | 4.76 | 4.51 | 3.96 | 4.11 | 4.52 | 5.15 | 4.50 |
| Light yearling steers and heifers (850 lbs. down), good and choice..... | 11.55 | 12.01 | 11.70 | 11.21 | 10.71 | 10.35 | 11.26 |
| Heifers— | | | | | | | |
| 850 lbs. up, good and choice..... | 8.98 | 8.74 | 8.51 | 8.13 | 8.04 | 8.30 | 8.45 |
| All weights, common and medium..... | 5.99 | 5.66 | 5.55 | 5.38 | 5.26 | 5.45 | 5.55 |
| Cows— | | | | | | | |
| Good and choice..... | 6.90 | 6.99 | 6.75 | 6.66 | 6.62 | 6.88 | 6.80 |
| Common and medium..... | 4.89 | 4.74 | 4.75 | 4.72 | 4.82 | 5.17 | 4.85 |
| Canner and cutter..... | 3.13 | 3.14 | 3.21 | 3.26 | 3.59 | 3.92 | 3.38 |
| Bulls— | | | | | | | |
| Beef, 1,500 lbs. up, good and choice.... | 5.58 | 5.44 | 5.46 | 5.75 | 5.81 | 6.13 | 5.70 |
| Beef, 1,500 lbs. down (yearlings excluded), good and choice..... | 6.03 | 5.86 | 5.80 | 6.00 | 6.03 | 6.26 | 6.00 |
| Canner to medium, canner and bologna..... | 4.19 | 3.95 | 3.95 | 4.08 | 4.15 | 4.61 | 4.16 |
| Slaughter calves (milk fed excluded): | | | | | | | |
| Medium to choice..... | 7.25 | 6.98 | 6.72 | 7.00 | 6.70 | 6.50 | 6.86 |
| Cull and common..... | 4.56 | 4.52 | 4.47 | 4.75 | 4.52 | 4.50 | 4.55 |
| Vealers— | | | | | | | |
| Medium to choice..... | 9.13 | 10.07 | 11.20 | 11.11 | 10.56 | 11.11 | 10.53 |
| Cull and common..... | 5.29 | 5.46 | 6.15 | 6.92 | 6.30 | 7.12 | 6.21 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers, 800 lbs. up— | | | | | | | |
| Good and choice..... | 7.46 | 7.62 | 7.33 | 7.56 | 7.62 | 8.03 | 7.60 |
| Common and medium..... | 5.02 | 5.50 | 5.29 | 5.40 | 5.52 | 6.30 | 5.63 |
| Steers, 800 lbs. down— | | | | | | | |
| Good and choice..... | 7.21 | 7.49 | 7.14 | 7.31 | 7.38 | 7.78 | 7.38 |
| Common and medium..... | 5.62 | 5.45 | 5.10 | 5.21 | 5.38 | 6.05 | 5.47 |
| Heifers, common to choice..... | 4.50 | 4.65 | 4.89 | 5.11 | 5.12 | 5.21 | 4.91 |
| Cows, common to choice..... | 3.48 | 3.40 | 3.46 | 3.72 | 3.83 | 4.13 | 3.67 |

FORT WORTH

| Classification | January | February | March | April | May | June | Average, January to June |
|---|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers (1,100 lbs. up)— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Medium..... | 6.77 | 6.91 | 7.14 | 7.54 | 7.55 | 7.33 | 7.21 |
| Common..... | 4.79 | 5.17 | 5.68 | 6.16 | 6.12 | 5.85 | 5.63 |
| Beef steers (1,100 lbs. down)— | | | | | | | |
| Good..... | 8.06 | 8.21 | 8.30 | 8.57 | 8.55 | 8.39 | 8.35 |
| Medium..... | 6.42 | 6.77 | 7.01 | 7.38 | 7.43 | 7.18 | 7.03 |
| Common..... | 4.42 | 4.92 | 5.39 | 5.86 | 5.88 | 5.88 | 5.34 |
| Canner and cutter..... | 3.01 | 3.23 | 3.71 | 4.21 | 4.26 | 4.09 | 3.75 |
| Light yearling steers and heifers (800 lbs. down) good and prime..... | 9.16 | 9.06 | 8.69 | 9.14 | 9.44 | 8.78 | 9.04 |
| Heifers— | | | | | | | |
| 850 lbs. up (good and choice)..... | 6.88 | 7.00 | 7.30 | 7.67 | 7.56 | 7.53 | 7.32 |
| All weights (common and medium).... | 4.12 | 4.27 | 4.86 | 5.28 | 5.12 | 5.08 | 4.78 |
| Cows— | | | | | | | |
| Good and choice..... | 4.51 | 4.67 | 5.57 | 5.96 | 6.04 | 5.55 | 5.40 |
| Common and medium..... | 3.13 | 3.27 | 4.00 | 4.04 | 4.13 | 4.06 | 3.77 |
| Canner and cutter..... | 2.16 | 2.27 | 2.51 | 2.41 | 2.45 | 2.64 | 2.41 |

TABLE 473.—Cattle and calves: Average price per 100 pounds at six markets, by months, 1925—Continued

FORT WORTH—Continued

| Classification | January | February | March | April | May | June | Average, January to June |
|--|---------|----------|-----------|---------|----------|----------|---------------------------|
| Slaughter cattle—Continued. | | | | | | | |
| Bulls— | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Good and choice ¹ | 4.10 | 4.12 | 4.30 | 4.38 | 4.38 | 4.02 | 4.22 |
| Canner to medium (canner and bol- ogus)..... | 3.02 | 3.00 | 3.20 | 3.25 | 3.25 | 2.96 | 3.11 |
| Slaughter calves: | | | | | | | |
| Medium to choice— | | | | | | | |
| 190 lbs. down..... | 7.34 | 7.77 | 8.33 | 8.45 | 8.14 | 7.60 | 7.94 |
| 190-260 lbs..... | 6.72 | 6.90 | 7.14 | 7.16 | 6.73 | 6.60 | 6.88 |
| 260 lbs. up..... | 5.78 | 5.88 | 6.10 | 6.26 | 6.20 | 6.12 | 6.06 |
| Cull and common— | | | | | | | |
| 190 lbs. down..... | 4.54 | 4.99 | 5.49 | 5.37 | 5.31 | 5.00 | 5.12 |
| 190 lbs. up..... | 3.47 | 3.67 | 3.93 | 3.98 | 4.01 | 4.01 | 3.84 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers— | | | | | | | |
| Common to choice (750 lbs. up)..... | 5.28 | 5.72 | 6.14 | 6.09 | 6.20 | 6.12 | 5.92 |
| Common to choice (750 lbs. down)..... | 5.01 | 5.44 | 5.88 | 5.86 | 6.01 | 5.88 | 5.68 |
| Inferior (all weights)..... | 2.88 | 3.08 | 3.72 | 3.88 | 3.88 | 3.88 | 3.66 |
| Cows and heifers (common to choice)..... | 3.30 | 3.48 | 3.81 | 3.88 | 3.88 | 3.88 | 3.66 |
| Calves (common to choice)..... | 5.01 | 5.32 | 5.31 | 5.25 | 5.25 | 5.25 | 5.25 |
| Classification | July | August | September | October | November | December | Average, July to December |
| Slaughter cattle: | | | | | | | |
| Beef steers— | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| 1,500 lbs. up, good and prime..... | | | | | | | |
| 1,100-1,500 lbs.— | | | | | | | |
| Choice..... | | | | | | | |
| Good..... | | | | | | | |
| Medium..... | 7.50 | 7.45 | 7.88 | 7.88 | 7.38 | 7.39 | 7.41 |
| Common..... | 5.35 | 5.20 | 5.12 | 5.12 | 5.12 | 5.23 | 5.19 |
| 1,100 lbs. down— | | | | | | | |
| Choice..... | | | | | | | |
| Good..... | 8.75 | 8.75 | 8.75 | 8.75 | 8.75 | 8.66 | 8.74 |
| Medium..... | 7.26 | 7.20 | 7.12 | 7.12 | 7.12 | 7.13 | 7.16 |
| Common..... | 5.10 | 4.95 | 4.88 | 4.88 | 4.88 | 4.99 | 4.95 |
| Canner and cutter..... | 3.44 | 3.25 | 3.25 | 3.25 | 3.25 | 3.46 | 3.32 |
| Light yearling steers and heifers (850 lbs. down), good and choice..... | 8.94 | | | | | | |
| Heifers— | | | | | | | |
| 850 lbs. up, good and choice..... | 7.55 | 7.61 | 7.65 | 7.60 | 7.40 | 7.44 | 7.54 |
| All weights, common and medium..... | 4.93 | 4.80 | 4.90 | 4.88 | 4.64 | 4.86 | 4.84 |
| Cows— | | | | | | | |
| Good and choice..... | 5.56 | 5.12 | 5.22 | 5.22 | 5.03 | 5.18 | 5.19 |
| Common and medium..... | 3.76 | 3.46 | 3.70 | 3.65 | 3.58 | 3.83 | 3.66 |
| Canner and cutter..... | 2.31 | 2.27 | 2.42 | 2.61 | 2.62 | 2.95 | 2.53 |
| Bulls— | | | | | | | |
| Beef, 1,500 lbs. up, good and choice..... | | | | | | | |
| Beef, 1,300 lbs. down (yearlings ex- cluded), good and choice..... | 3.88 | 3.88 | 3.98 | 3.97 | 4.00 | 4.15 | 3.96 |
| Canner to medium, canner, and bo- logus..... | 2.88 | 2.88 | 2.88 | 2.97 | 3.00 | 3.29 | 2.98 |
| Slaughter calves (milk fed excluded): | | | | | | | |
| Medium to choice..... | 6.36 | 6.68 | 6.74 | 6.82 | 5.91 | 6.85 | 6.56 |
| Cull and common..... | 3.93 | 4.15 | 4.30 | 4.43 | 3.97 | 4.62 | 4.23 |
| Vealers— | | | | | | | |
| Medium to choice..... | 7.47 | 7.74 | 8.27 | 8.19 | 7.52 | 7.61 | 7.80 |
| Cull and common..... | 4.81 | 4.90 | 5.28 | 5.29 | 4.84 | 4.97 | 5.02 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers, 800 lbs. up— | | | | | | | |
| Good and choice..... | | | | | | 7.40 | |
| Common and medium..... | 5.04 | 5.00 | 5.07 | 5.21 | 5.49 | 5.74 | 5.26 |
| Steers, 800 lbs. down— | | | | | | | |
| Good and choice..... | | | | | | | |
| Common and medium..... | 4.68 | 4.63 | 4.84 | 6.88 | 6.88 | 7.12 | 4.91 |
| Heifers, common to choice..... | | | | 5.00 | 5.00 | 5.34 | |
| Cows, common to choice..... | 3.08 | 3.00 | 3.88 | 2.88 | 3.08 | 3.37 | 3.04 |
| Calves (steers), common to choice..... | | | | | | | |

¹ Beef yearlings excluded.

TABLE 473.—Cattle and calves: Average price per 100 pounds at six markets, by months, 1925—Continued

KANSAS CITY

| Classification | January | February | March | April | May | June | Average, January to June |
|--|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers (1,100 lbs. up)— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Choice and prime..... | 11.50 | 11.20 | 11.29 | 10.92 | 10.67 | 10.93 | 11.08 |
| Good..... | 10.24 | 10.02 | 10.26 | 9.97 | 9.75 | 10.05 | 10.05 |
| Medium..... | 8.37 | 8.32 | 8.76 | 9.01 | 8.66 | 8.94 | 8.71 |
| Common..... | 5.85 | 6.26 | 6.91 | 7.30 | 7.36 | 6.98 | 6.78 |
| Beef steers (1,100 lbs. down)— | | | | | | | |
| Choice and prime..... | 12.46 | 12.06 | 11.84 | 11.26 | 11.07 | 11.27 | 11.06 |
| Good..... | 10.84 | 10.48 | 10.50 | 10.29 | 10.08 | 10.20 | 10.41 |
| Medium..... | 8.47 | 8.36 | 8.82 | 9.06 | 8.99 | 9.04 | 8.79 |
| Common..... | 5.78 | 6.22 | 6.80 | 7.22 | 7.12 | 6.76 | 6.65 |
| Canner and cutter..... | 4.04 | 4.47 | 4.90 | 5.34 | 5.12 | 4.57 | 4.74 |
| Light yearling steers and heifers (800 lbs. down), good and prime..... | 10.76 | 10.61 | 10.60 | 10.42 | 10.32 | 10.69 | 10.57 |
| Heifers— | | | | | | | |
| 850 lbs. up (good and choice)..... | 8.47 | 8.63 | 9.05 | 9.33 | 9.24 | 9.32 | 9.01 |
| All weights (common and medium)..... | 5.12 | 5.44 | 6.09 | 6.61 | 6.62 | 6.58 | 6.07 |
| Cows— | | | | | | | |
| Good and choice..... | 5.65 | 6.08 | 6.38 | 7.36 | 7.24 | 6.90 | 6.62 |
| Common and medium..... | 4.25 | 4.55 | 4.70 | 5.33 | 5.31 | 4.81 | 4.82 |
| Canner and cutter..... | 2.84 | 3.16 | 3.26 | 3.43 | 3.52 | 3.22 | 3.26 |
| Bulls— | | | | | | | |
| Good and choice ¹ | 4.91 | 5.08 | 5.38 | 5.67 | 6.16 | 5.64 | 5.47 |
| Canner to medium (canner and bologna)..... | 2.55 | 3.70 | 3.85 | 3.99 | 4.51 | 4.07 | 3.94 |
| Slaughter calves: | | | | | | | |
| Medium to choice— | | | | | | | |
| 190 lbs. down..... | 8.84 | 9.34 | 8.99 | 8.01 | 8.00 | 8.93 | 8.54 |
| 190-250 lbs..... | 7.33 | 8.06 | 7.92 | 7.17 | 6.90 | 8.80 | 7.46 |
| 250 lbs. up..... | 5.47 | 5.80 | 6.11 | 6.17 | 6.44 | 6.33 | 6.05 |
| Cull and common— | | | | | | | |
| 190 lbs. down..... | 5.55 | 6.11 | 5.90 | 5.26 | 5.35 | 5.28 | 5.68 |
| 190 lbs. up..... | 3.56 | 4.06 | 4.48 | 4.31 | 4.29 | 4.20 | 4.15 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers— | | | | | | | |
| Common to choice (750 lbs. up)..... | 6.26 | 6.51 | 6.94 | 7.06 | 7.06 | 6.54 | 6.73 |
| Common to choice (750 lbs. down)..... | 6.04 | 6.38 | 6.86 | 7.02 | 7.00 | 6.46 | 6.63 |
| Inferior (all weights)..... | 3.69 | 4.19 | 4.68 | 4.84 | 4.70 | 4.22 | 4.37 |
| Cows and heifers (common to choice)..... | 4.13 | 4.53 | 4.74 | 5.29 | 5.31 | 4.90 | 4.82 |
| Calves (common to choice)..... | 5.58 | 5.84 | 6.07 | 6.15 | 6.22 | 5.93 | 5.96 |

| Classification | July | August | September | October | November | December | Average, July to December |
|---|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| 1,500 lbs. up, good and choice..... | 12.20 | 13.08 | 13.49 | 13.85 | 12.78 | 11.46 | 12.81 |
| 1,100-1,500 lbs.— | | | | | | | |
| Choice..... | 12.55 | 14.00 | 14.19 | 14.36 | 13.37 | 11.89 | 13.45 |
| Good..... | 11.33 | 11.42 | 11.38 | 11.51 | 10.80 | 10.13 | 11.10 |
| Medium..... | 9.22 | 8.57 | 8.29 | 8.34 | 8.05 | 8.38 | 8.48 |
| Common..... | 6.56 | 6.04 | 5.73 | 5.92 | 5.88 | 6.48 | 6.10 |
| 1,100 lbs. down— | | | | | | | |
| Choice..... | 12.81 | 13.91 | 14.09 | 14.11 | 13.13 | 11.73 | 13.30 |
| Good..... | 11.26 | 11.39 | 11.26 | 11.22 | 10.61 | 9.95 | 10.96 |
| Medium..... | 9.03 | 8.37 | 8.08 | 8.14 | 8.02 | 8.25 | 8.32 |
| Common..... | 6.30 | 5.78 | 5.69 | 5.73 | 5.74 | 6.26 | 5.90 |
| Canner and cutter..... | 4.05 | 3.78 | 3.70 | 3.94 | 4.04 | 4.46 | 4.00 |
| Light yearling steers and heifers (850 lbs. down), good and choice..... | 11.55 | 11.48 | 11.15 | 11.26 | 10.88 | 10.17 | 11.07 |
| Heifers— | | | | | | | |
| (850 lbs. up), good and choice..... | 9.71 | 9.52 | 9.15 | 9.15 | 8.66 | 8.61 | 9.17 |
| All weights, common and medium..... | 6.48 | 6.16 | 6.50 | 6.45 | 6.35 | 5.79 | 6.79 |
| Cows— | | | | | | | |
| Good and choice..... | 6.77 | 6.90 | 6.56 | 6.54 | 6.66 | 6.91 | 6.71 |
| Common and medium..... | 4.42 | 4.34 | 4.38 | 4.44 | 4.55 | 4.98 | 4.52 |
| Canner and cutter..... | 3.04 | 3.12 | 3.16 | 3.26 | 3.45 | 3.73 | 3.30 |

¹ Beef yearlings excluded.

TABLE 473.—*Cattle and calves: Average price per 100 pounds at six markets, by months, 1925—Continued*

KANSAS CITY—Continued

| Classification | July | August | September | October | November | December | Average, July to December |
|---|--------------|--------------|--------------|--------------|--------------|--------------|---------------------------|
| Slaughter cattle—Continued. | | | | | | | |
| Bulls— | | | | | | | |
| Beef, 1,500 lbs. up, good and choice | Dollars 5.01 | Dollars 4.90 | Dollars 4.91 | Dollars 5.12 | Dollars 4.96 | Dollars 5.41 | Dollars 5.05 |
| Beef, 1,500 lbs. down (yearlings excluded), good and choice | 5.53 | 5.38 | 5.27 | 5.38 | 5.23 | 5.94 | 5.46 |
| Canner to medium, canner and bologna | 3.77 | 3.67 | 3.67 | 3.88 | 3.92 | 4.28 | 3.86 |
| Slaughter calves (milk fed excluded): | | | | | | | |
| Medium to choice | 6.31 | 5.70 | 6.14 | 5.55 | 5.48 | 6.50 | 5.95 |
| Cull and common | 3.73 | 3.44 | 3.69 | 3.54 | 3.50 | 4.25 | 3.69 |
| Vealers— | | | | | | | |
| Medium to choice | 8.46 | 9.34 | 10.27 | 9.22 | 8.64 | 8.81 | 9.12 |
| Cull and common | 5.72 | 5.68 | 6.23 | 5.39 | 5.17 | 5.76 | 5.66 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers, 800 lbs. up— | | | | | | | |
| Good and choice | 7.37 | 7.54 | 7.58 | 7.88 | 7.86 | 8.36 | 7.76 |
| Common and medium | 5.31 | 5.39 | 5.62 | 5.94 | 6.02 | 6.76 | 5.84 |
| Steers, 800 lbs. down— | | | | | | | |
| Good and choice | 7.17 | 7.16 | 7.11 | 7.51 | 7.56 | 8.16 | 7.44 |
| Common and medium | 5.08 | 5.01 | 5.11 | 5.32 | 5.44 | 6.18 | 5.36 |
| Heifers, common to choice | 5.32 | 5.49 | 5.61 | 5.75 | 5.78 | 5.96 | 5.65 |
| Cows, common to choice | 3.63 | 3.62 | 3.67 | 3.76 | 3.80 | 4.11 | 3.76 |
| Calves (steers), common to choice | 5.76 | 5.93 | 6.30 | 6.55 | 6.59 | 6.90 | 6.34 |

OMAHA

| Classification | January | February | March | April | May | June | Average, January to June |
|---|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers (1,100 lbs. up)— | | | | | | | |
| Choice and prime | Dollars 11.52 | Dollars 11.11 | Dollars 11.10 | Dollars 10.81 | Dollars 10.60 | Dollars 10.93 | Dollars 11.01 |
| Good | 10.80 | 9.93 | 10.16 | 9.98 | 9.66 | 10.03 | 10.01 |
| Medium | 8.35 | 8.29 | 8.80 | 8.98 | 8.85 | 8.94 | 8.70 |
| Common | 5.74 | 6.17 | 6.91 | 7.24 | 7.36 | 7.15 | 6.76 |
| Beef steers (1,100 lbs. down)— | | | | | | | |
| Choice and prime | 12.57 | 11.93 | 11.75 | 11.12 | 10.88 | 11.18 | 11.57 |
| Good | 11.01 | 10.41 | 10.62 | 10.28 | 10.04 | 10.28 | 10.44 |
| Medium | 8.41 | 8.29 | 8.91 | 9.04 | 9.02 | 9.03 | 8.78 |
| Common | 5.64 | 6.03 | 6.81 | 7.16 | 7.21 | 7.00 | 6.64 |
| Canner and cutter | 3.92 | 4.25 | 4.94 | 5.39 | 5.34 | 4.96 | 4.80 |
| Light yearling steers and heifers (800 lbs. down) good and prime | 10.76 | 10.44 | 10.45 | 10.31 | 10.08 | 10.50 | 10.42 |
| Heifers— | | | | | | | |
| 850 lbs. up (good and choice) | 8.74 | 8.56 | 9.06 | 9.46 | 9.34 | 9.44 | 9.10 |
| All weights (common and medium) | 5.28 | 5.44 | 6.10 | 6.63 | 6.71 | 6.70 | 6.14 |
| Cows— | | | | | | | |
| Good and choice | 5.92 | 6.00 | 6.72 | 7.38 | 7.30 | 7.17 | 6.75 |
| Common and medium | 4.24 | 4.43 | 4.94 | 5.22 | 5.27 | 5.06 | 4.86 |
| Canner and cutter | 3.01 | 3.16 | 3.52 | 3.38 | 3.53 | 3.46 | 3.34 |
| Bulls— | | | | | | | |
| Good and choice | 4.98 | 4.85 | 5.28 | 5.76 | 6.14 | 5.66 | 5.43 |
| Canner to medium (canner and bologna) | 3.65 | 3.70 | 3.86 | 3.98 | 4.26 | 3.96 | 3.90 |
| Slaughter calves: | | | | | | | |
| Medium to choice | | | | | | | |
| 190 lbs. down | 8.91 | 9.49 | 9.05 | 8.15 | 8.58 | 8.11 | 8.72 |
| 190-220 lbs. | 7.59 | 8.06 | 7.82 | 7.07 | 7.15 | 6.82 | 7.42 |
| 220 lbs. up | 5.80 | 6.28 | 6.18 | 6.17 | 6.72 | 6.36 | 6.25 |
| Cull and common | | | | | | | |
| 190 lbs. down | 5.71 | 6.09 | 5.73 | 5.26 | 5.58 | 5.22 | 5.60 |
| 190 lbs. up | 3.68 | 4.15 | 4.10 | 4.18 | 4.37 | 4.19 | 4.11 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers— | | | | | | | |
| Common to choice (750 lbs. up) | 6.15 | 6.50 | 7.05 | 7.05 | 7.06 | 6.67 | 6.75 |
| Common to choice (750 lbs. down) | 6.10 | 6.41 | 6.92 | 6.93 | 6.95 | 6.57 | 6.65 |
| Inferior (all weights) | 3.78 | 3.97 | 4.32 | 4.31 | 4.30 | 4.52 | 4.42 |
| Cows and heifers (common to choice) | 3.81 | 4.10 | 4.84 | 5.00 | 4.95 | 4.88 | 4.60 |
| Calves (common to choice) | 4.33 | 5.55 | 6.04 | 6.12 | 6.08 | 6.00 | 5.85 |

-1 Beef yearlings excluded.

TABLE 473.—Cattle and calves: Average price per 100 pounds at six markets, by months, 1925—Continued

OMAHA—Continued

| Classification | July | August | September | October | November | December | Average, July to December |
|---|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| 1,500 lbs. up, good and choice..... | 12.32 | 13.20 | 13.38 | 13.45 | 12.50 | 11.36 | 12.70 |
| 1,100-1,500 lbs— | | | | | | | |
| Choice..... | 12.85 | 13.99 | 14.19 | 14.09 | 13.10 | 11.79 | 13.34 |
| Good..... | 11.38 | 11.54 | 11.44 | 11.21 | 10.69 | 10.05 | 11.05 |
| Medium..... | 9.36 | 8.68 | 8.43 | 8.20 | 8.16 | 8.32 | 8.52 |
| Common..... | 6.83 | 6.14 | 6.00 | 5.84 | 5.90 | 6.31 | 6.17 |
| 1,100 lbs. down— | | | | | | | |
| Choice..... | 12.80 | 13.87 | 14.03 | 13.90 | 13.09 | 11.74 | 13.24 |
| Good..... | 11.25 | 11.40 | 11.26 | 11.02 | 10.60 | 9.97 | 10.92 |
| Medium..... | 9.18 | 8.52 | 8.19 | 8.06 | 8.04 | 8.17 | 8.36 |
| Common..... | 6.65 | 5.96 | 5.73 | 5.66 | 5.76 | 6.15 | 5.98 |
| Canner and cutter..... | 4.44 | 3.90 | 3.82 | 3.81 | 3.97 | 4.49 | 4.07 |
| Light yearling steers and heifers (850 lbs. down), good and choice..... | 11.59 | 11.98 | 11.58 | 11.47 | 10.88 | 10.05 | 11.26 |
| Heifers— | | | | | | | |
| (850 lbs. up) good and choice..... | 10.05 | 10.28 | 9.58 | 9.37 | 9.08 | 8.62 | 9.50 |
| All weights, common and medium..... | 6.61 | 6.17 | 5.60 | 5.54 | 5.55 | 5.74 | 5.88 |
| Cows— | | | | | | | |
| Good and choice..... | 7.12 | 7.09 | 6.93 | 6.95 | 7.04 | 6.97 | 7.02 |
| Common and medium..... | 4.69 | 4.43 | 4.38 | 4.37 | 4.74 | 5.10 | 4.62 |
| Canner and cutter..... | 3.14 | 3.04 | 3.11 | 3.20 | 3.55 | 4.00 | 3.34 |
| Bulls— | | | | | | | |
| Beef, 1,500 lbs. up, good and choice.... | 5.10 | 4.77 | 4.79 | 5.12 | 5.21 | 5.61 | 5.10 |
| Beef, 1,500 lbs. down (yearlings excluded), good and choice..... | 5.35 | 5.06 | 5.04 | 5.37 | 5.46 | 5.85 | 5.36 |
| Canner to medium, canner and bologna..... | 3.90 | 3.70 | 3.68 | 3.76 | 3.82 | 4.43 | 3.88 |
| Slaughter calves (milk fed excluded): | | | | | | | |
| Medium to choice..... | 6.68 | 6.20 | 5.93 | 5.92 | 5.87 | 6.45 | 6.18 |
| Cull and common..... | 4.02 | 3.79 | 3.91 | 4.04 | 4.00 | 4.31 | 4.01 |
| Vealers— | | | | | | | |
| Medium to choice..... | 8.18 | 8.05 | 9.42 | 10.32 | 9.52 | 8.63 | 9.02 |
| Cull and common..... | 5.43 | 5.48 | 6.28 | 6.62 | 6.15 | 5.76 | 5.95 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers, 800 lbs. up— | | | | | | | |
| Good and choice..... | 7.62 | 7.92 | 8.11 | 8.07 | 8.12 | 8.37 | 8.04 |
| Common and medium..... | 5.79 | 5.53 | 5.77 | 5.84 | 6.09 | 6.65 | 5.64 |
| Steers, 800 lbs. down— | | | | | | | |
| Good and choice..... | 7.38 | 7.50 | 7.59 | 7.47 | 7.68 | 8.12 | 7.62 |
| Common and medium..... | 5.52 | 5.23 | 5.33 | 5.27 | 5.52 | 6.19 | 5.61 |
| Heifers, common to choice..... | 5.39 | 5.46 | 5.56 | 5.62 | 5.44 | 5.38 | 5.48 |
| Cows, common to choice..... | 3.67 | 3.50 | 3.50 | 3.60 | 3.76 | 3.86 | 3.65 |
| Calves (steers), common to choice..... | 5.88 | 5.87 | 6.17 | 6.14 | 6.33 | 6.58 | 6.16 |

SOUTH ST. PAUL

| Classification | January | February | March | April | May | June | Average, January to June |
|--|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Slaughter cattle: | | | | | | | |
| Beef steers (1,100 lbs. up)— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Good..... | 9.50 | 9.56 | 9.92 | 9.95 | 9.60 | 9.77 | 9.70 |
| Medium..... | 7.69 | 7.84 | 8.46 | 8.63 | 8.40 | 8.74 | 8.29 |
| Common..... | 5.40 | 5.73 | 6.63 | 7.08 | 7.08 | 7.14 | 6.51 |
| Beef steers (1,100 lbs. down)— | | | | | | | |
| Good..... | 10.50 | 10.42 | 10.46 | 10.22 | 9.70 | 10.11 | 10.24 |
| Medium..... | 7.94 | 7.99 | 8.44 | 8.69 | 8.54 | 8.78 | 8.40 |
| Common..... | 5.12 | 5.64 | 6.40 | 6.88 | 6.96 | 6.97 | 6.33 |
| Canner and cutter..... | 3.82 | 3.90 | 4.50 | 5.07 | 5.12 | 5.12 | 4.50 |
| Light yearling steers and heifers (800 lbs. down), good and prime..... | 9.88 | 9.88 | 10.06 | 10.13 | 10.12 | 10.16 | 10.04 |
| Heifers— | | | | | | | |
| 850 lbs. up (good and choice)..... | 7.66 | 7.86 | 8.18 | 8.52 | 8.67 | 8.62 | 8.25 |
| All weights (common and medium).... | 4.84 | 4.81 | 5.18 | 5.86 | 6.17 | 6.12 | 5.45 |
| Cows— | | | | | | | |
| Good and choice..... | 5.48 | 5.73 | 6.22 | 6.89 | 7.06 | 6.87 | 6.38 |
| Common and medium..... | 4.03 | 4.21 | 4.70 | 5.66 | 5.27 | 5.10 | 4.73 |
| Canner and cutter..... | 2.79 | 2.97 | 3.20 | 3.27 | 3.41 | 3.32 | 3.16 |

† Beef yearlings excluded.

TABLE 478.—Cattle and calves: Average price per 100 pounds at six markets, by months, 1925—Continued

SOUTH ST. PAUL—Continued

| Classification | January | February | March | April | May | June | Average, January to June |
|---|---------|----------|-----------|---------|----------|----------|---------------------------|
| Slaughter cattle—Continued. | | | | | | | |
| Bulls— | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Good and choice ¹ | 5.40 | 5.44 | 5.36 | 5.51 | 5.62 | 5.50 | 5.47 |
| Canner to medium (canner and bologna)..... | 3.78 | 3.96 | 3.88 | 3.97 | 4.24 | 4.12 | 3.99 |
| Slaughter calves: | | | | | | | |
| Medium to choice— | | | | | | | |
| 190 lbs. down..... | 7.10 | 8.54 | 8.62 | 7.70 | 7.81 | 7.34 | 7.85 |
| 190-220 lbs..... | 6.02 | 6.84 | 7.09 | 6.85 | 7.08 | 6.61 | 6.75 |
| 260 lbs. up..... | 4.75 | 4.75 | 5.25 | 5.45 | 5.95 | 5.78 | 5.32 |
| Cull and common— | | | | | | | |
| 190 lbs. down..... | 4.04 | 4.80 | 4.73 | 4.51 | 5.08 | 4.92 | 4.68 |
| 190 lbs. up..... | 3.00 | 3.00 | 3.50 | 3.89 | 4.00 | 3.82 | 3.54 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers— | | | | | | | |
| Common to choice (750 lbs. up)..... | 5.82 | 6.22 | 6.66 | 6.75 | 6.75 | 6.13 | 6.39 |
| Common to choice (750 lbs. down)..... | 5.41 | 5.89 | 6.44 | 6.50 | 6.50 | 5.76 | 6.08 |
| Inferior (all weights)..... | 3.65 | 4.02 | 4.36 | 4.48 | 4.50 | 4.00 | 4.17 |
| Cows and heifers (common to choice)..... | 3.25 | 3.30 | 3.92 | 4.37 | 4.42 | 4.12 | 3.90 |
| Calves (common to choice)..... | 4.75 | 4.76 | 5.27 | 5.38 | 5.38 | 5.38 | 5.15 |
| Classification | July | August | September | October | November | December | Average, July to December |
| Slaughter cattle: | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Beef steers— | | | | | | | |
| 1,500 lbs. up..... | | | | | | | |
| 1,100-1,500 lbs.— | | | | | | | |
| Choice..... | 10.98 | 11.45 | 11.01 | 11.19 | 10.70 | 9.87 | 10.87 |
| Good..... | 9.24 | 8.43 | 7.73 | 7.95 | 8.01 | 8.07 | 8.24 |
| Medium..... | 7.02 | 5.95 | 5.59 | 5.80 | 6.07 | 6.32 | 6.13 |
| Common..... | | | | | | | |
| 1,100 lbs. down— | | | | | | | |
| Choice..... | 11.05 | 11.34 | 10.86 | 10.84 | 10.38 | 9.64 | 10.68 |
| Good..... | 9.04 | 8.31 | 7.63 | 7.70 | 7.68 | 7.82 | 8.03 |
| Medium..... | 6.70 | 5.62 | 5.28 | 5.42 | 5.55 | 5.98 | 5.76 |
| Common..... | 4.77 | 4.13 | 4.00 | 4.00 | 3.72 | 3.75 | 4.06 |
| Canner and cutter..... | | | | | | | |
| Light yearling steers and heifers (850 lbs. down), good and choice..... | 10.69 | 11.12 | 10.88 | 10.84 | 10.57 | 9.64 | 10.62 |
| Heifers— | | | | | | | |
| 850 lbs. up, good and choice..... | 8.65 | 8.71 | 8.31 | 8.08 | 8.45 | 8.26 | 8.41 |
| All weights, common and medium..... | 5.78 | 5.56 | 5.22 | 4.91 | 5.18 | 5.50 | 5.36 |
| Cows— | | | | | | | |
| Good and choice..... | 6.42 | 6.12 | 5.96 | 5.74 | 6.02 | 6.25 | 6.08 |
| Common and medium..... | 4.42 | 4.04 | 4.03 | 3.88 | 4.11 | 4.44 | 4.16 |
| Canner and cutter..... | 3.00 | 2.82 | 2.84 | 2.89 | 3.11 | 3.43 | 3.02 |
| Bulls— | | | | | | | |
| Beef, 1,500 lbs. up, good and choice..... | 5.29 | 4.08 | 5.05 | 5.18 | 5.20 | 5.52 | 5.20 |
| Beef, 1,500 lbs. down (yearlings excluded), good and choice..... | 5.67 | 5.44 | 5.48 | 5.50 | 5.50 | 5.68 | 5.54 |
| Canner to medium, canner and bologna..... | 4.06 | 3.60 | 3.74 | 3.85 | 3.99 | 4.28 | 3.92 |
| Slaughter calves (milk-fed excluded): | | | | | | | |
| Medium to choice..... | 6.45 | 6.36 | 6.00 | 5.56 | 5.48 | 5.48 | 5.89 |
| Cull and common..... | 3.89 | 3.84 | 3.88 | 3.61 | 3.50 | 3.60 | 3.72 |
| Vealers— | | | | | | | |
| Medium to choice..... | 8.70 | 9.47 | 9.66 | 9.40 | 8.77 | 8.63 | 9.10 |
| Cull and common..... | 5.80 | 5.81 | 5.74 | 5.63 | 5.68 | 5.61 | 5.70 |
| Feeder and stocker cattle and calves: | | | | | | | |
| Steers, 800 lbs. up— | | | | | | | |
| Good and choice..... | 6.87 | 7.04 | 7.02 | 7.31 | 7.38 | 7.37 | 7.16 |
| Common and medium..... | 5.61 | 5.45 | 5.42 | 5.64 | 5.75 | 5.69 | 5.59 |
| Steers, 800 lbs. down— | | | | | | | |
| Good and choice..... | 6.57 | 6.54 | 6.41 | 7.03 | 7.06 | 7.17 | 6.89 |
| Common and medium..... | 5.28 | 5.27 | 5.25 | 5.32 | 5.32 | 5.42 | 5.31 |
| Heifers, common to choice..... | 4.18 | 4.05 | 4.26 | 4.62 | 4.80 | 4.94 | 4.50 |
| Cows, common to choice..... | 3.58 | 3.44 | 3.50 | 3.50 | 3.56 | 3.69 | 3.53 |
| Calves (steers), common to choice..... | 5.25 | 5.25 | 5.15 | 5.25 | 5.32 | 5.38 | 5.27 |

¹ Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

² Beef yearlings excluded.

TABLE 474.—Cattle: Prices of live steers in Chicago, wholesale prices of beef in Chicago and New York, and retail prices of certain beef cuts, 1913-1925

| Year | Beef, wholesale | | | Beef, retail | | | | | | | | | |
|-----------|-------------------------------------|----------------------------|--------------------------------------|------------------------|--------------------------------------|-----------------|----------------------------------|-----------------|----------------------------------|-----------------|----------------------------------|-----------------|----------------------------------|
| | Live steers good to choice, Chicago | Good native steer, Chicago | | Native sides, New York | | Sirloin steak | | | | Round steak | | | |
| | | Price per pound | Whole-sale as per cent of live price | Price per pound | Whole-sale as per cent of live price | Chicago | | New York | | Chicago | | New York | |
| | | | | | | Price per pound | Retail as per cent of live price | Price per pound | Retail as per cent of live price | Price per pound | Retail as per cent of live price | Price per pound | Retail as per cent of live price |
| 1913 | 8.8 | 12.0 | 131 | 12.6 | 147 | Cents 26.2 | Per cent 273 | Cents 25.9 | Per cent 306 | Cents 20.2 | Per cent 238 | Cents 23.0 | Per cent 284 |
| 1914 | 9.0 | 12.0 | 131 | 13.5 | 150 | Cents 25.3 | Per cent 263 | Cents 25.8 | Per cent 306 | Cents 22.4 | Per cent 264 | Cents 23.0 | Per cent 284 |
| 1915 | 8.7 | 12.0 | 140 | 13.0 | 145 | Cents 25.7 | Per cent 266 | Cents 25.9 | Per cent 306 | Cents 22.1 | Per cent 264 | Cents 23.0 | Per cent 284 |
| 1916 | 9.6 | 12.6 | 144 | 13.4 | 140 | Cents 26.8 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1917 | 12.6 | 16.7 | 186 | 16.4 | 128 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1918 | 14.4 | 22.1 | 135 | 20.9 | 137 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1919 | 17.4 | 28.4 | 133 | 21.5 | 123 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1920 | 14.5 | 23.0 | 139 | 20.8 | 143 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1921 | 8.8 | 16.3 | 138 | 14.8 | 168 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1922 | 8.5 | 16.0 | 138 | 13.8 | 145 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1923 | 10.0 | 13.8 | 138 | 14.0 | 145 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1924 | 8.7 | 17.1 | 170 | 13.1 | 156 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1925 | 10.0 | 18.0 | 170 | 13.9 | 150 | Cents 26.3 | Per cent 279 | Cents 25.1 | Per cent 293 | Cents 22.8 | Per cent 274 | Cents 23.6 | Per cent 284 |
| 1925 | | | | | | | | | | | | | |
| January | 9.3 | 18.2 | 197 | 15.0 | 161 | Cents 41.0 | Per cent 441 | Cents 43.2 | Per cent 468 | Cents 31.2 | Per cent 336 | Cents 41.3 | Per cent 444 |
| February | 9.2 | 18.2 | 193 | 14.1 | 145 | Cents 40.6 | Per cent 437 | Cents 43.0 | Per cent 463 | Cents 30.3 | Per cent 319 | Cents 40.9 | Per cent 435 |
| March | 10.2 | 18.2 | 193 | 15.4 | 161 | Cents 41.7 | Per cent 447 | Cents 43.6 | Per cent 468 | Cents 31.7 | Per cent 336 | Cents 41.3 | Per cent 444 |
| April | 9.7 | 17.8 | 183 | 16.1 | 161 | Cents 42.6 | Per cent 451 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |
| May | 10.5 | 17.5 | 167 | 13.6 | 131 | Cents 43.0 | Per cent 450 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |
| June | 10.5 | 17.5 | 167 | 13.6 | 131 | Cents 43.0 | Per cent 450 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |
| July | 11.6 | 17.8 | 183 | 14.1 | 150 | Cents 43.2 | Per cent 461 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |
| August | 12.4 | 18.5 | 183 | 15.1 | 153 | Cents 43.2 | Per cent 461 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |
| September | 12.4 | 18.5 | 183 | 15.1 | 153 | Cents 43.2 | Per cent 461 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |
| October | 11.9 | 18.5 | 183 | 17.3 | 161 | Cents 43.2 | Per cent 461 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |
| November | 10.6 | 17.8 | 168 | 15.1 | 146 | Cents 43.2 | Per cent 461 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |
| December | 10.0 | 17.0 | 170 | 16.9 | 169 | Cents 43.2 | Per cent 461 | Cents 44.7 | Per cent 474 | Cents 32.2 | Per cent 342 | Cents 42.2 | Per cent 442 |

Beef, retail—Continued

| Year | Chuck roast | | | | | | Rib roast | | | | | |
|----------------|-----------------|--|-----------------|--|-----------------|--|-------------------------|--|-----------------|-----------------|--|-----------------|
| | Chicago | | | New York | | | Average, leading cities | | | Chicago | | |
| | Price per pound | Retain as per cent of live steer price | Price per pound | Retain as per cent of live steer price | Price per pound | Retain as per cent of live steer price | Price per pound | Retain as per cent of live steer price | Price per pound | Price per pound | Retain as per cent of live steer price | Price per pound |
| | Cents | Per cent | Cents | Per cent | Cents | Per cent | Cents | Per cent | Cents | Per cent | Cents | Per cent |
| 1913..... | 15.4 | 181 | 16.0 | 188 | 16.0 | 188 | 19.5 | 229 | 21.8 | 256 | 19.8 | 253 |
| 1914..... | 16.9 | 188 | 16.8 | 187 | 16.7 | 186 | 20.7 | 230 | 22.1 | 246 | 20.4 | 227 |
| 1915..... | 16.7 | 192 | 16.5 | 190 | 16.1 | 185 | 21.3 | 245 | 22.2 | 255 | 20.1 | 231 |
| 1916..... | 16.6 | 173 | 17.3 | 180 | 17.1 | 178 | 21.9 | 228 | 23.2 | 242 | 21.2 | 221 |
| 1917..... | 20.3 | 159 | 21.3 | 166 | 20.9 | 163 | 24.1 | 188 | 27.4 | 214 | 24.9 | 195 |
| 1918..... | 25.9 | 153 | 28.5 | 174 | 26.6 | 162 | 29.7 | 181 | 35.3 | 215 | 30.7 | 187 |
| 1919..... | 26.7 | 153 | 29.9 | 171 | 27.0 | 154 | 31.4 | 179 | 39.1 | 223 | 32.5 | 186 |
| 1920..... | 26.9 | 179 | 28.9 | 169 | 26.2 | 181 | 33.7 | 232 | 40.5 | 279 | 33.2 | 229 |
| 1921..... | 20.7 | 235 | 23.1 | 262 | 21.2 | 241 | 30.2 | 343 | 36.4 | 414 | 29.1 | 331 |
| 1922..... | 19.1 | 201 | 21.4 | 225 | 19.7 | 207 | 28.8 | 303 | 35.3 | 372 | 27.6 | 291 |
| 1923..... | 19.9 | 199 | 22.4 | 224 | 20.2 | 202 | 30.2 | 302 | 36.3 | 363 | 28.4 | 284 |
| 1924..... | 21.0 | 216 | 23.1 | 238 | 20.8 | 214 | 31.6 | 326 | 36.9 | 380 | 28.8 | 297 |
| 1925..... | 23.1 | 218 | 24.4 | 230 | 21.6 | 204 | 33.6 | 317 | 38.8 | 366 | 29.6 | 279 |
| 1925..... | 21.1 | 227 | 23.3 | 251 | 20.5 | 229 | 31.3 | 337 | 37.4 | 402 | 28.5 | 306 |
| January..... | 21.8 | 218 | 23.3 | 215 | 20.4 | 215 | 31.5 | 333 | 37.3 | 393 | 28.4 | 299 |
| February..... | 21.6 | 212 | 23.7 | 232 | 21.0 | 206 | 32.3 | 317 | 37.6 | 369 | 29.1 | 285 |
| March..... | 22.5 | 225 | 23.9 | 239 | 21.7 | 217 | 33.1 | 331 | 38.2 | 382 | 29.7 | 307 |
| April..... | 22.6 | 253 | 23.7 | 244 | 22.1 | 228 | 33.3 | 343 | 38.3 | 395 | 29.8 | 297 |
| May..... | 22.7 | 216 | 23.3 | 222 | 21.8 | 208 | 33.8 | 322 | 38.1 | 363 | 29.8 | 294 |
| June..... | 24.0 | 207 | 25.0 | 216 | 22.4 | 193 | 34.4 | 297 | 39.6 | 341 | 30.4 | 262 |
| July..... | 24.3 | 201 | 25.2 | 208 | 22.1 | 183 | 35.1 | 290 | 39.9 | 330 | 30.3 | 250 |
| August..... | 24.6 | 198 | 25.2 | 203 | 22.0 | 185 | 34.5 | 278 | 39.9 | 322 | 30.1 | 243 |
| September..... | 24.8 | 208 | 26.2 | 220 | 22.0 | 185 | 34.9 | 293 | 40.2 | 343 | 30.5 | 253 |
| October..... | 24.3 | 220 | 25.2 | 235 | 21.6 | 204 | 34.3 | 324 | 38.2 | 370 | 29.5 | 278 |
| November..... | 24.5 | 245 | 25.3 | 233 | 21.5 | 215 | 34.3 | 343 | 38.9 | 389 | 29.6 | 296 |
| December..... | | | | | | | | | | | | |

TABLE 475.—Cattle and calves: Monthly slaughter under Federal inspection, 1907-1925

CATTLE

| Calendar year. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|----------------|-----------|---------|---------|---------|---------|---------|-----------|---------|-----------|-----------|-----------|-----------|------------|
| 1907 | 717,935 | 569,641 | 555,476 | 534,541 | 620,114 | 588,465 | 640,535 | 667,827 | 696,271 | 801,110 | 585,092 | 545,738 | 7,633,365 |
| 1908 | 642,632 | 527,360 | 519,551 | 465,445 | 490,623 | 526,134 | 563,453 | 640,352 | 767,686 | 821,138 | 930,616 | 656,064 | 7,773,360 |
| 1909 | 586,942 | 469,905 | 556,719 | 508,267 | 536,101 | 543,397 | 605,030 | 652,172 | 762,809 | 832,545 | 798,907 | 704,307 | 7,714,307 |
| 1910 | 632,131 | 527,361 | 598,076 | 532,944 | 551,179 | 620,892 | 614,962 | 678,668 | 795,525 | 831,406 | 778,327 | 643,899 | 7,807,600 |
| 1911 | 628,060 | 555,553 | 562,077 | 499,422 | 569,084 | 614,417 | 591,316 | 719,510 | 691,720 | 826,316 | 745,810 | 605,450 | 7,619,066 |
| 1912 | 674,906 | 515,565 | 563,882 | 522,278 | 602,506 | 511,135 | 507,666 | 631,623 | 643,617 | 808,361 | 690,973 | 620,457 | 7,252,578 |
| 1913 | 621,744 | 489,842 | 483,693 | 554,709 | 546,781 | 556,321 | 592,959 | 582,081 | 701,402 | 743,065 | 601,937 | 590,367 | 6,976,361 |
| 1914 | 585,164 | 498,901 | 476,406 | 474,177 | 473,906 | 490,202 | 505,244 | 518,165 | 650,427 | 735,065 | 638,189 | 682,180 | 6,756,737 |
| 1915 | 572,748 | 466,122 | 551,091 | 507,442 | 575,457 | 573,851 | 596,142 | 590,202 | 641,411 | 736,149 | 702,134 | 680,646 | 7,133,396 |
| 1916 | 622,507 | 549,956 | 597,090 | 475,566 | 564,207 | 648,309 | 592,448 | 742,534 | 790,737 | 914,049 | 971,901 | 844,385 | 8,310,458 |
| 1917 | 822,932 | 662,776 | 627,351 | 634,336 | 815,071 | 848,168 | 793,589 | 885,883 | 937,753 | 1,194,837 | 1,098,796 | 1,002,540 | 10,350,152 |
| 1918 | 895,275 | 794,534 | 878,210 | 914,890 | 731,715 | 829,603 | 1,019,982 | 987,237 | 1,142,754 | 1,251,941 | 1,223,081 | 1,159,785 | 11,828,540 |
| 1919 | 1,119,200 | 701,335 | 640,288 | 622,122 | 720,684 | 644,463 | 854,797 | 859,409 | 855,292 | 1,073,220 | 1,040,074 | 960,181 | 10,091,064 |
| 1920 | 832,231 | 630,995 | 685,139 | 637,575 | 626,304 | 656,602 | 691,172 | 685,763 | 825,484 | 843,136 | 838,946 | 667,344 | 8,608,691 |
| 1921 | 698,506 | 536,177 | 620,936 | 690,943 | 690,979 | 640,186 | 579,028 | 680,419 | 699,043 | 749,758 | 696,115 | 586,192 | 7,608,280 |
| 1922 | 641,513 | 569,153 | 673,701 | 680,916 | 702,203 | 724,418 | 697,303 | 761,125 | 796,377 | 888,949 | 839,413 | 778,736 | 8,677,907 |
| 1923 | 745,109 | 633,710 | 687,634 | 696,757 | 762,461 | 725,952 | 724,896 | 820,514 | 909,810 | 952,795 | 845,618 | 756,250 | 9,162,516 |
| 1924 | 812,459 | 669,051 | 665,156 | 698,190 | 773,334 | 699,579 | 764,104 | 785,981 | 870,171 | 1,016,289 | 951,887 | 925,874 | 9,593,075 |
| 1925 | 855,179 | 656,427 | 736,313 | 731,258 | 745,514 | 731,898 | 862,053 | 811,144 | 866,183 | 1,066,528 | 860,662 | 926,862 | 9,833,039 |

CALVES

| Calendar year. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1907 | 128,178 | 99,283 | 122,451 | 205,410 | 224,405 | 233,916 | 220,697 | 205,840 | 197,811 | 186,020 | 126,141 | 103,635 | 2,094,387 |
| 1908 | 134,960 | 87,891 | 137,120 | 196,976 | 205,225 | 210,692 | 192,034 | 184,719 | 187,400 | 180,317 | 142,560 | 116,471 | 2,185,073 |
| 1909 | 136,800 | 95,221 | 146,170 | 200,106 | 226,192 | 235,741 | 213,217 | 179,623 | 205,468 | 235,094 | 171,288 | 147,017 | 2,238,287 |
| 1910 | 132,412 | 116,869 | 186,441 | 221,557 | 231,746 | 237,937 | 198,425 | 206,000 | 197,135 | 187,867 | 168,322 | 131,846 | 2,238,287 |
| 1911 | 135,440 | 120,845 | 180,866 | 218,434 | 243,247 | 232,261 | 198,471 | 206,911 | 184,421 | 179,858 | 153,135 | 126,064 | 2,183,543 |
| 1912 | 132,064 | 126,432 | 179,813 | 244,700 | 258,331 | 228,659 | 201,065 | 192,355 | 189,755 | 193,250 | 162,837 | 145,643 | 2,277,954 |
| 1913 | 130,281 | 117,967 | 141,551 | 212,374 | 204,723 | 194,613 | 182,000 | 158,518 | 158,518 | 124,004 | 121,509 | 119,211 | 1,902,414 |
| 1914 | 122,486 | 99,865 | 145,298 | 185,619 | 183,052 | 186,771 | 153,488 | 126,359 | 129,637 | 135,069 | 107,279 | 119,211 | 1,696,962 |
| 1915 | 106,462 | 95,096 | 156,205 | 196,515 | 205,039 | 197,452 | 161,967 | 141,289 | 138,537 | 148,061 | 126,439 | 118,702 | 1,818,702 |
| 1916 | 129,231 | 143,262 | 189,472 | 233,412 | 267,422 | 228,480 | 171,605 | 206,783 | 185,928 | 203,905 | 217,370 | 184,933 | 2,367,403 |
| 1917 | 265,250 | 211,591 | 268,191 | 344,598 | 376,400 | 276,710 | 276,710 | 244,711 | 271,514 | 339,324 | 280,910 | 215,930 | 3,247,721 |
| 1918 | 192,769 | 259,844 | 331,387 | 337,333 | 337,333 | 312,171 | 354,721 | 378,597 | 316,816 | 306,096 | 279,078 | 249,109 | 3,456,363 |
| 1919 | 294,812 | 200,834 | 205,868 | 383,414 | 391,304 | 332,001 | 399,966 | 318,769 | 317,984 | 374,619 | 344,238 | 311,639 | 3,969,027 |
| 1920 | 305,125 | 283,052 | 360,053 | 382,420 | 382,420 | 431,079 | 342,765 | 332,349 | 347,578 | 314,791 | 315,971 | 244,573 | 4,058,370 |
| 1921 | 282,043 | 253,692 | 391,430 | 366,798 | 366,798 | 369,060 | 324,046 | 303,796 | 321,193 | 390,136 | 292,172 | 238,646 | 3,897,606 |
| 1922 | 298,487 | 279,359 | 391,430 | 365,323 | 365,323 | 368,919 | 329,445 | 344,968 | 333,095 | 362,837 | 347,711 | 268,666 | 4,191,629 |
| 1923 | 351,382 | 290,696 | 367,979 | 400,362 | 466,792 | 367,905 | 378,513 | 402,643 | 338,063 | 416,368 | 370,070 | 325,879 | 4,593,030 |
| 1924 | 372,859 | 345,593 | 376,709 | 466,692 | 466,692 | 408,130 | 421,262 | 374,480 | 410,113 | 418,368 | 382,366 | 415,979 | 4,983,030 |
| 1925 | 394,453 | 378,070 | 466,062 | 496,306 | 496,306 | 473,457 | 472,819 | 488,772 | 422,467 | 496,911 | 398,012 | 455,471 | 5,352,561 |

Bureau of Animal Industry.

TABLE 476.—*Beef and beef products: International trade, average 1911-1913, annual 1922-1924*

[Thousand pounds—1. c., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|------------------|-----------|------------------|-----------|-----------|------------------|-----------|
| | Average 1911-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 144 | 940,300 | 5 | 1,083,747 | 12 | 1,490,744 | 4 | 1,917,631 |
| Australia..... | 437 | 301,882 | 1 1,392 | 1 269,083 | 1 6,498 | 1 155,722 | ----- | 1 283,619 |
| Brazil..... | 48,989 | 171 | 13,829 | 80,459 | 5,852 | 184,137 | ----- | 180,583 |
| Canada..... | 3,091 | 6,448 | 2,958 | 27,327 | 2,467 | 24,380 | 431 | 25,522 |
| China..... | 85 | 8,787 | 2,141 | 3,434 | 1,414 | 6,314 | 1,018 | 8,641 |
| Denmark..... | 18,815 | 43,485 | 10,900 | 51,737 | 11,217 | 37,103 | 11,858 | 13,632 |
| Netherlands..... | 256,296 | 326,176 | 159,756 | 163,264 | 199,164 | 202,545 | 224,746 | 243,506 |
| New Zealand..... | 398 | 80,543 | 411 | 117,610 | 437 | 141,494 | 613 | 131,137 |
| Rumania..... | 4 | 2,566 | ----- | ----- | 544 | 4,061 | 553 | 9,939 |
| United States..... | 17,668 | 213,722 | 38,694 | 214,733 | 19,356 | 192,368 | 18,104 | 190,259 |
| Uruguay..... | 152 | 119,675 | 71 | 247,984 | ----- | 357,292 | ----- | ----- |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | ----- | ----- | 16,138 | 6,453 | ----- | ----- | ----- | ----- |
| Austria-Hungary..... | 12,983 | 3,762 | ----- | ----- | ----- | ----- | ----- | ----- |
| Belgium..... | 6,034 | 1,577 | 81,122 | 3,923 | 150,377 | 4,341 | 238,399 | 13,994 |
| British India..... | 7,434 | 773 | 7,268 | 893 | 8,043 | 1,227 | 8,336 | 1,285 |
| British Malaya..... | ----- | ----- | 2,373 | 535 | 2,635 | 615 | 5,653 | 568 |
| Chile..... | 6,636 | 298 | 308 | 106 | 852 | 167 | ----- | ----- |
| Cuba..... | 37,822 | ----- | 47,245 | ----- | 54,806 | ----- | 55,617 | ----- |
| Czechoslovakia..... | ----- | ----- | 2,023 | 768 | 9,461 | 17 | 2,473 | ----- |
| Egypt..... | 476 | ----- | 4,694 | 16 | 4,697 | 22 | 5,754 | 48 |
| Finland..... | 14,755 | 9 | 2,117 | 376 | 4,317 | 34 | 3,199 | ----- |
| France..... | 41,318 | 62,361 | 112,143 | 37,611 | 164,069 | 51,865 | 253,480 | 34,217 |
| Germany..... | 212,150 | 942 | 180,254 | 2,630 | 230,906 | 1,295 | 296,410 | 1,727 |
| Hongkong..... | ----- | ----- | 1,328 | 325 | 1,608 | 433 | 1,885 | 417 |
| Irish Free State..... | ----- | ----- | ----- | ----- | ----- | ----- | 10,937 | 7,873 |
| Italy..... | 131 | (¹) | 86,611 | 225 | 28,784 | 546 | 31,498 | 557 |
| Japan..... | 9,002 | ----- | 66,334 | ----- | 70,204 | ----- | 73,474 | ----- |
| Norway..... | 20,203 | 2,337 | 24,748 | 1,614 | 21,182 | 1,605 | 22,766 | 759 |
| Philippine Islands..... | 15,637 | ----- | 9,698 | ----- | 6,438 | ----- | 9,175 | ----- |
| Poland..... | ----- | ----- | 295 | 309 | 571 | 312 | 3,154 | 1,433 |
| Spain..... | 966 | 38 | 10,013 | (¹) | 11,615 | ----- | 4 6,633 | 4 208 |
| Sweden..... | 12,912 | 17,285 | 19,096 | 15,787 | 15,623 | 7,685 | 20,911 | 6,694 |
| Switzerland..... | 9,052 | 440 | 5,323 | 286 | 6,937 | 722 | 5,510 | 502 |
| Union of South Africa..... | 17,622 | 292 | 8,018 | 1 1,753 | 12,183 | 1,536 | 10,803 | 9,603 |
| United Kingdom..... | 1,252,292 | 27,695 | 1,471,707 | 26,633 | 1,788,994 | 31,463 | 1,777,833 | 44,806 |
| Other countries..... | 20,468 | 872 | 7,252 | 5,689 | 7,949 | 10,466 | 10,023 | 5,744 |
| Total..... | 2,044,172 | 2,162,336 | 2,344,145 | 2,865,255 | 2,849,214 | 2,910,511 | 3,110,950 | 3,134,890 |

Division of Statistical and Historical Research. Official sources.

¹ Year beginning July 1.² Not separately stated.³ Less than 500 pounds.⁴ Six months.

TABLE 477.—Beef, frozen: Stocks in cold-storage warehouses and meat-packing establishments, United States, 1916-1925

(Thousand pounds—i. e., 000 omitted)

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|--------------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| 1916..... | 126,374 | 132,266 | 124,954 | 118,279 | 90,176 | 73,025 | 55,109 | 58,867 | 58,303 | 66,319 | 92,815 | 158,148 |
| 1917..... | 202,442 | 190,909 | 169,793 | 154,193 | 113,391 | 103,007 | 109,354 | 108,729 | 100,459 | 119,221 | 179,032 | 235,604 |
| 1918..... | 315,372 | 202,114 | 276,114 | 268,015 | 212,725 | 190,064 | 154,638 | 180,962 | 185,144 | 194,409 | 224,312 | 229,608 |
| 1919..... | 298,818 | 204,514 | 265,263 | 221,725 | 184,586 | 163,913 | 162,639 | 159,279 | 162,699 | 166,244 | 184,196 | 223,311 |
| 1920..... | 261,812 | 252,037 | 223,145 | 196,800 | 170,456 | 130,619 | 95,297 | 77,469 | 67,010 | 58,461 | 68,603 | 89,718 |
| 1921..... | 120,245 | 119,965 | 122,402 | 114,063 | 100,672 | 88,836 | 76,523 | 60,262 | 50,204 | 44,298 | 49,014 | 63,188 |
| 1922..... | 68,495 | 61,522 | 55,785 | 50,772 | 45,341 | 37,648 | 31,593 | 27,727 | 28,210 | 34,611 | 47,990 | 73,027 |
| 1923..... | 91,806 | 89,272 | 75,604 | 66,292 | 54,522 | 41,267 | 34,385 | 24,112 | 24,625 | 27,590 | 43,772 | 71,024 |
| 1924..... | 82,984 | 79,944 | 76,769 | 68,075 | 62,941 | 41,784 | 37,028 | 29,435 | 29,135 | 28,590 | 46,867 | 70,731 |
| 1925..... | 114,034 | 111,947 | 101,590 | 87,684 | 67,271 | 46,887 | 36,452 | 26,970 | 22,879 | 19,755 | 27,008 | 50,436 |
| Av. 1921-1925..... | 98,513 | 92,536 | 86,432 | 77,177 | 64,149 | 51,252 | 43,196 | 34,901 | 31,011 | 30,970 | 42,716 | 66,881 |

Cold Storage Report Section.

TABLE 478.—Beef, cured and in process of cure: Stocks in cold-storage warehouses and meat-packing establishments, United States, 1916-1925

(Thousand pounds—i. e., 000 omitted)

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|--------------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| 1916..... | 21,443 | 20,852 | 26,959 | 25,811 | 21,869 | 17,324 | 18,915 | 18,589 | 18,450 | 21,653 | 30,013 | 27,968 |
| 1917..... | 37,301 | 35,891 | 37,660 | 30,601 | 29,409 | 30,831 | 35,679 | 32,401 | 30,260 | 31,240 | 32,223 | 38,325 |
| 1918..... | 36,243 | 38,703 | 37,575 | 34,166 | 29,217 | 24,804 | 21,908 | 28,065 | 29,981 | 28,713 | 29,339 | 32,381 |
| 1919..... | 36,267 | 35,810 | 31,246 | 30,689 | 27,822 | 27,089 | 20,244 | 30,943 | 35,526 | 37,328 | 37,595 | 35,547 |
| 1920..... | 37,652 | 36,715 | 37,002 | 35,947 | 30,333 | 26,365 | 26,355 | 22,711 | 22,711 | 19,594 | 20,352 | 22,448 |
| 1921..... | 22,567 | 22,926 | 24,006 | 24,282 | 21,516 | 20,716 | 19,097 | 17,829 | 17,130 | 15,525 | 14,472 | 17,144 |
| 1922..... | 16,313 | 16,774 | 17,997 | 18,744 | 19,166 | 19,304 | 19,113 | 19,304 | 20,081 | 18,961 | 19,884 | 22,602 |
| 1923..... | 24,450 | 24,841 | 24,987 | 25,210 | 24,013 | 23,816 | 22,835 | 21,781 | 21,416 | 20,897 | 19,649 | 22,142 |
| 1924..... | 22,593 | 22,711 | 23,238 | 25,169 | 25,482 | 24,285 | 22,390 | 20,777 | 19,771 | 18,939 | 21,387 | 23,508 |
| 1925..... | 28,030 | 28,758 | 29,210 | 28,634 | 28,952 | 27,731 | 25,102 | 22,374 | 22,335 | 20,964 | 20,473 | 23,128 |
| Av. 1921-1925..... | 22,971 | 23,202 | 23,888 | 24,414 | 23,826 | 23,170 | 21,827 | 20,399 | 20,147 | 18,997 | 19,173 | 21,705 |

Cold Storage Report Section.

TABLE 479.—Cattle, calves, beef and veal: Statement of the livestock and meat situation, by months, 1925

| Item | Unit | Jan. | Feb. | Mar. | Apr. | May | June | July |
|--|-------------------|---------|---------|---------|---------|---------|---------|---------|
| Inspected slaughter: | | | | | | | | |
| Cattle..... | Thousands..... | 854 | 656 | 736 | 731 | 749 | 732 | 862 |
| Calves..... | do..... | 394 | 378 | 466 | 406 | 481 | 474 | 473 |
| Carcasses condemned: | | | | | | | | |
| Cattle..... | do..... | 8 | 7 | 6 | 8 | 7 | 5 | 7 |
| Calves..... | do..... | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Average live weight: | | | | | | | | |
| Cattle..... | Pounds..... | 975 | 977 | 971 | 977 | 966 | 953 | 946 |
| Calves..... | do..... | 176 | 169 | 156 | 146 | 153 | 160 | 184 |
| Average dressed weight: | | | | | | | | |
| Cattle..... | do..... | 531 | 527 | 525 | 527 | 536 | 514 | 502 |
| Calves..... | do..... | 101 | 97 | 98 | 86 | 89 | 95 | 104 |
| Total dressed weight (carcasses, not including condemned): | | | | | | | | |
| Beef..... | 1,000 pounds..... | 440,829 | 342,432 | 382,490 | 388,582 | 392,956 | 373,230 | 420,298 |
| Veal..... | do..... | 39,853 | 38,499 | 43,299 | 42,428 | 42,964 | 44,832 | 48,903 |
| Storage first of month: | | | | | | | | |
| Fresh beef..... | do..... | 114,034 | 111,947 | 101,599 | 87,084 | 67,271 | 46,867 | 36,452 |
| Cured beef..... | do..... | 28,030 | 28,758 | 29,210 | 28,634 | 28,952 | 27,731 | 25,102 |

TABLE 479.—Cattle, calves, beef and veal: Statement of the livestock and meat situation, by months, 1925—Continued

| Item | Unit | Jan. | Feb. | Mar. | Apr. | May | June | July |
|---|-------------------|--------|-------|--------|-------|--------|-------|-------|
| Exports: ¹ | | | | | | | | |
| Fresh beef and veal..... | 1,000 pounds..... | 371 | 395 | 339 | 219 | 293 | 235 | 329 |
| Cured beef..... | do..... | 1,467 | 1,594 | 2,265 | 1,720 | 1,607 | 1,653 | 1,894 |
| Canned beef..... | do..... | 123 | 173 | 258 | 111 | 213 | 321 | 152 |
| Oleo oil and stearin..... | do..... | 6,870 | 6,242 | 14,119 | 8,347 | 11,583 | 9,140 | 8,781 |
| Tallow..... | do..... | 1,185 | 993 | 2,087 | 2,008 | 1,329 | 2,449 | 1,297 |
| Imports, fresh beef and veal..... | do..... | 562 | 553 | 753 | 1,589 | 1,762 | 1,167 | 1,469 |
| Receipts, cattle and calves ² | Thousands..... | 1,869 | 1,530 | 1,800 | 1,826 | 1,737 | 1,746 | 1,870 |
| Stocker and feeder shipments ³ | do..... | 207 | 176 | 230 | 271 | 216 | 184 | 243 |
| Price per 100 pounds: | | | | | | | | |
| Average cost for slaughter— | | | | | | | | |
| Cattle..... | Dollars..... | 6.51 | 6.87 | 7.67 | 8.20 | 8.16 | 7.86 | 7.55 |
| Calves..... | do..... | 8.52 | 9.39 | 9.64 | 8.70 | 8.69 | 8.26 | 8.08 |
| At Chicago— | | | | | | | | |
| Cattle, good steers..... | do..... | 11.46 | 10.70 | 10.90 | 10.64 | 10.60 | 10.91 | 11.96 |
| Veal calves..... | do..... | 9.82 | 10.92 | 10.35 | 8.76 | 8.79 | 8.87 | 10.91 |
| At eastern markets— | | | | | | | | |
| Beef carcasses, good grade..... | do..... | 14.65 | 14.07 | 15.57 | 16.27 | 15.92 | 16.05 | 18.30 |
| Veal carcasses, good grade..... | do..... | 19.02 | 19.04 | 17.81 | 16.00 | 16.52 | 15.79 | 16.96 |
| Cattle on farms January 1..... | Thousands..... | 62,150 | | | | | | |

| Item | Unit | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--|-------------------|---------|---------|---------|---------|---------|-----------|
| Inspected slaughter: | | | | | | | |
| Cattle..... | Thousands..... | 811 | 866 | 1,067 | 861 | 927 | 9,853 |
| Calves..... | do..... | 439 | 423 | 486 | 398 | 445 | 5,353 |
| Carcasses condemned: | | | | | | | |
| Cattle..... | do..... | 7 | 8 | 11 | 10 | 10 | 96 |
| Calves..... | do..... | 1 | 1 | 1 | 1 | 1 | 11 |
| Average live weight: | | | | | | | |
| Cattle..... | Pounds..... | 939 | 926 | 940 | 938 | 954 | 1 954 |
| Calves..... | do..... | 197 | 198 | 201 | 189 | 182 | 1 176 |
| Average dressed weight: | | | | | | | |
| Cattle..... | do..... | 492 | 489 | 486 | 478 | 405 | 1 506 |
| Calves..... | do..... | 111 | 111 | 116 | 112 | 103 | 1 101 |
| Total dressed weight (carcass, not including condemned): | | | | | | | |
| Beef..... | 1,000 pounds..... | 395,926 | 419,523 | 512,703 | 407,000 | 454,009 | 4,938,948 |
| Veal..... | do..... | 48,549 | 46,915 | 56,391 | 44,396 | 45,730 | 540,769 |
| Storage first of month: | | | | | | | |
| Fresh beef..... | do..... | 26,970 | 22,879 | 19,755 | 27,008 | 50,436 | 1 59,410 |
| Cured beef..... | do..... | 22,704 | 22,335 | 20,964 | 20,473 | 23,128 | 1 25,577 |
| Exports: ⁴ | | | | | | | |
| Fresh beef and veal..... | do..... | 339 | 234 | 271 | 100 | 312 | 3,437 |
| Cured beef..... | do..... | 1,913 | 1,996 | 1,848 | 1,567 | 1,314 | 20,930 |
| Canned beef..... | do..... | 136 | 128 | 160 | 87 | 312 | 2,174 |
| Oleo oil and stearin..... | do..... | 8,113 | 6,095 | 5,723 | 5,627 | 8,727 | 99,367 |
| Tallow..... | do..... | 1,309 | 1,513 | 1,276 | 1,012 | 1,058 | 17,514 |
| Imports, fresh beef and veal..... | do..... | 963 | 1,123 | 3,033 | 1,250 | 1,616 | 15,870 |
| Receipts, cattle and calves ² | Thousands..... | 2,245 | 2,157 | 2,789 | 2,282 | 2,056 | 24,067 |
| Stocker and feeder shipments ³ | do..... | 380 | 427 | 717 | 489 | 333 | 3,823 |
| Price per 100 pounds: | | | | | | | |
| Average cost for slaughter— | | | | | | | |
| Cattle..... | Dollars..... | 6.94 | 6.86 | 6.36 | 6.18 | 6.80 | 1 7.11 |
| Calves..... | do..... | 8.63 | 8.80 | 8.55 | 8.22 | 8.75 | 1 8.66 |
| At Chicago— | | | | | | | |
| Cattle, good steers..... | do..... | 12.10 | 12.32 | 12.22 | 11.18 | 10.52 | 1 11.29 |
| Veal calves..... | do..... | 11.94 | 12.18 | 11.19 | 10.60 | 11.30 | 1 10.47 |
| At eastern markets— | | | | | | | |
| Beef carcasses, good grade..... | do..... | 18.20 | 19.02 | 17.94 | 16.70 | 16.43 | 1 16.59 |
| Veal carcasses, good grade..... | do..... | 18.05 | 19.38 | 17.82 | 17.10 | 19.74 | 1 17.77 |
| Cattle on farms January 1..... | Thousands..... | | | | | | |

Division of Statistical and Historical Research. Inspected slaughter from reports of Bureau of Animal Industry. Weights and storage holdings from reports of the Cold Storage Report Section; receipts, shipments, and prices compiled from data of the reporting service of the Division of Livestock, Meats, and Wool, and number on farm from Division of Crop and Livestock Estimates. Exports and imports from Bureau of Foreign and Domestic Commerce.

¹ Figures do not check to total because of adjustment to thousands.

² Weighted average, not total.

³ Simple average, not total.

⁴ Including reexports.

⁵ At public stockyards.

TABLE 480.—Beef: Yield of standard wholesale cuts in percentage of carcass, according to commercial grade ¹

| Cuts | Common | Medium | Good | Choice and prime |
|-------------------------------------|-----------------|-----------------|-----------------|------------------|
| | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Fore quarter..... | 51.5 | 51.5 | 51.5 | 51.5 |
| Chuck and neck ¹ | 27.7 | 26.4 | 25.4 | 23.6 |
| Trimmed chuck ¹ | 26.1 | 25.0 | 24.1 | 22.5 |
| Neck..... | 1.6 | 1.4 | 1.3 | 1.1 |
| Plate and brisket..... | 10.2 | 11.5 | 12.6 | 14.4 |
| Fore shank..... | 4.9 | 4.6 | 4.3 | 3.9 |
| Rib..... | 8.7 | 9.0 | 9.2 | 9.6 |
| Hind quarter..... | 48.5 | 48.5 | 48.5 | 48.5 |
| Whole round..... | 27.2 | 25.4 | 24.1 | 22.0 |
| Bump..... | 3.2 | 3.5 | 3.7 | 4.0 |
| Round..... | 20.1 | 18.4 | 17.1 | 15.2 |
| Hind shank..... | 3.9 | 3.5 | 3.3 | 2.8 |
| Whole loin..... | 18.5 | 19.6 | 20.5 | 21.7 |
| Loin (loin end and short loin)..... | 17.2 | 17.4 | 17.7 | 18.0 |
| Kidney knob..... | 1.3 | 2.2 | 2.8 | 3.7 |
| Kidney..... | 0.4 | 0.4 | 0.3 | 0.3 |
| Kidney fat..... | 0.9 | 1.8 | 2.5 | 3.4 |
| Flank..... | 2.8 | 3.5 | 3.9 | 4.8 |

Bureau of Home Economics. Figures are based on data published by Missouri and Illinois Agricultural Experiment Stations.

¹ Standard Chicago cuts were used. Except for slight differences, particularly in the fore quarter, these cuts correspond to the ones illustrated in U. S. Dept. Agr., Circ. 300, "Commercial Cuts of Meat." Figures refer to typical animals of each grade.

² Shoulder clod is included.

TABLE 481.—Dairy breeds: Number of purebred cattle registered, leading breeds, United States, 1900-1925

| Year | Ayrshire | | | Guernsey | | | Holstein-Friesian | | | Jersey | | |
|------|----------|-------|-------|----------|--------|--------|-------------------|--------|---------|--------|--------|--------|
| | Bulls | Cows | Total | Bulls | Cows | Total | Bulls | Cows | Total | Bulls | Cows | Total |
| 1900 | | | | 608 | 896 | 1,504 | 1,365 | 3,381 | 4,746 | 2,708 | 8,750 | 11,548 |
| 1901 | | | | 647 | 1,172 | 1,819 | 1,460 | 3,648 | 5,108 | 2,567 | 8,045 | 10,612 |
| 1902 | | | | 726 | 1,267 | 1,993 | 1,738 | 4,252 | 5,990 | 2,471 | 7,580 | 10,051 |
| 1903 | | | | 746 | 1,289 | 2,035 | 2,068 | 4,753 | 6,841 | 2,370 | 7,240 | 9,610 |
| 1904 | | | | 737 | 1,261 | 1,998 | 2,477 | 5,567 | 8,044 | 2,373 | 7,464 | 9,837 |
| 1905 | | | | 847 | 1,612 | 2,459 | 3,226 | 6,547 | 9,773 | 2,640 | 7,735 | 10,375 |
| 1906 | | | | 980 | 1,964 | 2,944 | 3,842 | 7,918 | 11,760 | 3,019 | 8,052 | 11,071 |
| 1907 | | | | 1,118 | 1,966 | 3,084 | 4,841 | 9,809 | 14,650 | 3,752 | 9,383 | 13,135 |
| 1908 | | | | 1,291 | 2,191 | 3,482 | 5,684 | 10,850 | 16,534 | 4,148 | 10,135 | 14,283 |
| 1909 | | | | 1,841 | 3,836 | 5,677 | 7,021 | 12,570 | 19,591 | 5,249 | 12,513 | 17,762 |
| 1910 | | | 3,233 | 2,420 | 4,194 | 6,614 | 9,689 | 16,487 | 26,176 | 6,333 | 14,509 | 20,842 |
| 1911 | | | 4,798 | 2,402 | 4,001 | 6,403 | 12,472 | 20,417 | 32,889 | 7,229 | 16,282 | 23,511 |
| 1912 | | | 2,884 | 2,942 | 4,578 | 7,520 | 13,743 | 23,792 | 37,535 | 7,562 | 16,501 | 24,153 |
| 1913 | | | 3,950 | 3,553 | 5,642 | 9,295 | 16,364 | 26,951 | 43,315 | 9,147 | 19,481 | 28,628 |
| 1914 | | | 4,912 | 4,348 | 6,937 | 11,285 | 18,336 | 29,750 | 48,086 | 10,079 | 22,861 | 32,940 |
| 1915 | | | 4,439 | 4,765 | 6,535 | 11,300 | 25,617 | 42,063 | 67,680 | 9,475 | 22,957 | 32,432 |
| 1916 | | | 4,033 | 5,030 | 7,654 | 12,694 | 26,116 | 46,549 | 72,665 | 10,242 | 24,967 | 35,239 |
| 1917 | | | 4,944 | 6,167 | 9,366 | 15,533 | 24,749 | 49,068 | 73,847 | 14,446 | 33,960 | 48,406 |
| 1918 | | | 8,494 | 6,108 | 9,356 | 15,464 | 28,730 | 59,549 | 89,279 | 8,904 | 25,398 | 34,302 |
| 1919 | | | 6,148 | 7,648 | 11,781 | 19,429 | 30,298 | 60,589 | 90,887 | 10,906 | 30,424 | 41,330 |
| 1920 | | | 6,809 | 7,427 | 11,956 | 19,383 | 36,791 | 77,712 | 114,503 | 11,669 | 32,162 | 43,831 |
| 1921 | | | 5,874 | 8,036 | 13,971 | 22,007 | 39,585 | 88,265 | 127,850 | 11,213 | 31,123 | 42,336 |
| 1922 | 1,565 | 4,816 | 6,381 | 8,066 | 14,007 | 22,072 | 30,631 | 83,141 | 113,772 | 11,651 | 33,801 | 45,452 |
| 1923 | 1,578 | 5,975 | 7,553 | 9,758 | 16,976 | 26,734 | 29,089 | 86,043 | 115,132 | 12,291 | 38,159 | 50,450 |
| 1924 | 1,431 | 5,508 | 6,939 | 10,301 | 18,166 | 28,467 | 28,209 | 83,220 | 111,529 | 12,831 | 39,852 | 52,683 |
| 1925 | 1,561 | 5,972 | 7,533 | 11,209 | 20,742 | 32,041 | 26,935 | 82,659 | 109,594 | 12,131 | 41,725 | 53,856 |

DAIRY PRODUCTS

TABLE 482.—Milk: Production and utilization, United States, 1920-1924

| Purpose for which milk is used | Milk used per pound of product | 1920 | | | 1921 | | | 1922 | | | 1923 | | | 1924 | | |
|-----------------------------------|--------------------------------|----------------------|-----------------|------------------------|----------------------|-----------------|------------------------|----------------------|-----------------|------------------------|----------------------|-----------------|------------------------|----------------------|-----------------|------------------------|
| | | Product manufactured | Whole milk used | Per cent of total milk | Product manufactured | Whole milk used | Per cent of total milk | Product manufactured | Whole milk used | Per cent of total milk | Product manufactured | Whole milk used | Per cent of total milk | Product manufactured | Whole milk used | Per cent of total milk |
| | | Million pounds | Million pounds | Per cent | Million pounds | Million pounds | Per cent | Million pounds | Million pounds | Per cent | Million pounds | Million pounds | Per cent | Million pounds | Million pounds | Per cent |
| Butter: | | | | | | | | | | | | | | | | |
| Creamery..... | 21.0 | 863.6 | 19,125.1 | 20.226 | 72,153.7 | 22,408 | 23.408 | 1,153.5 | 24,223.8 | 23.619 | 1,262.3 | 20,204.5 | 23.943 | 1,548.1 | 26,577.7 | 24.923 |
| Farm..... | 21.0 | 675.0 | 14,175.0 | 15.510 | 13,450.0 | 12,807 | 13.807 | 495.0 | 13,125.0 | 12.707 | 610.0 | 12,510.0 | 11.673 | 600.0 | 12,600.0 | 10.968 |
| Cheese, all kinds..... | 10.0 | 862.4 | 3,624.3 | 4.042 | 3,538.4 | 3.569 | 3.569 | 375.0 | 3,740.8 | 3.686 | 568.9 | 3,968.5 | 3.636 | 417.9 | 4,179.4 | 3.643 |
| Milk: | | | | | | | | | | | | | | | | |
| Condensed and evaporated..... | 2.5 | 1,578.0 | 3,945.0 | 4.400 | 3,660.4 | 3.708 | 3.708 | 1,431.3 | 3,573.4 | 3.489 | 1,774.9 | 4,437.2 | 4.044 | 1,700.5 | 4,251.4 | 3.793 |
| Powdered..... | 8.0 | 10.3 | 82.7 | .092 | 33.9 | .034 | .034 | 5.6 | 44.8 | .044 | 6.6 | 52.5 | .048 | 7.9 | 63.1 | .055 |
| Malted..... | 2.2 | 19.7 | 43.4 | .048 | 15.7 | .035 | .035 | 13.7 | 30.0 | .029 | 16.3 | 33.7 | .031 | 15.9 | 34.9 | .031 |
| Sterilized, canned..... | 1.0 | 5.6 | 5.6 | .005 | 6.1 | .005 | .005 | .3 | 100.0 | .008 | .1 | 146.5 | .136 | .5 | 153.8 | .138 |
| Chocolate..... | 19.0 | 3 | 60.0 | .057 | 40.0 | .041 | .041 | 1 | 2.2 | .002 | .3 | 6.2 | .006 | 1.0 | 19.3 | .017 |
| Cream, powdered..... | 113.75 | 290.0 | 3,575.0 | 3.987 | 3,355.0 | 3.396 | 3.396 | 292.5 | 3,623.4 | 3.533 | 294.0 | 4,054.9 | 3.665 | 285.6 | 3,923.3 | 3.424 |
| Ice cream..... | | | | | | | | | | | | | | | | |
| Total milk for manufacture..... | | | 43,652.0 | 48.685 | 46,493.4 | 47.080 | 47.080 | | 48,477.7 | 47.267 | | 51,880.1 | 47.232 | | 53,311.4 | 46.999 |
| Milk accounted for otherwise: | | | | | | | | | | | | | | | | |
| Household purposes..... | | | 39,080.0 | 43.600 | 45,143.0 | 46.660 | 46.660 | | 46,672.6 | 45.507 | | 50,440.0 | 45.965 | | 52,773.0 | 46.023 |
| Fed to calves..... | | | 4,202.0 | 4.688 | 4,260.0 | 4.310 | 4.310 | | 4,335.0 | 4.226 | | 4,174.0 | 3.863 | | 4,643.8 | 4.046 |
| Waste, loss, and unspecified..... | | | 2,713.3 | 3.027 | 2,965.9 | 3.000 | 3.000 | | 3,076.9 | 3.000 | | 3,262.0 | 3.000 | | 3,440.0 | 3.000 |
| Total milk produced..... | | | 89,687.3 | 100.000 | 96,802.3 | 100.000 | 100.000 | | 102,562.2 | 100.000 | | 109,736.1 | 100.000 | | 114,666.2 | 100.000 |

Division of Dairy and Poultry Products.

1 Milk per gallon of ice cream.

2 Million gallons.

TABLE 483.—Production dairy products 1920-1924

| Product | 1920 | | 1921 | | 1922 | | 1923 | | 1924 | |
|---|----------------------------|---------------------|----------------------------|------------------------|----------------------------|-------------------|----------------------------|-------------------|----------------------------|-------------------|
| | Number factories reporting | Quantity produced | Number factories reporting | Quantity produced | Number factories reporting | Quantity produced | Number factories reporting | Quantity produced | Number factories reporting | Quantity produced |
| Creamery butter..... | 3, 447 | 1,000 lbs. 863, 577 | 3, 463 | 1,000 lbs. 1, 054, 938 | 3, 497 | 1, 153, 515 | 3, 539 | 1, 252, 214 | 3, 690 | 1, 356, 080 |
| Whey butter (made from whey cream)..... | 314 | 3, 155 | 285 | 2, 176 | 235 | 2, 291 | 219 | 1, 904 | 224 | 1, 605 |
| Renovated or process butter..... | 12 | 7, 530 | 10 | 5, 877 | 9 | 4, 448 | 5 | 2, 802 | 4 | 2, 813 |
| American cheese: | | | | | | | | | | |
| Whole milk..... | 1, 826 | 254, 774 | 1, 819 | 261, 727 | 1, 808 | 282, 806 | 1, 835 | 308, 108 | 1, 930 | 324, 695 |
| Part skim..... | 50 | 4, 467 | 13 | 1, 455 | 20 | 2, 164 | 23 | 2, 145 | 21 | 2, 470 |
| Full skim..... | 78 | 6, 458 | 23 | 1, 733 | 33 | 2, 500 | 24 | 2, 033 | 14 | 1, 606 |
| Swiss cheese (including block)..... | 270 | 20, 430 | 290 | 22, 678 | 290 | 19, 983 | 306 | 21, 555 | 298 | 21, 844 |
| Brick and Munster cheese..... | 514 | 44, 126 | 406 | 42, 073 | 438 | 37, 191 | 378 | 33, 236 | 369 | 32, 032 |
| Limburger cheese..... | 125 | 7, 500 | 100 | 7, 035 | 104 | 7, 383 | 108 | 7, 100 | 104 | 9, 734 |
| Cream and Neufchatel cheese..... | 40 | 7, 601 | 35 | 9, 279 | 38 | 9, 936 | 51 | 10, 334 | 53 | 14, 915 |
| All Italian varieties of cheese..... | 41 | 4, 779 | 35 | 3, 793 | 34 | 2, 627 | 32 | 2, 132 | 33 | 1, 973 |
| All other varieties of cheese..... | 76 | 12, 383 | 48 | 6, 065 | 51 | 5, 387 | 42 | 5, 040 | 35 | 4, 022 |
| Total cheese (not including cottage, pot, and baker's)..... | | 362, 521 | | 355, 838 | | 362, 980 | | 394, 697 | | 413, 940 |
| Cottage, pot, and baker's cheese..... | 357 | 29, 887 | 329 | 27, 316 | 303 | 32, 389 | 357 | 35, 527 | 445 | 54, 347 |
| Condensed milk (sweetened): | | | | | | | | | | |
| Case goods— | | | | | | | | | | |
| Skimmed..... | 15 | 7, 700 | 7 | 3, 861 | 8 | 3, 915 | 10 | 2, 748 | 7 | 2, 044 |
| Unskimmed..... | 75 | 340, 391 | 59 | 199, 985 | 49 | 230, 486 | 51 | 196, 068 | 40 | 187, 281 |
| Bulk goods— | | | | | | | | | | |
| Skimmed..... | 111 | 84, 223 | 85 | 66, 061 | 92 | 76, 019 | 99 | 102, 236 | 98 | 96, 551 |
| Unskimmed..... | 58 | 23, 524 | 43 | 22, 324 | 46 | 30, 292 | 56 | 44, 860 | 68 | 47, 429 |
| Evaporated milk (unsweetened): | | | | | | | | | | |
| Case goods— | | | | | | | | | | |
| Skimmed..... | 9 | 5, 526 | 3 | 1, 405 | 4 | 3, 574 | 4 | 7, 035 | 9 | 11, 555 |
| Unskimmed..... | 130 | 979, 873 | 136 | 1, 028, 172 | 132 | 949, 909 | 139 | 1, 262, 520 | 131 | 1, 189, 755 |
| Bulk goods— | | | | | | | | | | |
| Skimmed..... | 118 | 64, 304 | 113 | 69, 220 | 114 | 67, 066 | 113 | 77, 416 | 113 | 83, 131 |
| Unskimmed..... | 93 | 72, 474 | 92 | 73, 145 | 78 | 70, 088 | 73 | 92, 008 | 78 | 82, 772 |
| Total condensed and evaporated milk..... | | 1, 578, 015 | | 1, 464, 163 | | 1, 431, 349 | | 1, 774, 881 | | 1, 700, 548 |
| Evaporated, part or full skimmed modified with foreign fat: | | | | | | | | | | |
| Case goods..... | 12 | 84, 044 | 15 | 59, 050 | 14 | 38, 538 | 9 | 6, 935 | | |
| Bulk goods..... | 6 | 2, 517 | 7 | 5, 873 | 4 | 1, 915 | 1 | 110 | | |
| Sterilized milk (canned same as condensed)..... | 8 | 5, 623 | 5 | 5, 074 | 5 | 330 | 1 | 80 | 2 | 488 |
| Condensed or evaporated buttermilk..... | 5 | 32, 539 | 24 | 29, 314 | 36 | 44, 343 | 43 | 54, 838 | 54 | 66, 837 |
| Dried or powdered buttermilk..... | 19 | 5, 704 | 24 | 7, 708 | 22 | 9, 007 | 35 | 13, 032 | 47 | 18, 058 |
| Powdered whole milk..... | 19 | 10, 334 | 16 | 4, 242 | 18 | 5, 599 | 18 | 6, 590 | 19 | 7, 857 |
| Powdered skimmed milk..... | 56 | 41, 893 | 50 | 38, 545 | 53 | 40, 617 | 65 | 62, 251 | 72 | 69, 219 |
| Powdered cream..... | 5 | 309 | 3 | 130 | 4 | 118 | 4 | 328 | 4 | 1, 018 |
| Dried casein (skim-milk product)..... | 85 | 11, 441 | 73 | 8, 066 | 74 | 5, 097 | 124 | 14, 500 | 124 | 20, 633 |
| Dried casein (buttermilk product)..... | 3 | 85 | 2 | 10 | 1 | 20 | 1 | 48 | 2 | 76 |
| Malted milk..... | 9 | 19, 716 | 7 | 15, 652 | 7 | 13, 659 | 7 | 15, 331 | 8 | 15, 899 |
| Milk sugar (crude)..... | 21 | 5, 583 | 9 | 2, 890 | 7 | 2, 191 | 11 | 2, 872 | 9 | 3, 331 |
| Ice cream of all kinds (gallons)..... | 2, 427 | 148, 298 | 2, 042 | 147, 949 | 2, 673 | 161, 698 | 2, 687 | 183, 412 | 2, 842 | 181, 564 |

TABLE 484.—*Dairy products manufactured, by months, 1924*

[Thousands of pounds—i. e., 000 omitted]

| Manufactured product | Factories reporting, number | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|------------------|---------------|
| Creamery butter | 3,690 | 87,468 | 86,731 | 95,770 | 106,012 | 139,954 | 161,992 | 164,443 | 137,836 | 115,102 | 100,536 | 77,282 | 82,964 | 1,356,060 |
| Wholy butter (made from wholy cream)..... | 224 | 107 | 116 | 133 | 154 | 190 | 214 | 201 | 150 | 142 | 108 | 75 | 63 | 1,665 |
| Renovated or process butter..... | 4 | 341 | 295 | 278 | 181 | 170 | 234 | 254 | 233 | 194 | 194 | 176 | 263 | 2,813 |
| Butter oil..... | 6 | 41 | 32 | 42 | 232 | 282 | 256 | 75 | 28 | 45 | 28 | 27 | 42 | 1,130 |
| American cheese: | | | | | | | | | | | | | | |
| Whole milk..... | 1,936 | 17,718 | 18,886 | 22,955 | 24,597 | 33,657 | 43,517 | 40,716 | 39,602 | 30,539 | 26,210 | 17,252 | 15,046 | 324,686 |
| Part skim..... | 21 | 242 | 253 | 213 | 281 | 304 | 304 | 191 | 178 | 138 | 143 | 99 | 142 | 2,470 |
| Full skim..... | 14 | 88 | 139 | 173 | 153 | 142 | 154 | 329 | 123 | 80 | 67 | 53 | 85 | 1,605 |
| Swiss cheese (including block)..... | 298 | 293 | 299 | 325 | 727 | 2,862 | 3,873 | 4,065 | 3,016 | 1,881 | 1,881 | 699 | 197 | 21,844 |
| Brick and Munster cheese..... | 369 | 2,509 | 2,669 | 2,794 | 3,285 | 3,258 | 3,120 | 2,257 | 2,004 | 2,985 | 3,172 | 2,534 | 1,544 | 32,062 |
| Limburger cheese..... | 104 | 374 | 364 | 722 | 993 | 1,174 | 1,312 | 1,158 | 1,014 | 918 | 812 | 525 | 268 | 9,734 |
| Cream and Neufchâtel cheese..... | 53 | 1,176 | 1,157 | 1,387 | 1,538 | 1,611 | 1,300 | 929 | 921 | 1,033 | 1,170 | 1,263 | 1,470 | 14,945 |
| All Italian varieties..... | 33 | 144 | 157 | 197 | 199 | 231 | 286 | 162 | 127 | 93 | 141 | 137 | 146 | 1,073 |
| All other varieties..... | 35 | 415 | 350 | 395 | 313 | 324 | 401 | 312 | 375 | 404 | 472 | 386 | 435 | 4,622 |
| Total cheese (not including cottage, pot, and baker's)..... | 445 | 3,919 | 3,915 | 4,662 | 4,759 | 5,650 | 5,483 | 4,844 | 4,882 | 4,285 | 4,068 | 3,915 | 4,253 | 54,347 |
| Cottage, pot, and baker's cheese | | | | | | | | | | | | | | |
| Sweetened condensed milk: | | | | | | | | | | | | | | |
| Case goods— | 7 | 37 | 222 | 215 | 187 | 190 | 218 | 276 | 336 | 208 | 208 | 72 | 83 | 2,044 |
| Unskimmed..... | 46 | 14,686 | 14,462 | 17,919 | 20,429 | 22,432 | 16,921 | 14,215 | 10,921 | 13,832 | 17,618 | 12,263 | 11,768 | 187,281 |
| Skimmed..... | | | | | | | | | | | | | | |
| Bulk goods— | 98 | 6,252 | 6,555 | 7,866 | 7,795 | 11,746 | 11,133 | 10,505 | 7,079 | 7,675 | 6,468 | 6,253 | 7,224 | 96,861 |
| Unskimmed..... | 68 | 1,703 | 1,665 | 2,908 | 5,801 | 6,518 | 8,101 | 5,691 | 3,814 | 3,463 | 2,875 | 2,456 | 2,615 | 47,429 |
| Skimmed..... | | | | | | | | | | | | | | |
| Unsweetened evaporated milk: | | | | | | | | | | | | | | |
| Case goods— | 9 | 465 | 917 | 300 | 269 | 182 | 344 | 3,654 | 2,827 | 2,513 | 226 | 98 | 35 | 11,555 |
| Unskimmed..... | 131 | 69,972 | 75,874 | 96,358 | 112,034 | 147,054 | 160,061 | 137,703 | 92,121 | 85,627 | 82,899 | 62,465 | 67,167 | 1,188,755 |
| Skimmed..... | | | | | | | | | | | | | | |
| Bulk goods— | 113 | 3,938 | 4,853 | 5,591 | 7,185 | 8,716 | 10,472 | 11,017 | 9,967 | 5,973 | 6,066 | 4,569 | 4,771 | 83,131 |
| Unskimmed..... | 78 | 3,960 | 4,432 | 5,816 | 7,791 | 9,908 | 12,868 | 12,445 | 12,445 | 6,820 | 5,157 | 4,303 | 3,514 | 82,772 |
| Skimmed..... | | | | | | | | | | | | | | |
| Total condensed and evaporated milk..... | 101,033 | 109,000 | 136,963 | 159,648 | 204,632 | 216,158 | 195,329 | 139,330 | 126,051 | 121,329 | 93,363 | 97,212 | 1,700,548 | |

| | | | | | | | | | | | | | | |
|-------|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|---------|
| 54 | 2 | 4,357 | 4,064 | 3,974 | 2 | 3 | 4 | 188 | 168 | 88 | 20 | 12 | 3 | 488 |
| 47 | 1 | 1,461 | 1,500 | 1,609 | 1,470 | 1,865 | 2,080 | 8,108 | 6,397 | 6,126 | 6,363 | 4,366 | 4,660 | 66,837 |
| 19 | 1 | 307 | 1,459 | 892 | 1,457 | 910 | 1,048 | 2,462 | 1,766 | 1,272 | 865 | 622 | 1,028 | 18,038 |
| 72 | 1 | 5,867 | 5,923 | 6,556 | 7,253 | 8,242 | 8,228 | 7,206 | 5,683 | 4,733 | 3,612 | 2,748 | 3,069 | 7,887 |
| 124 | 6 | 1,367 | 1,273 | 1,756 | 2,269 | 2,720 | 2,965 | 2,315 | 1,504 | 1,367 | 1,144 | 1,021 | 952 | 69,219 |
| 2 | 9 | 1,386 | 1,452 | 1,637 | 1,554 | 1,637 | 1,317 | 20 | 13 | 10 | 1,128 | 1,187 | 1,519 | 1,018 |
| 8 | 1 | 223 | 248 | 311 | 369 | 409 | 402 | 364 | 263 | 206 | 178 | 165 | 193 | 15,889 |
| 9 | 223 | 7,119 | 9,597 | 13,883 | 19,394 | 27,783 | 29,593 | 27,790 | 15,468 | 10,970 | 7,687 | 6,127 | 3,331 | 7,887 |
| 2,642 | 6 | 1,118 | 1,694 | 2,426 | 3,466 | 5,059 | 7,097 | 6,055 | 5,367 | 2,520 | 2,449 | 2,354 | 2,201 | 181,564 |
| 87 | 1 | 1,224 | | | | | | | | | | | | 41,912 |

Division of Dairy and Poultry Products.

TABLE 485.—*Production of condensed and evaporated milk, 1914-1924*

[Thousand pounds—i. e., 000 omitted]

| Year | Quantity | Year | Quantity | Year | Quantity |
|-----------|-------------|-----------|-------------|-----------|-------------|
| 1914..... | 875, 507 | 1918..... | 1, 674, 898 | 1922..... | 1, 431, 349 |
| 1915..... | | 1919..... | 2, 030, 958 | 1923..... | 1, 774, 881 |
| 1916..... | 997, 835 | 1920..... | 1, 578, 015 | 1924..... | 1, 700, 548 |
| 1917..... | 1, 353, 606 | 1921..... | 1, 404, 163 | | |

Division of Dairy and Poultry Products.

TABLE 486.—*Condensed milk: International trade, average 1909-1913, annual 1922-1924*

[Thousand pounds—i. e., 000 omitted]

Year ended Dec. 31

| Country | Average 1909-1913 | | 1922 | | 1923 | | 1924 preliminary | |
|--------------------------------------|---------------------|----------------------|-----------------|----------------------|-----------------|----------------------|----------------------|-----------------|
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Australia ¹ | 4, 463 | 727 | ² 61 | ³ 15, 841 | ² 79 | ³ 12, 726 | ----- | ----- |
| Canada..... | 259 | 4, 575 | 232 | 24, 813 | 177 | 41, 056 | 155 | 40, 251 |
| Denmark..... | ⁴ 11 | ⁴ 4, 724 | 3 | 50, 293 | 4 | 66, 969 | ----- | 71, 198 |
| Italy..... | 806 | 5, 913 | 664 | 1, 043 | 987 | 6, 791 | 855 | 13, 559 |
| Netherlands..... | ⁵ 39 | 55 | 534 | 100, 581 | 163 | 227, 393 | 236 | 233, 901 |
| New Zealand ¹ | 261 | 132 | 48 | 1, 482 | 3 | 1, 443 | 32 | 1, 408 |
| Norway..... | 3 | 32, 106 | 1, 089 | 15, 382 | 989 | 16, 089 | 683 | 13, 160 |
| Switzerland..... | ⁶ 201 | 80, 539 | ⁵ 5 | 45, 474 | 177 | 55, 827 | 120 | 58, 225 |
| United States..... | ----- | ⁶ 16, 200 | 5, 294 | 187, 497 | 10, 398 | 194, 264 | 6, 619 | 206, 280 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 742 | ----- | 819 | ----- | 1, 016 | 156 | 946 | 13 |
| Belgium..... | (⁹) | (⁹) | 762 | 140 | 668 | 104 | 1, 399 | 281 |
| Brazil..... | 8, 694 | ----- | 1, 383 | ----- | 645 | ----- | ----- | ----- |
| British India ¹ | 11, 236 | ----- | 7, 222 | 172 | 7, 083 | 217 | ⁷ 10, 033 | ⁷ 87 |
| China..... | 4, 484 | ----- | 8, 025 | ----- | 9, 443 | ----- | 9, 461 | ----- |
| Cuba..... | 28, 457 | ----- | 41, 228 | ----- | 46, 948 | ----- | ----- | ----- |
| Egypt..... | ⁸ 1, 628 | ----- | 2, 316 | 50 | 1, 546 | 125 | 1, 739 | 160 |
| France..... | 2, 458 | 4, 140 | 27, 674 | 6, 079 | 25, 124 | 7, 483 | 24, 168 | 5, 256 |
| Germany ⁹ | 66 | 12, 080 | 9, 294 | 1, 022 | 8, 872 | 582 | 26, 753 | 570 |
| Japan..... | 10, 001 | ----- | 9, 926 | 89 | 12, 623 | 61 | 12, 642 | 74 |
| Java and Madura..... | ³ 6, 136 | ³ 74 | 11, 052 | ----- | 10, 752 | ----- | 10, 926 | ----- |
| Philippine Islands..... | 12, 311 | ----- | 12, 177 | ----- | 16, 855 | ----- | 17, 890 | ----- |
| Spain..... | 5, 605 | ----- | 83 | ----- | 51 | ----- | ¹⁰ 3 | ----- |
| Sweden..... | 28 | 92 | 162 | 8 | 100 | 20 | 150 | 51 |
| Union of South Africa..... | 21, 227 | (¹¹) | 6, 932 | 1 | 10, 697 | 1 | 10, 626 | 1 |
| United Kingdom..... | 121, 175 | 48, 221 | 207, 081 | 15, 589 | 249, 859 | 13, 825 | 244, 379 | 11, 023 |
| Total 25 countries..... | 240, 351 | 209, 578 | 354, 066 | 555, 556 | 415, 349 | 645, 112 | 379, 215 | 655, 498 |

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¹ Includes some preserved milk.² Year beginning July 1.³ Two-year average.⁴ Four-year average.⁵ Three-year average.⁶ Not separately stated.⁷ Twelve months' sea trade, three months' land trade.¹⁾⁸ One year only.⁹ Includes some powdered milk.¹⁰ Six months.¹¹ Less than 500 pounds.

TABLE 488.—Milk, standard or grade B: Wholesale price per quart, in cases of 12 quarts, 1920-1925—Continued

| Market and year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| Detroit: | | | | | | | | | | | | |
| 1920 | 15 | 15 | 15 | 15 | 14½ | 14½ | 15 | 15 | 15 | 15 | 15 | 13 |
| 1921 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1922 | 12 | 12 | 11 | 11 | 10½ | 10½ | 10½ | 11 | 11 | 11½ | 10 | 11 |
| 1923 | 12 | 11½ | 12 | 12½ | 12½ | 12½ | 12 | 13 | 13 | 13 | 12 | 12½ |
| 1924 | 12 | 12 | 12 | 12 | 12 | 11½ | 12 | 12 | 12 | 11 | 10 | 10 |
| 1925 | 11 | 10½ | 11 | 11 | 10½ | 11 | 12 | 11 | 12 | 11 | 11½ | 11½ |
| Milwaukee: | | | | | | | | | | | | |
| 1920 | 12 | 12 | 11 | 11 | 11 | 11 | 12 | 12 | 12 | 12 | 10 | 10 |
| 1921 | 7½ | 8½ | 8½ | 8½ | 7½ | 7½ | 7½ | 8 | 7½ | 7½ | 7½ | 7½ |
| 1922 | 7½ | 7½ | 7½ | 7½ | 7½ | 7½ | 7½ | 7½ | 7½ | 7½ | 8½ | 8½ |
| 1923 | 8½ | 8½ | 8½ | 8½ | 8½ | 8½ | 8½ | 9½ | 9½ | 9½ | 9½ | 9½ |
| 1924 | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9 | 9 |
| 1925 | 8 | 8½ | 9 | 9 | 9 | 8½ | 9 | 8 | 8 | 8½ | 8½ | 8½ |
| Minneapolis: | | | | | | | | | | | | |
| 1920 | 11½ | 11½ | 11½ | 11½ | 11½ | 11½ | 11½ | 12½ | 12½ | 12½ | 12½ | 12½ |
| 1921 | 11½ | 11 | 10½ | 10½ | 9½ | 8½ | 8½ | 9½ | 9½ | 9½ | 9½ | 9½ |
| 1922 | 8½ | 8½ | 8½ | 8½ | 8 | 8½ | 8 | 8½ | 9 | 9 | 9 | 10 |
| 1923 | 9 | 9 | 9 | 9½ | 9½ | 9½ | 9½ | 10½ | 10½ | 10½ | 10½ | 10½ |
| 1924 | 10½ | 10½ | 10½ | 8½ | 8½ | 8½ | 9 | 9½ | 9½ | 10 | 9½ | 9½ |
| 1925 | 9 | 10 | 9½ | 9½ | 9½ | 9½ | 9½ | 9 | 10½ | 11 | 10½ | 10½ |
| St. Paul: | | | | | | | | | | | | |
| 1920 | 12 | 12 | 12 | 11½ | 11½ | 12 | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ |
| 1921 | 11½ | 11½ | 10½ | 10½ | 9½ | 8½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ |
| 1922 | 8½ | 8½ | 8½ | 8½ | 8½ | 8½ | 8½ | 9½ | 9½ | 9½ | 9½ | 9½ |
| 1923 | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 10½ | 10½ | 10½ | 10½ | 10½ |
| 1924 | 10½ | 9½ | 9½ | 8½ | 8½ | 8½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ |
| 1925 | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ |
| Sioux City: | | | | | | | | | | | | |
| 1920 | 14½ | 14½ | 14½ | 14½ | 14½ | 13½ | 13½ | 13½ | 14½ | 14½ | 14½ | 14½ |
| 1921 | 13½ | 12½ | 11½ | 11½ | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1922 | 9½ | 8½ | 8½ | 8½ | 8½ | 8½ | 9 | 9 | 9 | 9 | 10 | 10 |
| 1923 | 10 | 10 | 10 | 10 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| 1924 | 10 | 10 | 10 | 10 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| 1925 | 9 | 9 | 9 | 9 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 |
| St. Louis: | | | | | | | | | | | | |
| 1920 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 15 | 15 | 15 | 15 | 15 |
| 1921 | 15 | 13½ | 13 | 12 | 13 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1922 | 8 | 8 | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 11 |
| 1923 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1924 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1925 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Kansas City, Mo.: | | | | | | | | | | | | |
| 1920 | 14 | 14 | 14 | 14½ | 14 | 13½ | 14 | 14½ | 13½ | 14½ | 13½ | 14½ |
| 1921 | 12½ | 13 | 11½ | 11½ | 11½ | 12 | 12 | 12½ | 12 | 12 | 11½ | 11½ |
| 1922 | 11½ | 11 | 10 | 9 | 8½ | 9 | 9 | 9½ | 8½ | 9½ | 9½ | 10 |
| 1923 | 10½ | 10 | 10 | 10½ | 10 | 10½ | 11 | 10 | 10 | 11 | 10 | 10½ |
| 1924 | 10 | 11 | 11 | 10½ | 10½ | 11 | 11 | 10 | 10½ | 10½ | 10½ | 10½ |
| 1925 | 10½ | 11 | 10½ | 10½ | 10½ | 10½ | 10½ | 10½ | 10½ | 10½ | 10½ | 10½ |
| Washington, D. C.: | | | | | | | | | | | | |
| 1920 | 15½ | 15 | 15½ | 15 | 13½ | 13½ | 13½ | 14 | 14 | 15 | 15½ | 15½ |
| 1921 | 14½ | 13 | 14 | 14 | 11 | 11 | 10 | 10 | 11 | 12 | 12 | 12 |
| 1922 | 11 | 12 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 11 | 11 | 11 |
| 1923 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 12 | 12 |
| 1924 | 12 | 12 | 12 | 12 | 11½ | 11½ | 11½ | 11½ | 11½ | 11½ | 11½ | 10½ |
| 1925 | 10½ | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11½ | 12 | 11½ |
| Richmond: | | | | | | | | | | | | |
| 1920 | 16 | 16 | 16 | 16 | 16 | 15 | 16 | 16 | 16 | 16 | 16 | 16 |
| 1921 | 16 | 14½ | 14½ | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 1922 | 13 | 13 | 13 | 12 | 12 | 12 | 13 | 13 | 12 | 12 | 13 | 13 |
| 1923 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 14 | 14 |
| 1924 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 10 |
| 1925 | 12 | 13 | 13 | 13 | 13 | 11½ | 13 | 13 | 13 | 13 | 13 | 13 |
| Jacksonville: | | | | | | | | | | | | |
| 1920 | 17 | 17 | 18 | 18 | 18 | 22 | 22 | 22 | 18 | 18 | 18 | 18 |
| 1921 | 13 | 15 | 15 | 11 | 12½ | 16 | 16 | 16 | 14½ | 16 | 16 | 16 |
| 1922 | 13 | 14½ | 14½ | 13 | 12½ | 12½ | 13 | 12½ | 14½ | 14½ | 15 | 14½ |
| 1923 | 14½ | 14½ | 14½ | 14½ | 14½ | 14½ | 14 | 14 | 14 | 14½ | 14½ | 14½ |
| 1924 | 16 | 16½ | 16½ | 16½ | 16½ | 16½ | 14 | 14 | 14 | 14½ | 14½ | 14½ |
| 1925 | 14½ | 14½ | 14½ | 14½ | 14½ | 14½ | 14½ | 14½ | 15 | 17½ | 17½ | 17½ |
| Louisville: | | | | | | | | | | | | |
| 1920 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1921 | 13 | 9 | 7 | 7 | 7 | 7 | 9 | 10 | 9 | 9 | 9 | 9 |
| 1922 | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 10 | 11 | 11 |
| 1923 | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 10 | 11 | 11 |
| 1924 | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 10 | 11 | 11 |
| 1925 | 11 | 11 | 10 | 10 | 11 | 10 | 10 | 10 | 10 | 12 | 12 | 12 |

TABLE 488.—Milk, standard or grade B: Wholesale price per quart, in cases of 12 quarts, 1920-1925—Continued

| Market and year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Nashville: | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1920..... | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 15 |
| 1921..... | 15 | 14 | 14 | 13 | 13 | 12 | 12 | 12 | 12 | 12 | 12 | 14 |
| 1922..... | 10 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 10 |
| 1923..... | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 12 | 12 |
| 1924..... | 12 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 12 | 12 | 12 | 12 |
| 1925..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 14 | 14 | 13 |
| Birmingham: | | | | | | | | | | | | |
| 1920..... | 15 | 18 | 15 | 15 | 15½ | 18 | 15 | 15 | 15 | 13½ | 13½ | 18 |
| 1921..... | 18 | 15 | 15 | 15 | 14 | 14 | 14 | 13 | 13½ | 13½ | 13½ | 13½ |
| 1922..... | 13 | 12 | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 13 | 13 | 12 |
| 1923..... | 14 | 13½ | 13½ | 13½ | 13½ | 13½ | 13½ | 13½ | 13½ | 13½ | 12 | 12 |
| 1924..... | 12 | 14 | 14 | 14 | 14 | 13 | 13 | 13 | 13½ | 14 | 14½ | 14½ |
| 1925..... | 14½ | 14½ | 14 | 14 | 14 | 14 | 14½ | 14 | 14½ | 14½ | 14 | 14 |
| New Orleans: | | | | | | | | | | | | |
| 1920..... | 17 | 17 | 17 | 17 | 15 | 15 | 15 | 15 | 17 | 17 | 17 | 16 |
| 1921..... | 15 | 15 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 12 | 12 |
| 1922..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1923..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 13 | 13 |
| 1924..... | 13 | 13 | 13 | 13 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1925..... | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 12 | 12 | 12 |
| Dallas: | | | | | | | | | | | | |
| 1922..... | 12 | 12 | 10 | 10 | 10 | 10 | 12 | 11 | 12 | 12 | 12 | 11 |
| 1923..... | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 11 |
| 1924..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1925..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 11 | 12 | 12 |
| Butte: | | | | | | | | | | | | |
| 1920..... | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 15 | 15 | 15 | 10 |
| 1921..... | 12½ | 12½ | 12½ | 12½ | 10 | 9½ | 9½ | 9½ | 9 | 10 | 10 | 10 |
| 1922..... | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11 |
| 1923..... | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11 |
| 1924..... | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1925..... | 11 | 10½ | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Denver: | | | | | | | | | | | | |
| 1920..... | 11½ | 11½ | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1921..... | 13 | 13 | 12 | 10 | 9 | 8½ | 8 | 8 | 8 | 8 | 8½ | 8½ |
| 1922..... | 8 | 8 | 7½ | 8 | 8 | 7½ | 8 | 8 | 8 | 8 | 8 | 10 |
| 1923..... | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 10 |
| 1924..... | 10 | 10 | 10 | 10 | 9 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1925..... | 10 | 10 | 8 | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 |
| Salt Lake City: | | | | | | | | | | | | |
| 1920..... | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1921..... | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1922..... | 8 | 8 | 8 | 8 | 8 | 9½ | 8 | 8 | 8 | 8 | 8 | 8 |
| 1923..... | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1924..... | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 10 | 10 | 10 |
| 1925..... | 10 | 10 | 10 | 10 | 10 | 9 | 9 | 9 | 9½ | 10 | 10 | 9½ |
| Seattle: | | | | | | | | | | | | |
| 1920..... | 11½ | 11 | 10 | 9 | 10 | 11 | 11 | 11 | 11 | 10½ | 10½ | 8 |
| 1921..... | 9 | 8½ | 9 | 8 | 8½ | 8½ | 8½ | 8½ | 9½ | 8½ | 8½ | 10½ |
| 1922..... | 9½ | 9½ | 9½ | 8 | 8½ | 8½ | 8½ | 9½ | 9½ | 10½ | 10½ | 10½ |
| 1923..... | 10½ | 10½ | 10½ | 10½ | 9½ | 9½ | 9½ | 9½ | 10½ | 10½ | 10½ | 10½ |
| 1924..... | 10½ | 10 | 9½ | 9½ | 8½ | 8½ | 8½ | 8½ | 8½ | 7 | 7 | 7½ |
| 1925..... | 7½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 10½ | 10½ | 10½ | 10½ |
| Portland, Oreg.: | | | | | | | | | | | | |
| 1920..... | 13½ | 13½ | 13½ | 12 | 12½ | 12 | 12 | 12 | 13 | 13½ | 13 | 13 |
| 1921..... | 12½ | 12 | 12 | 12 | 12 | 9 | 9 | 8 | 9 | 9 | 9 | 9 |
| 1922..... | 9 | 8½ | 8½ | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 |
| 1923..... | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 10 | 10 | 10 | 10 | 9½ |
| 1924..... | 10 | 9 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7½ |
| 1925..... | 8 | 8 | 8 | 8 | 10 | 8 | 8 | 8 | 9½ | 10 | 10 | 10 |
| Los Angeles: | | | | | | | | | | | | |
| 1920..... | 15 | 15 | 15 | 15 | 15 | 15 | 17 | 17 | 17 | 17 | 17 | 17 |
| 1921..... | 17 | 15 | 15 | 15 | 15 | 15 | 14 | 13 | 13 | 13 | 13 | 13 |
| 1922..... | 13½ | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 14 |
| 1923..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1924..... | 14 | 14 | 15 | 15 | 14 | 14 | 15 | 15 | 15 | 15 | 13 | 13 |
| 1925..... | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| San Francisco: | | | | | | | | | | | | |
| 1920..... | 14 | 14 | 13½ | 13½ | 14 | 14 | 13½ | 14 | 14 | 14½ | 14½ | 15 |
| 1921..... | 13 | 13 | 13 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1922..... | 11 | 10½ | 10½ | 11 | 10½ | 10½ | 10 | 10 | 10 | 10 | 10 | 11 |
| 1923..... | 11 | 10½ | 10 | 10½ | 10 | 10½ | 11 | 11 | 12 | 12 | 12 | 11 |
| 1924..... | 12 | 11 | 11 | 12 | 12 | 12 | 11 | 12 | 12 | 10 | 12 | 12 |
| 1925..... | 12 | 12 | 12 | 12 | 13 | 13 | 13 | 13 | 13 | 13 | 11½ | 13 |

TABLE 489.—Milk, standard or grade B: Retail price per quart, delivered to family trade in cities, 1920-1925

| Market and year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Boston: | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1920..... | 17 | 17 | 17 | 17 | 16 | 16 | 17 | 17½ | 18 | 18 | 18 | 18 |
| 1921..... | 17 | 16½ | 16 | 15½ | 15 | 15 | 16 | 15½ | 16 | 15 | 15 | 15 |
| 1922..... | 18½ | 18½ | 19½ | 19½ | 12½ | 12½ | 13½ | 14 | 13½ | 14½ | 14½ | 14½ |
| 1923..... | 14½ | 14½ | 14½ | 13½ | 13½ | 13½ | 14 | 13½ | 14½ | 14½ | 15½ | 15 |
| 1924..... | 14½ | 13½ | 12½ | 12 | 12 | 12 | 12½ | 13½ | 14½ | 14½ | 14½ | 14½ |
| 1925..... | 14½ | 12½ | 13½ | 13½ | 13½ | 13 | 14 | 14½ | 14½ | 14½ | 14½ | 14½ |
| New York: | | | | | | | | | | | | |
| 1920..... | 18 | 16½ | 16½ | 15 | 15 | 15 | 16 | 17 | 18 | 18 | 18 | 17 |
| 1921..... | 17 | 16 | 15 | ----- | ----- | 14 | 14 | 15 | 15 | 15 | 15 | 15 |
| 1922..... | 15 | 15 | 15 | ----- | 13 | 13 | 14 | 15 | 15 | 15 | 15 | 15 |
| 1923..... | 16 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 15 | 15 | 15 | 15 |
| 1924..... | 15 | 14 | 14 | 14 | 13 | 13 | 13 | 13 | 14 | 14 | 15 | 15 |
| 1925..... | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 15 | 15 | 15 | 15 | 15 |
| Philadelphia: | | | | | | | | | | | | |
| 1920..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 15 | 15 | 15 | 15 | 13 |
| 1921..... | 13 | 13 | 13 | 13 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1922..... | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 12 | 12 | 12 |
| 1923..... | 11½ | 12 | 12 | 12 | 13 | 13 | 13 | 13 | 13 | 13 | 12 | 12 |
| 1924..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1925..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Pittsburgh: | | | | | | | | | | | | |
| 1920..... | 16 | 16 | 16 | 15 | 15 | 15 | 15 | 16 | 16 | 16 | 16 | 16 |
| 1921..... | 15 | 15 | 14 | 14 | 14 | 14 | 14 | ----- | 14 | 14 | 14 | 13 |
| 1922..... | 13 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | ----- | 14 | 14 | 14 |
| 1923..... | ----- | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 15 | 15 | 15 |
| 1924..... | 15 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1925..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14½ | 14½ | 14½ |
| Cincinnati: | | | | | | | | | | | | |
| 1920..... | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 1921..... | 15 | 14 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 1922..... | 13 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1923..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 14 | 14 | 14 |
| 1924..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| Cleveland: | | | | | | | | | | | | |
| 1920..... | 16 | 16 | 16 | 15 | 15 | 15 | 15 | 16 | 16 | 16 | 15 | 15 |
| 1921..... | 15 | 14 | 14 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 1922..... | 11 | 11 | 11 | 10 | 10½ | 10½ | 10½ | 11 | 11 | 11 | 13 | 13 |
| 1923..... | 14 | 14 | 14 | 14 | 13½ | 13 | 14 | 14 | 14 | 13½ | 14 | 13½ |
| 1924..... | 13½ | 14 | 13½ | 13½ | 14 | 12 | 11 | 14 | 13½ | 13½ | 13½ | 13½ |
| 1925..... | 13½ | 13½ | 14 | 14 | 14 | 14 | 13½ | 14 | 14 | 14 | 14 | 15 |
| Indianapolis: | | | | | | | | | | | | |
| 1920..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1921..... | 14 | 14 | 13 | 13 | 13 | 12 | 12 | 12 | 12 | 12 | 11½ | 11 |
| 1922..... | 11½ | 11 | 11 | 10½ | 10½ | 10 | 10 | 10 | 10 | ----- | 10 | 10 |
| 1923..... | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1924..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 11 | 12 | 12 |
| 1925..... | 12 | 11 | 10 | 10 | 10 | 10 | 10 | 11 | 12 | 12 | 12 | 12 |
| Chicago: | | | | | | | | | | | | |
| 1920..... | 15 | 15 | 14 | 14 | 14 | 14 | 15 | 16 | 16 | 16 | 15 | 14 |
| 1921..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 12 | 12 | 12 |
| 1922..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1923..... | 12½ | 13 | 13 | 13 | 13 | 13 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1924..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1925..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| Detroit: | | | | | | | | | | | | |
| 1920..... | 16 | 16 | 16 | 16 | 15½ | 15½ | 16 | 16 | 16 | 16 | 16 | 14 |
| 1921..... | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 1922..... | 13 | 13 | 12 | 11½ | 11½ | 11½ | 12 | 13 | 13 | 13 | 13 | 14 |
| 1923..... | 13½ | 13½ | 14 | 14 | 14 | 14 | 12 | 15 | 13½ | 15 | 14 | 13½ |
| 1924..... | 14 | 14 | 14 | 14 | 14 | 13½ | 14 | 13½ | 13½ | 13½ | 13½ | 13½ |
| 1925..... | 13½ | 13 | 13½ | 13 | 13½ | 13½ | 13½ | 15 | 14 | 13½ | 13½ | 14 |
| Milwaukee: | | | | | | | | | | | | |
| 1920..... | 13 | 13 | 12 | 12 | 12 | 12 | 13 | 13 | 13 | 13 | 11 | 11 |
| 1921..... | ----- | 10 | 10 | 10 | 9 | 9 | 9 | 10 | 9 | 9 | 9 | 9 |
| 1922..... | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 10 | 10 |
| 1923..... | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11 | 11 |
| 1924..... | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 10½ | 10 | 10 |
| 1925..... | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10½ |
| Minneapolis: | | | | | | | | | | | | |
| 1920..... | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 14 | 14 | 14 | 14 | 14 |
| 1921..... | 13 | 12½ | 12 | 12 | 11 | 10 | 10 | 11 | 11 | 11 | 11 | 10½ |
| 1922..... | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11½ |
| 1923..... | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 12 | 12 | 12 | 12 | 12 |
| 1924..... | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 11½ | 11 | 11 | 11 | 11 |
| 1925..... | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 12 | 12 | 12 | 12 |
| St. Paul: | | | | | | | | | | | | |
| 1920..... | 18 | 13 | 18 | 13 | 13 | 13 | 13 | 14 | 14 | 14 | 14 | 14 |
| 1921..... | 13 | 13 | 12 | 12 | 11 | 10 | 10 | 11 | 11 | 11 | 11 | 10½ |
| 1922..... | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11 |
| 1923..... | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 12 | 12 | 12 | 12 | 12 |
| 1924..... | 12 | 11 | 11 | 11 | 10 | 10 | 10 | 11 | 11 | 11 | 11 | 11 |
| 1925..... | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 12 | 12 | 12 | 12 |

TABLE 489.—*Milk, standard or grade B: Retail price per quart, delivered to family trade in cities, 1920-1925—Continued*

| Market and year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Butte: | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1920..... | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 1921..... | 15 | 15 | 15 | 15 | 13 | 12½ | 12½ | 12½ | 12½ | 13 | 13 | 12½ |
| 1922..... | 12½ | 13 | 12½ | 12 | 12½ | 11½ | 11½ | 12 | 12 | 12 | 13 | 12½ |
| 1923..... | 12 | 12½ | 13 | 12½ | 12½ | 12 | 12½ | 12½ | 13½ | 13 | 13 | 14 |
| 1924..... | 13 | 13½ | 13 | 13½ | 13½ | 13½ | 13½ | 13½ | 13½ | 13 | 13 | 13½ |
| 1925..... | 12½ | 14 | 13½ | 13½ | 13½ | 13 | 14 | 14 | 13 | 13½ | 13½ | 13 |
| Denver: | | | | | | | | | | | | |
| 1920..... | 12½ | 12½ | 13 | 13 | 11 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 1921..... | 13 | 13 | 13 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10½ |
| 1922..... | 10 | 10 | 9½ | 10 | 10 | 9½ | 10 | 10 | 9½ | 10 | 10 | 12 |
| 1923..... | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1924..... | 12 | 12 | 12 | 12 | 12 | 11 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1925..... | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 12 |
| Salt Lake City: | | | | | | | | | | | | |
| 1920..... | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 13 | 12½ | 12½ | 12½ | 12½ | 12½ |
| 1921..... | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ |
| 1922..... | 10 | 8½ | 9 | 9 | 8½ | 8½ | 8½ | 8½ | 9 | 8½ | 9 | 9 |
| 1923..... | 10½ | 10 | 10 | 10 | 10 | 10½ | 10½ | 10½ | 9½ | 10 | 10 | 10 |
| 1924..... | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 9½ | 11 | 10½ | 10½ |
| 1925..... | 10½ | 10½ | 10½ | 11 | 11 | 10½ | 10½ | 11 | 10½ | 10½ | 10½ | 10½ |
| Seattle: | | | | | | | | | | | | |
| 1920..... | 14 | 14½ | 13½ | 12 | 12 | 13 | 14 | 14 | 14 | 14 | 14 | 13 |
| 1921..... | 13 | 11 | 13 | 13 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 11 |
| 1922..... | 13 | 13 | 13 | 12 | 12 | 12 | 12 | 13 | 13 | 12½ | 13 | 13 |
| 1923..... | 13 | 13 | 13 | 13 | 12 | 12 | 12 | 12 | 13 | 13 | 13 | 11 |
| 1924..... | 10 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 9 | 9 | 10 |
| 1925..... | 10 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 13 | 13 | 13 |
| Portland, Oregon: | | | | | | | | | | | | |
| 1920..... | 15 | 15 | 15 | 13 | 13½ | 13 | 13 | 14 | 14 | 14 | 14½ | 14½ |
| 1921..... | 14 | 14 | 14 | 14 | 13 | 12 | 12 | 12½ | 12½ | 12½ | 12 | 12 |
| 1922..... | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 12 | 12 | 12 | 12 | 12 |
| 1923..... | 12½ | 12 | 12½ | 12 | 12 | 12 | 13 | 12 | 12 | 12½ | 12 | 12 |
| 1924..... | 12 | 11½ | 11 | 11 | 11 | 11 | 11 | 12 | 11½ | 11 | 11 | 10½ |
| 1925..... | 11 | 11 | 11 | 11 | 11½ | 11 | 11½ | 11½ | 11½ | 12 | 12 | 12 |
| Los Angeles: | | | | | | | | | | | | |
| 1920..... | 16 | 16 | 16 | 16 | 16 | 16 | 18 | 18 | 18 | 18 | 18 | 18 |
| 1921..... | 16 | 16 | 16 | 16 | 16 | 16 | 15 | 14 | 14 | 14 | 14 | 14 |
| 1922..... | 14½ | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 15 | 15 |
| 1923..... | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 1924..... | 15 | 15 | 15 | 16 | 15 | 15 | 17 | 15 | 17 | 17 | 14 | 14½ |
| 1925..... | 14 | 14½ | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| San Francisco: | | | | | | | | | | | | |
| 1920..... | 16 | 16 | 15½ | 15 | 16 | 16 | 15½ | 17 | 17 | 17 | 17 | 17 |
| 1921..... | 15½ | 15½ | 15 | 15 | 15 | 14½ | 13½ | 14 | 14 | 13½ | 13½ | 13½ |
| 1922..... | 13½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 13 |
| 1923..... | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ | 14 | 14 |
| 1924..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1925..... | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |

Division of Statistical and Historical Research. Compiled from reports of the Division of Dairy and Poultry Products.

TABLE 490.—*Production of dry milk, 1914-1924*

| Year | Dry whole milk | Dry skim-milk | Total | Year | Dry whole milk | Dry skim-milk | Total |
|-----------|----------------|---------------|---------------|-----------|----------------|---------------|---------------|
| | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| 1914..... | | | 20,987,911 | 1920..... | 10,334,000 | 41,893,000 | 52,227,000 |
| 1916..... | 2,123,251 | 16,463,362 | 18,586,613 | 1921..... | 4,242,471 | 38,545,718 | 42,788,189 |
| 1917..... | 3,138,809 | 22,624,357 | 25,763,166 | 1922..... | 5,599,000 | 40,617,000 | 46,216,000 |
| 1918..... | 4,154,334 | 26,202,406 | 30,356,740 | 1923..... | 6,560,000 | 62,251,000 | 68,811,000 |
| 1919..... | 8,660,785 | 34,945,416 | 43,606,201 | 1924..... | 7,887,000 | 69,219,000 | 77,106,000 |

Division of Dairy and Poultry Products.

TABLE 491.—Total manufacturers' stocks of dry skim milk in the United States on the first of each month

[Bulk—packed in barrels]

| Month | 1921 | 1922 | 1923 | 1924 | 1925 |
|----------------|---------------|---------------|---------------|---------------|---------------|
| | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| January..... | 11,784,374 | 8,853,869 | 1,677,419 | 8,215,132 | 6,837,413 |
| February..... | 11,373,445 | 9,526,134 | 2,275,223 | 9,843,452 | 5,003,319 |
| March..... | 16,729,213 | 8,090,247 | 2,638,710 | 11,395,848 | 4,311,368 |
| April..... | 11,030,141 | 7,695,252 | 4,518,720 | 12,251,921 | 4,288,206 |
| May..... | 10,631,869 | 8,414,504 | 3,155,051 | 12,670,035 | 4,848,526 |
| June..... | 11,096,441 | 9,469,760 | 5,011,105 | 12,438,676 | 6,127,967 |
| July..... | 11,039,889 | 7,817,015 | 5,415,835 | 12,852,951 | 5,314,646 |
| August..... | 11,835,044 | 7,195,409 | 5,396,843 | 13,924,336 | 4,879,406 |
| September..... | 8,861,679 | 4,464,995 | 4,629,129 | 12,939,507 | 6,082,752 |
| October..... | 9,241,134 | 2,971,313 | 6,520,283 | 12,475,860 | 5,610,726 |
| November..... | 8,069,282 | 2,690,275 | 7,693,849 | 10,312,953 | 5,254,653 |
| December..... | 8,000,941 | 1,942,843 | 6,723,877 | 7,616,916 | 4,730,128 |

Division of Dairy and Poultry Products.

TABLE 492.—Ice cream: Estimated production in the United States, 1909-1925.

[Thousand gallons—l. e., 000 omitted]

| Year | Gallons | Year | Gallons | Year | Gallons |
|-----------|---------|-----------|---------|-----------|---------|
| 1909..... | 180,000 | 1915..... | 175,224 | 1921..... | 244,000 |
| 1910..... | 95,450 | 1916..... | 206,320 | 1922..... | 263,520 |
| 1911..... | 138,000 | 1917..... | 210,000 | 1923..... | 294,000 |
| 1912..... | 160,000 | 1918..... | 220,000 | 1924..... | 285,550 |
| 1913..... | 172,380 | 1919..... | 230,000 | 1925..... | 322,729 |
| 1914..... | 163,761 | 1920..... | 260,000 | | |

Division of Dairy and Poultry Products.

¹ 1909-1916, inclusive, from the International Confectioner.

² 1917-1925, inclusive, from Bureau of Agricultural Economics.

TABLE 493.—Creamery butter: Production, United States, 1917-1924

[Thousand pounds—l. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-----------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|--------|-----------|
| 1917..... | 43,997 | 38,459 | 47,371 | 53,809 | 75,108 | 98,898 | 94,151 | 83,936 | 76,744 | 56,170 | 42,705 | 48,157 | 759,511 |
| 1918..... | 44,357 | 42,389 | 49,086 | 57,332 | 85,564 | 104,385 | 97,440 | 85,118 | 72,397 | 63,886 | 45,741 | 45,560 | 793,285 |
| 1919..... | 52,189 | 44,343 | 54,822 | 67,487 | 103,941 | 119,357 | 104,156 | 84,458 | 68,815 | 58,723 | 45,041 | 46,662 | 849,994 |
| 1920..... | 49,044 | 46,350 | 56,303 | 60,622 | 86,845 | 114,695 | 110,844 | 90,669 | 77,106 | 65,129 | 53,570 | 52,395 | 863,577 |
| 1921..... | 58,900 | 56,556 | 67,677 | 82,763 | 119,077 | 130,633 | 111,898 | 111,638 | 89,932 | 84,374 | 70,024 | 71,460 | 1,064,938 |
| 1922..... | 73,505 | 67,405 | 79,632 | 86,623 | 132,351 | 150,034 | 135,231 | 114,160 | 92,359 | 83,070 | 68,628 | 70,617 | 1,153,515 |
| 1923..... | 53,688 | 74,134 | 88,311 | 100,547 | 134,350 | 158,371 | 148,278 | 120,802 | 102,273 | 89,297 | 74,909 | 77,254 | 1,252,214 |
| 1924..... | 87,468 | 86,731 | 95,760 | 108,012 | 139,954 | 161,992 | 164,443 | 137,836 | 115,102 | 100,536 | 77,282 | 82,964 | 1,356,080 |

Division of Dairy and Poultry Products.

TABLE 494.—*Creamery butter production in factories in the United States, by States, 1918-1924*

[Thousands of pounds—1, e., 000 omitted]

| States | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 |
|---------------------------|---------|---------|---------|-----------|-----------|-----------|-----------|
| Alabama..... | 912 | 604 | 366 | 742 | 917 | 831 | 839 |
| Arizona..... | 1,418 | 1,006 | 836 | 1,353 | 623 | 600 | 2,197 |
| Arkansas..... | 427 | 363 | 345 | 536 | 731 | 900 | 1,289 |
| California..... | 53,298 | 61,795 | 61,870 | 63,810 | 63,941 | 81,943 | 75,509 |
| Colorado..... | 12,652 | 13,144 | 12,979 | 15,280 | 16,410 | 18,625 | 18,130 |
| Connecticut..... | 813 | 939 | 877 | 1,165 | 986 | 753 | 826 |
| Delaware..... | 270 | 253 | 350 | 366 | 203 | 154 | 160 |
| District of Columbia..... | 6 | 5 | 503 | 577 | 475 | 10 | ----- |
| Florida..... | 39 | 17 | ----- | 11 | 81 | 99 | 20 |
| Georgia..... | 4 | 6 | 7 | 85 | 979 | 1,803 | 1,825 |
| Idaho..... | 4,330 | 4,514 | 4,660 | 4,935 | 7,582 | 9,883 | 13,431 |
| Illinois..... | 39,865 | 44,621 | 41,081 | 43,866 | 47,242 | 51,359 | 58,225 |
| Indiana..... | 40,624 | 44,659 | 39,223 | 47,864 | 48,158 | 51,484 | 54,365 |
| Iowa..... | 89,943 | 87,915 | 84,200 | 105,516 | 129,778 | 151,407 | 159,378 |
| Kansas..... | 35,660 | 35,642 | 32,899 | 37,000 | 40,204 | 42,674 | 46,841 |
| Kentucky..... | 3,177 | 5,321 | 7,875 | 10,746 | 12,010 | 12,244 | 12,942 |
| Louisiana..... | 70 | 46 | 55 | 160 | 87 | 185 | 125 |
| Maine..... | 1,463 | 1,141 | 727 | 719 | 506 | 492 | 568 |
| Maryland..... | 297 | 315 | 440 | 620 | 542 | 382 | 500 |
| Massachusetts..... | 2,439 | 2,849 | 3,198 | 3,895 | 2,999 | 1,844 | 1,790 |
| Michigan..... | 42,584 | 45,207 | 45,404 | 55,011 | 59,964 | 66,818 | 70,676 |
| Minnesota..... | 124,816 | 130,786 | 120,297 | 154,268 | 170,463 | 199,925 | 229,474 |
| Mississippi..... | 2,271 | 2,477 | 2,626 | 4,286 | 5,778 | 5,715 | 5,649 |
| Missouri..... | 30,175 | 38,411 | 35,228 | 42,422 | 46,555 | 51,818 | 56,801 |
| Montana..... | 4,581 | 5,389 | 5,168 | 7,439 | 7,713 | 10,667 | 13,874 |
| Nebraska..... | 62,477 | 60,467 | 56,661 | 66,653 | 74,806 | 76,748 | 81,423 |
| Nevada..... | 1,398 | 1,726 | 2,018 | 2,368 | 2,642 | 2,361 | 2,649 |
| New Hampshire..... | 489 | 397 | 300 | 308 | 309 | 424 | 271 |
| New Jersey..... | 133 | 179 | 143 | 214 | 261 | 437 | 642 |
| New Mexico..... | 10 | 6 | 6 | 29 | 129 | 185 | 261 |
| New York..... | 13,898 | 13,716 | 16,949 | 24,298 | 25,471 | 18,893 | 25,074 |
| North Carolina..... | 678 | 829 | 832 | 1,243 | 1,549 | 1,718 | 1,683 |
| North Dakota..... | 12,050 | 14,697 | 13,419 | 16,177 | 21,675 | 25,366 | 28,515 |
| Ohio..... | 54,555 | 60,573 | 66,694 | 73,724 | 84,198 | 79,106 | 80,932 |
| Oklahoma..... | 8,167 | 10,481 | 9,566 | 10,427 | 11,142 | 14,065 | 14,421 |
| Oregon..... | 15,357 | 14,432 | 14,288 | 15,289 | 17,158 | 18,129 | 20,993 |
| Pennsylvania..... | 10,077 | 12,406 | 11,422 | 14,629 | 12,803 | 13,142 | 12,444 |
| Rhode Island..... | 70 | 65 | 58 | 77 | 76 | 76 | 105 |
| South Carolina..... | 17 | 27 | 16 | 19 | 165 | 537 | 527 |
| South Dakota..... | 18,536 | 17,479 | 14,071 | 18,886 | 21,146 | 27,447 | 24,649 |
| Tennessee..... | 2,068 | 3,736 | 5,903 | 8,707 | 9,164 | 11,463 | 12,762 |
| Texas..... | 4,952 | 8,289 | 9,125 | 11,257 | 10,179 | 10,956 | 11,967 |
| Utah..... | 4,174 | 3,796 | 3,567 | 4,549 | 5,913 | 7,500 | 8,585 |
| Vermont..... | 10,858 | 16,677 | 13,253 | 14,919 | 12,290 | 11,985 | 12,294 |
| Virginia..... | 1,372 | 1,597 | 2,210 | 2,538 | 3,119 | 4,281 | 4,614 |
| Washington..... | 16,467 | 18,497 | 23,751 | 23,228 | 24,289 | 26,095 | 29,331 |
| West Virginia..... | 189 | 328 | 897 | 580 | 420 | 276 | 449 |
| Wisconsin..... | 82,866 | 86,084 | 97,285 | 124,804 | 142,235 | 139,885 | 153,335 |
| Wyoming..... | 1,295 | 1,140 | 875 | 1,777 | 1,403 | 1,894 | 1,941 |
| Total..... | 818,175 | 868,125 | 863,877 | 1,654,938 | 1,153,515 | 1,252,214 | 1,366,080 |

Division of Dairy and Poultry Products.

The compilations were made from reports of factories to the division.

TABLE 495.—Butter: Estimated trade output¹ of farm and factory butter in the United States, by months

[Thousand pounds—1. e., 000 omitted]

| Month | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| January..... | 113, 449 | 108, 540 | 98, 853 | 103, 830 | 118, 793 | 125, 824 | 133, 001 | 142, 949 | 138, 884 |
| February..... | 108, 002 | 99, 522 | 93, 511 | 94, 862 | 108, 397 | 114, 948 | 116, 821 | 130, 846 | 127, 752 |
| March..... | 116, 331 | 96, 687 | 111, 362 | 106, 263 | 126, 575 | 134, 488 | 135, 855 | 140, 806 | 143, 108 |
| April..... | 126, 293 | 113, 123 | 113, 567 | 121, 277 | 130, 511 | 138, 617 | 148, 133 | 154, 822 | 150, 604 |
| May..... | 167, 464 | 158, 741 | 161, 573 | 155, 916 | 175, 366 | 190, 141 | 194, 706 | 191, 908 | 195, 286 |
| June..... | 174, 583 | 158, 326 | 148, 868 | 164, 201 | 173, 176 | 175, 053 | 186, 512 | 187, 201 | 179, 620 |
| July..... | 161, 394 | 141, 098 | 153, 579 | 148, 557 | 166, 677 | 170, 247 | 181, 734 | 176, 275 | 170, 753 |
| August..... | 156, 273 | 146, 589 | 146, 659 | 147, 110 | 167, 013 | 167, 365 | 182, 195 | 175, 439 | 177, 458 |
| September..... | 151, 301 | 143, 071 | 131, 601 | 137, 956 | 146, 475 | 158, 960 | 161, 127 | 167, 540 | 172, 328 |
| October..... | 132, 780 | 121, 727 | 131, 870 | 129, 598 | 146, 782 | 152, 001 | 155, 672 | 161, 158 | 163, 609 |
| November..... | 119, 207 | 100, 783 | 115, 908 | 120, 211 | 124, 883 | 133, 963 | 141, 285 | 148, 757 | 146, 254 |
| December..... | 133, 227 | 108, 146 | 107, 657 | 119, 719 | 131, 485 | 133, 506 | 139, 709 | 156, 398 | 145, 132 |

Division of Dairy and Poultry Products.

¹ Trade output is equivalent to movement into consumptive channels.

TABLE 496.—Creamery butter: Net receipts at five markets, 1918-1925

[Thousand pounds—1. e., 000 omitted]

NEW YORK

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 1918..... | | 11, 571 | 12, 468 | 10, 867 | 15, 018 | 21, 002 | 20, 986 | 15, 708 | 13, 367 | 16, 032 | 11, 639 | 11, 642 | |
| 1919..... | 13, 509 | 13, 328 | 13, 419 | 14, 157 | 18, 994 | 23, 403 | 19, 314 | 16, 335 | 16, 244 | 13, 405 | 12, 635 | 9, 954 | 184, 805 |
| 1920..... | 9, 750 | 9, 259 | 10, 724 | 6, 485 | 10, 144 | 17, 623 | 17, 801 | 15, 048 | 12, 329 | 9, 986 | 8, 627 | 5, 301 | 136, 076 |
| 1921..... | 10, 008 | 9, 116 | 10, 721 | 11, 798 | 17, 640 | 22, 513 | 17, 885 | 19, 562 | 17, 514 | 14, 113 | 12, 866 | 12, 311 | 176, 037 |
| 1922..... | 13, 385 | 13, 620 | 15, 018 | 13, 424 | 20, 438 | 28, 586 | 25, 301 | 19, 083 | 15, 053 | 13, 958 | 13, 240 | 12, 235 | 204, 333 |
| 1923..... | 16, 829 | 12, 841 | 16, 706 | 15, 409 | 20, 444 | 26, 490 | 23, 504 | 18, 172 | 15, 829 | 14, 924 | 12, 750 | 13, 070 | 207, 041 |
| 1924..... | 13, 389 | 13, 763 | 13, 180 | 15, 250 | 18, 231 | 25, 344 | 27, 579 | 20, 835 | 18, 626 | 17, 066 | 11, 909 | 13, 422 | 211, 274 |
| 1925..... | 15, 207 | 13, 947 | 15, 546 | 15, 654 | 18, 971 | 24, 131 | 22, 034 | 18, 262 | 18, 439 | 16, 964 | 13, 755 | 14, 517 | 207, 317 |
| A v. 1921-1925..... | 13, 763 | 12, 637 | 14, 938 | 14, 314 | 19, 145 | 25, 409 | 23, 207 | 19, 181 | 17, 091 | 15, 409 | 12, 904 | 13, 111 | 201, 198 |

CHICAGO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 1918..... | | 11, 005 | 11, 802 | 11, 873 | 12, 207 | 20, 088 | 21, 990 | 15, 225 | 12, 568 | 12, 256 | 9, 084 | 9, 608 | |
| 1919..... | 10, 188 | 8, 413 | 9, 472 | 10, 657 | 19, 152 | 27, 586 | 20, 358 | 15, 339 | 10, 876 | 8, 894 | 6, 383 | 6, 257 | 153, 577 |
| 1920..... | 8, 321 | 7, 809 | 9, 422 | 8, 551 | 12, 687 | 22, 214 | 22, 843 | 16, 699 | 12, 776 | 9, 438 | 7, 592 | 7, 557 | 146, 109 |
| 1921..... | 8, 312 | 8, 190 | 10, 082 | 11, 997 | 18, 009 | 23, 619 | 17, 815 | 17, 670 | 12, 267 | 12, 122 | 9, 246 | 10, 756 | 160, 035 |
| 1922..... | 11, 265 | 9, 959 | 11, 726 | 11, 885 | 19, 483 | 26, 156 | 22, 457 | 17, 841 | 12, 949 | 11, 072 | 9, 632 | 11, 736 | 176, 161 |
| 1923..... | 13, 704 | 11, 840 | 13, 076 | 13, 184 | 19, 327 | 27, 191 | 21, 593 | 15, 456 | 13, 855 | 12, 719 | 11, 042 | 13, 170 | 198, 737 |
| 1924..... | 14, 012 | 15, 641 | 16, 032 | 15, 779 | 22, 300 | 27, 699 | 27, 255 | 21, 193 | 15, 998 | 14, 258 | 10, 672 | 11, 650 | 213, 349 |
| 1925..... | 12, 739 | 11, 767 | 14, 183 | 15, 101 | 22, 802 | 29, 398 | 27, 630 | 22, 342 | 14, 748 | 15, 439 | 12, 011 | 11, 988 | 210, 228 |
| A v. 1921-1925..... | 12, 006 | 11, 479 | 13, 202 | 13, 580 | 20, 376 | 26, 813 | 23, 354 | 18, 882 | 13, 967 | 13, 132 | 10, 641 | 11, 800 | 189, 302 |

PHILADELPHIA

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1918..... | | 681 | 2, 166 | 2, 054 | 2, 968 | 4, 084 | 3, 903 | 3, 364 | 2, 827 | 2, 848 | 2, 226 | 2, 396 | |
| 1919..... | 3, 161 | 2, 687 | 3, 009 | 3, 391 | 4, 186 | 6, 506 | 4, 155 | 3, 601 | 3, 424 | 3, 180 | 3, 460 | 2, 473 | 42, 324 |
| 1920..... | 2, 698 | 2, 910 | 2, 809 | 2, 450 | 3, 044 | 5, 402 | 4, 836 | 3, 946 | 3, 884 | 3, 118 | 2, 488 | 2, 617 | 40, 202 |
| 1921..... | 2, 680 | 2, 329 | 3, 191 | 3, 376 | 5, 078 | 6, 450 | 5, 362 | 4, 723 | 4, 222 | 3, 951 | 3, 456 | 3, 756 | 48, 590 |
| 1922..... | 4, 536 | 3, 836 | 4, 032 | 3, 678 | 5, 377 | 7, 267 | 5, 681 | 4, 913 | 3, 779 | 3, 578 | 3, 368 | 3, 474 | 53, 519 |
| 1923..... | 4, 223 | 3, 614 | 5, 023 | 4, 387 | 5, 348 | 7, 853 | 5, 306 | 4, 998 | 4, 350 | 4, 427 | 3, 527 | 3, 678 | 56, 705 |
| 1924..... | 4, 332 | 4, 359 | 4, 345 | 4, 807 | 5, 719 | 8, 751 | 8, 165 | 5, 891 | 4, 747 | 4, 520 | 3, 802 | 3, 946 | 63, 381 |
| 1925..... | 3, 904 | 3, 781 | 4, 640 | 4, 518 | 5, 069 | 7, 744 | 6, 582 | 5, 627 | 4, 806 | 4, 473 | 3, 319 | 4, 547 | 50, 516 |
| A v. 1921-1925..... | 3, 936 | 3, 684 | 4, 247 | 4, 163 | 5, 318 | 7, 018 | 6, 219 | 5, 280 | 4, 281 | 4, 190 | 3, 695 | 3, 874 | 56, 341 |

TABLE 496.—*Creamery butter: Net receipts at five markets, 1918-1925—Continued*

[Thousand pounds—1 c., 000 omitted]

BOSTON

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---------------------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|-------|--------|
| 1918..... | ..... | 1,540 | 3,283 | 2,802 | 4,938 | 9,634 | 9,000 | 5,214 | 3,723 | 4,588 | 3,084 | 2,875 | ..... |
| 1919..... | 3,318 | 3,159 | 2,595 | 3,619 | 7,898 | 11,602 | 11,324 | 6,291 | 4,332 | 2,821 | 1,827 | 1,085 | 60,531 |
| 1920..... | 2,658 | 2,626 | 4,437 | 3,066 | 1,698 | 13,498 | 11,909 | 7,233 | 5,500 | 3,614 | 1,960 | 2,045 | 60,340 |
| 1921..... | 3,077 | 3,102 | 3,428 | 3,206 | 6,650 | 10,363 | 11,146 | 4,387 | 5,782 | 5,205 | 2,713 | 2,557 | 61,618 |
| 1922..... | 3,957 | 3,550 | 3,963 | 3,622 | 9,017 | 14,020 | 9,558 | 7,158 | 4,967 | 3,785 | 3,706 | 3,369 | 70,672 |
| 1923..... | 3,802 | 4,020 | 4,810 | 5,439 | 7,037 | 12,007 | 10,977 | 7,001 | 6,001 | 4,582 | 4,199 | 3,348 | 73,223 |
| 1924..... | 4,362 | 5,026 | 5,368 | 5,482 | 7,754 | 13,400 | 12,538 | 7,422 | 6,437 | 4,551 | 2,331 | 2,351 | 77,022 |
| 1925..... | 4,021 | 4,429 | 4,628 | 4,496 | 7,514 | 10,482 | 11,300 | 8,843 | 5,783 | 4,626 | 3,567 | 3,298 | 72,989 |
| A v. 1921-1925..... | 3,844 | 4,025 | 4,439 | 4,450 | 7,504 | 12,054 | 11,104 | 6,962 | 5,794 | 4,550 | 3,303 | 2,985 | 71,105 |

SAN FRANCISCO

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1919..... | 1,077 | 1,257 | 1,712 | 2,373 | 2,512 | 2,085 | 1,853 | 1,489 | 927 | 1,138 | 1,241 | 1,132 | 18,799 |
| 1920..... | 1,265 | 1,415 | 1,848 | 2,669 | 2,352 | 1,898 | 1,482 | 1,520 | 1,412 | 1,530 | 1,330 | 1,337 | 20,028 |
| 1921..... | 1,404 | 1,225 | 1,685 | 1,993 | 1,917 | 1,900 | 2,005 | 2,304 | 1,755 | 2,157 | 2,015 | 1,460 | 21,880 |
| 1922..... | 1,481 | 1,345 | 1,829 | 2,226 | 2,321 | 2,331 | 1,851 | 1,919 | 1,729 | 1,894 | 1,583 | 1,520 | 22,029 |
| 1923..... | 1,746 | 1,296 | 1,666 | 2,045 | 2,063 | 2,450 | 2,224 | 1,890 | 1,596 | 1,620 | 1,407 | 1,651 | 21,684 |
| 1924..... | 1,355 | 1,432 | 1,637 | 2,220 | 2,973 | 2,293 | 2,169 | 1,941 | 1,659 | 1,535 | 1,448 | 1,787 | 22,449 |
| 1925..... | 1,910 | 1,357 | 1,712 | 2,370 | 2,432 | 2,416 | 2,404 | 2,492 | 1,729 | 1,916 | 1,802 | 1,849 | 24,439 |
| A v. 1921-1925..... | 1,579 | 1,331 | 1,706 | 2,171 | 2,357 | 2,290 | 2,131 | 2,109 | 1,694 | 1,824 | 1,651 | 1,653 | 22,496 |

TOTAL

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1919..... | 31,334 | 28,841 | 30,297 | 34,197 | 52,682 | 70,337 | 57,004 | 43,055 | 35,803 | 29,438 | 25,546 | 21,502 | 460,036 |
| 1920..... | 24,692 | 24,019 | 29,240 | 23,221 | 30,125 | 60,605 | 58,871 | 44,446 | 35,991 | 27,685 | 22,003 | 21,857 | 402,755 |
| 1921..... | 25,482 | 23,962 | 29,107 | 32,367 | 49,291 | 64,905 | 54,213 | 48,576 | 41,500 | 37,548 | 30,299 | 30,840 | 468,150 |
| 1922..... | 34,624 | 32,310 | 37,468 | 34,835 | 56,636 | 78,362 | 64,938 | 50,914 | 38,477 | 34,287 | 31,529 | 32,334 | 526,714 |
| 1923..... | 40,304 | 33,611 | 41,281 | 40,464 | 54,249 | 75,970 | 63,694 | 47,497 | 41,625 | 38,272 | 33,525 | 34,888 | 545,380 |
| 1924..... | 37,450 | 40,221 | 44,082 | 43,578 | 56,937 | 77,487 | 77,706 | 57,282 | 47,467 | 41,950 | 30,162 | 33,156 | 587,478 |
| 1925..... | 37,781 | 35,181 | 40,725 | 42,141 | 56,838 | 74,171 | 69,970 | 57,556 | 45,005 | 43,468 | 35,454 | 36,199 | 574,489 |
| A v. 1921-1925..... | 35,128 | 33,057 | 38,533 | 38,677 | 54,790 | 74,179 | 66,104 | 52,365 | 42,827 | 39,105 | 32,194 | 33,483 | 540,442 |

Division of Statistical and Historical Research. Compiled from records of the Division of Dairy and Poultry Products.

TABLE 497.—Butter: Gross receipts at six markets by State of origin, 1921-1925
(Thousand pounds—i. e., 100 omitted)

NEW YORK

| State | 1925 | | | | | | | | | | | | 1924 | 1923 | 1922 | 1921 | |
|---------------------|---------|--------------|---------------|--------|--------|--------|--------|--------|--------|----------------|--------------|---------------|--------|---------|---------|---------|---------------|
| | Total | Jan- uary | Febru- ary | March | April | May | June | July | August | Sep- tember | Octo- ber | Novem- ber | | | | | Decem- ber |
| Minnesota..... | 57,206 | 5,167 | 4,140 | 4,432 | 4,578 | 4,541 | 5,814 | 6,625 | 5,086 | 3,960 | 4,041 | 4,046 | 4,757 | 74,166 | 84,944 | 80,590 | 65,153 |
| Iowa..... | 56,823 | 3,871 | 3,844 | 3,970 | 4,263 | 5,614 | 7,401 | 6,530 | 4,831 | 4,660 | 4,267 | 3,511 | 3,971 | 57,781 | 48,440 | 43,599 | 33,793 |
| Illinois..... | 39,440 | 2,781 | 2,904 | 2,574 | 2,735 | 4,078 | 4,361 | 3,927 | 3,485 | 3,704 | 3,704 | 2,422 | 2,163 | 35,050 | 33,530 | 33,538 | 33,001 |
| Michigan..... | 25,081 | 1,865 | 1,902 | 1,806 | 1,862 | 2,275 | 2,818 | 2,245 | 2,075 | 2,068 | 2,399 | 1,766 | 2,047 | 24,074 | 20,346 | 24,074 | 18,312 |
| Wisconsin..... | 7,127 | 363 | 316 | 278 | 183 | 537 | 1,022 | 794 | 1,127 | 768 | 688 | 564 | 481 | 9,834 | 10,631 | 10,631 | 12,424 |
| Other States..... | 16,903 | 1,186 | 1,227 | 1,298 | 1,376 | 1,467 | 1,565 | 1,712 | 1,418 | 1,591 | 1,758 | 1,318 | 1,077 | 13,720 | 11,771 | 12,902 | 11,009 |
| New York..... | 1,174 | 191 | 174 | 191 | 235 | 1,204 | 1,198 | 1,065 | 1,597 | 883 | 621 | 524 | 588 | 8,185 | 6,180 | 9,598 | 10,833 |
| Pennsylvania..... | 1,458 | 1,458 | 1,362 | 1,315 | 1,659 | 2,756 | 2,153 | 1,711 | 1,331 | 1,368 | 1,251 | 1,342 | 1,342 | 1,174 | 1,132 | 1,183 | 1,454 |
| California..... | 1,038 | 91 | 225 | 712 | 635 | 491 | 756 | 451 | 431 | 458 | 367 | 593 | 529 | 1,284 | 1,284 | 1,284 | 1,048 |
| Illinois..... | 3,386 | 487 | 266 | 578 | 284 | 640 | 463 | 266 | 487 | 540 | 355 | 703 | 368 | 3,960 | 4,177 | 4,177 | 3,960 |
| Massachusetts..... | 825 | 52 | 16 | 125 | 11 | 20 | 42 | 18 | 52 | 88 | 56 | 11 | 25 | 888 | 1,279 | 2,240 | 1,932 |
| Tennessee..... | 1,084 | 66 | 46 | 53 | 27 | 80 | 142 | 82 | 152 | 146 | 54 | 80 | 83 | 1,132 | 1,132 | 1,132 | 1,048 |
| California..... | 1,084 | 2 | 10 | 18 | 21 | 15 | 156 | 12 | 50 | 12 | 106 | 132 | 114 | 1,084 | 1,084 | 1,084 | 1,084 |
| Kansas..... | 847 | 43 | 12 | 74 | 8 | 129 | 156 | 12 | 50 | 12 | 106 | 132 | 114 | 847 | 847 | 847 | 847 |
| Massachusetts..... | 345 | 46 | 57 | 128 | 36 | 39 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 345 | 345 | 345 | 345 |
| Virginia..... | 432 | 40 | 28 | 7 | 8 | 23 | 84 | 46 | 62 | 77 | 21 | 19 | 17 | 684 | 417 | 632 | 597 |
| South Dakota..... | 270 | 10 | 8 | 2 | 2 | 23 | 8 | 38 | 10 | 11 | 32 | 47 | 60 | 290 | 270 | 353 | 388 |
| Kentucky..... | 463 | 46 | 36 | 12 | 36 | 67 | 62 | 33 | 9 | 55 | 53 | 20 | 32 | 701 | 517 | 517 | 315 |
| North Dakota..... | 193 | 19 | 41 | 7 | 10 | 56 | 22 | 16 | 7 | 7 | 7 | 4 | 4 | 193 | 193 | 246 | 273 |
| Vermont..... | 58 | 7 | 1 | 1 | 6 | 11 | 4 | 1 | 23 | 3 | 3 | 4 | 4 | 58 | 58 | 58 | 208 |
| Maryland..... | 276 | 9 | 6 | 27 | 7 | 35 | 2 | 28 | 11 | 51 | 36 | 58 | 6 | 380 | 151 | 380 | 163 |
| North Carolina..... | 193 | 15 | 14 | 5 | 8 | 15 | 39 | 20 | 31 | 11 | 15 | 10 | 10 | 193 | 193 | 193 | 131 |
| Georgia..... | 178 | 18 | 12 | 17 | 5 | 8 | 7 | 4 | 7 | 7 | 19 | 16 | 10 | 178 | 178 | 178 | 94 |
| Alabama..... | 138 | 9 | 5 | 1 | 1 | 3 | 2 | 2 | 3 | 3 | 16 | 37 | 36 | 124 | 234 | 95 | 93 |
| Washington..... | 27 | 27 | 1 | 1 | 1 | 1 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 70 | 194 | 20 | 79 |
| New Jersey..... | 46 | 3 | 3 | 1 | 1 | 1 | 2 | 2 | 8 | 1 | 1 | 1 | 1 | 129 | 129 | 80 | 46 |
| Mississippi..... | 203 | 6 | 2 | 2 | 28 | 43 | 2 | 2 | 29 | 78 | 2 | 4 | 6 | 142 | 142 | 54 | 26 |
| Oklahoma..... | 327 | 227 | 227 | 227 | 42 | 42 | 104 | 25 | 42 | 67 | 43 | 4 | 20 | 261 | 261 | 261 | 261 |
| Montana..... | 445 | 37 | 12 | 12 | 25 | 25 | 25 | 42 | 14 | 13 | 6 | 6 | 4 | 445 | 445 | 445 | 445 |
| Other States..... | 181 | 27 | 7 | 19 | 3 | 16 | 26 | 23 | 14 | 13 | 6 | 6 | 4 | 852 | 686 | 496 | 968 |
| Canada..... | 1,450 | 22 | 109 | 772 | 417 | 64 | 115 | 23 | 53 | 46 | 59 | 51 | 29 | 1,628 | 3,431 | 1,628 | 1,619 |
| Total..... | 244,127 | 17,905 | 16,303 | 18,332 | 18,432 | 22,336 | 28,412 | 25,943 | 21,491 | 21,711 | 19,974 | 16,196 | 17,092 | 244,127 | 243,764 | 241,604 | 213,978 |

* Not over 500 pounds.

1 Included in other States.

TABLE 497.—Butter: Gross receipts at six markets by State of origin, 1921-1925—Continued
(Thousand pounds—i. e., 000 omitted)

BOSTON

| State | 1925 | | | | | | | | | | | | Total | 1924 | 1923 | 1922 | 1921 |
|--------------------|--------------|---------------|-------|-------|-------|--------|--------|--------|----------------|--------------|---------------|---------------|-------|--------|--------|--------|--------|
| | Janu- ary | Febru- ary | March | April | May | June | July | August | Septem- ber | Octo- ber | Novem- ber | Decem- ber | | | | | |
| Illinois..... | 13,535 | 812 | 1,123 | 819 | 1,471 | 1,876 | 1,640 | 1,580 | 840 | 902 | 1,086 | 619 | | 25,384 | 33,517 | 33,273 | 32,819 |
| Minnesota..... | 26,975 | 1,699 | 1,947 | 2,315 | 2,761 | 3,271 | 3,438 | 3,578 | 2,197 | 1,584 | 923 | 1,176 | | 10,349 | 11,213 | 11,213 | 10,349 |
| Vermont..... | 4,071 | 297 | 297 | 451 | 477 | 556 | 556 | 264 | 203 | 238 | 191 | 223 | | 7,338 | 6,339 | 6,339 | 7,338 |
| New York..... | 5,799 | 298 | 420 | 346 | 257 | 675 | 1,570 | 798 | 492 | 142 | 327 | 187 | | 4,639 | 5,576 | 5,576 | 4,639 |
| Iowa..... | 4,390 | 293 | 229 | 282 | 648 | 645 | 667 | 422 | 406 | 321 | 109 | 103 | | 3,100 | 3,023 | 3,023 | 3,100 |
| Ohio..... | 2,661 | 136 | 94 | 44 | 222 | 758 | 390 | 334 | 223 | 252 | 81 | 87 | | 2,935 | 3,064 | 3,064 | 2,935 |
| Indiana..... | 1,434 | 66 | 27 | 10 | 75 | 211 | 250 | 335 | 94 | 90 | 188 | 83 | | 2,321 | 2,554 | 2,554 | 2,321 |
| Nebraska..... | 8,066 | 423 | 269 | 312 | 1,019 | 1,400 | 1,460 | 957 | 769 | 618 | 399 | 297 | | 2,593 | 2,712 | 2,712 | 2,593 |
| Michigan..... | 2,394 | 119 | 81 | 47 | 82 | 483 | 474 | 125 | 133 | 103 | 36 | 59 | | 2,280 | 2,333 | 2,333 | 2,280 |
| South Dakota..... | 3,070 | 207 | 229 | 220 | 501 | 460 | 568 | 295 | 106 | 106 | 92 | 42 | | 946 | 1,361 | 1,361 | 946 |
| Missouri..... | 3,170 | 64 | 133 | 41 | 226 | 396 | 469 | 360 | 338 | 338 | 238 | 381 | | 913 | 884 | 884 | 913 |
| Wisconsin..... | 2,453 | 40 | 33 | 75 | 178 | 345 | 536 | 601 | 336 | 128 | 86 | 46 | | 748 | 2,215 | 2,215 | 748 |
| Massachusetts..... | 273 | 27 | 36 | 5 | 25 | 38 | 4 | 48 | 23 | 218 | 92 | 180 | | 571 | 570 | 570 | 571 |
| New Hampshire..... | 19 | 3 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | | 332 | 467 | 467 | 332 |
| Pennsylvania..... | 143 | 49 | 67 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 23 | 1 | | 246 | 303 | 303 | 246 |
| Kentucky..... | 46 | 5 | 23 | 24 | 212 | 194 | 137 | 109 | 22 | 23 | 23 | 78 | | 221 | 132 | 132 | 221 |
| Kansas..... | 1,048 | 39 | 42 | 3 | 4 | 5 | 12 | 3 | 5 | 97 | 71 | 78 | | 146 | 404 | 404 | 146 |
| Maine..... | 192 | 42 | 63 | 3 | 22 | 21 | 6 | 6 | 6 | 1 | 1 | 1 | | 139 | 197 | 197 | 139 |
| Oklahoma..... | 151 | 16 | 2 | 3 | 22 | 21 | 6 | 6 | 6 | 28 | 47 | 1 | | 94 | 319 | 319 | 94 |
| North Dakota..... | 1,230 | 98 | 129 | 83 | 220 | 289 | 543 | 246 | 143 | 90 | 96 | 132 | | 4 | 302 | 1,545 | 4 |
| Montana..... | 39 | 13 | 42 | 22 | 24 | 7 | 20 | 2 | | | | | | 700 | 28 | 28 | 700 |
| Other States..... | 201 | 20 | | | 67 | | | | | | | 23 | | 361 | 221 | 361 | 361 |
| Canada..... | 82,476 | 4,541 | 5,226 | 5,083 | 8,484 | 11,335 | 12,736 | 10,084 | 6,510 | 5,224 | 4,028 | 3,724 | | 74,305 | 80,473 | 80,473 | 74,305 |
| Total..... | 82,476 | 4,541 | 5,226 | 5,083 | 8,484 | 11,335 | 12,736 | 10,084 | 6,510 | 5,224 | 4,028 | 3,724 | | 86,921 | 82,650 | 82,650 | 86,921 |

CHICAGO

| | | | | | | | | | | | | | | | | | |
|-------------------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Wisconsin..... | 64,997 | 74,773 | 70,588 | 79,028 | 75,941 | 4,055 | 4,171 | 4,572 | 5,059 | 7,775 | 10,776 | 10,731 | 7,812 | 5,446 | 6,043 | 4,064 | 4,289 |
| Minnesota..... | 31,612 | 37,483 | 39,011 | 46,767 | 54,659 | 3,221 | 2,959 | 4,062 | 4,049 | 5,920 | 7,461 | 7,294 | 5,390 | 3,628 | 4,000 | 3,274 | 3,481 |
| Iowa..... | 30,851 | 40,735 | 42,108 | 46,964 | 49,165 | 3,421 | 2,637 | 3,367 | 3,576 | 4,909 | 6,226 | 5,640 | 4,977 | 3,257 | 3,223 | 2,412 | 2,305 |
| Nebraska..... | 14,556 | 16,958 | 17,433 | 20,054 | 19,361 | 3,500 | 1,010 | 3,804 | 1,179 | 2,141 | 2,354 | 2,525 | 2,210 | 1,746 | 1,397 | 1,632 | 1,585 |
| South Dakota..... | 8,720 | 9,639 | 14,249 | 15,971 | 18,151 | 1,000 | 1,394 | 1,379 | 1,303 | 1,952 | 2,644 | 2,664 | 2,055 | 1,156 | 1,945 | 964 | |
| Kansas..... | 7,792 | 5,925 | 10,300 | 11,098 | 7,964 | 518 | 459 | 423 | 533 | 1,078 | 1,415 | 677 | 802 | 329 | 424 | 435 | 773 |
| Illinois..... | 4,627 | 7,465 | 7,392 | 8,370 | 8,810 | 316 | 248 | 123 | 294 | 1,845 | 1,100 | 965 | 789 | 331 | 361 | 319 | 307 |
| Missouri..... | 5,813 | 6,659 | 11,188 | 11,673 | 9,673 | 525 | 592 | 708 | 524 | 1,083 | 1,338 | 978 | 1,302 | 724 | 754 | 574 | 612 |
| North Dakota..... | 2,961 | 3,949 | 3,416 | 6,301 | 6,211 | 600 | 671 | 660 | 728 | 800 | 840 | 1,010 | 890 | 637 | 675 | 547 | 426 |
| Oklahoma..... | 1,574 | 1,743 | 1,694 | 2,144 | 2,713 | 85 | 35 | | 22 | 558 | 524 | 219 | 382 | 293 | 255 | 156 | 206 |
| Colorado..... | 1,764 | 1,317 | 1,239 | 1,829 | 439 | 39 | 35 | 44 | 9 | 17 | 106 | 25 | 16 | 15 | 59 | 1 | 4 |
| Ohio..... | 1,449 | 874 | 426 | 360 | 619 | 1 | 20 | 392 | 8 | 8 | 22 | 23 | 51 | 47 | 26 | 3 | 3 |
| Michigan..... | 1,376 | 1,606 | 1,968 | 1,781 | 1,674 | 86 | 66 | 116 | 77 | 178 | 306 | 328 | 123 | 41 | 64 | 58 | 49 |
| Indiana..... | 974 | 1,027 | 1,102 | 1,068 | 898 | 66 | 89 | 56 | 20 | 114 | 62 | 108 | 41 | 34 | 80 | 38 | 78 |
| Kentucky..... | 643 | 281 | 871 | 560 | 538 | 11 | 4 | 9 | 25 | 64 | 65 | 26 | 133 | 68 | 68 | 29 | 37 |
| Texas..... | 263 | 216 | 102 | 102 | 78 | | | 20 | 23 | | 4 | | 1 | 30 | | | |
| Montana..... | 453 | 269 | 643 | 1,077 | 343 | 1 | 6 | 64 | 36 | 20 | 160 | 18 | | | | | |
| Tennessee..... | 104 | 24 | 112 | 36 | 137 | 1 | 1 | 17 | 20 | 37 | 9 | 14 | 2 | | 1 | 2 | 13 |
| Mississippi..... | 79 | 268 | 144 | 168 | 66 | 2 | 4 | | 23 | 9 | 29 | | 2 | 1 | | 1 | 1 |
| California..... | 44 | 102 | 319 | 177 | | | | | | | | | | | | | |
| Pennsylvania..... | 20 | 19 | 36 | 103 | 55 | 9 | | 2 | 3 | | | 20 | | | | | 21 |
| Idaho..... | 4 | 24 | 263 | 202 | | | | | | | | | | | | | |
| New York..... | 3 | 49 | 24 | 148 | 66 | 25 | | 40 | 4 | | | | | | | | |
| Utah..... | (1) | 120 | 40 | 102 | | (1) | | | | | | | | | | | |
| Other States..... | 227 | 68 | 106 | 329 | 154 | 29 | 4 | 26 | 24 | 24 | 31 | 13 | 10 | 7 | 1 | 3 | 6 |
| Canada..... | | 47 | 215 | | 470 | | | 298 | 132 | | | | | 20 | | | |
| New Zealand..... | | 29 | | | | | | | | | | | | | | | |
| Total..... | 183,537 | 213,101 | 228,892 | 258,064 | 254,306 | 15,410 | 14,326 | 17,169 | 18,267 | 27,563 | 35,895 | 33,448 | 27,027 | 17,940 | 18,788 | 14,330 | 14,502 |

PHILADELPHIA

| | | | | | | | | | | | | | | | | | |
|-------------------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Minnesota..... | 17,502 | 24,776 | 27,194 | 34,753 | 32,486 | 1,459 | 1,410 | 1,626 | 1,882 | 2,698 | 4,282 | 4,310 | 3,996 | 2,666 | 2,678 | 2,786 | 2,997 |
| Illinois..... | 14,726 | 9,473 | 11,753 | 10,674 | 11,176 | 895 | 1,065 | 1,276 | 1,083 | 1,747 | 1,153 | 949 | 451 | 663 | 1,066 | 1,123 | 734 |
| Ohio..... | 4,860 | 3,309 | 2,691 | 3,437 | 3,224 | 206 | 173 | 193 | 147 | 175 | 148 | 417 | 400 | 221 | 276 | 231 | 237 |
| Pennsylvania..... | 4,723 | 3,797 | 2,971 | 2,297 | 1,735 | 132 | 125 | 194 | 110 | 108 | 148 | 214 | 129 | 179 | 147 | 83 | 106 |
| Indiana..... | 3,067 | 4,447 | 3,757 | 2,892 | 1,683 | 136 | 91 | 139 | 85 | 64 | 158 | 155 | 160 | 96 | 97 | 142 | 375 |

Not over 500 pounds.

Included in other States.

TABLE 497.—Butter: Gross receipts at six markets, by State of origin, 1921-1925—Continued

(Thousand pounds—i. e., 000 omitted)

PHILADELPHIA—Continued

| State | 1925 | | | | | | | | | | | | | | | | |
|----------------|--------|--------|--------|--------|--------|----------|-----------|-------|-------|-------|-------|-------|--------|------------|----------|-----------|-----------|
| | 1921 | 1922 | 1923 | 1924 | Total | Janu-ary | Febru-ary | March | April | May | June | July | August | Sep-tember | Octo-ber | Novem-ber | Decem-ber |
| Wisconsin | 3,526 | 4,710 | 4,119 | 4,616 | 2,983 | 45 | 48 | 268 | 367 | 289 | 429 | 400 | 303 | 242 | 100 | 128 | 349 |
| Michigan | 2,483 | 1,812 | 1,605 | 3,446 | 6,415 | 786 | 1,053 | 971 | 972 | 595 | 920 | 403 | 150 | 134 | 124 | 68 | 214 |
| New York | 2,024 | 2,275 | 5,673 | 1,926 | 2,211 | 324 | 218 | 291 | 266 | 480 | 165 | 117 | 56 | 65 | 109 | 72 | 88 |
| Iowa | 961 | 1,391 | 1,314 | 2,783 | 2,313 | 87 | 92 | 60 | 48 | 278 | 479 | 199 | 311 | 196 | 263 | 180 | 118 |
| Missouri | 761 | 483 | 942 | 1,677 | 637 | 28 | 3 | 87 | 39 | 17 | 44 | 83 | 96 | 75 | 114 | 22 | 29 |
| Tennessee | 644 | 1,754 | 915 | 1,979 | 722 | 24 | 23 | — | 1 | 67 | 152 | 136 | 175 | 85 | 3 | 27 | 29 |
| Virginia | 494 | 1,145 | 1,247 | 1,638 | 1,196 | 96 | 86 | 80 | 64 | 109 | 156 | 135 | 168 | 100 | 74 | 67 | 61 |
| California | 444 | 357 | 59 | 224 | 24 | — | — | 24 | — | — | — | — | — | — | — | — | — |
| New Jersey | 398 | 57 | 285 | 19 | 245 | — | — | 73 | 58 | — | 109 | — | 5 | — | — | — | — |
| North Dakota | 274 | 253 | 42 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Delaware | 232 | 258 | 71 | 21 | 189 | — | 1 | 1 | 4 | 1 | 62 | — | 33 | 65 | — | — | 22 |
| Nebraska | 160 | 1,677 | 1,757 | 2,409 | 3,610 | 262 | 231 | 380 | 238 | 298 | 393 | 272 | 257 | 258 | 286 | 223 | 412 |
| Maryland | 102 | 453 | 1,057 | 137 | 138 | 94 | 1 | 2 | 3 | 8 | 5 | 2 | 4 | 11 | 6 | 11 | 3 |
| South Dakota | 101 | 110 | 110 | 76 | 76 | — | — | 10 | 11 | 2 | 46 | — | 1 | 1 | 1 | — | 4 |
| Kentucky | 92 | 159 | 119 | 187 | 57 | 3 | 1 | 19 | 1 | 3 | 8 | 3 | 27 | 2 | — | 1 | 1 |
| Kansas | 79 | 86 | 223 | 320 | 628 | 17 | 4 | 23 | 21 | 90 | 90 | 107 | 98 | 46 | 27 | 28 | 77 |
| North Carolina | 55 | 1 | 14 | 7 | 26 | 1 | 1 | — | 1 | 12 | 11 | 1 | 1 | 18 | 13 | 7 | 8 |
| West Virginia | 24 | 93 | 160 | 145 | 146 | 5 | 1 | 9 | 4 | 5 | 18 | 24 | 34 | — | — | — | 1 |
| Montana | 8 | 221 | 30 | 221 | 30 | — | — | 30 | — | — | — | — | — | — | — | — | 8 |
| Mississippi | 3 | 346 | 401 | 311 | 115 | — | — | — | — | 2 | 72 | 1 | 20 | 20 | 5 | 6 | 45 |
| Other States | 223 | 140 | 151 | 367 | 269 | 22 | 2 | 34 | — | 29 | 44 | 18 | 22 | 42 | 5 | — | — |
| Canada | 38 | — | 252 | 391 | 173 | — | — | — | 62 | — | 26 | 20 | — | 42 | 23 | — | — |
| Total | 58,926 | 64,551 | 68,598 | 76,731 | 72,064 | 4,722 | 4,649 | 5,610 | 5,465 | 6,132 | 9,373 | 7,962 | 6,807 | 5,208 | 5,411 | 5,225 | 5,900 |

SAN FRANCISCO

| | | | | | | | | | | | | | | | | | |
|------------|--------|--------|--------|--------|--------|-------|-------|-------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| California | 23,318 | 23,352 | 21,805 | 22,984 | 21,587 | 1,654 | 1,340 | 1,944 | 2,729 | 2,471 | 2,175 | 1,772 | 1,604 | 1,412 | 1,570 | 1,396 | 1,520 |
| Oregon | 647 | 585 | 1,177 | 948 | 1,166 | 44 | 44 | 15 | 28 | 211 | 237 | 221 | 100 | 25 | 96 | 71 | 118 |
| Washington | 573 | 332 | 682 | 606 | 469 | 116 | 33 | 16 | 4 | 15 | 99 | 122 | 3 | 42 | 2 | 17 | 13 |
| Nevada | 338 | 328 | 283 | 238 | 252 | 33 | 13 | 16 | 22 | 31 | 34 | 12 | 9 | 17 | 38 | 10 | 9 |
| Idaho | 246 | 402 | 502 | 490 | 1,043 | 155 | 25 | 1 | (^c) | 83 | 66 | 54 | 136 | 61 | 96 | 107 | 267 |

| | | | | | | | | | | | | | | | | |
|-------------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Montana..... | 155 | 361 | 700 | 1,895 | 188 | 115 | 22 | 4 | 26 | 147 | 461 | 269 | 149 | 184 | 247 | 83 |
| North Dakota..... | 40 | 145 | 76 | 20 | 30 | 3 | 1 | 14 | | | | | 20 | 7 | | 42 |
| Utah..... | 38 | 136 | 179 | 98 | 50 | | | | | | | 179 | 25 | | | |
| Illinois..... | 34 | 118 | 1 | 204 | | | | | | | | 132 | | 125 | 71 | 91 |
| Colorado..... | 27 | 120 | 30 | 545 | | | | | | 23 | 83 | | | | | |
| Nebraska..... | 25 | 46 | 25 | 47 | 22 | | | | | | 51 | 125 | 25 | 24 | 77 | 25 |
| Minnesota..... | 74 | 172 | 172 | 268 | | | | | | | 53 | 127 | 104 | | 37 | |
| Iowa..... | 51 | 24 | | 237 | | | | | | | 33 | 135 | | | | 25 |
| Wyoming..... | 8 | | 24 | | | | | | | | | | | | | |
| Missouri..... | 4 | 26 | | | | | | | | | | | | | | |
| New York..... | | 15 | | | | | | | | | | | | | | |
| Wisconsin..... | | | 1 | 195 | | | | | | | | | 124 | 43 | 28 | |
| Arizona..... | | | 1 | | | | | | | | | | | | | |
| Other States..... | 201 | | | 69 | | | | | 69 | | | | 39 | 77 | 56 | |
| Canada..... | | 316 | | 326 | | | | | | 61 | | 93 | | | | |
| Total..... | 23,730 | 23,916 | 23,511 | 28,752 | 2,247 | 1,597 | 2,014 | 2,768 | 2,920 | 2,842 | 2,829 | 2,932 | 2,034 | 2,254 | 2,120 | 2,175 |

LOS ANGELES

| State | 1925 | | | | | | | | | | | | Total |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | |
| California..... | 1,922 | 1,854 | 2,137 | 2,886 | 2,265 | 2,068 | 2,009 | 1,061 | 1,471 | 1,710 | 1,595 | 1,524 | 23,422 |
| Oregon..... | 68 | 28 | 41 | 4 | 45 | 424 | 306 | 117 | 82 | 81 | | | 1,196 |
| Washington..... | 25 | 148 | 1 | | 155 | 351 | 265 | 42 | 2 | 106 | 22 | 40 | 1,157 |
| Nevada..... | 24 | 40 | 56 | 33 | 41 | 81 | 74 | 53 | 53 | | 25 | 70 | 70 |
| Idaho..... | 600 | 489 | 392 | 572 | 937 | 1,188 | 987 | 733 | 614 | 649 | 608 | 738 | 8,555 |
| Utah..... | 125 | 160 | 125 | 54 | 19 | 97 | 77 | 70 | 92 | 218 | 101 | 81 | 1,219 |
| Montana..... | 24 | 80 | 17 | 24 | 302 | 357 | 72 | 72 | 24 | 51 | 21 | 19 | 1,541 |
| Colorado..... | 121 | 40 | 23 | 24 | 148 | 112 | 59 | 107 | 80 | 56 | 52 | 53 | 875 |
| Wisconsin..... | 1 | 24 | | | | | 1 | 24 | 28 | 95 | 65 | 56 | 294 |
| Illinois..... | | 1 | | | | | 66 | 73 | 2 | | | | 144 |
| New York..... | | | | | | 6 | 111 | 119 | | | | | 226 |
| Minnesota..... | | | | | | 71 | 116 | 83 | 65 | 38 | 37 | | 410 |
| Nebraska..... | | | | | | | | | 27 | 70 | | 13 | 115 |
| Other States..... | | | 1 | | 3 | 5 | 59 | 121 | 18 | | 2 | 1 | 210 |
| Total..... | 2,910 | 2,864 | 4,793 | 3,597 | 3,915 | 4,943 | 4,319 | 3,575 | 2,593 | 3,074 | 2,526 | 2,620 | 39,924 |

Division of Statistical and Historical Research. Compiled from reports of the Division of Dairy and Poultry Products.
 *Not over 500 pounds.

TABLE 498.—*Creamery butter: Cold storage holdings, United States, 1915-1925*

[Thousand pounds—1. c., 000 omitted]

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|---------------|---------|---------|---------|---------|--------|---------|---------|----------|----------|----------|----------|----------|
| 1915..... | | | | | | | | 68, 578 | 101, 662 | 99, 450 | 92, 719 | 71, 849 |
| 1916..... | 48, 977 | 81, 139 | 15, 033 | 3, 340 | 1, 082 | 7, 017 | 53, 863 | 102, 537 | 105, 836 | 106, 122 | 85, 200 | 67, 292 |
| 1917..... | 46, 134 | 30, 474 | 16, 952 | 8, 805 | 3, 607 | 9, 953 | 49, 992 | 88, 992 | 108, 179 | 109, 154 | 100, 115 | 79, 928 |
| 1918..... | 50, 726 | 26, 618 | 18, 806 | 14, 629 | 9, 636 | 12, 698 | 49, 140 | 88, 305 | 90, 334 | 87, 893 | 80, 874 | 65, 111 |
| 1919..... | 43, 910 | 36, 777 | 24, 191 | 11, 909 | 9, 659 | 29, 435 | 90, 158 | 123, 546 | 131, 388 | 121, 816 | 100, 474 | 73, 654 |
| 1920..... | 53, 737 | 38, 359 | 22, 568 | 12, 555 | 7, 554 | 12, 872 | 52, 526 | 101, 465 | 115, 558 | 113, 385 | 101, 778 | 79, 750 |
| 1921..... | 58, 682 | 41, 486 | 27, 103 | 14, 732 | 7, 712 | 21, 682 | 61, 991 | 82, 838 | 92, 292 | 90, 116 | 77, 963 | 65, 129 |
| 1922..... | 48, 412 | 35, 047 | 22, 582 | 9, 113 | 3, 890 | 13, 202 | 67, 410 | 103, 151 | 112, 039 | 90, 680 | 73, 857 | 47, 773 |
| 1923..... | 26, 819 | 16, 122 | 8, 910 | 4, 824 | 3, 248 | 10, 112 | 62, 768 | 101, 774 | 102, 731 | 90, 117 | 76, 472 | 51, 508 |
| 1924..... | 30, 299 | 15, 246 | 9, 847 | 7, 842 | 8, 913 | 22, 348 | 74, 184 | 134, 118 | 156, 440 | 153, 494 | 135, 018 | 100, 832 |
| 1925..... | 65, 094 | 45, 748 | 28, 789 | 10, 875 | 3, 739 | 13, 036 | 63, 687 | 109, 075 | 128, 403 | 114, 172 | 94, 916 | 74, 754 |
| Av. 1921-1925 | 45, 981 | 30, 730 | 19, 446 | 9, 477 | 5, 488 | 16, 076 | 66, 008 | 106, 191 | 118, 381 | 110, 116 | 91, 649 | 67, 990 |

Cold Storage Report Section.

TABLE 499.—*Butter: Estimated price per pound, received by producers, in the United States, 1910-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Weighted average |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1910..... | 28.3 | 27.1 | 26.0 | 25.6 | 24.8 | 23.7 | 23.6 | 24.5 | 25.7 | 26.6 | 27.4 | 27.8 | 25.5 |
| 1911..... | 26.0 | 23.4 | 22.6 | 22.0 | 20.8 | 20.4 | 21.0 | 22.4 | 23.4 | 24.5 | 26.3 | 27.8 | 22.9 |
| 1912..... | 28.6 | 28.1 | 26.6 | 26.0 | 25.4 | 24.1 | 23.6 | 24.0 | 24.9 | 26.2 | 27.8 | 28.6 | 25.7 |
| 1913..... | 28.0 | 27.6 | 27.6 | 27.3 | 26.2 | 25.1 | 24.8 | 25.4 | 26.7 | 27.8 | 28.7 | 29.2 | 26.7 |
| Av. 1910-1913..... | 27.7 | 26.6 | 25.7 | 25.2 | 24.3 | 23.3 | 23.2 | 24.1 | 25.2 | 26.3 | 27.6 | 28.4 | 25.2 |
| 1914..... | 28.3 | 26.7 | 25.4 | 24.4 | 23.3 | 22.8 | 23.3 | 24.5 | 25.6 | 26.2 | 27.4 | 28.6 | 25.1 |
| 1915..... | 28.3 | 27.4 | 26.3 | 25.8 | 25.2 | 24.5 | 24.2 | 24.4 | 24.9 | 25.8 | 27.0 | 28.0 | 25.7 |
| 1916..... | 28.0 | 27.4 | 27.4 | 27.8 | 27.2 | 26.1 | 25.9 | 26.8 | 28.2 | 30.0 | 32.8 | 34.2 | 28.0 |
| 1917..... | 33.8 | 38.8 | 33.8 | 34.8 | 35.6 | 34.2 | 33.8 | 35.0 | 37.5 | 39.9 | 41.4 | 42.5 | 35.9 |
| 1918..... | 43.4 | 43.6 | 42.0 | 40.3 | 39.2 | 38.4 | 39.0 | 40.6 | 44.8 | 48.4 | 51.2 | 53.8 | 42.7 |
| 1919..... | 52.2 | 46.7 | 45.7 | 49.0 | 49.7 | 48.2 | 47.7 | 49.0 | 50.6 | 53.8 | 58.0 | 60.6 | 50.3 |
| 1920..... | 59.6 | 56.8 | 56.0 | 56.8 | 55.6 | 52.6 | 61.8 | 52.2 | 53.2 | 54.2 | 54.5 | 51.8 | 54.3 |
| Av. 1914-1920..... | 39.1 | 37.5 | 36.7 | 37.0 | 36.5 | 35.3 | 35.1 | 36.1 | 37.8 | 39.8 | 41.8 | 42.8 | 37.4 |
| 1921..... | 47.0 | 43.6 | 41.2 | 39.5 | 34.0 | 29.2 | 31.6 | 35.4 | 37.4 | 39.6 | 41.0 | 40.7 | 37.0 |
| 1922..... | 37.4 | 34.6 | 34.6 | 34.6 | 34.1 | 33.1 | 33.0 | 33.4 | 34.6 | 37.4 | 40.2 | 42.9 | 35.3 |
| 1923..... | 43.0 | 42.0 | 41.6 | 40.9 | 39.4 | 37.9 | 37.0 | 38.0 | 40.2 | 42.2 | 44.8 | 45.8 | 40.4 |
| 1924..... | 44.9 | 44.4 | 43.2 | 40.3 | 38.3 | 36.3 | 37.0 | 37.7 | 38.2 | 38.8 | 39.3 | 41.8 | 39.4 |
| 1925..... | 41.3 | 38.7 | 39.5 | 39.7 | 39.6 | 38.2 | 39.2 | 40.0 | 41.1 | 44.2 | 46.1 | 46.0 | 40.7 |

Division of Crop and Livestock Estimates.

TABLE 500.—Butter: International trade, average 1909-1913, annual 1922-1924

(Thousand pounds—i. e., 000 omitted)

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|---------|---------|---------|---------|---------|------------------|---------|
| | Average 1909-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 113 | 6,934 | 5 | 53,977 | 6 | 72,337 | 3 | 65,437 |
| Australia..... | 46 | 77,859 | 2,956 | 78,975 | 2,368 | 165,441 | 1 | 145,281 |
| Canada..... | 3,398 | 3,973 | 6,397 | 21,505 | 2,738 | 13,174 | 1,174 | 22,344 |
| Denmark..... | 6,241 | 195,530 | 1,174 | 210,537 | 1,593 | 246,157 | 2,049 | 272,033 |
| Estonia..... | — | — | — | 2,203 | — | 5,174 | — | 7,025 |
| Finland..... | 2,370 | 26,337 | 29 | 18,373 | 103 | 14,476 | 14 | 18,184 |
| Irish Free State..... | — | — | — | — | — | — | 8,780 | 51,187 |
| Italy..... | 972 | 7,870 | 2,964 | 1,983 | 520 | 2,905 | 1,002 | 6,436 |
| Latvia..... | — | — | 1 | 2,074 | 248 | 6,399 | 1 | 7,773 |
| Netherlands..... | 4,987 | 75,133 | 10,810 | 50,981 | 1,687 | 52,709 | 3,613 | 70,570 |
| New Zealand..... | 47 | 38,761 | — | 125,462 | 7 | 140,016 | 1 | 142,179 |
| Persia..... | 2,201 | 3,059 | 623 | 2,796 | 443 | 2,648 | — | — |
| Russia..... | 2,202 | 150,294 | 807 | 7 | — | 10,978 | — | 49,462 |
| Sweden..... | 330 | 45,870 | 5,691 | 3,043 | 3,499 | 5,420 | 1,234 | 11,827 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 1,946 | 9 | 1,419 | 38 | 1,271 | 35 | 1,553 | 36 |
| Austria..... | — | — | 947 | (1) | 3,600 | 1 | 3,864 | 10 |
| Austria-Hungary..... | 6,281 | 4,267 | — | — | — | — | — | — |
| Belgium..... | 14,024 | 3,125 | 41,828 | 294 | 21,337 | 220 | 10,318 | 543 |
| Brazil..... | 4,551 | 4 | 7 | 15 | 8 | 19 | — | — |
| China..... | 1,077 | — | 1,421 | — | 1,702 | — | 1,621 | — |
| Cuba..... | 1,459 | — | 1,701 | — | 2,317 | — | — | — |
| Czechoslovakia..... | — | — | 7,138 | 52 | 7,806 | 24 | 3,637 | 53 |
| Dutch East Indies..... | 4,152 | — | 6,000 | — | 7,322 | — | 5,650 | — |
| Egypt..... | 2,350 | 166 | 1,143 | 84 | 1,672 | 74 | 2,354 | 57 |
| France..... | 18,713 | 40,769 | 58,707 | 6,050 | 20,870 | 17,314 | 6,862 | 8,998 |
| Germany..... | 111,441 | 496 | 2,358 | 619 | 2,903 | 147 | 117,896 | 59 |
| Greece..... | 206 | 8 | 2,787 | (1) | 5,877 | 6 | 10,727 | — |
| Norway..... | 978 | 3,137 | 7,654 | 14 | 5,826 | 26 | 1,273 | 414 |
| Peru..... | 462 | 20 | 1,038 | 16 | 1,337 | 12 | 1,814 | 10 |
| Philippine Islands..... | 1,665 | — | 1,032 | — | 853 | — | 1,298 | — |
| Spain..... | 939 | 259 | 604 | 231 | 378 | 301 | 104 | 179 |
| Switzerland..... | 11,106 | 44 | 15,068 | 8 | 14,664 | 20 | 19,993 | 252 |
| Trinidad and Tobago..... | 847 | — | 1,013 | 4 | 1,092 | 18 | 1,049 | 21 |
| Union of South Africa..... | 3,913 | 26 | 196 | 1,500 | 1,166 | 601 | 1,579 | 411 |
| United Kingdom..... | 455,489 | 1,179 | 427,398 | 1,673 | 554,803 | 2,092 | 570,761 | 2,229 |
| United States..... | 1,647 | 4,125 | 6,957 | 10,938 | 23,741 | 5,846 | 19,405 | 8,267 |
| Other countries..... | 12,273 | 37 | 12,375 | 5,146 | 13,418 | 7,402 | 12,013 | 6,642 |
| Total..... | 674,014 | 689,293 | 630,444 | 596,320 | 706,807 | 670,202 | 812,251 | 904,106 |

Division of Statistical and Historical Research. Official sources, except where otherwise stated.

Butter includes all butter made from milk, melted and renovated butter, but does not include margarine, cocoa butter or ghee.

1 Year beginning July 1.

2 International Institute of Agriculture.

3 Less than 500 pounds.

4 Two-year average.

5 Four-year average.

6 Java and Madura only.

7 Six months.

TABLE 501.—Butter, 92 score creamery: Average wholesale price, at leading markets 1910-1925

NEW YORK

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|------|------|------|------|------|------|------|------|-------|------|------|------|---------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1910..... | 33 | 30 | 33 | 31 | 28 | 28 | 28 | 29 | 30 | 30 | 31 | 30 | 30 |
| 1911..... | 26 | 26 | 24 | 21 | 22 | 23 | 25 | 26 | 27 | 30 | 34 | 37 | 27 |
| 1912..... | 39 | 32 | 31 | 33 | 30 | 27 | 27 | 27 | 30 | 31 | 34 | 37 | 32 |
| 1913..... | 35 | 36 | 37 | 35 | 29 | 28 | 27 | 28 | 32 | 31 | 34 | 36 | 32 |
| 1914..... | 33 | 29 | 28 | 25 | 26 | 27 | 28 | 30 | 31 | 32 | 35 | 34 | 30 |
| 1915..... | 34 | 32 | 30 | 31 | 29 | 28 | 27 | 26 | 27 | 29 | 31 | 35 | 30 |
| 1916..... | 33 | 34 | 37 | 36 | 31 | 30 | 29 | 31 | 34 | 35 | 39 | 40 | 34 |
| 1917..... | 40 | 44 | 42 | 44 | 40 | 39 | 39 | 41 | 44 | 45 | 46 | 50 | 43 |
| 1918..... | 52 | 50 | 44 | 42 | 42 | 44 | 45 | 46 | 56 | 58 | 63 | 69 | 51 |
| 1919..... | 62 | 62 | 62 | 64 | 58 | 52 | 53 | 55 | 59 | 68 | 71 | 72 | 61 |
| 1920..... | 65 | 66 | 67 | 71 | 61 | 57 | 57 | 55 | 59 | 60 | 63 | 55 | 61 |
| Av. 1914-1920..... | 46 | 44 | 44 | 45 | 41 | 40 | 40 | 41 | 44 | 47 | 50 | 51 | 44 |
| 1921..... | 52 | 47 | 48 | 46 | 32 | 33 | 40 | 43 | 43 | 47 | 45 | 44 | 43 |
| 1922..... | 37 | 37 | 38 | 38 | 38 | 37 | 36 | 35 | 41 | 46 | 51 | 54 | 41 |
| 1923..... | 52 | 50 | 49 | 46 | 42 | 39 | 39 | 44 | 46 | 49 | 53 | 55 | 47 |
| 1924..... | 53 | 50 | 47 | 38 | 39 | 41 | 40 | 38 | 38 | 39 | 43 | 45 | 43 |
| 1925..... | 40 | 41 | 48 | 45 | 43 | 42 | 43 | 43 | 48 | 51 | 51 | 49 | 45 |
| Av. 1921-1925..... | 47 | 45 | 46 | 43 | 39 | 38 | 40 | 41 | 43 | 46 | 49 | 49 | 44 |

CHICAGO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|------|------|------|------|------|------|------|------|-------|------|------|------|---------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1918..... | 60 | 49 | 61 | 42 | 42 | 42 | 43 | 45 | 55 | 56 | 62 | 67 | 50 |
| 1919..... | 63 | 63 | 66 | 64 | 57 | 55 | 55 | 54 | 57 | 57 | 60 | 51 | 58 |
| 1920..... | 48 | 47 | 47 | 44 | 29 | 32 | 39 | 40 | 42 | 45 | 44 | 43 | 42 |
| 1921..... | 34 | 37 | 38 | 37 | 34 | 36 | 34 | 34 | 39 | 44 | 50 | 53 | 39 |
| 1922..... | 50 | 50 | 49 | 45 | 40 | 39 | 38 | 43 | 46 | 47 | 52 | 53 | 46 |
| 1923..... | 52 | 49 | 46 | 37 | 37 | 39 | 38 | 37 | 37 | 37 | 42 | 42 | 41 |
| 1924..... | 39 | 40 | 48 | 43 | 41 | 42 | 42 | 42 | 46 | 49 | 50 | 47 | 44 |
| Av. 1921-1925..... | 45 | 46 | 46 | 41 | 36 | 38 | 38 | 39 | 42 | 44 | 48 | 48 | 42 |

PHILADELPHIA

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|------|------|------|------|------|------|------|------|-------|------|------|------|---------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1918..... | 62 | 52 | 62 | 65 | 59 | 53 | 54 | 56 | 59 | 68 | 70 | 73 | 61 |
| 1919..... | 65 | 67 | 68 | 71 | 62 | 58 | 58 | 56 | 60 | 60 | 63 | 55 | 62 |
| 1920..... | 53 | 48 | 49 | 47 | 33 | 33 | 40 | 43 | 43 | 47 | 46 | 45 | 44 |
| 1921..... | 37 | 37 | 38 | 38 | 37 | 37 | 37 | 37 | 42 | 47 | 52 | 55 | 41 |
| 1922..... | 52 | 50 | 50 | 46 | 42 | 40 | 40 | 45 | 47 | 49 | 53 | 55 | 47 |
| 1923..... | 53 | 51 | 47 | 39 | 40 | 42 | 41 | 39 | 39 | 39 | 43 | 45 | 43 |
| 1924..... | 41 | 42 | 48 | 40 | 44 | 43 | 44 | 44 | 49 | 52 | 52 | 50 | 46 |
| Av. 1921-1925..... | 47 | 46 | 46 | 42 | 39 | 39 | 40 | 41 | 44 | 47 | 49 | 50 | 44 |

BOSTON

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|------|------|------|------|------|------|------|------|-------|------|------|------|---------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1918..... | 63 | 51 | 62 | 65 | 59 | 53 | 53 | 56 | 58 | 64 | 69 | 71 | 60 |
| 1919..... | 65 | 66 | 68 | 69 | 61 | 58 | 58 | 57 | 59 | 59 | 60 | 54 | 61 |
| 1920..... | 52 | 48 | 48 | 46 | 32 | 34 | 41 | 43 | 43 | 46 | 45 | 44 | 44 |
| 1921..... | 37 | 37 | 39 | 38 | 37 | 37 | 37 | 36 | 40 | 46 | 50 | 54 | 41 |
| 1922..... | 52 | 50 | 51 | 47 | 43 | 40 | 40 | 44 | 46 | 48 | 51 | 53 | 47 |
| 1923..... | 53 | 52 | 48 | 39 | 39 | 42 | 40 | 39 | 38 | 38 | 42 | 44 | 43 |
| 1924..... | 41 | 41 | 47 | 45 | 43 | 43 | 44 | 44 | 48 | 51 | 50 | 49 | 46 |
| Av. 1921-1925..... | 47 | 46 | 47 | 43 | 39 | 39 | 40 | 41 | 43 | 46 | 48 | 49 | 44 |

SAN FRANCISCO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|------|------|------|------|------|------|------|------|-------|------|------|------|---------|
| | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| 1918..... | 56 | 49 | 56 | 56 | 56 | 54 | 54 | 55 | 60 | 63 | 68 | 62 | 60 |
| 1919..... | 62 | 62 | 59 | 56 | 53 | 54 | 57 | 59 | 64 | 58 | 53 | 48 | 57 |
| 1920..... | 42 | 46 | 38 | 34 | 31 | 34 | 39 | 42 | 44 | 46 | 46 | 41 | 40 |
| 1921..... | 36 | 40 | 33 | 32 | 35 | 38 | 39 | 39 | 46 | 49 | 45 | 47 | 40 |
| 1922..... | 48 | 46 | 42 | 41 | 42 | 44 | 42 | 45 | 48 | 47 | 48 | 48 | 45 |
| 1923..... | 47 | 46 | 44 | 38 | 37 | 40 | 39 | 40 | 39 | 39 | 39 | 43 | 41 |
| 1924..... | 44 | 42 | 43 | 40 | 40 | 44 | 47 | 49 | 52 | 54 | 54 | 49 | 46 |
| Av. 1921-1925..... | 43 | 44 | 40 | 37 | 37 | 40 | 41 | 43 | 46 | 47 | 46 | 46 | 42 |

Division of Statistical and Historical Research. Compiled from Urner-Barry reports, 1910-1917, average of daily range; subsequently from reports of the Division of Dairy and Poultry Products, average of daily prices.

TABLE 502.—Butter, first quality British: Average price per pound in Great Britain, 1909-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Av. |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909..... | 30.4 | 29.9 | 29.4 | 27.9 | 25.9 | 24.8 | 25.9 | 27.9 | 28.4 | 29.4 | 30.4 | 31.4 | 28.7 |
| 1910..... | 30.9 | 31.4 | 30.9 | 29.4 | 27.4 | 25.3 | 25.9 | 26.9 | 27.9 | 28.9 | 29.4 | 30.4 | 28.7 |
| 1911..... | 30.4 | 29.9 | 29.4 | 27.9 | 25.9 | 24.8 | 25.9 | 29.4 | 30.4 | 31.9 | 32.4 | 32.9 | 29.3 |
| 1912..... | 32.4 | 32.9 | 31.4 | 29.4 | 26.4 | 25.4 | 26.9 | 27.9 | 28.9 | 29.9 | 30.9 | 31.9 | 29.5 |
| 1913..... | 31.9 | 31.9 | 31.4 | 28.9 | 26.9 | 25.4 | 26.4 | 27.9 | 28.9 | 29.4 | 30.4 | 31.4 | 29.2 |
| Av. 1909-1913..... | 31.2 | 31.2 | 30.5 | 28.7 | 26.5 | 25.1 | 26.2 | 28.0 | 28.9 | 29.9 | 30.7 | 31.6 | 29.0 |
| 1914..... | 31.4 | 30.9 | 30.4 | 28.9 | 26.4 | 25.4 | 27.0 | 31.2 | 30.6 | 31.0 | 32.2 | 33.0 | 29.9 |
| 1915..... | 33.8 | 34.6 | 33.5 | 32.0 | 29.4 | 29.3 | 30.8 | 32.4 | 33.2 | 35.6 | 36.0 | 37.9 | 33.2 |
| 1916..... | 38.1 | 37.7 | 37.7 | 36.7 | 34.7 | 32.7 | 34.2 | 38.2 | 40.6 | 42.1 | 44.6 | 46.0 | 38.6 |
| 1917..... | 48.0 | 49.0 | 49.0 | 48.6 | 44.6 | 42.1 | 44.1 | 48.5 | 51.5 | 54.4 | 54.9 | 55.4 | 49.2 |
| 1918..... | 55.9 | 56.4 | 56.4 | 57.0 | 56.0 | 55.5 | 54.9 | 54.5 | 54.5 | 55.0 | 57.0 | 58.0 | 55.9 |
| 1919..... | 58.0 | 58.0 | 56.8 | 56.2 | 56.3 | 55.7 | 55.5 | 51.6 | 50.5 | 50.4 | 49.3 | 45.5 | 53.5 |
| 1920..... | 44.7 | 64.4 | 71.1 | 73.0 | 60.2 | 57.6 | 59.4 | 63.7 | 68.0 | 73.8 | 74.6 | 76.4 | 65.6 |
| Av. 1914-1920..... | 44.3 | 47.3 | 47.8 | 47.5 | 43.9 | 42.6 | 43.4 | 45.7 | 47.0 | 48.9 | 49.8 | 50.3 | 46.6 |
| 1921..... | 75.1 | 72.5 | 64.0 | 56.1 | 44.7 | 38.1 | 42.4 | 47.9 | 44.2 | 45.6 | 47.6 | 49.3 | 52.3 |
| 1922..... | 43.6 | 42.3 | 39.7 | 40.5 | 38.4 | 36.6 | 43.5 | 46.5 | 47.1 | 48.1 | 50.4 | 52.8 | 44.1 |
| 1923..... | 53.6 | 52.8 | 51.7 | 47.5 | 36.6 | 33.8 | 33.9 | 40.3 | 43.1 | 44.8 | 46.4 | 49.1 | 44.5 |
| 1924..... | 48.8 | 47.1 | 44.6 | 40.1 | 34.1 | 33.3 | 38.7 | 44.8 | 47.6 | 49.6 | 53.5 | 55.9 | 44.8 |
| 1925..... | 55.3 | 51.3 | 49.0 | 47.8 | 41.2 | 39.4 | 45.0 | 49.6 | 50.5 | 52.6 | 54.5 | 55.8 | 49.3 |
| Av. 1921-1925..... | 55.3 | 53.2 | 49.8 | 46.4 | 39.0 | 36.2 | 40.7 | 45.7 | 46.5 | 48.1 | 50.5 | 52.6 | 47.0 |

Division of Statistical and Historical Research. Compiled from Ministry of Agriculture and Fisheries, Agricultural Statistics of Great Britain and Agricultural Returns of Great Britain. Average of wholesale prices at country markets. Conversions at par of exchange 1904-1913; subsequently at monthly average rates of exchange as quoted by Federal Reserve Board.

TABLE 503.—Butter: Average export price per pound in Copenhagen, Denmark, 1914-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Av. |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1914..... | 26.1 | 25.6 | 25.6 | 24.1 | 23.4 | 23.9 | 23.9 | 24.4 | 25.0 | 27.8 | 27.3 | 29.9 | 25.8 |
| 1915..... | 29.6 | 28.9 | 28.0 | 27.6 | 29.6 | 29.1 | 31.7 | 32.6 | 34.7 | 41.6 | 40.5 | 36.6 | 32.3 |
| 1916..... | 33.4 | 33.6 | 33.0 | 32.8 | 35.7 | 35.7 | 36.7 | 40.1 | 42.1 | 42.6 | 44.3 | 44.9 | 38.9 |
| 1917..... | 45.3 | 39.6 | 38.4 | 37.2 | 38.6 | 40.5 | 45.0 | 49.7 | 54.6 | 65.4 | 68.4 | 65.5 | 50.0 |
| 1918..... | 64.2 | 63.7 | 64.0 | 65.0 | 65.3 | 64.7 | 65.1 | 68.0 | 62.0 | 58.3 | 75.6 | 76.0 | 65.7 |
| 1919..... | 75.8 | 73.8 | 72.4 | 71.1 | 68.2 | 60.8 | 48.4 | 46.5 | 54.7 | 53.8 | 59.5 | 52.1 | 59.8 |
| 1920..... | 48.9 | 42.1 | 49.2 | 49.8 | 44.2 | 44.8 | 42.4 | 42.9 | 43.6 | 45.7 | 44.7 | 44.0 | 45.2 |
| Av. 1914-1920..... | 46.2 | 43.9 | 45.1 | 44.5 | 42.2 | 41.4 | 42.1 | 43.0 | 45.2 | 47.9 | 51.5 | 49.9 | 45.2 |
| 1921..... | 42.4 | 39.3 | 40.4 | 43.9 | 33.5 | 32.4 | 38.3 | 41.1 | 36.4 | 38.3 | 39.9 | 31.8 | 38.1 |
| 1922..... | 31.1 | 31.0 | 32.9 | 33.8 | 33.5 | 37.0 | 39.4 | 39.1 | 41.1 | 40.7 | 39.9 | 39.7 | 36.6 |
| 1923..... | 40.5 | 41.3 | 41.0 | 34.5 | 29.5 | 29.3 | 30.7 | 34.7 | 40.3 | 38.9 | 39.4 | 41.4 | 36.8 |
| 1924..... | 40.0 | 39.6 | 36.9 | 31.3 | 30.4 | 33.4 | 37.8 | 41.1 | 42.3 | 46.1 | 44.2 | 46.8 | 39.6 |
| 1925..... | 42.0 | 45.4 | 46.1 | 40.6 | 36.9 | 39.4 | 40.5 | 44.2 | 45.7 | 46.5 | 44.6 | 37.8 | 42.5 |
| Av. 1921-1925..... | 39.2 | 39.3 | 39.5 | 36.8 | 34.0 | 34.3 | 37.3 | 40.0 | 41.2 | 42.1 | 41.6 | 39.5 | 38.7 |

Division of Statistical and Historical Research. Danish Butter Journal (Smør Tidende) official quotations. For earlier years, 1882-1913, see the United States Department of Agriculture Yearbook, 1923, p. 923.

Conversions from Danish quotations in ore per pound (1.1023 pounds) at par of exchange (100 ore = 26.8 cents) to July, 1914; July, 1914, to date from weekly quotations in kroner per 100 kg., at average monthly exchange rate as quoted by Federal Reserve Board.

TABLE 504.—American cheese: Production in the United States, 1917-1924
[Thousand pounds, f. a., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1917 | 8,519 | 9,415 | 11,918 | 17,877 | 28,932 | 38,796 | 35,290 | 32,248 | 37,613 | 22,308 | 14,262 | 8,070 | 264,949 |
| 1918 | 8,143 | 7,890 | 11,992 | 17,931 | 31,285 | 40,184 | 34,332 | 29,996 | 25,424 | 18,932 | 12,172 | 9,097 | 247,278 |
| 1919 | 10,959 | 11,855 | 19,009 | 21,642 | 34,949 | 44,599 | 35,465 | 39,940 | 26,237 | 23,114 | 13,107 | 10,044 | 281,837 |
| 1920 | 10,457 | 11,609 | 14,954 | 18,856 | 29,832 | 41,376 | 34,313 | 26,787 | 22,955 | 20,054 | 13,808 | 10,303 | 254,684 |
| 1921 | 11,889 | 12,857 | 17,678 | 23,821 | 34,556 | 36,444 | 29,777 | 27,652 | 23,612 | 21,496 | 13,422 | 11,618 | 261,726 |
| 1922 | 12,837 | 13,927 | 18,774 | 21,740 | 31,849 | 36,254 | 33,265 | 29,496 | 25,581 | 25,785 | 18,382 | 15,416 | 282,806 |
| 1923 | 15,092 | 15,326 | 20,184 | 24,014 | 32,942 | 41,382 | 38,268 | 31,822 | 28,648 | 25,566 | 18,236 | 16,408 | 308,108 |
| 1924 | 17,718 | 18,896 | 22,954 | 24,597 | 33,657 | 43,517 | 40,716 | 33,602 | 30,539 | 26,210 | 17,252 | 15,046 | 324,695 |

Division of Dairy and Poultry Products.

TABLE 505.—*Cheese, Swiss: Production by months, United States, 1920-1924*

[Thousand pounds—1. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-----------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|
| 1920..... | 282 | 259 | 314 | 975 | 3,146 | 4,412 | 3,548 | 2,906 | 2,386 | 1,372 | 563 | 268 | 20,490 |
| 1921..... | 181 | 225 | 371 | 776 | 3,590 | 4,164 | 3,379 | 3,412 | 2,969 | 2,358 | 862 | 395 | 22,678 |
| 1922..... | 264 | 257 | 334 | 990 | 3,046 | 3,543 | 3,529 | 3,187 | 2,474 | 1,573 | 550 | 236 | 19,988 |
| 1923..... | 196 | 199 | 298 | 1,018 | 2,948 | 3,468 | 4,015 | 3,683 | 3,368 | 2,756 | 1,855 | 751 | 24,555 |
| 1924..... | 293 | 299 | 325 | 727 | 2,862 | 3,873 | 4,095 | 3,577 | 3,016 | 1,881 | 699 | 197 | 21,844 |

Division of Dairy and Poultry Products.

TABLE 506.—*Cheese: Production, all kinds, United States, by States, 1918-1924*

[Thousand pounds—1. e., 000 omitted]

| State | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 |
|---------------------------|---------|---------|---------|---------|---------|---------|---------|
| Alabama..... | | | | 29 | | 51 | |
| Arizona..... | 639 | 464 | 227 | 532 | 89 | 138 | 525 |
| California..... | 7,992 | 8,940 | 8,518 | 7,656 | 4,460 | 4,508 | 3,696 |
| Arkansas..... | | | | | 18 | | |
| Colorado..... | 398 | 508 | 531 | 750 | 878 | 1,183 | 1,560 |
| Connecticut..... | 21 | | | 26 | | | |
| Delaware..... | 111 | 200 | 147 | 130 | 70 | 2 | |
| District of Columbia..... | | | 43 | | | | |
| Florida..... | 2 | | | | | | |
| Georgia..... | | | | | | 3 | 44 |
| Idaho..... | 2,154 | 2,582 | 1,727 | 2,161 | 3,368 | 5,316 | 7,670 |
| Illinois..... | 5,190 | 6,295 | 3,965 | 4,690 | 5,124 | 5,980 | 6,597 |
| Indiana..... | 169 | 185 | 187 | 186 | 106 | 174 | 366 |
| Iowa..... | 1,401 | 954 | 636 | 373 | 416 | 458 | 627 |
| Kansas..... | 37 | 25 | 19 | 62 | 147 | 110 | 176 |
| Louisiana..... | | 1 | | | | | |
| Maine..... | | | | | | | 34 |
| Maryland..... | 94 | 238 | 107 | 47 | | 18 | |
| Massachusetts..... | 101 | 107 | 77 | | 1 | | 62 |
| Michigan..... | 6,661 | 7,690 | 6,567 | 7,148 | 5,369 | 5,919 | 7,410 |
| Minnesota..... | 7,749 | 9,767 | 5,841 | 5,856 | 5,538 | 7,473 | 9,990 |
| Missouri..... | 85 | 305 | 380 | 882 | 97 | 224 | 110 |
| Montana..... | 481 | 318 | 296 | 210 | 323 | 747 | 972 |
| Nebraska..... | 32 | 39 | 3 | 61 | 44 | 71 | 135 |
| Nevada..... | | | | 25 | 24 | | 79 |
| New Hampshire..... | 407 | 259 | 700 | 634 | 316 | 398 | 180 |
| New Jersey..... | 469 | 856 | 698 | 490 | 974 | 271 | 1,070 |
| New Mexico..... | | | | | 74 | 135 | 92 |
| New York..... | 56,794 | 68,885 | 53,216 | 55,808 | 66,525 | 53,623 | 55,674 |
| North Carolina..... | 216 | 229 | 109 | 86 | 103 | 112 | 83 |
| Ohio..... | 4,789 | 4,547 | 2,967 | 4,485 | 3,456 | 3,164 | 3,331 |
| Oklahoma..... | | 8 | | | 2 | | 37 |
| Oregon..... | 7,168 | 8,465 | 8,482 | 8,900 | 8,852 | 7,829 | 10,073 |
| Pennsylvania..... | 6,139 | 6,308 | 6,245 | 6,487 | 5,094 | 5,326 | 4,884 |
| Rhode Island..... | 3 | 4 | | | | | |
| South Dakota..... | 27 | 56 | 9 | 19 | | 8 | 43 |
| Tennessee..... | 44 | 61 | 26 | 56 | 72 | 294 | 396 |
| Texas..... | 34 | 18 | 3 | 19 | | | 2 |
| Utah..... | 1,131 | 915 | 855 | 1,027 | 3,219 | 2,139 | 2,174 |
| Vermont..... | 1,701 | 3,582 | 1,850 | 1,910 | 1,437 | 1,644 | 2,202 |
| Virginia..... | 65 | 60 | 35 | 28 | 112 | 163 | 152 |
| Washington..... | 882 | 1,257 | 1,463 | 2,130 | 3,146 | 3,062 | 3,264 |
| West Virginia..... | 24 | 54 | 29 | 41 | 16 | | |
| Wisconsin..... | 242,433 | 293,481 | 255,286 | 241,961 | 247,007 | 282,381 | 238,214 |
| Wyoming..... | 1,332 | 1,612 | 1,203 | 1,543 | 3,416 | 1,791 | 1,945 |
| Total..... | 356,947 | 396,287 | 362,431 | 355,838 | 368,980 | 394,697 | 413,940 |

Division of Dairy and Poultry Products.

TABLE 507.—Cheese: Net receipts at five markets, 1918-1925

(Thousand pounds—i. e., 000 omitted)

NEW YORK

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1918 | 3,256 | 3,518 | 2,657 | 2,844 | 3,899 | 5,951 | 6,687 | 4,956 | 3,670 | 5,123 | 3,833 | 4,150 | 60,550 |
| 1919 | 3,479 | 3,173 | 3,358 | 5,114 | 7,008 | 7,075 | 6,972 | 5,428 | 7,121 | 6,367 | 4,621 | 4,294 | 65,045 |
| 1920 | 3,337 | 2,431 | 3,803 | 1,598 | 4,693 | 6,182 | 5,703 | 4,278 | 3,483 | 3,208 | 3,756 | 3,762 | 47,004 |
| 1921 | 3,274 | 3,337 | 2,883 | 3,888 | 6,003 | 5,850 | 6,655 | 4,772 | 4,308 | 4,415 | 3,657 | 2,753 | 51,081 |
| 1922 | 2,739 | 2,775 | 4,063 | 4,460 | 5,047 | 6,376 | 5,379 | 4,642 | 3,942 | 3,866 | 3,607 | 3,207 | 50,109 |
| 1923 | 2,908 | 3,385 | 4,341 | 4,196 | 4,610 | 5,207 | 6,110 | 4,757 | 3,845 | 3,791 | 3,544 | 2,731 | 49,425 |
| 1924 | 3,299 | 2,859 | 3,367 | 3,050 | 3,600 | 4,706 | 5,235 | 3,042 | 3,504 | 3,333 | 3,684 | 3,181 | 42,959 |
| 1925 | 3,098 | 2,412 | 3,002 | 3,080 | 3,132 | 4,585 | 5,728 | 4,508 | 5,571 | 4,071 | 3,952 | 2,939 | 46,163 |
| A. v. 1921-1925 | 3,064 | 2,954 | 3,531 | 3,772 | 4,480 | 5,346 | 5,821 | 4,441 | 4,062 | 4,015 | 3,680 | 2,962 | 48,127 |

CHICAGO

| | | | | | | | | | | | | | |
|-----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|---------|
| 1918 | ..... | ..... | 6,202 | 5,549 | 4,987 | 7,614 | 8,536 | 6,674 | 6,016 | 5,698 | 4,634 | 5,019 | ..... |
| 1919 | 5,925 | 4,854 | 4,405 | 6,287 | 7,833 | 9,778 | 8,939 | 8,323 | 7,362 | 6,048 | 5,073 | 4,902 | 81,019 |
| 1920 | 5,328 | 5,100 | 7,639 | 5,067 | 7,744 | 11,194 | 9,183 | 6,590 | 5,707 | 6,253 | 5,705 | 5,556 | 81,597 |
| 1921 | 6,042 | 5,423 | 7,117 | 6,540 | 9,280 | 9,832 | 7,112 | 6,980 | 6,734 | 8,091 | 6,147 | 6,261 | 85,849 |
| 1922 | 5,940 | 6,139 | 8,003 | 7,875 | 10,262 | 11,384 | 10,121 | 10,569 | 9,419 | 10,452 | 8,998 | 8,477 | 107,724 |
| 1923 | 7,775 | 7,243 | 8,124 | 9,053 | 10,745 | 15,039 | 13,874 | 11,750 | 10,652 | 12,608 | 9,216 | 7,560 | 123,645 |
| 1924 | 8,135 | 10,338 | 10,207 | 10,601 | 11,949 | 12,337 | 14,204 | 12,943 | 11,616 | 10,264 | 8,241 | 9,109 | 130,024 |
| 1925 | 9,100 | 8,398 | 9,513 | 9,740 | 11,249 | 14,032 | 13,853 | 14,171 | 11,254 | 11,582 | 9,801 | 8,436 | 131,129 |
| A. v. 1921-1925 | 7,398 | 7,512 | 8,629 | 8,822 | 10,696 | 12,523 | 11,833 | 11,293 | 9,915 | 10,599 | 8,480 | 7,970 | 115,674 |

PHILADELPHIA

| | | | | | | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1918 | ..... | ..... | 642 | 629 | 1,228 | 1,148 | 2,315 | 1,359 | 940 | 1,262 | 706 | 877 | ..... |
| 1919 | 539 | 881 | 1,529 | 1,654 | 1,965 | 2,229 | 2,152 | 1,704 | 1,740 | 2,887 | 2,430 | 1,185 | 21,392 |
| 1920 | 574 | 1,040 | 1,489 | 1,026 | 1,743 | 2,104 | 1,657 | 2,180 | 1,362 | 1,130 | 1,431 | 1,221 | 16,890 |
| 1921 | 1,110 | 1,044 | 1,280 | 1,396 | 2,223 | 2,602 | 2,491 | 2,311 | 2,086 | 1,920 | 1,369 | 1,094 | 20,052 |
| 1922 | 1,144 | 1,120 | 1,506 | 1,523 | 1,750 | 1,827 | 1,846 | 1,887 | 1,815 | 2,101 | 1,738 | 1,067 | 19,324 |
| 1923 | 964 | 982 | 1,236 | 1,297 | 1,361 | 1,915 | 2,114 | 2,000 | 1,972 | 2,217 | 1,310 | 995 | 18,363 |
| 1924 | 1,000 | 1,086 | 1,188 | 897 | 1,092 | 1,850 | 2,061 | 1,704 | 1,600 | 1,073 | 1,218 | 1,132 | 16,866 |
| 1925 | 1,239 | 1,009 | 1,067 | 969 | 1,847 | 2,635 | 2,383 | 1,825 | 1,905 | 1,848 | 1,331 | 1,087 | 19,095 |
| A. v. 1921-1925 | 1,093 | 1,062 | 1,253 | 1,216 | 1,655 | 2,160 | 2,179 | 1,945 | 1,888 | 2,013 | 1,393 | 1,066 | 18,920 |

BOSTON

| | | | | | | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|--------|
| 1918 | ..... | ..... | 647 | 453 | 1,402 | 2,539 | 2,305 | 1,721 | 972 | 778 | 574 | 476 | ..... |
| 1919 | 351 | 517 | 1,100 | 1,088 | 2,000 | 2,374 | 2,898 | 2,091 | 1,422 | 1,660 | 1,291 | 701 | 17,723 |
| 1920 | 620 | 274 | 622 | 511 | 948 | 1,432 | 2,290 | 1,749 | 1,349 | 1,479 | 1,256 | 483 | 12,997 |
| 1921 | 435 | 574 | 691 | 685 | 978 | 2,503 | 1,761 | 1,173 | 1,262 | 1,456 | 1,249 | 501 | 13,206 |
| 1922 | 408 | 504 | 693 | 1,004 | 1,201 | 2,220 | 1,963 | 1,461 | 1,410 | 1,104 | 910 | 587 | 13,521 |
| 1923 | 828 | 436 | 947 | 1,029 | 1,195 | 2,074 | 2,304 | 1,936 | 1,165 | 1,777 | 1,302 | 921 | 15,914 |
| 1924 | 740 | 495 | 672 | 927 | 1,341 | 1,914 | 2,064 | 1,294 | 1,248 | 963 | 927 | 850 | 13,725 |
| 1925 | 792 | 492 | 704 | 980 | 1,218 | 1,676 | 2,248 | 1,484 | 1,755 | 2,018 | 1,097 | 950 | 15,314 |
| A. v. 1921-1925 | 641 | 587 | 735 | 925 | 1,187 | 2,057 | 2,056 | 1,452 | 1,368 | 1,470 | 1,097 | 762 | 14,336 |

SAN FRANCISCO

| | | | | | | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|--------|
| 1918 | ..... | ..... | ..... | ..... | ..... | 693 | 1,372 | 785 | 935 | 651 | 764 | ..... | ..... |
| 1919 | 694 | 846 | 869 | 1,219 | 1,263 | 1,195 | 1,700 | 871 | 874 | 730 | 796 | 1,027 | 12,086 |
| 1920 | 935 | 810 | 935 | 981 | 1,012 | 1,002 | 964 | 601 | 938 | 852 | 504 | 611 | 10,208 |
| 1921 | 621 | 826 | 757 | 963 | 867 | 887 | 1,305 | 813 | 533 | 771 | 806 | 364 | 9,632 |
| 1922 | 503 | 634 | 464 | 697 | 886 | 963 | 902 | 1,147 | 877 | 800 | 551 | 733 | 9,157 |
| 1923 | 598 | 571 | 708 | 858 | 1,052 | 1,171 | 1,362 | 1,237 | 985 | 932 | 1,181 | 1,043 | 11,690 |
| 1924 | 725 | 944 | 1,046 | 700 | 1,089 | 1,234 | 1,579 | 1,103 | 837 | 911 | 714 | 650 | 11,492 |
| 1925 | 973 | 534 | 612 | 667 | 1,083 | 1,197 | 1,613 | 1,708 | 1,035 | 916 | 878 | 650 | 11,855 |
| A. v. 1921-1925 | 682 | 714 | 717 | 777 | 985 | 1,060 | 1,364 | 1,201 | 853 | 866 | 827 | 658 | 10,703 |

TOTAL

| | | | | | | | | | | | | | |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1918 | ..... | ..... | ..... | ..... | ..... | ..... | 20,536 | 16,112 | 12,383 | 13,796 | 10,396 | 11,292 | ..... |
| 1919 | 10,966 | 10,271 | 13,386 | 15,362 | 20,069 | 22,648 | 22,267 | 18,417 | 18,519 | 18,491 | 14,650 | 12,199 | 107,267 |
| 1920 | 11,094 | 9,656 | 13,918 | 8,583 | 16,140 | 21,874 | 19,797 | 16,416 | 12,831 | 12,924 | 13,802 | 11,633 | 168,667 |
| 1921 | 11,486 | 11,236 | 12,758 | 13,952 | 19,361 | 21,680 | 19,324 | 15,999 | 14,923 | 16,658 | 13,228 | 10,973 | 181,622 |
| 1922 | 10,734 | 11,298 | 14,780 | 15,565 | 19,148 | 22,770 | 20,211 | 19,806 | 17,493 | 18,328 | 15,090 | 14,071 | 199,835 |
| 1923 | 13,063 | 12,617 | 15,340 | 16,433 | 18,963 | 25,406 | 25,764 | 21,680 | 18,619 | 21,325 | 16,557 | 13,256 | 219,037 |
| 1924 | 13,899 | 16,022 | 16,464 | 16,175 | 19,030 | 22,041 | 23,143 | 19,966 | 18,856 | 17,479 | 14,894 | 14,622 | 215,056 |
| 1925 | 15,202 | 12,846 | 14,898 | 15,436 | 18,528 | 24,025 | 25,825 | 24,176 | 20,520 | 21,029 | 17,069 | 14,012 | 223,550 |
| A. v. 1921-1925 | 12,877 | 12,619 | 14,868 | 15,512 | 19,008 | 23,184 | 23,253 | 20,331 | 18,076 | 18,962 | 15,485 | 13,447 | 207,821 |

| | | | | | | | | | | | | | | | | |
|-------------------|--------|--------|--------|--------|--------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| Other States..... | 142 | 475 | 71 | 23 | 97 | 5 | 4 | 1 | 2 | 1 | 6 | 6 | 1 | 31 | 28 | 12 |
| Canada..... | 279 | 209 | 5 | 57 | | | | | | | | | | | | |
| Total..... | 13,208 | 13,521 | 15,914 | 13,725 | 15,314 | 792 | 492 | 704 | 980 | 1,218 | 1,576 | 2,248 | 1,454 | 1,755 | 2,018 | 1,097 |

CHICAGO

| | | | | | | | | | | | | | | | | |
|-------------------|--------|---------|---------|---------|---------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|
| Wisconsin..... | 76,706 | 98,656 | 110,648 | 117,439 | 119,244 | 8,241 | 7,635 | 8,569 | 9,059 | 9,839 | 12,765 | 12,948 | 13,013 | 10,303 | 10,651 | 8,821 |
| Illinois..... | 3,102 | 4,011 | 4,477 | 3,985 | 4,592 | 265 | 256 | 230 | 337 | 526 | 672 | 575 | 400 | 399 | 382 | 280 |
| Minnesota..... | 2,667 | 1,960 | 3,177 | 2,733 | 3,198 | 190 | 166 | 181 | 129 | 500 | 199 | 203 | 406 | 201 | 268 | 433 |
| Michigan..... | 1,667 | 1,413 | 1,228 | 1,241 | 1,181 | 22 | 20 | 18 | 1 | 1 | 63 | 33 | 1 | 1 | 7 | 4 |
| Montana..... | 1,667 | 263 | 311 | 608 | 620 | 64 | 64 | 64 | 115 | 36 | 39 | 49 | 81 | 78 | 12 | 40 |
| Iowa..... | 287 | 810 | 705 | 620 | 620 | 22 | 20 | 167 | 47 | 171 | 256 | 118 | 24 | 107 | 74 | 37 |
| New York..... | 221 | 2,391 | 2,429 | 1,667 | 1,252 | 170 | 80 | 80 | 12 | 3 | 3 | 2 | 22 | 22 | 1 | 14 |
| Pennsylvania..... | 166 | 308 | 289 | 158 | 115 | 16 | 29 | 20 | 12 | 3 | 3 | 2 | 4 | 1 | 4 | 7 |
| California..... | 113 | 57 | | 9 | 9 | 154 | 6 | 186 | 2 | 103 | 1 | 1 | 97 | 67 | 81 | 24 |
| Ohio..... | 90 | 301 | 147 | 91 | 745 | 14 | 5 | 4 | 6 | 1 | 1 | 1 | 32 | 32 | 1 | 1 |
| South Dakota..... | 78 | 17 | 64 | 64 | 2 | 14 | 16 | 27 | | | | | 6 | 2 | 61 | 1 |
| Missouri..... | 56 | 222 | 83 | 188 | 65 | 38 | 6 | 2 | 6 | 1 | 10 | 12 | 2 | 1 | 5 | 1 |
| Texas..... | 32 | 9 | 15 | 2 | 38 | 6 | 84 | 2 | | | | | 4 | 2 | 1 | 1 |
| Colorado..... | 37 | 104 | 16 | 34 | 102 | 6 | 6 | 2 | 6 | 1 | 10 | 12 | 1 | 2 | 4 | 1 |
| Indiana..... | 16 | 22 | 66 | 50 | 49 | 2 | 6 | | | | | | 1 | 2 | 4 | 32 |
| Illinois..... | 11 | 8 | 14 | 7 | 8 | 1 | | | | | | | | | | 17 |
| New Jersey..... | | 45 | 24 | 95 | 32 | 24 | 1 | 19 | 2 | 10 | 1 | 5 | 9 | | 5 | 4 |
| Idaho..... | | 19 | 168 | 675 | 337 | 24 | 9 | | | | | | | | | 113 |
| Other States..... | 85 | 90 | 122 | 281 | 81 | | | | | | | | | | | 17 |
| Canada..... | | 250 | 246 | 373 | 380 | 62 | 23 | 24 | 24 | 58 | 23 | | 107 | 60 | | 23 |
| Total..... | 85,940 | 107,724 | 123,645 | 130,024 | 131,129 | 9,100 | 8,398 | 9,513 | 9,740 | 11,249 | 14,032 | 13,853 | 14,171 | 11,254 | 11,592 | 9,801 |

PHILADELPHIA

| | | | | | | | | | | | | | | | | |
|-------------------|--------|--------|--------|--------|--------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|
| Wisconsin..... | 8,467 | 10,638 | 8,884 | 8,093 | 10,850 | 434 | 453 | 425 | 362 | 972 | 1,731 | 1,723 | 1,158 | 1,345 | 1,125 | 612 |
| New York..... | 7,068 | 4,900 | 4,338 | 3,655 | 3,627 | 430 | 407 | 336 | 252 | 322 | 307 | 236 | 144 | 222 | 282 | 439 |
| Illinois..... | 2,557 | 2,655 | 4,128 | 4,333 | 4,673 | 367 | 114 | 224 | 293 | 508 | 434 | 421 | 481 | 309 | 415 | 252 |
| Indiana..... | 2,041 | 517 | 243 | 240 | 64 | 8 | 2 | 13 | 4 | 23 | 24 | 2 | 2 | 1 | 1 | 4 |
| Pennsylvania..... | 205 | 223 | 136 | 26 | 11 | | | | | 1 | | | | | | 9 |
| Ohio..... | 120 | 14 | 26 | 3 | | | | | | | | | | | | 31 |
| New Jersey..... | 171 | 93 | 14 | 95 | 201 | | | 47 | | | 70 | 1 | 1 | 1 | 24 | 28 |
| Michigan..... | 100 | 142 | 131 | 199 | 111 | 3 | | | 22 | 20 | 68 | | 40 | 26 | | |
| Minnesota..... | 43 | 113 | 131 | 168 | 168 | | | | | | | | | | | |
| Iowa..... | 41 | 25 | 44 | 164 | 37 | | | | 1 | 36 | | | | | | |
| Other States..... | 284 | 81 | 27 | 148 | 30 | | | 21 | | | | | | | | |
| Total..... | 20,932 | 19,324 | 18,363 | 16,966 | 19,065 | 1,239 | 1,099 | 1,067 | 969 | 1,847 | 2,635 | 2,383 | 1,825 | 1,906 | 1,946 | 1,331 |

1 Net over 500 pounds.

| | | | | | | | | | | | |
|-------------------|--------|-----|-----|-----|-----|-----|-------|-------|-------|-------|-----|
| Arizona..... | 64 | 3 | 4 | 25 | 12 | 6 | 6 | 1 | 1 | 2 | 4 |
| Kansas..... | 2 | | | 2 | | | | | | | |
| Maryland..... | | | | | | | | | | | |
| Minnesota..... | 132 | | | | | 32 | 37 | 35 | 28 | | |
| Missouri..... | | | | | | | | | | | |
| Nebraska..... | 62 | | | | | 33 | | | | | 26 |
| Texas..... | | | | | | | | | | | |
| New Mexico..... | | | | | | | | | | | |
| Illinois..... | 223 | 4 | 34 | 13 | 31 | 3 | 31 | 1 | 23 | 38 | 15 |
| Iowa..... | | | | | | | | | | | |
| Oklahoma..... | 10 | | 10 | | | | | | | | |
| Pennsylvania..... | | | | | | | | | | | |
| New York..... | 48 | 2 | 4 | 9 | | 1 | 4 | 4 | 17 | 4 | 3 |
| Other States..... | | | | | | | | | | | |
| Total..... | 11,900 | 877 | 523 | 569 | 953 | 963 | 1,643 | 1,428 | 1,006 | 1,137 | 867 |
| | | | | | | | | | | | 860 |

Division of Statistical and Historical Research. Compiled from reports of the Division of Dairy and Poultry Products.

TABLE 509.—*American cheese: Cold-storage holdings, United States, 1915-1925*¹
(Thousand pounds—1. e., 000 omitted)

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|---------------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| 1915..... | | | | | | | | | 28,576 | 24,144 | 32,428 | 31,271 |
| 1916..... | 28,558 | 18,908 | 13,373 | 8,443 | 6,546 | 7,301 | 16,357 | 31,569 | 46,776 | 49,579 | 45,713 | 37,080 |
| 1917..... | 31,855 | 22,113 | 15,560 | 9,842 | 7,928 | 11,626 | 34,159 | 67,595 | 91,545 | 90,671 | 78,087 | 75,166 |
| 1918..... | 66,794 | 56,298 | 37,743 | 27,965 | 17,736 | 20,395 | 30,054 | 48,804 | 55,742 | 42,065 | 33,402 | 25,625 |
| 1919..... | 19,823 | 15,486 | 9,837 | 6,750 | 6,027 | 12,478 | 37,501 | 62,645 | 76,061 | 81,359 | 72,899 | 62,508 |
| 1920..... | 53,168 | 43,631 | 34,039 | 23,431 | 16,963 | 13,502 | 29,654 | 51,512 | 60,372 | 55,007 | 48,566 | 39,921 |
| 1921..... | 34,115 | 25,000 | 17,477 | 14,294 | 13,466 | 17,814 | 34,948 | 41,284 | 46,635 | 45,163 | 42,969 | 34,055 |
| 1922..... | 27,091 | 21,430 | 15,006 | 10,745 | 10,868 | 15,481 | 33,130 | 46,580 | 53,625 | 49,473 | 40,852 | 37,291 |
| 1923..... | 33,017 | 26,593 | 20,693 | 14,465 | 14,077 | 17,507 | 36,834 | 55,839 | 63,060 | 62,384 | 57,927 | 55,105 |
| 1924..... | 49,566 | 40,506 | 35,160 | 28,294 | 26,202 | 27,172 | 45,239 | 65,864 | 76,406 | 73,153 | 67,905 | 58,705 |
| 1925..... | 46,187 | 41,552 | 34,647 | 27,716 | 26,147 | 29,550 | 46,468 | 66,634 | 76,512 | 78,582 | 71,913 | 66,496 |
| A v. 1921-1925..... | 38,835 | 31,016 | 24,597 | 19,103 | 18,152 | 21,505 | 39,324 | 55,240 | 63,428 | 61,751 | 56,313 | 50,330 |

Cold Storage Report Section.

¹ The term "American cheese" is intended to cover only those varieties known as twins, flats, daisies, cheddars, longhorns, and square prints. It does not, therefore, include all kinds of cheese made in America.TABLE 510.—*Cheese: International trade, average 1909-1913, annual 1922-1924*
(Thousand pounds—1. e., 000 omitted)

| Country | Year ended Dec. 31 | | | | | | | |
|-------------------------------|--------------------|---------|---------|---------|---------|---------|------------------|---------|
| | Average, 1909-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 10,447 | 16 | 1,474 | 14,829 | 2,359 | 12,685 | 2,546 | 3,461 |
| Australia..... | 360 | 799 | 1,499 | 5,454 | 1,422 | 3,788 | | |
| Bulgaria..... | 152 | 5,972 | 2 | 1,831 | 34 | 1,175 | 15 | 258 |
| Canada..... | 1,054 | 167,260 | 687 | 120,177 | 1,900 | 116,202 | 909 | 121,466 |
| Czechoslovakia..... | | | 1,355 | 2,278 | 1,999 | 3,917 | 1,671 | 5,431 |
| Denmark..... | 1,414 | 527 | 1,194 | 19,674 | 721 | 12,038 | 673 | 19,480 |
| Finland..... | 478 | 2,086 | 8 | 5,980 | 23 | 2,944 | 36 | 5,813 |
| Hungary..... | | | 2 | 1,494 | (9) | 1,160 | 1 | 1,344 |
| Italy..... | 13,308 | 60,860 | 15,571 | 32,057 | 10,228 | 50,389 | 4,166 | 74,110 |
| Netherlands..... | 522 | 127,379 | 750 | 143,769 | 873 | 136,646 | 888 | 170,352 |
| New Zealand..... | 3 | 55,561 | | 130,054 | (6) | 161,444 | 19 | 178,582 |
| Russia..... | 3,913 | 7,011 | 126 | | | | | |
| Switzerland..... | 7,150 | 70,075 | 1,792 | 46,152 | 2,543 | 39,046 | 4,163 | 43,776 |
| Yugoslavia..... | | | 8 | 3,875 | 118 | 9,309 | 191 | 7,489 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 6,592 | 138 | 7,206 | 196 | 7,415 | 189 | 7,547 | 174 |
| Austria..... | | | 8,362 | 161 | 9,847 | 317 | 10,142 | 1,189 |
| Austria-Hungary..... | 12,298 | 966 | | | | | | |
| Belgium..... | 31,771 | 354 | 48,316 | 1,148 | 39,553 | 1,039 | 37,643 | 1,513 |
| Brazil..... | 4,178 | 1 | 394 | 1 | 254 | 3 | | |
| British India..... | 1,314 | | 1,072 | | 1,006 | | 1,046 | 4 |
| Cuba..... | 4,520 | 7 | 3,841 | 4 | 5,065 | 3 | 5,697 | 8 |
| Dutch East Indies..... | 757 | | 1,491 | | 1,242 | | 1,138 | |
| Egypt..... | 8,182 | 148 | 6,779 | 102 | 6,007 | 122 | 5,960 | 117 |
| France..... | 49,056 | 26,880 | 50,643 | 18,496 | 45,690 | 27,908 | 39,044 | 34,394 |
| Germany..... | 48,687 | 1,907 | 51,984 | 2,235 | 24,930 | 636 | 96,702 | 1,239 |
| Irish Free State..... | | | | | | | | |
| Norway..... | 663 | 377 | 1,540 | | 1,962 | 697 | 2,690 | 695 |
| Spain..... | 5,032 | 33 | 4,222 | 453 | 5,971 | 126 | 6,060 | 57 |
| Sweden..... | 946 | 41 | 1,922 | 336 | 4,169 | 114 | 2,210 | 266 |
| Tunis..... | 1,382 | 19 | 967 | 19 | 1,031 | 40 | 1,073 | 48 |
| Union of South Africa..... | 4,991 | 3 | 268 | 152 | 832 | 118 | 552 | 127 |
| United Kingdom..... | 257,407 | 950 | 294,938 | 581 | 313,280 | 946 | 318,041 | 843 |
| United States..... | 46,346 | 5,142 | 46,573 | 5,007 | 64,420 | 8,331 | 56,176 | 4,299 |
| Other countries..... | 12,596 | 3,942 | 12,166 | 3,147 | 16,176 | 2,907 | 13,879 | 2,901 |
| Total..... | 535,417 | 538,124 | 566,253 | 560,328 | 571,090 | 594,239 | 624,874 | 670,728 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. All cheese made from milk, including cottage cheese.

¹ Four-year average.² Year beginning July 1.³ Three-year average.⁴ International Institute of Agriculture.⁵ Less than 500 pounds.⁶ Java and Madura only.⁷ One year only.

TABLE 511.—Cheese, No. 1 American fresh: Average wholesale price per pound, New York, 1910-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1910..... | 17 | 17 | 17 | 17 | 14 | 14 | 15 | 15 | 15 | 15 | 15 | 16 | 16 |
| 1911..... | 15 | 15 | 14 | 14 | 11 | 11 | 12 | 12 | 14 | 14 | 15 | 16 | 14 |
| 1912..... | 16 | 17 | 18 | 19 | 15 | 14 | 15 | 16 | 16 | 18 | 17 | 17 | 16 |
| 1913..... | 17 | 17 | 16 | 15 | 13 | 14 | 14 | 15 | 16 | 16 | 16 | 16 | 15 |
| 1914..... | 17 | 16 | 18 | 16 | 14 | 15 | 15 | 16 | 16 | 15 | 15 | 15 | 16 |
| 1915..... | 15 | 16 | 16 | 16 | 17 | 15 | 15 | 13 | 14 | 15 | 16 | 17 | 15 |
| 1916..... | 17 | 18 | 18 | 18 | 18 | 15 | 15 | 17 | 19 | 21 | 23 | 24 | 19 |
| 1917..... | 24 | 25 | 26 | 26 | 26 | 23 | 24 | 23 | 25 | 25 | 23 | 24 | 24 |
| 1918..... | 24 | 26 | 24 | 23 | 24 | 23 | 25 | 26 | 28 | 33 | 32 | 35 | 27 |
| 1919..... | 35 | 30 | 32 | 31 | 32 | 32 | 33 | 31 | 31 | 31 | 32 | 32 | 32 |
| 1920..... | 32 | 30 | 29 | 30 | 30 | 28 | 27 | 27 | 28 | 28 | 28 | 28 | 29 |
| A v. 1914-1920..... | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 23 | 24 | 24 | 25 | 23 |
| 1921..... | 24 | 21 | 25 | 22 | 17 | 16 | 19 | 21 | 21 | 22 | 21 | 21 | 21 |
| 1922..... | 21 | 20 | 20 | 18 | 17 | 19 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| 1923..... | 28 | 28 | 25 | 23 | 23 | 24 | 25 | 25 | 26 | 26 | 26 | 26 | 26 |
| 1924..... | 22 | 22 | 21 | 17 | 17 | 20 | 21 | 21 | 22 | 20 | 21 | 23 | 21 |
| 1925..... | 24 | 24 | 24 | 23 | 21 | 23 | 24 | 25 | 25 | 26 | 27 | 27 | 24 |
| A v. 1921-1925..... | 24 | 23 | 23 | 21 | 19 | 20 | 22 | 23 | 23 | 23 | 23 | 23 | 23 |

Division of Statistical and Historical Research. January, 1910-February, 1919, compiled from Urner-Barry reports; subsequently from reports of Division of Dairy and Poultry Products.

TABLE 512.—Oleomargarine: Production, 1920-1924

| Product | 1920 | | 1921 | | 1922 | | 1923 | | 1924 | |
|--|----------------------------|--------------------|----------------------------|--------------------|----------------------------|--------------------|----------------------------|--------------------|----------------------------|--------------------|
| | Number factories reporting | Quantity produced | Number factories reporting | Quantity produced | Number factories reporting | Quantity produced | Number factories reporting | Quantity produced | Number factories reporting | Quantity produced |
| Oleomargarine (uncolored): | | | | | | | | | | |
| Animal and vegetable oil..... | 51 | 1,000 lbs. 161,636 | 55 | 1,000 lbs. 103,962 | 57 | 1,000 lbs. 104,285 | 51 | 1,000 lbs. 121,271 | 53 | 1,000 lbs. 119,641 |
| Exclusively vegetable oil..... | 71 | 190,280 | 71 | 99,265 | 69 | 74,127 | 60 | 93,970 | 55 | 97,871 |
| Exclusively animal oil..... | 7 | 3,843 | 3 | 624 | 3 | 303 | 4 | 450 | 3 | 413 |
| Oleomargarine (colored): | | | | | | | | | | |
| Animal and vegetable oil..... | 36 | 8,951 | 36 | 5,960 | 36 | 4,976 | 34 | 7,078 | 32 | 7,847 |
| Exclusively vegetable oil..... | 34 | 5,359 | 35 | 2,026 | 33 | 1,384 | 27 | 2,808 | 31 | 3,259 |
| Exclusively animal oil..... | 3 | 94 | 2 | 30 | 1 | 1 | — | — | — | — |
| Total oleomargarine (colored and uncolored)..... | — | 370,163 | — | 211,867 | — | 185,076 | — | 225,577 | — | 229,031 |

Division of Dairy and Poultry Products. Compiled from reports made by manufacturers.

OLEOMARGARINE

TABLE 513.—*Oleomargarine manufactured, by months, 1924*

[Thousand pounds—i. e., 000 omitted]

| Month | Oleomargarine (uncolored) | | | Oleomargarine (colored) | | Total, oleomargarine colored and uncolored |
|----------------|---------------------------|---------------------------|------------------------|--------------------------|---------------------------|--|
| | Animal and vegetable oil | Exclusively vegetable oil | Exclusively animal oil | Animal and vegetable oil | Exclusively vegetable oil | |
| | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>1,000 pounds</i> |
| January..... | 12, 251 | 11, 605 | 23 | 733 | 319 | 24, 331 |
| February..... | 11, 594 | 10, 060 | 20 | 742 | 343 | 22, 705 |
| March..... | 11, 660 | 9, 281 | 19 | 779 | 365 | 22, 674 |
| April..... | 10, 253 | 8, 984 | 61 | 721 | 301 | 20, 270 |
| May..... | 9, 461 | 7, 127 | 37 | 575 | 239 | 17, 449 |
| June..... | 8, 538 | 5, 870 | ----- | 530 | 197 | 15, 135 |
| July..... | 8, 550 | 5, 784 | 48 | 553 | 219 | 15, 154 |
| August..... | 8, 561 | 5, 598 | 53 | 536 | 196 | 15, 946 |
| September..... | 9, 935 | 8, 261 | 68 | 686 | 226 | 19, 158 |
| October..... | 10, 421 | 8, 580 | 35 | 693 | 278 | 19, 987 |
| November..... | 8, 487 | 7, 065 | 23 | 591 | 255 | 17, 620 |
| December..... | 9, 930 | 8, 780 | 32 | 708 | 317 | 19, 767 |
| Total..... | 119, 641 | 97, 871 | 413 | 7, 847 | 3, 259 | 220, 031 |

Division of Dairy and Poultry Products. This report is a tabulation of schedules sent directly to the Bureau of Agricultural Economics, and is final.

TABLE 514.—*Oleomargarine production and consumption in the United States, 1909-1925*

| Year ended June 30 | Production | Stocks, beginning of year | Exports | Stocks, end of year | Consumption | |
|--------------------|---------------|---------------------------|---------------|---------------------|---------------|---------------|
| | | | | | Total | Per capita |
| | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| 1909..... | 92, 282, 815 | 692, 225 | 2, 889, 088 | 748, 318 | 89, 337, 664 | 0.99 |
| 1910..... | 141, 862, 280 | 748, 318 | 3, 418, 682 | 1, 165, 446 | 158, 026, 520 | 1.51 |
| 1911..... | 121, 162, 795 | 1, 165, 446 | 3, 794, 939 | 942, 440 | 117, 590, 862 | 1.26 |
| 1912..... | 128, 001, 053 | 942, 440 | 3, 627, 425 | 1, 249, 246 | 124, 696, 822 | 1.32 |
| 1913..... | 145, 227, 862 | 1, 249, 246 | 2, 967, 582 | 1, 650, 897 | 141, 858, 699 | 1.48 |
| 1914..... | 144, 021, 276 | 1, 650, 897 | 2, 532, 821 | 1, 261, 245 | 141, 878, 107 | 1.46 |
| 1915..... | 145, 810, 048 | 1, 261, 245 | 5, 252, 183 | 1, 661, 559 | 140, 187, 551 | 1.42 |
| 1916..... | 152, 509, 913 | 1, 661, 559 | 5, 426, 221 | 1, 992, 726 | 146, 752, 525 | 1.47 |
| 1917..... | 233, 170, 111 | 1, 992, 726 | 5, 651, 267 | 2, 968, 197 | 226, 523, 373 | 2.23 |
| 1918..... | 326, 528, 839 | 2, 968, 197 | 6, 809, 896 | 3, 577, 733 | 319, 629, 407 | 3.11 |
| 1919..... | 350, 216, 571 | 3, 577, 733 | 18, 570, 400 | 2, 862, 597 | 341, 661, 307 | 3.28 |
| 1920..... | 391, 283, 143 | 2, 862, 597 | 20, 962, 180 | 4, 116, 174 | 368, 783, 396 | 3.49 |
| 1921..... | 281, 081, 514 | 4, 116, 174 | 6, 219, 165 | 1, 979, 543 | 276, 992, 980 | 2.69 |
| 1922..... | 190, 950, 373 | 1, 979, 543 | 1, 989, 421 | 2, 265, 895 | 188, 674, 600 | 1.74 |
| 1923..... | 209, 182, 188 | 2, 265, 895 | 2, 027, 546 | 2, 647, 297 | 206, 773, 260 | 1.88 |
| 1924..... | 236, 698, 749 | 2, 647, 297 | 1, 125, 066 | 2, 607, 345 | 238, 613, 604 | 2.14 |
| 1925..... | 215, 402, 536 | 2, 607, 345 | 733, 311 | 2, 726, 438 | 214, 557, 135 | 1.90 |

Division of Statistical and Historical Research. Production and stocks from Bureau of Internal Revenue. Exports from Bureau of Foreign and Domestic Commerce.

TABLE 515.—Oleomargarine: Materials used in manufacture, 1916-1924

| Material | Year beginning July | | | | | | | | |
|-----------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 |
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| Oleo oil..... | 96,652 | 96,378 | 97,464 | 80,842 | 49,676 | 40,960 | 40,645 | 52,265 | 44,102 |
| Coconut oil..... | 19,763 | 61,773 | 69,640 | 80,784 | 103,112 | 57,894 | 65,656 | 83,059 | 79,449 |
| Cottonseed oil..... | 63,652 | 36,454 | 37,846 | 39,450 | 18,533 | 15,420 | 18,757 | 20,640 | 20,966 |
| Milk..... | 24,416 | 61,128 | 68,000 | 76,000 | 79,716 | 53,089 | 59,835 | 69,090 | 61,924 |
| Peanut oil..... | 10,498 | 21,593 | 33,784 | 48,346 | 16,332 | 11,025 | 6,922 | 5,656 | 4,392 |
| Salt..... | 6,115 | 18,379 | 21,432 | 24,864 | 25,365 | 16,262 | 17,998 | 29,593 | 18,725 |
| Oleo stearine..... | 2,494 | 3,427 | 2,456 | 2,132 | 4,858 | 4,574 | 4,815 | 5,317 | 5,250 |
| Neutral lard..... | 42,401 | 45,702 | 45,764 | 38,456 | 39,208 | 27,057 | 29,568 | 32,210 | 25,674 |
| Oleo stock..... | 3,458 | 7,526 | 6,342 | 5,804 | 2,065 | 2,143 | 2,322 | 2,756 | 3,183 |
| Butter..... | 2,303 | 4,548 | 5,680 | 6,645 | 1,499 | 1,107 | 1,576 | 1,900 | 1,509 |
| Vegetable oil..... | | | | | 6,559 | | | | |
| Corn oil..... | 859 | 60 | 40 | 35 | 926 | | | 457 | 196 |
| Soy-bean oil..... | | | | | 461 | | | | |
| Edible tallow..... | | | | | 233 | | | 24 | 111 |
| Mustard-seed oil..... | | | | | 110 | | | 38 | 27 |
| Mutton oil..... | 149 | 14 | 11 | 14 | | | | | |
| Coloring..... | | | | | 26 | 11 | 11 | 26 | 33 |
| Miscellaneous..... | | | | | 3,217 | 3,417 | 2,918 | 432 | 688 |
| Total..... | 273,754 | 356,882 | 393,439 | 412,572 | 341,956 | 233,929 | 267,023 | 294,463 | 266,234 |

Division of Statistical and Historical Research. 1916-1919, Institute of Margarin Manufacturers; 1920-1924, Annual reports of the Bureau of Internal Revenue.

TABLE 516.—Oleomargarine: Production in the United States, 1918-1924

| Year | Uncolored; made of— | | | Colored; made of— | | | Total |
|----------------|--------------------------|---------------------------|------------------------|--------------------------|---------------------------|------------------------|-----------------|
| | Animal and vegetable oil | Exclusively vegetable oil | Exclusively animal oil | Animal and vegetable oil | Exclusively vegetable oil | Exclusively animal oil | |
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| 1918..... | 255,197 | 88,862 | 3,307 | 7,066 | 112 | 1,003 | 355,537 |
| 1919..... | 214,759 | 132,906 | 3,391 | 9,303 | 9,793 | 1,165 | 371,317 |
| 1920..... | 161,636 | 190,280 | 3,643 | 8,951 | 5,359 | 94 | 370,163 |
| 1921..... | 103,962 | 99,265 | 624 | 6,960 | 2,026 | 30 | 211,867 |
| 1922..... | 164,284 | 74,128 | 362 | 4,977 | 1,383 | 1 | 185,075 |
| 1923..... | 121,272 | 93,972 | 456 | 7,078 | 2,806 | | 225,580 |
| 1924..... | 119,041 | 97,871 | 413 | 7,847 | 3,259 | | 229,031 |
| 1924 | | | | | | | |
| January..... | 12,251 | 11,005 | 23 | 733 | 319 | | 24,331 |
| February..... | 11,594 | 10,066 | 20 | 742 | 343 | | 22,765 |
| March..... | 11,660 | 9,231 | 19 | 779 | 365 | | 22,054 |
| April..... | 10,253 | 8,934 | 61 | 721 | 301 | | 20,270 |
| May..... | 9,461 | 7,137 | 37 | 575 | 239 | | 17,449 |
| June..... | 8,538 | 5,870 | | 530 | 197 | | 15,135 |
| July..... | 8,550 | 5,784 | 48 | 553 | 219 | | 15,154 |
| August..... | 8,561 | 6,598 | 53 | 536 | 108 | | 15,940 |
| September..... | 9,935 | 8,241 | 63 | 686 | 228 | | 19,153 |
| October..... | 10,421 | 8,500 | 35 | 693 | 275 | | 19,987 |
| November..... | 8,487 | 7,665 | 22 | 591 | 255 | | 17,020 |
| December..... | 9,930 | 8,780 | 32 | 708 | 317 | | 19,767 |

Division of Statistical and Historical Research. Compiled from monthly reports of the Division of Dairy and Poultry Products.

TABLE 517.—*Oleomargarine: Production in the United States, 1909-1924*

COLORED

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. |
| 1909..... | 381 | 433 | 487 | 519 | 521 | 634 | 525 | 518 | 619 | 595 | 542 | 403 | 6,177 |
| 1910..... | 414 | 433 | 469 | 473 | 610 | 587 | 524 | 501 | 606 | 463 | 389 | 362 | 5,831 |
| 1911..... | 359 | 454 | 393 | 477 | 539 | 594 | 663 | 630 | 614 | 588 | 538 | 387 | 6,236 |
| 1912..... | 449 | 394 | 439 | 530 | 501 | 616 | 602 | 618 | 638 | 701 | 586 | 446 | 6,520 |
| 1913..... | 477 | 493 | 532 | 635 | 606 | 615 | 610 | 503 | 608 | 477 | 433 | 395 | 6,384 |
| Av. 1909-1913..... | 416 | 441 | 464 | 527 | 555 | 609 | 585 | 554 | 617 | 565 | 498 | 399 | 6,230 |
| 1914..... | 422 | 509 | 488 | 480 | 472 | 583 | 807 | 1,082 | 1,131 | 508 | 526 | 497 | 7,595 |
| 1915..... | 472 | 436 | 443 | 548 | 557 | 597 | 560 | 569 | 684 | 677 | 652 | 554 | 6,749 |
| 1916..... | 447 | 569 | 643 | 719 | 741 | 759 | 703 | 628 | 742 | 738 | 731 | 592 | 8,012 |
| 1917..... | 496 | 512 | 573 | 677 | 542 | 521 | 608 | 471 | 615 | 582 | 587 | 511 | 6,595 |
| 1918..... | 408 | 433 | 638 | 608 | 552 | 747 | 1,111 | 1,642 | 2,243 | 2,716 | 1,930 | 921 | 13,849 |
| 1919..... | 1,705 | 1,807 | 681 | 1,087 | 1,719 | 1,626 | 1,540 | 960 | 1,250 | 1,139 | 1,114 | 996 | 15,024 |
| 1920..... | 934 | 1,019 | 1,484 | 1,378 | 1,368 | 1,046 | 936 | 810 | 950 | 823 | 518 | 328 | 11,000 |
| Av. 1914-1920..... | 698 | 755 | 693 | 785 | 850 | 840 | 881 | 881 | 1,088 | 1,039 | 865 | 628 | 10,003 |
| 1921..... | 424 | 500 | 577 | 692 | 693 | 656 | 556 | 482 | 595 | 498 | 513 | 418 | 6,604 |
| 1922..... | 415 | 420 | 458 | 555 | 670 | 790 | 772 | 801 | 917 | 854 | 906 | 662 | 8,260 |
| 1923..... | 644 | 710 | 804 | 950 | 1,009 | 1,096 | 1,104 | 1,157 | 1,229 | 1,102 | 872 | 805 | 11,548 |
| 1924..... | 830 | 777 | 945 | 989 | 878 | 1,074 | 1,008 | 912 | 1,083 | 1,039 | 928 | 817 | 11,280 |

UNCOLORED

| Year beginning July | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. | 1,000 lbs. |
| 1909..... | 5,499 | 6,386 | 9,809 | 12,497 | 13,313 | 15,814 | 15,816 | 12,639 | 13,456 | 12,747 | 10,175 | 8,384 | 135,685 |
| 1910..... | 6,902 | 9,307 | 12,702 | 12,627 | 13,823 | 13,002 | 10,885 | 8,996 | 9,676 | 8,866 | 8,424 | 5,182 | 115,332 |
| 1911..... | 4,788 | 6,701 | 7,816 | 9,248 | 11,228 | 12,652 | 15,639 | 13,738 | 11,654 | 10,988 | 10,629 | 7,287 | 122,365 |
| 1912..... | 6,785 | 8,529 | 9,397 | 13,807 | 12,623 | 14,802 | 13,199 | 13,213 | 13,139 | 13,892 | 11,036 | 8,288 | 139,707 |
| 1913..... | 7,947 | 8,784 | 12,790 | 14,786 | 13,777 | 14,277 | 14,485 | 12,686 | 12,317 | 9,724 | 8,305 | 7,587 | 137,637 |
| Av. 1909-1913..... | 6,384 | 7,935 | 10,503 | 12,692 | 12,953 | 14,009 | 13,945 | 12,283 | 12,048 | 10,843 | 9,114 | 7,336 | 129,945 |
| 1914..... | 7,847 | 9,502 | 12,036 | 13,120 | 13,310 | 14,063 | 12,516 | 12,371 | 12,010 | 10,785 | 10,319 | 9,436 | 138,215 |
| 1915..... | 8,711 | 9,183 | 10,491 | 12,394 | 11,782 | 13,380 | 11,993 | 13,034 | 15,243 | 13,974 | 13,746 | 11,300 | 145,761 |
| 1916..... | 8,948 | 11,272 | 15,516 | 19,246 | 21,899 | 23,287 | 18,272 | 19,593 | 22,128 | 22,740 | 24,314 | 17,943 | 225,158 |
| 1917..... | 16,490 | 19,519 | 20,181 | 33,374 | 29,009 | 30,227 | 32,496 | 35,855 | 31,512 | 22,912 | 23,410 | 18,949 | 319,634 |
| 1918..... | 19,888 | 17,959 | 28,428 | 43,543 | 32,434 | 36,662 | 40,166 | 19,741 | 27,431 | 31,448 | 29,135 | 18,533 | 345,368 |
| 1919..... | 22,700 | 25,168 | 26,424 | 34,357 | 35,602 | 39,005 | 35,312 | 31,701 | 36,337 | 30,667 | 34,760 | 23,726 | 375,659 |
| 1920..... | 23,625 | 25,516 | 29,899 | 29,918 | 29,089 | 24,705 | 22,630 | 20,773 | 22,532 | 18,685 | 13,537 | 8,572 | 269,481 |
| Av. 1914-1920..... | 15,458 | 16,874 | 21,282 | 26,565 | 24,718 | 25,904 | 24,769 | 21,867 | 24,013 | 21,602 | 21,317 | 15,570 | 259,939 |
| 1921..... | 10,581 | 16,612 | 16,920 | 20,588 | 17,985 | 17,754 | 15,610 | 14,139 | 15,375 | 13,432 | 13,356 | 11,994 | 184,346 |
| 1922..... | 11,866 | 12,623 | 13,684 | 17,380 | 18,618 | 20,269 | 20,105 | 17,889 | 20,137 | 18,063 | 16,090 | 13,582 | 200,923 |
| 1923..... | 12,633 | 15,966 | 18,258 | 21,521 | 21,473 | 21,052 | 23,597 | 21,805 | 21,189 | 19,359 | 16,800 | 14,497 | 228,150 |
| 1924..... | 14,689 | 15,285 | 18,324 | 19,151 | 16,188 | 19,182 | 18,171 | 16,317 | 18,046 | 17,629 | 16,071 | 14,469 | 204,122 |

Division of Statistical and Historical Research. Compiled from annual reports of the Bureau of Internal Revenue.

TABLE 518.—Oleomargarine: Monthly average wholesale price per pound, Chicago, 1914-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1914..... | 18.0 | 18.0 | 18.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 18.0 | 18.0 | 18.0 | 18.0 | 17.6 |
| 1915..... | 18.0 | 18.0 | 18.0 | 18.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.3 |
| 1916..... | 17.0 | 17.0 | 17.0 | 18.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 20.0 | 22.0 | 24.0 | 19.2 |
| 1917..... | 22.5 | 22.5 | 22.5 | 24.5 | 25.5 | 25.5 | 25.5 | 25.5 | 26.5 | 28.5 | 28.5 | 28.5 | 25.5 |
| 1918..... | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 29.5 | 30.5 | 32.5 | 32.5 | 29.5 |
| 1919..... | 32.5 | 32.5 | 31.5 | 31.5 | 34.5 | 35.5 | 35.5 | 35.5 | 36.5 | 34.5 | 35.5 | 35.5 | 34.3 |
| 1920..... | 35.5 | 34.4 | 33.5 | 33.5 | 33.5 | 32.6 | 31.7 | 30.5 | 30.5 | 29.5 | 29.5 | 27.0 | 31.8 |
| Av. 1914-1920..... | 24.6 | 24.4 | 24.1 | 24.4 | 25.0 | 25.0 | 24.9 | 24.9 | 25.3 | 25.4 | 26.1 | 26.1 | 25.0 |
| 1921..... | 24.9 | 23.6 | 22.2 | 20.5 | 19.8 | 18.5 | 18.9 | 20.5 | 20.5 | 20.5 | 20.1 | 19.5 | 20.8 |
| 1922..... | 19.0 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 18.2 | 18.5 | 18.5 | 18.5 | 19.2 | 20.5 | 18.3 |
| 1923..... | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 21.0 | 21.5 | 22.2 | 22.5 | 20.9 |
| 1924..... | 22.5 | 22.5 | 21.9 | 20.5 | 20.5 | 20.5 | 21.2 | 22.5 | 22.5 | 23.0 | 24.0 | 24.5 | 22.2 |
| 1925..... | 24.5 | 24.5 | 24.5 | 24.5 | 23.9 | 23.5 | 23.7 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.3 |
| Av. 1921-1925..... | 22.3 | 21.7 | 21.3 | 20.7 | 20.4 | 20.1 | 20.5 | 21.3 | 21.4 | 21.6 | 22.0 | 22.3 | 21.3 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics Wholesale Price bulletins.

CATTLE DISEASES

TABLE 519.—Cattle: Tuberculin testing under accredited-herd and area plans, 1917-1925

| Year ended June 30— | Cattle tested | | | | | Herds accredited | Herds passed one test | Under supervision | |
|---------------------|------------------------------|------------|------------|-------------------|------------------------------|------------------|-----------------------|-------------------|------------|
| | Accred- ited-herd plan | Area plan | Total | Reactors found | Per cent react- ors | | | Herds | Cattle |
| 1917..... | 20,101 | ----- | 20,101 | 645 | 3.2 | ----- | ----- | ----- | ----- |
| 1918..... | 134,143 | ----- | 134,143 | 6,544 | 4.9 | 204 | 883 | ----- | ----- |
| 1919..... | 329,878 | ----- | 329,878 | 13,528 | 4.1 | 782 | 6,535 | ----- | ----- |
| 1920..... | 700,670 | ----- | 700,670 | 28,709 | 4.1 | 3,370 | 16,599 | ----- | ----- |
| 1921..... | 1,366,358 | ----- | 1,366,358 | 53,768 | 3.9 | 8,201 | 49,814 | 71,806 | 1,195,797 |
| 1922..... | 1,722,209 | 1,662,027 | 2,384,236 | 82,569 | 3.5 | 16,216 | 161,533 | 212,182 | 2,616,395 |
| 1923..... | 1,695,662 | 1,765,187 | 3,460,849 | 113,844 | 3.3 | 28,526 | 312,281 | 400,097 | 4,449,722 |
| 1924..... | 1,865,863 | 3,446,501 | 5,312,364 | 171,559 | 3.2 | 48,273 | 529,018 | 705,906 | 7,374,093 |
| 1925..... | 2,008,526 | 4,991,502 | 7,000,028 | 214,491 | 3.1 | 72,383 | 921,758 | 1,120,526 | 11,392,381 |
| Total... | 9,843,410 | 10,865,217 | 20,708,627 | 685,657 | 3.3 | ----- | ----- | ----- | ----- |

Bureau of Animal Industry.

¹ Testing during six months.

TABLE 520.—Cattle: Status of tuberculosis eradication work, by States, June 30, 1925

| State | Herds accredited | Herds passed one test | Under supervision | | Eradication from areas 1 | | | | | | Total tuberculin tests 1917 to June 30, 1925 | | | |
|----------------------|------------------|-----------------------|-------------------|-----------|------------------------------|--|--|------------------------|---------------|---------------------|--|-----------|---------|------|
| | | | Herds | Cattle | Modified accredited counties | Additional counties having completed one or more tests of all cattle | Counties intensively engaged in testing cattle | Total counties engaged | Cattle tested | Total cattle tested | Reactors | | | |
| | | | | | | | | | | | Number | Per cent | | |
| Alabama | 175 | 2,065 | 2,722 | 32,189 | | | | 3 | 3 | 13,032 | 177,843 | 1,819 | 1.0 | |
| Arizona | 18 | 3,180 | 4,137 | 74,405 | | | | 4 | 4 | 73,116 | 40,685 | 1,156 | 2.8 | |
| Arkansas | 26 | 2,898 | 3,088 | 17,433 | | | | | | | 59,417 | 2,672 | 4.5 | |
| California | 77 | 2,060 | 2,960 | 128,312 | | 2 | | | 2 | 142,126 | 173,079 | 1,429 | 0.8 | |
| Colorado | 48 | 1,114 | 1,446 | 18,822 | | | | | | 8,028 | 19,961 | 696 | 3.2 | |
| Connecticut | 707 | 1,608 | 1,643 | 37,061 | | | | | | | 174,068 | 18,367 | 10.6 | |
| Delaware | 953 | 1,884 | 3,434 | 15,367 | | | | | | | 66,724 | 6,859 | 10.3 | |
| District of Columbia | 26 | 233 | 296 | 1,262 | | | | | | 413 | 10,556 | 119 | 1.1 | |
| Florida | 368 | 5,717 | 6,547 | 81,868 | | 3 | | | 1 | | 150,027 | 2,283 | 1.4 | |
| Georgia | 30 | 6,377 | 7,863 | 114,047 | | | | | 1 | 1 | 12,379 | 138,062 | 2,268 | 1.7 |
| Illinois | 87 | 20,008 | 23,113 | 228,384 | | | 3 | | 0 | 13 | 264,327 | 344,263 | 3,081 | 0.9 |
| Indiana | 993 | 64,800 | 76,383 | 704,975 | | 1 | | | 61 | 62 | 1,215,102 | 61,049 | 5.0 | |
| Iowa | 12,323 | 40,264 | 53,369 | 419,851 | | 6 | 3 | | 15 | 25 | 1,020,106 | 16,138 | 2.0 | |
| Kansas | 5,634 | 55,489 | 91,505 | 1,612,929 | | 6 | | | 39 | 45 | 1,460,747 | 67,426 | 3.1 | |
| Kentucky | 886 | 17,680 | 19,222 | 268,260 | | 5 | | | 5 | 22 | 219,203 | 422,816 | 5,088 | 1.3 |
| Louisiana | 241 | 37,484 | 43,740 | 290,684 | | | 15 | | 12 | 27 | 222,553 | 318,875 | 4,094 | 1.4 |
| Maine | 36 | 2,373 | 3,687 | 46,667 | | | | | | | 142,525 | 4,464 | 2.0 | |
| Maryland | 2,167 | 13,502 | 16,064 | 128,444 | | | | | 16 | 16 | 137,015 | 269,426 | 4,507 | 1.7 |
| Massachusetts | 1,561 | 4,857 | 11,060 | 88,755 | | | | | 6 | 6 | 121,735 | 279,269 | 23,564 | 8.4 |
| Michigan | 1,246 | 4,755 | 1,489 | 30,584 | | | | | | | | 107,748 | 14,962 | 13.9 |
| Minnesota | 183 | 64,496 | 67,539 | 539,303 | | 9 | 19 | | 2 | 30 | 1,067,438 | 1,298,911 | 32,452 | 2.8 |
| Mississippi | 5,796 | 12,632 | 20,116 | 438,445 | | 3 | 4 | | | 5 | 364,172 | 30,472 | 32 | 2.3 |
| Missouri | 121 | 1,640 | 1,782 | 28,433 | | | | | | | 8,683 | 160,190 | 861 | 0.5 |
| Montana | 852 | 54,185 | 57,442 | 553,433 | | | | | 28 | 28 | 376,474 | 496,950 | 6,514 | 0.9 |
| Nebraska | 106 | 19,645 | 20,465 | 331,562 | | | | | 4 | 4 | 246,751 | 649,667 | 5,476 | 1.1 |
| Nevada | 172 | 26,182 | 24,717 | 327,215 | | 2 | 5 | | 9 | 16 | 500,110 | 12,773 | 1,541 | 1.0 |
| New Hampshire | 9 | 2,141 | 2,533 | 70,658 | | | | | 6 | 5 | 43,897 | 73,823 | 1,912 | 2.0 |
| New Jersey | 1,813 | 1,650 | 2,098 | 48,593 | | | | | | | 133,846 | 9,313 | 11,815 | 7.0 |
| New Mexico | 523 | 1,401 | 2,128 | 16,505 | | | | | | | 145,515 | 11,815 | 11,815 | 8.1 |
| New York | 11 | 3,070 | 3,338 | 34,310 | | | | | | | 30,183 | 33,721 | 161 | 0.5 |
| North Carolina | 13,010 | 24,628 | 46,639 | 641,553 | | 1 | 3 | | 12 | 12 | 946,318 | 1,418,162 | 161,107 | 11.4 |
| North Dakota | 117 | 155,052 | 168,969 | 458,745 | | 37 | | | 36 | 60 | 369,242 | 477,088 | 2,940 | 0.6 |

| | | | | | | | | | | | |
|---|--------|---------|-----------|------------|----|-----|-----|------------|------------|---------|-----|
| North Dakota..... | 2,928 | 20,199 | 26,241 | 490,516 | 5 | 18 | 23 | 380,008 | 734,917 | 12,282 | 1.7 |
| Ohio..... | 1,388 | 38,771 | 44,054 | 307,513 | 5 | 14 | 19 | 325,457 | 574,464 | 22,494 | 3.9 |
| Oklahoma..... | 289 | 82 | 407 | 14,778 | 1 | 9 | 13 | 229,237 | 144,338 | 3,400 | 2.4 |
| Oregon..... | 849 | 51,863 | 52,780 | 448,021 | 3 | 8 | 15 | 270,429 | 479,430 | 7,365 | 1.5 |
| Pennsylvania..... | 3,667 | 26,842 | 33,972 | 285,160 | 3 | 12 | 15 | 270,429 | 647,315 | 23,623 | 4.0 |
| Rhode Island..... | 40 | 10 | 68 | 1,567 | 1 | 1 | 1 | 2,565 | 9,866 | 675 | 6.8 |
| South Carolina..... | 177 | 827 | 5,798 | 31,992 | 3 | 1 | 4 | 80,070 | 101,239 | 1,128 | 1.1 |
| South Dakota..... | 456 | 580 | 1,240 | 36,837 | 3 | 1 | 4 | 80,070 | 152,416 | 5,208 | 3.4 |
| Tennessee..... | 229 | 13,063 | 13,386 | 94,690 | 3 | 1 | 4 | 80,070 | 236,442 | 1,726 | 0.7 |
| Texas..... | 275 | 769 | 1,130 | 41,060 | 3 | 1 | 4 | 80,070 | 181,866 | 2,217 | 1.2 |
| Utah..... | 80 | 10,106 | 11,071 | 88,072 | 1 | 11 | 13 | 145,916 | 208,868 | 2,235 | 1.1 |
| Vermont..... | 3,533 | 1,472 | 7,337 | 124,940 | 2 | 1 | 3 | 42,013 | 478,178 | 23,983 | 6.4 |
| Virginia..... | 1,576 | 5,942 | 7,807 | 84,924 | 3 | 31 | 34 | 272,211 | 389,047 | 9,223 | 2.7 |
| Washington..... | 106 | 32,073 | 34,263 | 323,356 | 3 | 2 | 3 | 41,028 | 474,286 | 9,950 | 2.1 |
| West Virginia..... | 605 | 5,934 | 6,728 | 68,907 | 1 | 2 | 3 | 913,265 | 144,161 | 2,609 | 1.8 |
| Wisconsin..... | 6,809 | 60,136 | 70,901 | 1,095,543 | 28 | 1 | 29 | 67,285 | 1,865,029 | 34,827 | 1.9 |
| Wyoming..... | 9 | 5,843 | 6,594 | 77,040 | 1 | 1 | 1 | 67,285 | 96,550 | 890 | 0.9 |
| Indian schools ¹ | | | | | | | | | 413 | 27 | 6.5 |
| Purebred herds ² in the United States ³ | | | | | | | | | 4,498 | 157 | 2.5 |
| Total..... | 72,383 | 921,756 | 1,120,626 | 11,392,331 | 89 | 106 | 591 | 10,865,217 | 20,708,627 | 685,657 | 3.3 |

Bureau of Animal Industry.

¹ Accredited-herd work begun in 1917; area work, 1921.

² Includes area testing in the smaller than counties.

³ Testing in 1917 before work was organized by States.

TABLE 521. *Cattle: Tick eradication progress and status of the work June 30, 1925*

| State | Counties quarantined July 1 1906 | Counties quarantined June 30, 1925 | Released counties | | | Cattle dipped year ended June 30, 1925 ¹ | |
|---------------------|----------------------------------|------------------------------------|-----------------------------|---|-------------------------|---|------------|
| | | | Released counties tick free | Released counties with one or more infested herds | Total counties released | Herds | Cattle |
| Alabama..... | 67 | 8 | 41 | 18 | 59 | 411,020 | 2,543,502 |
| Arkansas..... | 75 | 37 | 34 | 4 | 38 | 175,043 | 850,994 |
| California..... | 15 | 0 | 15 | 0 | 15 | | |
| Florida..... | 58 | 53 | 1 | 4 | 5 | 197,820 | 1,538,290 |
| Georgia..... | 157 | 0 | 138 | 19 | 157 | 83,071 | 1,114,142 |
| Kentucky..... | 2 | 0 | 2 | 0 | 2 | | |
| Louisiana..... | 65 | 38 | 4 | 23 | 27 | 131,797 | 2,369,972 |
| Mississippi..... | 81 | 23 | 54 | 4 | 58 | 62,920 | 707,111 |
| Missouri..... | 4 | 0 | 4 | 0 | 4 | | |
| North Carolina..... | 75 | 7 | 53 | 15 | 68 | 93,583 | 289,476 |
| Oklahoma..... | 61 | 5 | 49 | 7 | 56 | 38,770 | 400,689 |
| South Carolina..... | 44 | 2 | 36 | 6 | 42 | 107,830 | 552,606 |
| Tennessee..... | 42 | 0 | 42 | 0 | 42 | 1,294 | 3,679 |
| Texas..... | 199 | 94 | 56 | 49 | 105 | 483,329 | 13,709,457 |
| Virginia..... | 30 | 4 | (*) | 26 | 26 | | |
| Total..... | 975 | 271 | 529 | 175 | 704 | 1,786,486 | 24,079,918 |

Bureau of Animal Industry.

¹ More than 25,000 vats were in use for official dipping during the year.² No bureau cooperation in 1925.

SWINE

TABLE 522.—*Swine: Yearly losses per 1,000 from disease, 1909–1925*

| Year ended Apr. 30— | Losses per 1,000 | Year ended Apr. 30— | Losses per 1,000 | Year ended Apr. 30— | Losses per 1,000 |
|---------------------|------------------|---------------------|------------------|---------------------|------------------|
| 1909..... | 51.0 | 1915..... | 60.2 | 1921..... | 43.0 |
| 1910..... | 45.1 | 1916..... | 48.6 | 1922..... | 54.4 |
| 1911..... | 44.8 | 1917..... | 42.1 | 1923..... | 51.3 |
| 1912..... | 89.2 | 1918..... | 41.4 | 1924..... | 53.1 |
| 1913..... | 110.1 | 1919..... | 40.8 | 1925..... | 38.6 |
| 1914..... | 118.9 | 1920..... | | | |

Division of Crop and Livestock Estimates. As reported by crop reporters May 1 for year ending April 30.

TABLE 523.—Swine: Number and value on farms, by States, January 1, 1920–1926

| State | Number, Jan. 1— | | | | Average value per head, Jan. 1— | | | | Farm value, Jan. 1— | | | |
|---------------------|-----------------|----------|----------|----------|---------------------------------|---------|---------|---------|---------------------|------------------|------------------|------------------|
| | 1920 | 1921 | 1922 | 1923 | Dollars | Dollars | Dollars | Dollars | Thousand dollars | Thousand dollars | Thousand dollars | Thousand dollars |
| | Thousand | Thousand | Thousand | Thousand | Dollars | Dollars | Dollars | Dollars | Thousand dollars | Thousand dollars | Thousand dollars | Thousand dollars |
| Maine..... | 91 | 73 | 61 | 59 | 24.50 | 21.00 | 14.70 | 18.30 | 2,220 | 1,533 | 897 | 1,080 |
| New Hampshire..... | 42 | 31 | 28 | 26 | 24.00 | 20.00 | 15.00 | 17.00 | 1,008 | 620 | 420 | 442 |
| Vermont..... | 73 | 63 | 52 | 53 | 22.50 | 14.80 | 12.40 | 14.00 | 1,642 | 932 | 645 | 742 |
| Massachusetts..... | 104 | 75 | 65 | 64 | 27.00 | 20.50 | 16.30 | 17.00 | 2,808 | 1,538 | 1,068 | 1,068 |
| Rhode Island..... | 13 | 12 | 10 | 8 | 30.00 | 21.00 | 17.50 | 18.10 | 390 | 252 | 175 | 145 |
| Connecticut..... | 61 | 45 | 38 | 30 | 27.50 | 20.00 | 17.00 | 17.70 | 1,678 | 900 | 646 | 531 |
| New York..... | 601 | 490 | 385 | 365 | 22.50 | 17.50 | 14.50 | 15.50 | 13,522 | 8,400 | 5,592 | 5,968 |
| New Jersey..... | 139 | 113 | 96 | 86 | 25.00 | 20.00 | 17.00 | 17.50 | 3,503 | 2,260 | 1,632 | 1,400 |
| Pennsylvania..... | 1,191 | 1,000 | 1,000 | 1,020 | 23.70 | 17.50 | 14.50 | 16.00 | 28,227 | 19,220 | 15,370 | 16,320 |
| Ohio..... | 3,064 | 2,950 | 2,900 | 3,100 | 19.20 | 13.30 | 10.90 | 12.10 | 59,213 | 39,235 | 31,610 | 37,610 |
| Indiana..... | 3,757 | 3,700 | 3,100 | 3,500 | 19.00 | 13.00 | 11.00 | 11.90 | 71,383 | 48,100 | 34,100 | 41,650 |
| Illinois..... | 4,639 | 4,635 | 4,425 | 5,750 | 20.50 | 13.70 | 10.50 | 12.50 | 95,100 | 66,240 | 46,462 | 71,875 |
| Michigan..... | 1,106 | 1,060 | 1,100 | 1,150 | 22.00 | 14.30 | 11.30 | 12.50 | 24,322 | 15,138 | 12,430 | 14,375 |
| Wisconsin..... | 1,896 | 1,710 | 1,680 | 1,960 | 23.50 | 14.50 | 10.50 | 13.10 | 37,505 | 24,705 | 17,640 | 25,675 |
| Minnesota..... | 2,381 | 2,000 | 2,900 | 3,650 | 24.00 | 15.30 | 11.20 | 13.20 | 57,144 | 39,780 | 32,480 | 48,180 |
| Iowa..... | 8,114 | 8,265 | 8,928 | 11,602 | 21.80 | 14.50 | 11.00 | 12.80 | 176,885 | 119,842 | 98,208 | 148,506 |
| Missouri..... | 3,889 | 4,100 | 4,410 | 5,050 | 16.50 | 11.00 | 8.50 | 9.80 | 64,168 | 45,100 | 37,485 | 49,490 |
| North Dakota..... | 458 | 455 | 460 | 590 | 21.00 | 14.00 | 11.00 | 13.50 | 9,618 | 6,370 | 5,060 | 7,965 |
| South Dakota..... | 1,954 | 1,913 | 2,200 | 3,100 | 21.50 | 13.50 | 10.00 | 13.50 | 42,011 | 25,826 | 22,000 | 41,850 |
| Nebraska..... | 3,436 | 3,558 | 4,100 | 5,638 | 20.80 | 13.50 | 10.00 | 12.00 | 71,812 | 48,033 | 41,000 | 67,656 |
| Kansas..... | 1,733 | 1,947 | 2,392 | 2,990 | 17.50 | 12.00 | 9.50 | 11.00 | 30,328 | 23,364 | 22,724 | 32,890 |
| Delaware..... | 39 | 36 | 33 | 30 | 19.00 | 10.00 | 10.00 | 11.00 | 741 | 330 | 330 | 330 |
| Maryland..... | 306 | 285 | 263 | 240 | 19.00 | 13.00 | 11.50 | 13.00 | 5,814 | 3,705 | 3,024 | 3,120 |
| Virginia..... | 941 | 828 | 729 | 714 | 15.00 | 11.50 | 9.60 | 10.50 | 14,115 | 9,522 | 6,996 | 7,497 |
| West Virginia..... | 305 | 269 | 235 | 220 | 18.00 | 14.00 | 10.80 | 12.30 | 5,490 | 3,766 | 2,754 | 2,829 |
| North Carolina..... | 1,271 | 1,246 | 1,186 | 1,100 | 20.00 | 13.70 | 12.00 | 13.30 | 25,420 | 19,562 | 14,232 | 14,630 |
| South Carolina..... | 845 | 840 | 870 | 920 | 21.50 | 13.50 | 9.20 | 11.30 | 18,158 | 11,340 | 8,004 | 10,120 |
| Georgia..... | 2,071 | 1,920 | 1,800 | 1,600 | 16.90 | 11.50 | 7.80 | 7.80 | 35,000 | 22,063 | 15,480 | 12,480 |
| Florida..... | 800 | 832 | 757 | 727 | 13.00 | 10.00 | 8.00 | 7.50 | 10,400 | 8,320 | 5,299 | 5,452 |
| Kentucky..... | 1,504 | 1,320 | 1,161 | 1,273 | 13.00 | 9.90 | 7.50 | 8.80 | 19,552 | 13,068 | 8,708 | 11,202 |
| Tennessee..... | 1,832 | 1,994 | 1,546 | 1,654 | 15.00 | 9.50 | 8.00 | 9.30 | 27,420 | 15,143 | 12,368 | 15,382 |
| Alabama..... | 1,497 | 1,347 | 1,307 | 1,261 | 12.80 | 10.00 | 8.60 | 9.30 | 19,162 | 13,470 | 11,727 | 11,727 |
| Mississippi..... | 1,373 | 1,195 | 1,150 | 1,040 | 14.50 | 9.50 | 8.00 | 8.00 | 19,908 | 11,352 | 9,440 | 9,320 |
| Arkansas..... | 1,378 | 1,233 | 1,190 | 1,139 | 12.50 | 8.80 | 7.10 | 6.90 | 17,225 | 10,850 | 8,449 | 7,859 |
| Louisiana..... | 1,851 | 1,749 | 1,700 | 1,650 | 14.30 | 11.70 | 8.60 | 7.80 | 12,169 | 8,763 | 6,020 | 5,070 |

TABLE 523.—Swine: Number and value on farms, by States, January 1, 1920-1926—Continued

| State | Number, Jan. 1— | | | | Average value per head, Jan. 1— | | | | Farm value, Jan. 1— | | | |
|--------------------|-----------------|----------|----------|----------|---------------------------------|---------|---------|---------|---------------------|------------------|------------------|------------------|
| | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 |
| | Thousand | Thousand | Thousand | Thousand | Dollars | Dollars | Dollars | Dollars | Thousand dollars | Thousand dollars | Thousand dollars | Thousand dollars |
| Oklahoma..... | 1,304 | 1,213 | 1,324 | 1,401 | 15.10 | 10.30 | 8.50 | 8.80 | 19,600 | 12,404 | 11,339 | 12,352 |
| Texas..... | 2,400 | 2,330 | 2,190 | 1,880 | 18.50 | 11.50 | 8.80 | 8.80 | 43,800 | 27,494 | 18,815 | 16,544 |
| Montana..... | 167 | 160 | 180 | 223 | 20.00 | 16.50 | 13.10 | 13.30 | 3,340 | 2,640 | 2,338 | 2,970 |
| Idaho..... | 240 | 220 | 200 | 320 | 17.80 | 12.50 | 11.00 | 11.50 | 4,272 | 2,750 | 2,960 | 3,680 |
| Wyoming..... | 72 | 68 | 88 | 106 | 18.40 | 14.00 | 12.00 | 12.50 | 1,326 | 952 | 996 | 1,312 |
| Colorado..... | 450 | 414 | 405 | 692 | 18.00 | 12.30 | 9.40 | 10.50 | 8,100 | 5,092 | 4,368 | 6,216 |
| New Mexico..... | 88 | 90 | 94 | 96 | 21.80 | 15.00 | 9.00 | 10.00 | 1,918 | 1,350 | 846 | 880 |
| Arizona..... | 50 | 40 | 37 | 38 | 18.00 | 16.00 | 12.00 | 13.00 | 1,500 | 840 | 444 | 494 |
| Utah..... | 99 | 70 | 80 | 100 | 15.00 | 13.00 | 10.00 | 10.90 | 1,466 | 910 | 800 | 1,090 |
| Nevada..... | 27 | 25 | 26 | 36 | 14.00 | 11.00 | 10.00 | 14.00 | 578 | 276 | 250 | 392 |
| Washington..... | 265 | 238 | 197 | 217 | 23.80 | 15.00 | 12.50 | 14.80 | 6,174 | 8,540 | 2,462 | 3,212 |
| Oregon..... | 267 | 248 | 236 | 231 | 19.50 | 10.70 | 10.70 | 11.20 | 5,205 | 3,174 | 2,514 | 2,811 |
| California..... | 909 | 818 | 818 | 818 | 18.00 | 14.50 | 11.70 | 11.80 | 16,302 | 11,961 | 9,571 | 9,652 |
| United States..... | 59,813 | 58,711 | 59,355 | 68,447 | 19.08 | 12.98 | 10.06 | 11.58 | 1,141,102 | 762,217 | 597,985 | 752,949 |

Division of Crop and Livestock Estimates.

TABLE 523.—Swine: Number and value on farms, by States, January 1, 1920-1926—Continued.

| State | Number, Jan. 1— | | | Average value per head, Jan. 1— | | | Farm value, Jan. 1— | | |
|---------------------|-----------------|---------------|-------------------|---------------------------------|---------|---------|--------------------------|--------------------------|--------------------------|
| | 1924 | 1925 | 1926 ¹ | 1924 | 1925 | 1926 | 1924 | 1925 | 1926 ¹ |
| | Thou- sand | Thou- sand | Thou- sand | Dollars | Dollars | Dollars | Thou- sand dollars | Thou- sand dollars | Thou- sand dollars |
| Maine..... | 60 | 54 | 58 | 17.00 | 18.50 | 18.50 | 1,020 | 990 | 980 |
| New Hampshire..... | 18 | 17 | 19 | 16.00 | 18.00 | 19.00 | 288 | 306 | 361 |
| Vermont..... | 53 | 44 | 41 | 13.80 | 14.00 | 18.00 | 731 | 616 | 738 |
| Massachusetts..... | 65 | 64 | 64 | 17.00 | 17.00 | 19.00 | 1,105 | 1,088 | 1,216 |
| Rhode Island..... | 6 | 4 | 4 | 18.00 | 20.00 | 20.00 | 108 | 80 | 86 |
| Connecticut..... | 21 | 17 | 16 | 18.00 | 22.00 | 23.00 | 378 | 374 | 368 |
| New York..... | 347 | 270 | 262 | 14.70 | 17.00 | 19.50 | 5,101 | 4,560 | 5,109 |
| New Jersey..... | 66 | 56 | 53 | 17.00 | 17.50 | 19.50 | 1,122 | 980 | 1,034 |
| Pennsylvania..... | 980 | 782 | 727 | 14.50 | 16.00 | 19.00 | 14,210 | 12,512 | 13,813 |
| Ohio..... | 2,960 | 2,421 | 2,203 | 10.00 | 12.20 | 15.00 | 29,500 | 28,536 | 33,046 |
| Indiana..... | 3,550 | 3,143 | 2,890 | 9.80 | 11.90 | 15.70 | 34,790 | 37,402 | 45,378 |
| Illinois..... | 5,025 | 4,725 | 4,631 | 10.10 | 13.60 | 18.50 | 50,812 | 64,260 | 70,412 |
| Michigan..... | 1,143 | 966 | 815 | 10.00 | 14.00 | 16.20 | 11,430 | 12,684 | 13,203 |
| Wisconsin..... | 1,900 | 1,580 | 1,612 | 9.90 | 13.00 | 16.60 | 18,810 | 20,540 | 26,759 |
| Minnesota..... | 3,830 | 3,600 | 3,528 | 10.30 | 14.00 | 17.50 | 39,449 | 50,400 | 63,000 |
| Iowa..... | 11,415 | 9,633 | 9,440 | 10.30 | 15.00 | 17.00 | 117,574 | 144,495 | 160,480 |
| Missouri..... | 4,860 | 3,884 | 3,671 | 8.50 | 9.30 | 13.30 | 41,310 | 35,935 | 48,824 |
| North Dakota..... | 738 | 788 | 686 | 10.00 | 12.50 | 16.50 | 7,380 | 9,860 | 11,319 |
| South Dakota..... | 3,009 | 2,760 | 2,374 | 10.10 | 13.20 | 16.50 | 30,300 | 26,422 | 39,171 |
| Nebraska..... | 5,983 | 4,818 | 4,050 | 10.00 | 13.20 | 17.20 | 59,830 | 63,598 | 69,600 |
| Kansas..... | 2,747 | 2,467 | 2,023 | 9.00 | 12.00 | 14.50 | 24,723 | 29,004 | 29,334 |
| Delaware..... | 27 | 24 | 21 | 10.50 | 14.00 | 16.00 | 284 | 338 | 336 |
| Maryland..... | 219 | 262 | 192 | 11.25 | 12.90 | 14.90 | 2,464 | 2,606 | 2,861 |
| Virginia..... | 678 | 584 | 555 | 9.90 | 10.70 | 11.70 | 6,712 | 6,249 | 6,494 |
| West Virginia..... | 212 | 179 | 182 | 11.60 | 12.00 | 14.80 | 2,332 | 2,148 | 2,260 |
| North Carolina..... | 1,020 | 894 | 832 | 12.50 | 12.00 | 13.10 | 12,750 | 10,728 | 10,890 |
| South Carolina..... | 830 | 580 | 435 | 11.30 | 11.40 | 11.10 | 9,379 | 6,612 | 4,828 |
| Georgia..... | 1,520 | 1,275 | 1,109 | 8.00 | 9.00 | 9.00 | 12,160 | 11,475 | 9,981 |
| Florida..... | 640 | 550 | 806 | 7.00 | 6.50 | 7.00 | 4,480 | 3,575 | 3,542 |
| Kentucky..... | 1,185 | 932 | 802 | 7.00 | 9.00 | 12.40 | 8,295 | 8,388 | 9,946 |
| Tennessee..... | 1,340 | 1,035 | 880 | 7.40 | 9.00 | 11.80 | 9,916 | 9,315 | 10,384 |
| Alabama..... | 1,049 | 845 | 776 | 8.80 | 9.40 | 9.40 | 9,231 | 7,943 | 7,294 |
| Mississippi..... | 909 | 729 | 678 | 7.40 | 8.40 | 10.10 | 6,660 | 6,124 | 6,848 |
| Arkansas..... | 878 | 857 | 771 | 6.10 | 8.00 | 9.10 | 5,356 | 6,856 | 7,016 |
| Louisiana..... | 580 | 538 | 496 | 7.60 | 8.40 | 9.00 | 4,408 | 4,435 | 4,464 |
| Oklahoma..... | 1,175 | 969 | 736 | 6.70 | 9.40 | 11.80 | 7,872 | 9,109 | 8,665 |
| Texas..... | 1,000 | 1,250 | 1,062 | 9.00 | 10.00 | 12.20 | 14,400 | 12,500 | 12,866 |
| Montana..... | 292 | 280 | 290 | 11.20 | 12.00 | 16.00 | 3,270 | 3,360 | 4,390 |
| Idaho..... | 400 | 325 | 276 | 9.40 | 10.50 | 14.00 | 3,760 | 3,412 | 3,861 |
| Wyoming..... | 129 | 102 | 90 | 10.00 | 10.50 | 14.80 | 1,290 | 1,071 | 1,332 |
| Colorado..... | 575 | 492 | 443 | 9.50 | 11.00 | 14.30 | 5,462 | 5,412 | 6,335 |
| New Mexico..... | 71 | 59 | 47 | 9.00 | 11.00 | 13.00 | 639 | 649 | 611 |
| Arizona..... | 24 | 21 | 18 | 9.50 | 11.00 | 13.00 | 228 | 231 | 224 |
| Utah..... | 90 | 64 | 55 | 10.10 | 11.50 | 14.00 | 909 | 736 | 730 |
| Nevada..... | 31 | 27 | 22 | 9.00 | 12.00 | 15.00 | 279 | 324 | 330 |
| Washington..... | 221 | 198 | 158 | 13.00 | 13.00 | 15.70 | 2,873 | 2,574 | 2,481 |
| Oregon..... | 270 | 223 | 201 | 10.50 | 11.00 | 15.00 | 2,835 | 2,453 | 3,015 |
| California..... | 624 | 532 | 468 | 10.50 | 10.20 | 15.20 | 6,552 | 5,426 | 7,114 |
| United States..... | 65,987 | 55,769 | 51,223 | 9.72 | 12.38 | 15.21 | 640,767 | 690,328 | 779,348 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 524.—*Swine: Numbers in countries having 150,000 or over, pre-war and years 1921-1926*

[Thousands—i. e., 000 omitted]

| Country | Month of estimate | Average pre-war ¹ | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 |
|--|-------------------|------------------------------|---------------------|--------|--------|----------------------|--------|--------|
| NORTH AND CENTRAL AMERICA AND WEST INDIES | | | | | | | | |
| Canada | June | 3,350 | 3,905 | 3,916 | 4,405 | 5,069 | 4,426 | |
| United States ² | | 61,865 | 58,711 | 59,355 | 68,447 | 65,937 | 55,769 | 51,223 |
| Mexico | June | ³ 811 | | | 552 | 760 | | |
| Guatemala | | 188 | 48 | 96 | 32 | 57 | | |
| Salvador | | 220 | | | | | | |
| Dominican Republic | May | | 874 | | | | | |
| SOUTH AMERICA | | | | | | | | |
| Venezuela | | 195 | 512 | | | | | |
| Peru | February-April | | | 469 | 429 | | | |
| Chile | | 172 | | 263 | | | | |
| Brazil | September | 18,401 | ⁴ 16,169 | | | | | |
| Uruguay | | ⁵ 180 | ⁶ 304 | | | | | |
| Argentina | December | ⁷ 2,901 | 3,237 | 3,221 | 1,457 | | | |
| EUROPE | | | | | | | | |
| England and Wales | June | 2,390 | 2,505 | 2,299 | 2,612 | 3,228 | 2,644 | |
| Scotland | do | 150 | 145 | 151 | 186 | 199 | 162 | |
| Ireland | do | 1,261 | 977 | 1,037 | 1,352 | 1,127 | 843 | |
| Norway ⁸ | do | ⁹ 334 | 127 | | 237 | 249 | 253 | |
| Sweden | do | 1,023 | ⁴ 1,011 | | | | | |
| Denmark | July | 2,715 | 1,430 | 1,899 | 2,855 | 2,868 | 2,646 | |
| Holland | May-June | 1,350 | 1,519 | | | | | |
| Belgium | December | 1,533 | 977 | 976 | 1,139 | 1,176 | 1,139 | |
| France | do | 7,529 | 4,941 | 5,166 | 5,196 | 5,406 | 5,802 | |
| Spain | do | 2,544 | | 5,152 | 4,229 | 4,728 | 4,160 | |
| Portugal | | ¹⁰ 1,111 | ⁴ 981 | | | | | |
| Italy | March-April | 2,685 | ¹¹ 2,509 | | | | | |
| Switzerland | April | 670 | 640 | | | | | |
| Germany | December | 22,533 | 14,179 | 15,818 | 14,678 | ¹² 17,308 | 16,895 | 16,160 |
| Austria | do | 1,932 | 1,326 | | 1,473 | | | |
| Czechoslovakia | do | 2,516 | 2,201 | | | ¹⁴ 2,580 | | |
| Hungary | April | 3,322 | | 2,473 | 2,133 | 2,458 | 2,633 | |
| Yugoslavia | January | 3,956 | 3,373 | 2,902 | 2,578 | 2,497 | | |
| Greece | | 346 | 404 | | | | | |
| Bulgaria | December | 646 | 1,090 | | | | | 574 |
| Rumania | | 3,262 | 3,160 | 3,147 | 2,925 | 3,133 | | |
| Poland | | 5,231 | 5,425 | | | 5,500 | | |
| Lithuania | | 1,358 | 1,343 | 1,514 | 1,697 | 1,564 | | |
| Latvia | June | 557 | 482 | 402 | 487 | 458 | 497 | |
| Estonia | | 252 | 261 | 272 | 339 | 285 | | |
| Finland | September | 422 | 375 | 378 | 382 | 376 | | |
| Russia | Summer | 11,250 | 10,423 | 6,738 | 8,104 | 15,125 | 14,203 | |

¹ A average for 5-year period immediately preceding war if available, otherwise for any years within this period except as otherwise stated. In countries having changed boundaries the figures are estimates for one year only of numbers within present boundaries.

² Revised estimates of Division of Crop and Livestock Estimates, 1921-1926. These figures are made on the basis of census figures of 1920 and 1925, of annual assessment data and other information. The estimates prepared in the Bureau of Animal Industry by adjustment of the census figures to a Jan. 1 basis and including all animals in towns and villages as well as on farms and ranges are as follows: Average 59,300; 1921, 58,600; 1922, 60,900; 1923, 71,600; 1924, 69,100; 1925, 56,700.

³ Year 1902.

⁴ Year 1920.

⁵ Year 1908.

⁶ Year 1916.

⁷ June, 1914.

⁸ Number in rural communities.

⁹ September.

¹⁰ Year 1906.

¹¹ Year 1918.

¹² Estimated for present boundaries. The number within former boundaries on Apr. 6, 1918, amounted to 2,338,926.

¹³ No census was made in December, 1923, which estimate would have been considered as of January 1924, in this table as explained in the general note, so the figure for October, 1923, has been used.

¹⁴ Unofficial.

TABLE 524.—Swine: Numbers in countries having 150,000 or over, pre-war and years 1921-1926—Continued

[Thousands—I. e., 000 omitted]

| Country | Month of estimate | Average pre-war | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 |
|---------------------------------|-------------------|------------------|---------------------|-------------------|---------------------|-------|---------------------|------|
| AFRICA | | | | | | | | |
| Morocco..... | | ¹⁸ 16 | 115 | 78 | 49 | 56 | | |
| Algeria..... | September | 111 | 114 | 102 | 107 | | | |
| Union of South Africa..... | | 1,082 | 915 | 941 | 914 | 778 | | |
| Madagascar..... | | 600 | 458 | 406 | | 314 | | |
| ASIA | | | | | | | | |
| Russia..... | | 2,037 | ¹⁸ 2,068 | ¹⁸ 899 | ¹⁸ 1,291 | 2,547 | ¹⁸ 2,106 | |
| China (includes Manchuria)..... | | 76,819 | | | | | | |
| Japan..... | December..... | 297 | 528 | 500 | 512 | 668 | | |
| Chosen..... | do..... | 629 | 977 | 1,011 | 1,101 | | 1,130 | |
| Formosa..... | do..... | 1,293 | 1,303 | 1,281 | 1,287 | | | |
| Siam..... | | 749 | 864 | | | | | |
| Philippine Islands..... | December..... | 1,763 | 3,639 | 4,477 | 5,241 | 7,525 | | |
| Java and Madura..... | | | 97 | 107 | | | | |
| Outer Possessions..... | | | 805 | 808 | | | | |
| OCEANIA | | | | | | | | |
| Australia..... | December..... | 910 | 764 | 960 | 986 | 896 | | |
| New Zealand..... | January..... | 349 | 350 | 384 | 401 | 414 | 440 | |

Division of Statistical and Historical Research. Census returns are in *italics*; other returns in *roman*. All estimates for countries reporting as of December have been considered as of January of the following year.

¹⁸ Year 1915.

¹⁸ Excludes Transcaucasia and Turkestan. The number in Turkestan and Azerbaijan (part of Transcaucasia) in 1920 amounted to 102,000.

TABLE 525.—Hogs: Summary of spring and fall pig surveys

| State | Sows farrowed | | | | Average number of pigs saved per litter ¹ | | | | Intended farrowing: (Sows bred or to be bred) | | | | | | | |
|---------------------|--------------------------------------|--|--------------------------------------|--|--|--------------|------|--------|--|---|---------------------------------------|---|---------------------------------------|---|----------|----------|
| | Fall, 1923, compared with fall, 1922 | Spring, 1924, compared with spring, 1923 | Fall, 1924, compared with fall, 1923 | Spring, 1925, compared with spring, 1924 | Fall, 1924 | Spring, 1924 | 1925 | | Fall, 1923, compared with actual 1922 | Spring, 1924, compared with actual 1923 | Fall, 1924, compared with actual 1923 | Spring, 1925, compared with actual 1924 | Fall, 1925, compared with actual 1924 | Spring, 1926, compared with actual 1925 | Per cent | Per cent |
| | Per cent | Per cent | Per cent | Per cent | | | Fall | Spring | | | | | | | | |
| Maine..... | 82.0 | 125.8 | 87.5 | 80.4 | 5.7 | 6.2 | 6.8 | 6.9 | 160.2 | 130.3 | 119.3 | 107.2 | 111.9 | 130.2 | 130.2 | 130.2 |
| New Hampshire..... | 103.6 | 138.4 | 83.7 | 88.4 | 3.6 | 6.7 | 7.5 | 7.0 | 160.2 | 111.0 | 117.9 | 113.9 | 165.3 | 119.1 | 119.1 | 119.1 |
| Vermont..... | 127.2 | 112.8 | 89.1 | 91.3 | 3.7 | 7.1 | 6.1 | 6.9 | 162.4 | 134.0 | 122.1 | 104.2 | 124.4 | 100.8 | 100.8 | 100.8 |
| Massachusetts..... | 100.0 | 132.9 | 107.0 | 92.9 | 3.6 | 6.9 | 6.8 | 7.5 | 163.2 | 134.5 | 127.5 | 111.2 | 124.4 | 114.6 | 114.6 | 114.6 |
| Rhode Island..... | 100.0 | 124.2 | 90.0 | 41.5 | 3.5 | 7.2 | 6.8 | 7.5 | 163.2 | 134.5 | 127.5 | 111.2 | 124.4 | 106.2 | 106.2 | 106.2 |
| Connecticut..... | 108.1 | 114.8 | 75.5 | 67.0 | 3.7 | 6.2 | 6.8 | 7.5 | 163.2 | 134.5 | 127.5 | 111.2 | 124.4 | 106.2 | 106.2 | 106.2 |
| New York..... | 105.9 | 113.9 | 77.6 | 84.8 | 3.1 | 6.3 | 7.3 | 6.8 | 163.2 | 134.5 | 127.5 | 111.2 | 124.4 | 106.2 | 106.2 | 106.2 |
| New Jersey..... | 98.6 | 103.8 | 82.3 | 77.7 | 3.1 | 6.3 | 6.4 | 6.8 | 163.2 | 134.5 | 127.5 | 111.2 | 124.4 | 106.2 | 106.2 | 106.2 |
| Pennsylvania..... | 107.4 | 103.8 | 83.0 | 76.7 | 3.5 | 6.1 | 6.4 | 6.8 | 163.2 | 134.5 | 127.5 | 111.2 | 124.4 | 106.2 | 106.2 | 106.2 |
| Ohio..... | 107.0 | 97.7 | 83.9 | 74.6 | 3.8 | 6.1 | 6.3 | 6.0 | 123.2 | 93.8 | 91.7 | 85.8 | 95.0 | 103.4 | 103.4 | 103.4 |
| Indiana..... | 107.0 | 96.3 | 81.4 | 68.2 | 3.4 | 3.7 | 3.3 | 3.9 | 119.6 | 92.4 | 88.6 | 84.4 | 95.8 | 95.8 | 95.8 | 95.8 |
| Illinois..... | 108.3 | 94.9 | 76.3 | 65.6 | 3.2 | 3.4 | 3.3 | 3.8 | 122.3 | 93.6 | 91.6 | 87.8 | 98.5 | 102.2 | 102.2 | 102.2 |
| Michigan..... | 115.8 | 104.7 | 78.5 | 72.6 | 3.5 | 6.3 | 6.7 | 6.2 | 131.8 | 94.7 | 90.7 | 88.7 | 108.6 | 108.6 | 108.6 | 108.6 |
| Wisconsin..... | 108.6 | 101.9 | 78.8 | 61.5 | 3.5 | 3.8 | 3.4 | 3.9 | 123.9 | 94.7 | 90.7 | 88.7 | 108.6 | 108.6 | 108.6 | 108.6 |
| Minnesota..... | 105.1 | 93.7 | 81.6 | 69.4 | 3.0 | 3.4 | 3.7 | 3.4 | 119.5 | 94.7 | 90.7 | 88.7 | 108.6 | 108.6 | 108.6 | 108.6 |
| Iowa..... | 116.9 | 93.7 | 81.6 | 69.4 | 3.0 | 3.4 | 3.7 | 3.4 | 119.5 | 94.7 | 90.7 | 88.7 | 108.6 | 108.6 | 108.6 | 108.6 |
| Missouri..... | 108.1 | 90.6 | 75.7 | 77.9 | 3.0 | 3.4 | 3.6 | 3.9 | 124.3 | 92.7 | 88.6 | 86.1 | 97.9 | 110.7 | 110.7 | 110.7 |
| North Dakota..... | 116.0 | 112.7 | 92.2 | 75.7 | 4.9 | 3.5 | 3.6 | 3.9 | 203.0 | 121.8 | 140.2 | 103.1 | 120.3 | 112.7 | 112.7 | 112.7 |
| South Dakota..... | 111.4 | 90.4 | 82.9 | 77.6 | 4.6 | 4.7 | 3.2 | 3.1 | 150.4 | 93.8 | 103.0 | 93.5 | 103.2 | 108.2 | 108.2 | 108.2 |
| Nebraska..... | 109.0 | 86.5 | 80.6 | 74.8 | 4.9 | 5.1 | 3.3 | 3.3 | 142.0 | 97.3 | 103.0 | 93.5 | 103.2 | 108.2 | 108.2 | 108.2 |
| Kansas..... | 114.8 | 89.3 | 69.9 | 64.1 | 3.8 | 5.0 | 3.8 | 3.8 | 132.1 | 91.2 | 91.2 | 88.0 | 97.7 | 109.8 | 109.8 | 109.8 |
| Corn Belt..... | 108.3 | 93.9 | 78.7 | 80.1 | 3.2 | 4.5 | 3.8 | 3.8 | 132.5 | 94.6 | 88.6 | 88.6 | 100.9 | 111.1 | 111.1 | 111.1 |
| Delaware..... | 104.1 | 117.4 | 98.1 | 76.7 | 3.2 | 6.4 | 6.4 | 6.1 | 112.4 | 112.2 | 113.6 | 76.2 | 93.0 | 121.4 | 121.4 | 121.4 |
| Maryland..... | 95.7 | 108.9 | 86.8 | 79.1 | 3.5 | 5.8 | 6.4 | 6.2 | 137.0 | 106.1 | 100.9 | 94.1 | 98.7 | 110.6 | 110.6 | 110.6 |
| Virginia..... | 98.9 | 100.7 | 87.7 | 84.7 | 3.9 | 5.8 | 6.7 | 6.6 | 127.6 | 93.9 | 106.5 | 97.3 | 107.3 | 105.9 | 105.9 | 105.9 |
| West Virginia..... | 99.8 | 110.1 | 78.6 | 75.5 | 6.2 | 6.4 | 6.9 | 6.6 | 125.9 | 106.5 | 106.7 | 90.7 | 85.2 | 106.3 | 106.3 | 106.3 |
| North Carolina..... | 92.6 | 97.3 | 84.5 | 80.9 | 3.3 | 5.3 | 6.0 | 5.9 | 132.8 | 113.3 | 124.1 | 102.3 | 107.7 | 109.1 | 109.1 | 109.1 |
| South Carolina..... | 102.6 | 86.3 | 82.5 | 76.7 | 4.7 | 4.8 | 4.0 | 5.3 | 140.7 | 124.2 | 103.5 | 106.5 | 110.4 | 112.9 | 112.9 | 112.9 |
| Georgia..... | 85.5 | 75.2 | 77.9 | 97.4 | 4.7 | 5.1 | 3.8 | 5.4 | 118.9 | 111.0 | 113.7 | 113.2 | 106.7 | 114.8 | 114.8 | 114.8 |
| Florida..... | 80.5 | 84.0 | 74.4 | 79.1 | 4.6 | 5.1 | 3.2 | 4.9 | 127.3 | 112.4 | 112.4 | 123.7 | 106.7 | 110.8 | 110.8 | 110.8 |
| Kentucky..... | 101.2 | 91.3 | 64.8 | 76.2 | 5.2 | 5.8 | 6.1 | 6.0 | 115.2 | 86.1 | 73.4 | 92.1 | 114.6 | 116.5 | 116.5 | 116.5 |

| | | | | | | | | | | | | | | | |
|--------------------|-------|-------|-------|-------|------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| Tennessee..... | 97.7 | 79.0 | 63.8 | 70.0 | 84.6 | 5.2 | 5.7 | 5.9 | 6.0 | 120.9 | 91.2 | 95.8 | 95.4 | 103.8 | 115.3 |
| Alabama..... | 85.0 | 73.0 | 82.9 | 83.5 | 70.2 | 4.5 | 4.6 | 5.5 | 5.0 | 130.1 | 115.1 | 111.6 | 119.0 | 113.2 | 118.6 |
| Mississippi..... | 88.7 | 86.5 | 74.8 | 83.5 | 80.8 | 4.5 | 5.2 | 5.2 | 5.2 | 134.1 | 113.3 | 111.8 | 113.7 | 120.0 | 124.4 |
| Arkansas..... | 90.1 | 75.1 | 71.8 | 81.0 | 82.5 | 4.8 | 4.9 | 5.4 | 5.8 | 147.0 | 115.2 | 105.7 | 108.7 | 125.2 | 122.2 |
| Louisiana..... | 79.5 | 74.2 | 76.8 | 82.5 | 77.2 | 4.6 | 4.3 | 5.1 | 5.6 | 122.1 | 117.7 | 117.7 | 121.2 | 107.4 | 150.0 |
| Oklahoma..... | 93.8 | 70.8 | 49.9 | 76.7 | 68.3 | 5.1 | 5.0 | 5.6 | 5.8 | 133.5 | 82.6 | 90.5 | 93.2 | 120.2 | 101.6 |
| Texas..... | 76.7 | 81.8 | 68.4 | 111.6 | 62.5 | 4.8 | 5.1 | 5.4 | 5.0 | 130.4 | 97.0 | 107.2 | 108.2 | 120.5 | 127.7 |
| Montana..... | 120.2 | 105.9 | 127.0 | 93.7 | 79.4 | 4.2 | 5.4 | 4.3 | 6.1 | 173.8 | 128.7 | 140.3 | 96.0 | 149.6 | 101.1 |
| Idaho..... | 130.5 | 109.3 | 96.7 | 82.5 | 90.5 | 4.6 | 5.1 | 4.6 | 6.1 | 161.2 | 111.8 | 126.4 | 92.9 | 93.1 | 118.7 |
| Wyoming..... | 131.2 | 132.0 | 115.2 | 69.6 | 94.2 | 5.2 | 5.2 | 5.8 | 6.2 | 222.4 | 110.0 | 127.3 | 108.7 | 126.6 | 117.6 |
| Colorado..... | 117.6 | 100.1 | 73.5 | 81.3 | 92.7 | 5.0 | 5.2 | 5.6 | 5.0 | 153.9 | 118.3 | 116.4 | 108.4 | 101.6 | 113.5 |
| New Mexico..... | 65.5 | 61.9 | 81.8 | 78.9 | 83.0 | 4.3 | 7.0 | 5.3 | 5.3 | 110.5 | 78.3 | 116.4 | 121.7 | 158.8 | 105.3 |
| Arizona..... | 116.5 | 91.9 | 96.6 | 81.1 | 77.8 | 4.6 | 6.4 | 5.0 | 6.2 | 110.4 | 113.7 | 108.0 | 131.5 | 130.2 | 125.0 |
| Utah..... | 130.9 | 112.8 | 73.5 | 90.1 | 72.7 | 5.8 | 6.4 | 5.0 | 6.2 | 232.1 | 133.3 | 102.6 | 86.1 | 134.5 | 119.2 |
| Nevada..... | 130.0 | 138.5 | 98.6 | 67.5 | 76.3 | 6.1 | 6.7 | 5.8 | 6.8 | 138.0 | 140.0 | 136.0 | 93.0 | 92.1 | 110.6 |
| Washington..... | 126.0 | 107.8 | 97.4 | 78.0 | 79.0 | 6.1 | 6.3 | 6.3 | 6.7 | 145.7 | 133.0 | 106.8 | 93.0 | 92.3 | 104.3 |
| Oregon..... | 113.6 | 95.3 | 91.9 | 72.3 | 80.7 | 6.2 | 6.4 | 7.1 | 6.6 | 140.0 | 111.8 | 106.8 | 116.5 | 110.8 | 118.2 |
| California..... | 122.8 | 74.2 | 83.9 | 68.4 | 84.2 | 5.7 | 5.4 | 5.4 | 6.2 | 140.0 | 101.4 | 85.7 | | | |
| United States..... | 103.9 | 91.3 | 73.8 | 81.2 | 84.6 | 5.1 | 5.5 | 5.8 | 5.7 | 128.3 | 98.8 | 94.1 | 94.3 | 104.6 | 111.9 |

Division of Crop and Livestock Estimates. Based on reports of about 140,000 farmers gathered in cooperation with Post Office Department through the rural mail carriers. Periods covered: Dec. 1 to June 1 (spring), June 1 to Dec. 1 (fall).

- † Total pigs saved divided by sows farrowed as reported by farmers.
 ‡ Intentions are as of the close of the preceding 6-months' period; for example, those for spring farrowing 1926 were intentions expressed as of Dec. 1, 1925.
 § Total of 12 States immediately preceding, i. e. Ohio to Kansas.
 ¶ Not including North Dakota.

TABLE 526.—*Hogs: Receipts and shipments at principal markets and all markets, 1909-1925*

[Thousands—i. e., 000 omitted]

RECEIPTS

| Year | Chi- cago | Den- ver | East St. Louis | Fort Worth | Kan- sas City | Oma- ha | South St. Joseph | South St. Paul | Sioux City | Total nine mar- kets | All other mar- kets re- port- ing | Total all mar- kets re- port- ing |
|-----------|--------------|-------------|----------------------|---------------|---------------------|------------|------------------------|----------------------|---------------|-------------------------------|---|---|
| 1909..... | 6,619 | 242 | 2,473 | 868 | 3,093 | 2,135 | 1,694 | 725 | 1,077 | 18,926 | (¹) | (¹) |
| 1910..... | 5,587 | 187 | 2,054 | 541 | 2,086 | 1,894 | 1,353 | 836 | 1,044 | 15,582 | (¹) | (¹) |
| 1911..... | 7,103 | 220 | 3,124 | 556 | 3,168 | 2,367 | 1,922 | 911 | 1,349 | 20,720 | (¹) | (¹) |
| 1912..... | 7,181 | 222 | 2,530 | 388 | 2,523 | 2,886 | 1,970 | 964 | 1,698 | 20,382 | (¹) | (¹) |
| 1913..... | 7,571 | 247 | 2,584 | 404 | 2,568 | 2,543 | 1,869 | 1,257 | 1,533 | 20,576 | (¹) | (¹) |
| 1914..... | 6,618 | 286 | 2,559 | 515 | 2,265 | 2,259 | 1,725 | 1,590 | 1,257 | 19,044 | (¹) | (¹) |
| 1915..... | 7,652 | 344 | 2,592 | 464 | 2,531 | 2,643 | 1,698 | 2,155 | 1,761 | 21,840 | 14,373 | 36,213 |
| 1916..... | 9,188 | 467 | 3,057 | 968 | 2,979 | 3,117 | 2,199 | 2,675 | 2,131 | 26,781 | 16,484 | 43,265 |
| 1917..... | 7,169 | 352 | 2,708 | 1,062 | 2,277 | 2,797 | 1,920 | 1,928 | 2,149 | 22,360 | 15,682 | 38,042 |
| 1918..... | 8,614 | 384 | 3,266 | 762 | 3,328 | 3,430 | 2,351 | 2,061 | 2,421 | 26,607 | 18,256 | 44,863 |
| 1919..... | 8,672 | 368 | 3,651 | 588 | 3,141 | 3,179 | 2,126 | 2,190 | 2,322 | 26,237 | 18,232 | 44,469 |
| 1920..... | 7,526 | 341 | 3,399 | 413 | 2,466 | 2,708 | 1,914 | 2,247 | 2,173 | 23,187 | 18,934 | 42,121 |
| 1921..... | 8,148 | 334 | 3,330 | 382 | 2,205 | 2,665 | 1,785 | 2,210 | 1,739 | 22,798 | 18,303 | 41,101 |
| 1922..... | 8,156 | 395 | 3,606 | 510 | 2,655 | 2,839 | 2,061 | 2,523 | 1,856 | 24,601 | 19,466 | 44,067 |
| 1923..... | 10,460 | 495 | 4,831 | 486 | 3,615 | 3,649 | 2,457 | 3,338 | 2,989 | 32,320 | 23,010 | 55,330 |
| 1924..... | 10,443 | 569 | 4,580 | 392 | 2,933 | 3,978 | 2,234 | 3,751 | 3,732 | 32,612 | 22,802 | 55,414 |
| 1925..... | 7,996 | 467 | 3,512 | 312 | 2,067 | 3,355 | 1,673 | 3,637 | 3,396 | 26,415 | 17,514 | 43,929 |

SHIPMENTS

| | | | | | | | | | | | | |
|-----------|-------|------------------|-------|------------------|------------------|-----|-----|-------|-------|--------|------------------|------------------|
| 1909..... | 1,664 | (¹) | 891 | (¹) | (¹) | 278 | 47 | 137 | 180 | 3,197 | (¹) | (¹) |
| 1910..... | 1,202 | (¹) | 615 | (¹) | (¹) | 238 | 34 | 194 | 186 | 2,469 | (¹) | (¹) |
| 1911..... | 1,527 | (¹) | 880 | (¹) | (¹) | 217 | 41 | 244 | 320 | 3,229 | (¹) | (¹) |
| 1912..... | 1,573 | (¹) | 679 | (¹) | (¹) | 407 | 167 | 228 | 522 | 3,576 | (¹) | (¹) |
| 1913..... | 1,073 | (¹) | 918 | (¹) | (¹) | 381 | 70 | 320 | 453 | 3,815 | (¹) | (¹) |
| 1914..... | 1,291 | (¹) | 989 | (¹) | (¹) | 331 | 153 | 531 | 230 | 3,525 | (¹) | (¹) |
| 1915..... | 1,133 | 11 | 991 | 61 | 417 | 631 | 174 | 795 | 571 | 4,784 | 3,836 | 8,620 |
| 1916..... | 1,408 | 22 | 1,071 | 98 | 445 | 728 | 92 | 1,181 | 824 | 5,864 | 6,115 | 11,979 |
| 1917..... | 1,219 | 27 | 1,026 | 264 | 295 | 766 | 87 | 868 | 891 | 5,473 | 7,098 | 12,571 |
| 1918..... | 971 | 18 | 980 | 166 | 527 | 889 | 285 | 877 | 911 | 5,624 | 8,749 | 14,373 |
| 1919..... | 1,101 | 33 | 1,420 | 102 | 523 | 648 | 209 | 868 | 913 | 5,817 | 8,549 | 14,366 |
| 1920..... | 1,657 | 32 | 1,721 | 65 | 602 | 710 | 330 | 342 | 879 | 6,338 | 8,960 | 15,298 |
| 1921..... | 2,170 | 22 | 2,044 | 98 | 486 | 695 | 267 | 511 | 690 | 6,983 | 7,726 | 14,709 |
| 1922..... | 1,852 | 28 | 2,378 | 94 | 588 | 613 | 355 | 482 | 660 | 7,056 | 8,276 | 15,332 |
| 1923..... | 2,370 | 102 | 2,990 | 108 | 889 | 869 | 455 | 609 | 1,205 | 9,597 | 9,545 | 19,142 |
| 1924..... | 2,989 | 109 | 3,010 | 44 | 1,065 | 867 | 629 | 835 | 1,492 | 11,040 | 9,163 | 20,203 |
| 1925..... | 2,895 | 123 | 2,374 | 17 | 831 | 942 | 478 | 811 | 1,329 | 9,300 | 6,967 | 16,267 |

Division of Statistical and Historical Research. Prior to 1915 receipts compiled from yearbooks of stockyard companies; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool. Prior to 1915 shipments compiled from yearbooks of stockyard companies, except East St. Louis (1909 to 1914 from Merchants' Exchange Annual Report); subsequent figures from data of the reporting service of the Division of Livestock, Meats and Wool.

¹ Figures not available prior to 1915.

TABLE 527.—Hogs: Receipts at all public stockyards, 1915-1925

[Thousands—i. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1915 ¹ | 3,959 | 3,449 | 3,199 | 2,487 | 2,768 | 2,874 | 2,368 | 2,024 | 1,966 | 2,457 | 3,728 | 4,934 | 30,213 |
| 1916 ¹ | 5,309 | 4,233 | 3,489 | 2,852 | 3,332 | 3,054 | 2,524 | 2,634 | 2,386 | 3,640 | 4,873 | 4,939 | 43,246 |
| 1917..... | 5,084 | 3,933 | 3,369 | 2,961 | 3,264 | 2,791 | 2,593 | 1,853 | 1,616 | 2,676 | 3,941 | 3,992 | 38,042 |
| 1918..... | 4,444 | 4,486 | 4,424 | 3,696 | 3,345 | 2,979 | 3,099 | 2,467 | 2,376 | 3,399 | 4,594 | 5,654 | 44,863 |
| 1919..... | 6,856 | 4,412 | 3,643 | 3,648 | 3,831 | 3,773 | 2,974 | 2,095 | 2,397 | 3,121 | 3,740 | 4,980 | 41,460 |
| 1920..... | 5,262 | 3,422 | 3,940 | 3,024 | 4,210 | 3,709 | 2,811 | 2,491 | 2,391 | 2,789 | 3,872 | 4,200 | 42,121 |
| 1921..... | 4,700 | 4,009 | 3,388 | 3,229 | 3,328 | 3,579 | 2,727 | 2,656 | 2,655 | 3,214 | 3,687 | 3,931 | 41,101 |
| 1922..... | 4,278 | 3,613 | 3,411 | 3,066 | 3,737 | 3,776 | 2,980 | 3,037 | 3,062 | 3,682 | 4,421 | 5,004 | 44,067 |
| 1923..... | 5,306 | 4,492 | 4,927 | 4,318 | 4,524 | 4,204 | 4,181 | 3,714 | 3,607 | 4,816 | 5,416 | 5,825 | 55,330 |
| 1924..... | 6,253 | 5,335 | 4,833 | 4,374 | 4,321 | 4,296 | 4,091 | 3,197 | 3,216 | 3,990 | 4,904 | 6,604 | 55,414 |
| 1925..... | 6,105 | 4,558 | 3,528 | 3,247 | 3,283 | 3,507 | 2,798 | 2,549 | 2,741 | 3,390 | 3,843 | 4,380 | 43,920 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Complete information for 1915 and 1916, particularly on disposition of stock, is not obtainable from many of these markets.

TABLE 528.—Hogs: Receipts at Chicago, East St. Louis, Kansas City, and Omaha, combined, 1900-1925

[Thousands—i. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1900..... | 1,502 | 1,265 | 1,240 | 1,190 | 1,424 | 1,333 | 1,043 | 1,025 | 1,029 | 1,303 | 1,428 | 1,414 |
| 1901..... | 1,528 | 1,457 | 1,174 | 1,222 | 1,523 | 1,275 | 1,461 | 1,110 | 940 | 1,150 | 1,694 | 1,811 |
| 1902..... | 1,009 | 1,489 | 1,197 | 995 | 1,148 | 1,174 | 824 | 827 | 778 | 1,068 | 1,229 | 1,374 |
| 1903..... | 1,316 | 1,175 | 938 | 1,016 | 1,195 | 1,171 | 1,107 | 961 | 875 | 836 | 1,068 | 1,437 |
| 1904..... | 1,440 | 1,445 | 1,113 | 1,125 | 1,213 | 1,200 | 960 | 1,035 | 762 | 940 | 1,360 | 1,417 |
| 1905..... | 1,610 | 1,269 | 1,249 | 1,043 | 1,297 | 1,357 | 999 | 935 | 884 | 1,128 | 1,315 | 1,473 |
| 1906..... | 1,608 | 1,356 | 1,206 | 1,075 | 1,306 | 1,372 | 1,144 | 1,149 | 837 | 947 | 1,046 | 1,221 |
| 1907..... | 1,499 | 1,332 | 1,165 | 1,210 | 1,455 | 1,312 | 1,298 | 1,020 | 925 | 930 | 894 | 1,403 |
| 1908..... | 2,225 | 1,672 | 1,445 | 1,086 | 1,454 | 1,315 | 1,072 | 902 | 937 | 1,353 | 1,680 | 1,703 |
| 1909..... | 1,703 | 1,359 | 1,002 | 1,161 | 1,299 | 1,187 | 929 | 823 | 846 | 966 | 1,184 | 1,261 |
| 1910..... | 1,179 | 1,128 | 934 | 788 | 1,057 | 1,138 | 892 | 893 | 687 | 768 | 1,020 | 1,134 |
| 1911..... | 1,270 | 1,302 | 1,516 | 1,304 | 1,521 | 1,487 | 1,200 | 976 | 970 | 1,231 | 1,533 | 1,451 |
| 1912..... | 1,908 | 1,612 | 1,358 | 1,252 | 1,361 | 1,218 | 1,092 | 846 | 763 | 1,063 | 1,207 | 1,387 |
| 1913..... | 1,640 | 1,315 | 1,170 | 1,154 | 1,257 | 1,328 | 1,120 | 1,065 | 1,081 | 1,153 | 1,288 | 1,656 |
| A v. 1909-1913..... | 1,540 | 1,343 | 1,316 | 1,132 | 1,303 | 1,272 | 1,048 | 927 | 869 | 1,042 | 1,246 | 1,378 |
| 1914..... | 1,479 | 1,328 | 1,182 | 1,001 | 1,065 | 1,167 | 927 | 832 | 827 | 1,093 | 1,158 | 1,640 |
| 1915..... | 1,669 | 1,640 | 1,511 | 1,080 | 1,234 | 1,222 | 1,037 | 921 | 803 | 848 | 1,387 | 2,066 |
| 1916..... | 2,313 | 1,950 | 1,510 | 1,154 | 1,366 | 1,283 | 1,090 | 1,221 | 954 | 1,407 | 1,906 | 2,091 |
| 1917..... | 2,199 | 1,697 | 1,367 | 1,205 | 1,320 | 1,125 | 1,083 | 757 | 545 | 902 | 1,286 | 1,461 |
| 1918..... | 1,657 | 1,888 | 1,963 | 1,697 | 1,404 | 1,246 | 1,356 | 1,047 | 932 | 1,376 | 1,794 | 2,207 |
| 1919..... | 2,418 | 1,978 | 1,631 | 1,571 | 1,644 | 1,680 | 1,314 | 829 | 913 | 1,129 | 1,485 | 2,049 |
| 1920..... | 2,136 | 1,357 | 1,630 | 1,059 | 1,686 | 1,433 | 1,131 | 988 | 795 | 894 | 1,381 | 1,611 |
| A v. 1914-1920..... | 1,982 | 1,691 | 1,543 | 1,252 | 1,397 | 1,308 | 1,134 | 942 | 824 | 1,093 | 1,498 | 1,875 |
| 1921..... | 1,916 | 1,708 | 1,846 | 1,276 | 1,340 | 1,493 | 1,122 | 1,092 | 946 | 1,092 | 1,459 | 1,658 |
| 1922..... | 1,785 | 1,454 | 1,303 | 1,130 | 1,520 | 1,646 | 1,263 | 1,216 | 1,104 | 1,289 | 1,631 | 1,906 |
| 1923..... | 2,173 | 1,879 | 2,017 | 1,778 | 1,840 | 1,730 | 1,827 | 1,616 | 1,515 | 1,917 | 2,049 | 2,215 |
| 1924..... | 2,509 | 2,202 | 1,913 | 1,662 | 1,656 | 1,752 | 1,678 | 1,267 | 1,218 | 1,490 | 1,891 | 2,665 |
| 1925..... | 2,401 | 1,821 | 1,339 | 1,204 | 1,271 | 1,468 | 1,128 | 1,020 | 1,098 | 1,201 | 1,355 | 1,617 |
| A v. 1921-1925..... | 2,157 | 1,813 | 1,684 | 1,410 | 1,525 | 1,618 | 1,404 | 1,250 | 1,176 | 1,400 | 1,677 | 1,992 |

Division of Statistical and Historical Research. Prior to 1915 from yearbooks of stockyard companies; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 529.—*Hogs: Receipts, local slaughter, and stocker and feeder shipments public stockyards, 1915-1925*

[Thousands—i. e., 000 omitted]

RECEIPTS

| Market | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|--------|--------|------------------|--------|--------|--------|--------|------------------|------------------|------------------|------------------|
| Albany, N. Y. | | 26 | 50 | 5 | 2 | 2 | 1 | (¹) | (¹) | (¹) | (¹) |
| Amarillo, Tex. | 11 | 26 | 19 | 11 | 2 | 7 | 8 | 106 | 65 | 21 | 20 |
| Atlanta, Ga. | | 26 | 47 | 83 | 68 | 91 | 124 | 201 | 159 | 124 | 124 |
| Augusta, Ga. | | | 7 | 8 | 9 | 7 | 10 | 11 | 11 | 7 | 4 |
| Baltimore, Md. | 959 | 1,002 | 810 | 805 | 963 | 1,164 | 1,238 | 1,343 | 1,547 | 1,513 | 1,007 |
| Boston, Mass. | 8 | 22 | 20 | 14 | 22 | 14 | 8 | 8 | 5 | 8 | 11 |
| Buffalo, N. Y. | 1,806 | 1,692 | 1,114 | 1,361 | 1,352 | 1,494 | 1,603 | 1,475 | 1,821 | 1,656 | 1,131 |
| Chattanooga, Tenn. | | 16 | 14 | 12 | 14 | 11 | 17 | 13 | 16 | 19 | 20 |
| Cheyenne, Wyo. | | | 0 | 1 | 3 | 10 | 45 | 85 | 69 | 170 | 198 |
| Chicago, Ill. | 7,652 | 9,188 | 7,169 | 8,614 | 8,672 | 7,526 | 8,148 | 8,156 | 10,460 | 10,463 | 7,936 |
| Cincinnati, Ohio. | 1,180 | 1,260 | 1,239 | 1,463 | 1,674 | 1,478 | 1,435 | 1,347 | 1,401 | 1,365 | 1,040 |
| Cleveland, Ohio. | 977 | 970 | 808 | 1,314 | 1,084 | 1,012 | 960 | 1,092 | 1,185 | 1,269 | 785 |
| Dallas, Tex. | | 101 | 87 | 62 | 45 | 66 | 71 | 111 | 108 | 64 | 54 |
| Dayton, Ohio. | 118 | 91 | 88 | 118 | 108 | 129 | 131 | 130 | 167 | 161 | 122 |
| Denver, Colo. | 344 | 467 | 352 | 384 | 368 | 341 | 334 | 395 | 495 | 569 | 467 |
| Detroit, Mich. | 543 | 650 | 431 | 408 | 389 | 444 | 359 | 445 | 538 | 556 | 439 |
| East St. Louis, Ill. | 2,592 | 3,057 | 2,706 | 3,256 | 3,651 | 3,399 | 3,330 | 3,606 | 4,831 | 4,580 | 3,512 |
| El Paso, Tex. | 4 | 13 | 21 | 19 | 17 | 15 | 29 | 35 | 27 | 28 | 26 |
| Evansville, Ind. | | 196 | 148 | 222 | 255 | 243 | 219 | 235 | 256 | 191 | 152 |
| Fort Wayne, Ind. | | | | | | | | | 58 | 91 | 94 |
| Fort Worth, Tex. | 464 | 968 | 1,062 | 763 | 588 | 413 | 382 | 510 | 486 | 362 | 312 |
| Portsmouth, Ohio. | 98 | 76 | 67 | 96 | 79 | 90 | 107 | 105 | 111 | 117 | 106 |
| Indianapolis, Ind. | 2,435 | 2,576 | 2,351 | 2,750 | 2,936 | 2,867 | 2,695 | 2,267 | 2,676 | 2,865 | 2,067 |
| Jacksonville, Fla. | | 12 | 10 | 72 | 78 | 100 | 80 | 81 | 107 | 86 | 54 |
| Jersey City, N. J. | 1,175 | 1,137 | 744 | 566 | 408 | 629 | 560 | 458 | 513 | 535 | 467 |
| Kansas City, Mo. | 2,531 | 2,970 | 2,277 | 3,328 | 3,141 | 2,466 | 2,205 | 2,655 | 3,615 | 2,933 | 2,067 |
| Knoxville, Tenn. | 11 | 11 | 15 | 12 | 37 | 42 | 14 | 57 | 44 | 52 | 36 |
| Lafayette, Ind. | 98 | 119 | 123 | 186 | 198 | 204 | 166 | 105 | 129 | 142 | 122 |
| Lancaster, Pa. | 19 | 26 | 398 | 578 | 63 | 185 | 44 | 70 | 185 | 81 | 66 |
| Laredo, Tex. | | | | | | | | | 2 | 3 | 3 |
| Los Angeles, Calif. | | | | | | | | | 227 | 270 | 217 |
| Louisville, Ky. | 393 | 738 | 680 | 758 | 750 | 428 | 382 | 497 | 626 | 470 | 295 |
| Marion, Ohio. | | | | 49 | 155 | 217 | 95 | 109 | 103 | 82 | 54 |
| Memphis, Tenn. | | 1 | (¹) | 3 | 11 | 30 | 8 | 10 | 85 | 80 | 66 |
| Milwaukee, Wis. | 583 | 536 | 411 | 545 | 585 | 554 | 489 | 466 | 555 | 523 | 499 |
| Montgomery, Ala. | | | 10 | 48 | 171 | 109 | 97 | 95 | 73 | 62 | 47 |
| Moultrie, Ga. | | | | | | | 42 | 52 | 33 | 30 | 36 |
| Muncie, Ind. | | | | | | | | | | | 74 |
| Nashville, Tenn. | | 337 | 479 | 581 | 727 | 615 | 436 | 517 | 492 | 312 | 243 |
| Newark, N. J. | | | | | | | | | 576 | 605 | 533 |
| New Orleans, La. | | 61 | 58 | 50 | 63 | 63 | 50 | 41 | 46 | 50 | 30 |
| New York, N. Y. | 363 | 349 | 552 | 651 | 677 | 755 | 902 | 1,091 | 1,160 | 1,190 | 928 |
| North Salt Lake, Utah. | | 89 | 42 | 45 | 53 | 34 | 56 | 84 | 234 | 475 | 380 |
| Ogden, Utah. | | | 57 | 59 | 104 | 78 | 177 | 198 | 250 | 280 | 265 |
| Oklahoma City, Okla. | 485 | 759 | 634 | 571 | 470 | 341 | 371 | 504 | 488 | 325 | 276 |
| Omaha, Nebr. | 2,643 | 3,117 | 2,797 | 3,430 | 3,179 | 2,708 | 2,665 | 2,839 | 3,649 | 3,978 | 3,355 |
| Pasco, Wash. | | | | 6 | 7 | 2 | 2 | 1 | 2 | 6 | 9 |
| Peoria, Ill. | 281 | 370 | 362 | 395 | 390 | 354 | 434 | 386 | 573 | 890 | 708 |
| Philadelphia, Pa. | 168 | 267 | 219 | 273 | 345 | 481 | 465 | 478 | 358 | 375 | 276 |
| Pittsburgh, Pa. | 1,091 | 878 | 1,746 | 1,808 | 1,779 | 2,439 | 2,277 | 2,690 | 3,054 | 3,638 | 2,312 |
| Portland, Oreg. | 303 | 323 | 222 | 228 | 305 | 175 | 150 | 224 | 267 | 357 | 265 |
| Pueblo, Colo. | 5 | 19 | 17 | 23 | 24 | 14 | 5 | 11 | 16 | 38 | 29 |
| Richmond, Va. | 73 | 99 | 78 | 60 | 156 | 212 | 170 | 219 | 273 | 329 | 197 |
| South St. Joseph, Mo. | 1,098 | 2,199 | 1,920 | 2,351 | 2,136 | 1,914 | 1,785 | 2,061 | 2,457 | 2,234 | 1,673 |
| South St. Paul, Minn. | 2,155 | 2,674 | 1,928 | 2,061 | 2,190 | 2,247 | 2,209 | 2,523 | 3,338 | 3,751 | 3,637 |
| San Antonio, Tex. | 36 | 59 | 40 | 30 | 25 | 39 | 70 | 63 | 61 | 64 | 58 |
| Seattle, Wash. | | 170 | 130 | 127 | 126 | 95 | 134 | 151 | 218 | 275 | 256 |
| Sioux City, Iowa. | 1,761 | 2,131 | 2,149 | 2,421 | 2,322 | 2,173 | 1,739 | 1,856 | 2,989 | 3,732 | 3,396 |
| Sioux Falls, S. Dak. | | | 6 | 63 | 174 | 347 | 433 | 333 | 308 | 123 | 191 |
| Spokane, Wash. | 8 | 37 | 38 | 44 | 60 | 47 | 33 | 48 | 82 | 138 | 166 |
| Springfield, Ohio. | | | | | | | | | 64 | 91 | 109 |
| Toledo, Ohio. | 250 | 304 | 278 | 255 | 232 | 264 | 148 | 140 | 158 | 154 | 126 |
| Washington, D. C. | | 82 | 58 | 56 | 72 | 102 | 113 | 132 | 166 | 193 | 140 |
| Wichita, Kans. | 476 | 573 | 495 | 618 | 494 | 382 | 360 | 570 | 706 | 734 | 631 |
| Discontinued ¹ | 448 | 530 | 465 | 539 | 496 | 557 | 527 | 533 | 110 | 44 | (¹) |
| Total | 36,213 | 43,265 | 38,042 | 44,863 | 44,469 | 42,121 | 41,101 | 44,067 | 55,330 | 55,414 | 43,929 |

¹ Not over 500² Includes only those markets which have been totally discontinued.

TABLE 529.—Hogs: Receipts, local slaughter, and stocker and feeder shipments, public stockyards, 1915-1925—Continued

[Thousands—i. e., 000 omitted]

LOCAL SLAUGHTER:

| Market | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Albany, N. Y. | | | 3 | 1 | 2 | 2 | (1) | (1) | | (1) | |
| Amarillo, Tex. | | | | | | | | | | | 2 |
| Atlanta, Ga. | | | 27 | 24 | 27 | 42 | 61 | 62 | 95 | 78 | 67 |
| Augusta, Ga. | | | 5 | 3 | 5 | 5 | 7 | 9 | 7 | 6 | 4 |
| Baltimore, Md. | 726 | 747 | 558 | 514 | 661 | 874 | 1,043 | 1,020 | 1,202 | 1,197 | 886 |
| Buffalo, N. Y. | | 784 | 488 | 617 | 730 | 631 | 670 | 663 | 834 | 840 | 539 |
| Chattanooga, Tenn. | | | | 7 | 13 | 11 | 17 | 13 | 46 | 19 | 20 |
| Chicago, Ill. | 6,519 | 7,784 | 5,950 | 7,043 | 7,572 | 5,870 | 5,977 | 6,323 | 8,092 | 7,451 | 5,001 |
| Cincinnati, Ohio. | 656 | 601 | 688 | 706 | 823 | 789 | 898 | 909 | 784 | 854 | 755 |
| Cleveland, Ohio. | 826 | 776 | 578 | 850 | 729 | 610 | 688 | 750 | 927 | 987 | 547 |
| Dallas, Tex. | | 101 | 87 | 62 | 45 | 56 | 52 | 71 | 111 | 108 | 54 |
| Dayton, Ohio. | 83 | 67 | 57 | 60 | 61 | 76 | 83 | 99 | 101 | 102 | 92 |
| Denver, Colo. | 331 | 444 | 327 | 366 | 336 | 310 | 311 | 367 | 394 | 459 | 344 |
| Detroit, Mich. | | 561 | 207 | 287 | 336 | 360 | 269 | 279 | 358 | 350 | 311 |
| East St. Louis, Ill. | 1,600 | 1,987 | 1,680 | 2,276 | 2,231 | 1,678 | 1,289 | 1,220 | 1,842 | 1,570 | 1,138 |
| El Paso, Tex. | | | 15 | 7 | 9 | 11 | 14 | 17 | 22 | 25 | 23 |
| Evansville, Ind. | | 24 | 36 | 40 | 31 | 80 | 73 | 65 | 78 | 52 | 19 |
| Fort Wayne, Ind. | | | | | | | | | 16 | 19 | 20 |
| Fort Worth, Tex. | 392 | 880 | 797 | 568 | 464 | 322 | 277 | 418 | 377 | 349 | 245 |
| Forstoria, Ohio. | | 1 | 27 | 13 | 10 | 10 | 11 | 7 | 9 | 11 | 7 |
| Indianapolis, Ind. | 1,496 | 1,511 | 1,326 | 1,394 | 1,434 | 1,339 | 1,377 | 1,528 | 1,792 | 1,577 | 1,131 |
| Jacksonville, Fla. | 4 | | 15 | 68 | 66 | 72 | 47 | 26 | 26 | 19 | 21 |
| Jersey City, N. J. | 1,175 | 1,137 | 744 | 566 | 468 | 629 | 509 | 458 | 513 | 535 | 467 |
| Kansas City, Mo. | 2,114 | 2,527 | 1,978 | 2,655 | 2,600 | 1,838 | 1,713 | 2,052 | 2,721 | 1,872 | 1,237 |
| Knoxville, Tenn. | 1 | 4 | 6 | 1 | 3 | 2 | 9 | 18 | 23 | 26 | 25 |
| Lafayette, Ind. | | 57 | 39 | 33 | 37 | 40 | 44 | 56 | 61 | 68 | 60 |
| Lancaster, Pa. | | | | 8 | 13 | 11 | 17 | 20 | 20 | 27 | 29 |
| Laredo, Tex. | | | | | | | | | 2 | 2 | 3 |
| Los Angeles, Calif. | | | | | | | | | 211 | 268 | 211 |
| Louisville, Ky. | 129 | 168 | 132 | 138 | 173 | 156 | 180 | 231 | 365 | 323 | 234 |
| Marion, Ohio. | | | | 2 | 10 | 13 | 16 | 29 | 28 | 25 | 16 |
| Memphis, Tenn. | | | | | 2 | 1 | 4 | 6 | 65 | 69 | 66 |
| Milwaukee, Wis. | 566 | 529 | 394 | 463 | 584 | 509 | 462 | 459 | 548 | 515 | 453 |
| Montgomery, Ala. | | | | | 3 | 5 | 2 | 3 | 6 | 3 | 2 |
| Moultrie, Ga. | | | | | | | 26 | 45 | 26 | 19 | 30 |
| Muncie, Ind. | | | | | | | | | | | 31 |
| Nashville, Tenn. | | 29 | 46 | 57 | 67 | 82 | 113 | 125 | 180 | 186 | 154 |
| Newark, N. J. | | | | | | | | | 576 | 605 | 533 |
| New Orleans, La. | | 52 | 41 | 36 | 43 | 15 | 40 | 34 | 42 | 42 | 25 |
| New York, N. Y. | 303 | 349 | 552 | 651 | 677 | 755 | 902 | 1,001 | 1,100 | 1,190 | 928 |
| North Salt Lake, Utah. | | 1 | 31 | 39 | 39 | 25 | 36 | 42 | 51 | 69 | 50 |
| Ogden, Utah. | | | 3 | 52 | 67 | 47 | 47 | 47 | 66 | 68 | 64 |
| Oklahoma City, Okla. | 476 | 732 | 530 | 604 | 366 | 298 | 331 | 449 | 419 | 274 | 240 |
| Omaha, Nebr. | 2,012 | 2,391 | 2,601 | 2,541 | 2,531 | 1,998 | 1,971 | 2,226 | 2,789 | 3,109 | 2,416 |
| Pasco, Wash. | | | (1) | (1) | (1) | (1) | | | | | |
| Peoria, Ill. | 125 | 182 | 96 | 143 | 153 | 135 | 164 | 105 | 118 | 136 | 109 |
| Philadelphia, Pa. | | | 203 | 264 | 329 | 457 | 457 | 429 | 421 | 355 | 265 |
| Pittsburgh, Pa. | 157 | 155 | 290 | 279 | 279 | 413 | 505 | 507 | 567 | 674 | 520 |
| Portland, Oreg. | 173 | 189 | 129 | 187 | 108 | 91 | 112 | 158 | 187 | 180 | 165 |
| Pueblo, Colo. | | | (1) | (1) | | | 1 | (1) | (1) | (1) | (1) |
| Richmond, Va. | 70 | 5 | 74 | 86 | 154 | 210 | 160 | 216 | 260 | 311 | 194 |
| South St. Joseph, Mo. | 1,524 | 2,107 | 1,883 | 2,064 | 1,919 | 1,584 | 1,517 | 1,708 | 2,061 | 1,665 | 1,106 |
| South St. Paul, Minn. | 1,370 | 1,499 | 1,068 | 1,897 | 1,317 | 1,005 | 1,068 | 2,039 | 2,728 | 2,919 | 2,894 |
| San Antonio, Tex. | | | 28 | 16 | 7 | 16 | 33 | 41 | 45 | 59 | 41 |
| Sea tie, Wash. | | 179 | 130 | 125 | 124 | 92 | 132 | 149 | 214 | 270 | 249 |
| Sioux City, Iowa. | 1,189 | 1,307 | 1,257 | 1,511 | 1,411 | 1,298 | 1,047 | 1,194 | 1,781 | 2,227 | 2,076 |
| Sioux Falls, S. Dak. | | | (1) | (1) | (1) | 5 | 57 | 74 | 69 | 58 | 59 |
| Spokane, Wash. | 3 | 18 | 25 | 34 | 42 | 32 | 21 | 32 | 58 | 94 | 103 |
| Springfield, Ohio. | | | | | | | | | 5 | 8 | 3 |
| Toledo, Ohio. | | 102 | 53 | 46 | 53 | 86 | 24 | 14 | 21 | 26 | 14 |
| Washington, D. C. | | 82 | 55 | 54 | 71 | 101 | 112 | 129 | 165 | 193 | 140 |
| Wichita, Kans. | 471 | 564 | 392 | 503 | 469 | 386 | 348 | 327 | 622 | 699 | 597 |
| Discontinued ¹ | 346 | 421 | 350 | 649 | 365 | 870 | 392 | 403 | 23 | 6 | (1) |
| Total. | 24,893 | 30,984 | 25,440 | 30,441 | 30,018 | 26,761 | 26,335 | 28,737 | 36,172 | 35,188 | 27,665 |

¹ Not over 500.

² Includes only those markets which have been totally discontinued.

³ Compiled from reports of stock sold or driven out for local slaughter, made by stockyards to the Division of Livestock, Meats, and Wool.

TABLE 529.—*Hogs: Receipts, local slaughter, and stocker and feeder shipments, public stockyards, 1915-1925—Continued*

[Thousands—i. e., 000 omitted]

STOCKER AND FEEDER SHIPMENTS

| Market | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|------------------|--------------------|--------------------|--------------------|------------------|--------------------|------------------|------------------|------------------|--------------------|
| Amarillo, Tex. | | | (¹) 4 | (¹) 4 | 1 8 | 5 | | | | |
| Atlanta, Ga. | | | | 1 | | (¹) 5 | | 1 | 1 | (¹) |
| Augusta, Ga. | | (¹) 2 | 1 | (¹) 1 | (¹) | (¹) | 1 | (¹) | (¹) | (¹) |
| Buffalo, N. Y. | | | 2 | 1 | | | | | | (¹) |
| Chattanooga, Tenn. | | | 2 | 1 | | | | | | |
| Chicago, Ill. | | 45 | 25 | 14 | 1 | 2 | 3 | 2 | 1 | (¹) 2 |
| Cincinnati, Ohio. | | | 2 | 1 | 3 | 4 | 2 | 4 | 2 | |
| Dayton, Ohio. | | | (¹) | | | | | | | |
| Denver, Colo. | 9 | 22 | 17 | 32 | 30 | 22 | 26 | 93 | 54 | 40 |
| Detroit, Mich. | (¹) | 1 | 2 | 8 | 5 | 5 | (¹) | (¹) | 1 | 1 |
| East St. Louis, Ill. | 13 | 12 | 77 | 98 | 47 | 44 | 63 | 41 | 11 | 14 |
| El Paso, Tex. | | (¹) | 8 | 4 | 3 | 8 | 5 | 2 | 1 | 2 |
| Evansville, Ind. | | 12 | 10 | 10 | 4 | 4 | 9 | 6 | 3 | 5 |
| Fort Wayne, Ind. | | | | | | | | 1 | 5 | 7 |
| Fort Worth, Tex. | | 27 | 89 | 55 | 24 | 52 | 34 | 22 | 0 | 11 |
| Fostoria, Ohio. | | 2 | 5 | 3 | 1 | 2 | 4 | 4 | 3 | 3 |
| Indianapolis, Ind. | | 35 | 45 | 41 | 17 | 21 | 17 | 18 | 15 | 13 |
| Jacksonville, Fla. | 1 | (¹) | 3 | 1 | 2 | | (¹) | | 1 | 1 |
| Kansas City, Mo. | 22 | 18 | 175 | 244 | 200 | 94 | 182 | 283 | 134 | 67 |
| Knoxville, Tenn. | | (¹) | 1 | 1 | (¹) | 1 | 2 | | | |
| Lafayette, Ind. | (¹) | 5 | 1 | 3 | 5 | 7 | 5 | 3 | 1 | 2 |
| Laredo, Tex. | | | | | | * | | | (¹) | (¹) |
| Los Angeles, Calif. | | | | 28 | 11 | 8 | 19 | 17 | 2 | 6 |
| Louisville, Ky. | | | 17 | 4 | 2 | 2 | 3 | 2 | 2 | 2 |
| Marion, Ohio. | | | 1 | | | | | | 2 | 1 |
| Memphis, Tenn. | (¹) | | | (¹) | 4 | 1 | 2 | 6 | 5 | 7 |
| Milwaukee, Wis. | | (¹) | (¹) | (¹) | | | | | | |
| Montgomery, Ala. | | 1 | 1 | 22 | 15 | 9 | 12 | 10 | 1 | 4 |
| Moultrie, Ga. | | | | | | 3 | 1 | 1 | 4 | 1 |
| Muncie, Ind. | | | | | | | | | | 2 |
| Nashville, Tenn. | 23 | | 36 | 28 | 18 | 2 | 1 | 1 | 1 | 1 |
| Newark, N. J. | | | | | | | | (¹) | (¹) | |
| New Orleans, La. | | 4 | 3 | 3 | 3 | 1 | 1 | 3 | 2 | 4 |
| North Salt Lake, Utah. | 1 | 5 | 1 | 4 | 3 | 2 | 1 | 1 | 1 | 2 |
| Ogden, Utah. | | 1 | 1 | 13 | 11 | 2 | 5 | 4 | 6 | 3 |
| Oklahoma, Okla. | 18 | 70 | 69 | 43 | 21 | 13 | 9 | 17 | 7 | 1 |
| Omaha, Nebr. | 20 | 73 | 13 | 8 | 7 | 4 | 6 | 14 | 10 | 3 |
| Pasco, Wash. | | | 1 | | | | | | | |
| Peoria, Ill. | | 1 | 4 | (¹) | 3 | 8 | 5 | 7 | 4 | 4 |
| Philadelphia, Pa. | | | 1 | | | | | | | |
| Portland, Oreg. | 3 | 14 | 18 | 15 | 17 | 11 | 17 | 18 | 20 | 19 |
| Pueblo, Colo. | | | (¹) | | (¹) | (¹) | | | | |
| Richmond, Va. | | | (¹) | 1 | (¹) | (¹) | (¹) | 2 | 1 | 1 |
| St. Joseph, Mo. | 11 | 33 | 34 | 27 | 24 | 0 | 11 | 17 | 13 | 30 |
| St. Paul, Minn. | 23 | 232 | 173 | 103 | 161 | 104 | 109 | 151 | 127 | 160 |
| San Antonio, Tex. | 29 | 1 | 2 | 2 | 2 | 4 | 13 | 10 | 7 | 9 |
| Seattle, Wash. | | | 2 | 2 | 3 | 1 | 1 | 3 | 3 | 7 |
| Sioux City, Iowa. | 8 | 109 | 41 | 33 | 28 | 19 | 9 | 9 | (¹) | 66 |
| Sioux Falls, S. Dak. | | 5 | 3 | 2 | 2 | 3 | 4 | 4 | 1 | 1 |
| Spokane, Wash. | | 8 | 9 | 15 | 12 | 6 | 7 | 9 | 12 | 10 |
| Springfield, Ohio. | | | | | | | | | | 5 |
| Toledo, Ohio. | | | 1 | 2 | 2 | (¹) | | (¹) | | (¹) |
| Wichita, Kans. | 6 | 44 | 87 | 20 | 23 | 13 | 20 | 32 | 26 | 15 |
| Discontinued ² | 1 | 6 | 3 | 6 | 5 | 3 | 4 | (¹) | | |
| Total | 194 | 788 | 969 | 902 | 728 | 499 | 593 | 820 | 496 | 532 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

No stocker and feeder shipments for 1915.

¹ Not over 500.

² Includes only those markets which have been totally discontinued.

TABLE 530.—Feeding swine: Inspected shipments from public stockyards, 1925

| Origin and destination | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| MARKET ORIGIN | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> |
| Denver, Colo..... | 755 | 334 | 1,017 | 904 | 467 | 1,272 | 284 | 251 | 330 | 684 | 408 | 382 | 7,178 |
| Fort Worth, Tex..... | 1,251 | 1,065 | 1,057 | 1,120 | 709 | 1,678 | 2,031 | 1,211 | 809 | 583 | 656 | 661 | 12,831 |
| Indianapolis, Ind..... | 1,272 | 1,092 | 1,025 | 649 | 945 | 1,609 | 1,072 | 1,200 | 1,002 | 1,165 | 1,000 | 1,875 | 13,906 |
| Kansas City, Kans..... | 5,006 | 3,493 | 7,185 | 5,290 | 4,280 | 5,017 | 4,965 | 1,942 | 4,747 | 4,653 | 3,198 | 5,472 | 55,224 |
| Los Angeles, Calif..... | | | 857 | | 184 | 183 | 253 | 946 | 801 | 456 | 791 | | 4,471 |
| National Stock- | | | | | | | | | | | | | |
| yards, Ill..... | 1,670 | 919 | 3,077 | 2,887 | 1,461 | 2,644 | 3,909 | 1,377 | 1,512 | 1,186 | 936 | 2,286 | 23,924 |
| Oklahoma, Okla..... | 532 | 1,032 | 1,831 | 1,056 | 688 | 936 | 1,253 | 841 | 840 | 310 | 331 | 671 | 10,321 |
| Omaha, Nebr..... | 4,626 | 2,277 | 1,453 | 1,065 | 555 | 1,150 | 679 | 922 | 720 | 539 | 994 | 454 | 15,433 |
| Portland, Oreg..... | 1,571 | 2,040 | 1,912 | 1,827 | 1,110 | 1,125 | 1,461 | 1,017 | 616 | 2,081 | 2,151 | 1,358 | 17,969 |
| Sioux City, Iowa..... | 453 | 159 | 392 | 266 | 258 | 258 | 270 | 308 | 376 | 491 | 791 | 505 | 4,527 |
| South St. Joseph, Mo..... | 179 | 1,121 | 1,167 | 294 | 459 | 2,264 | 790 | 1,028 | 1,072 | 3,485 | 2,037 | 940 | 14,842 |
| South St. Paul, Minn..... | 11,839 | 7,791 | 11,889 | 12,517 | 12,341 | 11,574 | 6,091 | 4,638 | 5,896 | 13,271 | 24,896 | 33,809 | 157,152 |
| Wichita, Kans..... | 1,099 | 847 | 887 | 1,040 | 610 | 1,717 | 773 | 563 | 2,343 | 1,934 | 1,861 | 249 | 13,923 |
| All other inspected..... | 3,216 | 2,952 | 7,514 | 4,368 | 2,356 | 2,649 | 3,440 | 2,431 | 3,162 | 4,314 | 3,483 | 3,903 | 43,857 |
| Total..... | 33,408 | 25,122 | 41,263 | 33,049 | 26,423 | 34,076 | 27,940 | 18,675 | 24,226 | 35,152 | 43,533 | 52,631 | 395,598 |
| STATE DESTINATION | | | | | | | | | | | | | |
| California..... | | | 857 | | 184 | 183 | 253 | 946 | 801 | 456 | 291 | | 3,971 |
| Colorado..... | 404 | 334 | 871 | 904 | 407 | 1,272 | 284 | 251 | 149 | 684 | 408 | 338 | 6,466 |
| Illinois..... | 1,939 | 1,488 | 5,834 | 3,852 | 2,400 | 2,392 | 5,481 | 1,297 | 2,704 | 3,835 | 6,751 | 9,401 | 47,004 |
| Indiana..... | 1,517 | 1,970 | 2,161 | 2,327 | 3,517 | 2,804 | 2,766 | 2,549 | 1,476 | 2,618 | 2,880 | 7,130 | 33,787 |
| Iowa..... | 3,659 | 3,545 | 3,766 | 3,674 | 1,993 | 1,334 | 1,222 | 1,838 | 1,588 | 2,265 | 2,490 | 5,205 | 32,569 |
| Kansas..... | 2,509 | 197 | 1,538 | 1,909 | 849 | 2,697 | 1,270 | 916 | 1,520 | 1,028 | 2,163 | 1,129 | 17,725 |
| Michigan..... | 1,169 | 271 | 1,767 | 1,729 | 1,516 | 1,536 | 721 | 704 | 1,066 | 3,704 | 2,416 | 2,656 | 20,167 |
| Minnesota..... | 4,353 | 2,619 | 3,255 | 3,087 | 4,177 | 4,099 | 2,945 | 1,221 | 2,185 | 3,186 | 4,470 | 4,509 | 40,105 |
| Missouri..... | 1,897 | 2,055 | 3,817 | 2,779 | 1,304 | 4,577 | 3,986 | 2,114 | 2,289 | 2,652 | 1,456 | 2,725 | 31,691 |
| Nebraska..... | 5,055 | 2,871 | 2,232 | 1,561 | 2,310 | 1,863 | 1,003 | 792 | 1,752 | 1,138 | 2,237 | 1,074 | 23,888 |
| Ohio..... | 326 | 263 | 545 | 809 | 1,032 | 3,742 | 623 | 162 | 490 | 779 | 5,228 | 9,131 | 23,190 |
| Oklahoma..... | 852 | 1,032 | 2,125 | 769 | 567 | 1,061 | 1,043 | 559 | 600 | 401 | 331 | 641 | 10,071 |
| Oregon..... | 1,461 | 2,040 | 1,690 | 1,398 | 1,033 | 1,108 | 1,424 | 1,001 | 603 | 1,991 | 2,144 | 1,439 | 17,332 |
| Tennessee..... | 658 | 414 | 920 | 604 | 290 | 442 | 943 | 244 | 682 | 74 | 616 | 499 | 6,376 |
| Texas..... | 2,786 | 2,073 | 1,896 | 2,306 | 1,596 | 1,782 | 1,538 | 1,119 | 2,227 | 2,555 | 2,334 | 806 | 23,017 |
| All other..... | 4,883 | 3,944 | 8,305 | 4,591 | 3,188 | 3,124 | 3,038 | 2,972 | 3,374 | 7,797 | 7,280 | 5,672 | 58,100 |
| Total..... | 33,408 | 25,122 | 41,263 | 33,049 | 26,423 | 34,076 | 27,940 | 18,675 | 24,226 | 35,152 | 43,533 | 52,631 | 395,598 |

Division of Statistical and Historical Research. Compiled from Bureau of Animal Industry Inspection records.

TABLE 531.—Hogs: Receipts, local slaughter, and stocker and feeder shipments at certain public stockyards, 1925

[Thousands—i. e., 000 omitted]

| Stockyard | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-----------------------------------|-------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| Baltimore, Md.: | | | | | | | | | | | | | |
| Receipts..... | 129 | 98 | 84 | 78 | 82 | 65 | 57 | 50 | 66 | 92 | 103 | 97 | 1,007 |
| Local slaughter..... | 102 | 78 | 67 | 65 | 72 | 55 | 50 | 47 | 56 | 78 | 96 | 80 | 836 |
| Buffalo, N. Y.: | | | | | | | | | | | | | |
| Receipts..... | 150 | 103 | 82 | 93 | 83 | 75 | 58 | 84 | 80 | 111 | 114 | 98 | 1,131 |
| Local slaughter..... | 78 | 55 | 35 | 44 | 35 | 44 | 27 | 42 | 45 | 51 | 44 | 39 | 530 |
| Stocker and feeder shipments..... | 0 | 0 | 0 | 0 | 0 | (1) | 0 | 0 | (1) | (1) | 0 | 0 | (1) |
| Chicago, Ill.: | | | | | | | | | | | | | |
| Receipts..... | 1,281 | 920 | 598 | 538 | 530 | 633 | 512 | 448 | 449 | 570 | 677 | 840 | 7,996 |
| Local slaughter..... | 873 | 631 | 388 | 378 | 358 | 470 | 364 | 341 | 335 | 414 | 469 | 580 | 5,601 |
| Stocker and feeder shipments..... | 0 | 0 | 0 | 0 | 0 | (1) | (1) | 0 | (1) | (1) | 0 | 0 | (1) |
| Cincinnati, Ohio: | | | | | | | | | | | | | |
| Receipts..... | 121 | 93 | 75 | 86 | 81 | 80 | 71 | 70 | 79 | 97 | 90 | 97 | 1,040 |
| Local slaughter..... | 83 | 66 | 56 | 62 | 58 | 62 | 50 | 52 | 57 | 67 | 63 | 73 | 755 |
| Stocker and feeder shipments..... | 0 | (1) | 1 | 1 | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | 2 |
| Cleveland, Ohio: | | | | | | | | | | | | | |
| Receipts..... | 119 | 84 | 65 | 63 | 57 | 50 | 38 | 45 | 55 | 69 | 63 | 77 | 785 |
| Local slaughter..... | 83 | 69 | 45 | 43 | 37 | 37 | 29 | 31 | 37 | 45 | 45 | 58 | 547 |

1 Not over 500.

TABLE 531.—*Hogs: Receipts, local slaughter, and stocker and feeder shipments at certain public stockyards, 1925—Continued*

[Thousands—1. e., 000 omitted]

| Stockyard | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------|
| Denver, Colo.: | | | | | | | | | | | | | |
| Receipts..... | 02 | 49 | 44 | 48 | 88 | 39 | 25 | 23 | 20 | 26 | 41 | 51 | 467 |
| Local slaughter..... | 48 | 86 | 80 | 82 | 26 | 30 | 19 | 16 | 20 | 17 | 26 | 43 | 344 |
| Stocker and feeder shipments..... | 8 | 4 | 5 | 1 | 4 | 4 | 4 | 3 | 3 | 4 | 2 | 8 | 40 |
| Detroit, Mich.: | | | | | | | | | | | | | |
| Receipts..... | 47 | 30 | 34 | 43 | 23 | 35 | 20 | 21 | 33 | 43 | 49 | 51 | 439 |
| Local slaughter..... | 31 | 19 | 29 | 26 | 22 | 26 | 14 | 15 | 21 | 30 | 38 | 40 | 311 |
| Stocker and feeder shipments..... | 6 | 0 | (¹) | (¹) | 0 | 1 | (¹) | 0 | (¹) | 0 | 0 | 0 | 1 |
| East St. Louis, Ill.: | | | | | | | | | | | | | |
| Receipts..... | 396 | 284 | 265 | 262 | 294 | 264 | 242 | 245 | 300 | 307 | 309 | 344 | 3,512 |
| Local slaughter..... | 136 | 112 | 96 | 70 | 63 | 83 | 89 | 79 | 91 | 90 | 102 | 126 | 1,138 |
| Stocker and feeder shipments..... | 1 | (¹) | 1 | 1 | (¹) | 6 | 1 | (¹) | 1 | 1 | 1 | 1 | 14 |
| Fort Worth, Tex.: | | | | | | | | | | | | | |
| Receipts..... | 51 | 40 | 47 | 29 | 22 | 25 | 18 | 13 | 16 | 15 | 20 | 16 | 312 |
| Local slaughter..... | 49 | 89 | 45 | 20 | 21 | 23 | 17 | 12 | 14 | 13 | 18 | 15 | 295 |
| Stocker and feeder shipments..... | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (¹) | 1 | 1 | 11 |
| Indianapolis, Ind.: | | | | | | | | | | | | | |
| Receipts..... | 805 | 170 | 117 | 140 | 147 | 173 | 154 | 140 | 146 | 183 | 184 | 200 | 2,067 |
| Local slaughter..... | 170 | 97 | 66 | 72 | 68 | 105 | 88 | 81 | 76 | 86 | 97 | 125 | 1,131 |
| Stocker and feeder shipments..... | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | (¹) | 1 | 2 | 13 |
| Jersey City, N. J.: | | | | | | | | | | | | | |
| Receipts..... | 77 | 55 | 45 | 49 | 29 | 21 | 19 | 26 | 22 | 40 | 37 | 38 | 467 |
| Local slaughter..... | 77 | 55 | 45 | 49 | 39 | 21 | 19 | 25 | 22 | 40 | 37 | 38 | 467 |
| Kansas City, Mo.: | | | | | | | | | | | | | |
| Receipts..... | 268 | 210 | 161 | 148 | 168 | 192 | 128 | 120 | 161 | 160 | 170 | 172 | 2,067 |
| Local slaughter..... | 186 | 142 | 166 | 88 | 90 | 110 | 77 | 77 | 72 | 87 | 89 | 114 | 1,237 |
| Stocker and feeder shipments..... | 6 | 4 | 8 | 6 | 5 | 6 | 7 | 4 | 5 | 6 | 4 | 6 | 67 |
| Los Angeles, Calif.: | | | | | | | | | | | | | |
| Receipts..... | 30 | 26 | 26 | 15 | 18 | 17 | 14 | 12 | 18 | 11 | 18 | 17 | 217 |
| Local slaughter..... | 30 | 26 | 23 | 16 | 18 | 16 | 15 | 10 | 12 | 11 | 16 | 18 | 211 |
| Stocker and feeder shipments..... | (¹) | (¹) | 1 | 1 | (¹) | (¹) | (¹) | 1 | 1 | 1 | 1 | (¹) | 6 |
| Milwaukee, Wis.: | | | | | | | | | | | | | |
| Receipts..... | 45 | 83 | 31 | 35 | 26 | 27 | 25 | 17 | 30 | 69 | 58 | 63 | 459 |
| Local slaughter..... | 45 | 82 | 31 | 34 | 25 | 26 | 24 | 17 | 30 | 69 | 58 | 62 | 458 |
| Oklahoma City, Okla.: | | | | | | | | | | | | | |
| Receipts..... | 38 | 36 | 33 | 26 | 21 | 19 | 14 | 15 | 22 | 16 | 19 | 17 | 276 |
| Local slaughter..... | 35 | 32 | 30 | 23 | 18 | 17 | 11 | 12 | 20 | 14 | 15 | 13 | 240 |
| Stocker and feeder shipments..... | 0 | (¹) | 1 | (¹) | 0 | 0 | (¹) | 0 | (¹) | (¹) | 0 | (¹) | 1 |
| Omaha, Nebr.: | | | | | | | | | | | | | |
| Receipts..... | 455 | 407 | 315 | 255 | 279 | 379 | 246 | 207 | 188 | 164 | 199 | 261 | 3,355 |
| Local slaughter..... | 343 | 327 | 245 | 192 | 192 | 265 | 174 | 142 | 125 | 112 | 132 | 167 | 2,416 |
| Stocker and feeder shipments..... | (¹) | 1 | 1 | 1 | 0 | (¹) | (¹) | 0 | 0 | (¹) | (¹) | 0 | 3 |
| Pittsburgh, Pa.: | | | | | | | | | | | | | |
| Receipts..... | 317 | 223 | 171 | 165 | 190 | 187 | 134 | 186 | 180 | 232 | 237 | 211 | 2,312 |
| Local slaughter..... | 72 | 47 | 32 | 38 | 40 | 35 | 31 | 29 | 34 | 50 | 54 | 58 | 520 |
| Portland, Ore.: | | | | | | | | | | | | | |
| Receipts..... | 39 | 27 | 21 | 18 | 18 | 24 | 17 | 18 | 17 | 21 | 25 | 25 | 265 |
| Local slaughter..... | 27 | 20 | 12 | 14 | 11 | 17 | 12 | 7 | 6 | 10 | 12 | 17 | 165 |
| Stocker and feeder shipments..... | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 19 |
| South St. Joseph, Mo.: | | | | | | | | | | | | | |
| Receipts..... | 252 | 183 | 117 | 105 | 126 | 158 | 119 | 101 | 105 | 115 | 124 | 168 | 1,673 |
| Local slaughter..... | 190 | 151 | 76 | 61 | 78 | 105 | 87 | 67 | 60 | 70 | 94 | 137 | 1,196 |
| Stocker and feeder shipments..... | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 4 | 4 | 4 | 30 |
| South St. Paul, Minn.: | | | | | | | | | | | | | |
| Receipts..... | 404 | 347 | 308 | 299 | 245 | 246 | 209 | 122 | 159 | 332 | 424 | 482 | 3,637 |
| Local slaughter..... | 392 | 288 | 245 | 227 | 190 | 202 | 175 | 99 | 132 | 257 | 269 | 348 | 2,824 |
| Stocker and feeder shipments..... | 12 | 8 | 12 | 11 | 12 | 13 | 8 | 5 | 6 | 14 | 25 | 34 | 160 |
| Sioux City, Iowa: | | | | | | | | | | | | | |
| Receipts..... | 534 | 449 | 336 | 268 | 267 | 292 | 247 | 198 | 164 | 159 | 203 | 289 | 3,396 |
| Local slaughter..... | 289 | 270 | 230 | 155 | 145 | 206 | 162 | 133 | 96 | 109 | 128 | 153 | 2,078 |
| Stocker and feeder shipments..... | 0 | 5 | 5 | 5 | 4 | 4 | 4 | 7 | 5 | 4 | 11 | 12 | 66 |
| Wichita, Kans.: | | | | | | | | | | | | | |
| Receipts..... | 65 | 60 | 45 | 60 | 68 | 79 | 51 | 33 | 41 | 36 | 42 | 51 | 631 |
| Local slaughter..... | 63 | 58 | 42 | 58 | 65 | 75 | 49 | 31 | 37 | 33 | 39 | 47 | 597 |
| Stocker and feeder shipments..... | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 15 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool. Local slaughter data from stockyards.

¹ Not over 500.

TABLE 532.—Hogs: Monthly average live weight at Chicago, East St. Louis, Kansas City, and Omaha, 1909–1925

CHICAGO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. | Lbs. |
| 1909..... | 203 | 204 | 206 | 212 | 216 | 219 | 226 | 232 | 232 | 227 | 225 | 214 |
| 1910..... | 210 | 213 | 218 | 227 | 239 | 242 | 246 | 255 | 250 | 253 | 232 | 224 |
| 1911..... | 226 | 230 | 239 | 241 | 242 | 236 | 233 | 239 | 224 | 212 | 208 | 213 |
| 1912..... | 212 | 217 | 218 | 227 | 232 | 235 | 239 | 240 | 235 | 226 | 222 | 223 |
| 1913..... | 226 | 230 | 240 | 242 | 242 | 244 | 243 | 233 | 222 | 209 | 207 | 213 |
| Av. 1909–1913..... | 215 | 219 | 224 | 230 | 234 | 235 | 237 | 240 | 234 | 225 | 219 | 217 |
| 1914..... | 216 | 224 | 233 | 233 | 236 | 237 | 244 | 248 | 242 | 229 | 218 | 226 |
| 1915..... | 223 | 224 | 231 | 233 | 233 | 231 | 238 | 246 | 235 | 204 | 187 | 190 |
| 1916..... | 195 | 204 | 214 | 219 | 220 | 226 | 231 | 232 | 223 | 210 | 195 | 193 |
| 1917..... | 199 | 204 | 209 | 213 | 217 | 225 | 232 | 233 | 231 | 212 | 209 | 211 |
| 1918..... | 216 | 231 | 238 | 242 | 238 | 235 | 243 | 243 | 247 | 233 | 226 | 223 |
| 1919..... | 228 | 232 | 230 | 230 | 232 | 233 | 212 | 251 | 254 | 237 | 226 | 224 |
| 1920..... | 239 | 239 | 244 | 248 | 245 | 243 | 252 | 258 | 258 | 247 | 234 | 230 |
| Av. 1914–1920..... | 217 | 223 | 228 | 231 | 232 | 233 | 240 | 244 | 241 | 225 | 214 | 214 |
| 1921..... | 234 | 234 | 241 | 242 | 239 | 241 | 250 | 259 | 262 | 243 | 225 | 226 |
| 1922..... | 231 | 236 | 244 | 246 | 244 | 247 | 259 | 268 | 265 | 243 | 231 | 234 |
| 1923..... | 239 | 241 | 247 | 249 | 242 | 242 | 250 | 253 | 254 | 247 | 234 | 231 |
| 1924..... | 227 | 229 | 237 | 239 | 239 | 241 | 251 | 255 | 254 | 235 | 220 | 214 |
| 1925..... | 220 | 222 | 229 | 235 | 236 | 238 | 249 | 256 | 253 | 242 | 228 | 225 |
| Av. 1921–1925..... | 230 | 232 | 240 | 242 | 240 | 242 | 252 | 258 | 258 | 242 | 228 | 226 |

EAST ST. LOUIS

| | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1910..... | 178 | 165 | 171 | 176 | 198 | 206 | 184 | 193 | 215 | 205 | 206 | 191 |
| 1911..... | 188 | 195 | 202 | 197 | 170 | 180 | 190 | 185 | 186 | 173 | 169 | 159 |
| 1912..... | 158 | 162 | 167 | 165 | 191 | 196 | 174 | 181 | 196 | 182 | 178 | 176 |
| 1913..... | 182 | 180 | 170 | 179 | 181 | 183 | 185 | 183 | 182 | 182 | 178 | 169 |
| 1914..... | 169 | 177 | 174 | 180 | 174 | 177 | 174 | 174 | 173 | 169 | 175 | 166 |
| 1915..... | 170 | 174 | 176 | 175 | 175 | 180 | 180 | 186 | 183 | 165 | 169 | 174 |
| 1916..... | 172 | 173 | 171 | 171 | 178 | 180 | 181 | 176 | 168 | 162 | 181 | 172 |
| 1917..... | 175 | 179 | 175 | 171 | 175 | 173 | 177 | 175 | 182 | 181 | 181 | 185 |
| 1918..... | 190 | 190 | 189 | 186 | 181 | 180 | 182 | 174 | 174 | 178 | 182 | 188 |
| 1919..... | 189 | 184 | 173 | 176 | 182 | 182 | 181 | 183 | 181 | 176 | 183 | 181 |
| 1920..... | 186 | 188 | 182 | 190 | 185 | 180 | 182 | 186 | 184 | 177 | 176 | 181 |
| Av. 1914–1920..... | 179 | 181 | 177 | 178 | 179 | 179 | 180 | 179 | 178 | 173 | 179 | 178 |
| 1921..... | 211 | 210 | 200 | 198 | 198 | 201 | 204 | 206 | 196 | 196 | 205 | 207 |
| 1922..... | 209 | 198 | 197 | 188 | 194 | 190 | 200 | 196 | 170 | 189 | 193 | 203 |
| 1923..... | 211 | 206 | 196 | 197 | 193 | 200 | 203 | 205 | 201 | 192 | 200 | 207 |
| 1924..... | 211 | 213 | 215 | 220 | 208 | 212 | 212 | 213 | 210 | 201 | 205 | 206 |
| 1925..... | 212 | 218 | 214 | 208 | 206 | 204 | 210 | 217 | 217 | 204 | 207 | 214 |
| Av. 1921–1925..... | 211 | 209 | 205 | 202 | 200 | 201 | 206 | 207 | 199 | 196 | 202 | 207 |

Division of Statistical and Historical Research. Figures prior to 1921 compiled from yearbooks of stockyard companies. Subsequent figures compiled from reports of packer and shipper purchases, reporting service of the Division of Livestock, Meats, and Wool.

TABLE 532.—*Hogs: Monthly average live weight at Chicago, East St. Louis, Kansas City, and Omaha, 1909-1925—Continued*

KANSAS CITY

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Lbs.</i> |
| 1909..... | 202 | 204 | 199 | 201 | 198 | 198 | 200 | 203 | 192 | 194 | 198 | 198 |
| 1910..... | 205 | 202 | 208 | 200 | 210 | 209 | 206 | 206 | 217 | 213 | 217 | 223 |
| 1911..... | 226 | 225 | 225 | 223 | 213 | 197 | 188 | 201 | 195 | 185 | 182 | 182 |
| 1912..... | 180 | 199 | 193 | 205 | 203 | 203 | 205 | 204 | 199 | 198 | 206 | 205 |
| 1913..... | 213 | 212 | 213 | 216 | 208 | 206 | 202 | 193 | 190 | 185 | 178 | 178 |
| Av. 1909-1913. | 207 | 208 | 208 | 211 | 206 | 203 | 200 | 201 | 199 | 195 | 196 | 197 |
| 1914..... | 183 | 193 | 200 | 195 | 197 | 193 | 196 | 192 | 192 | 191 | 186 | 188 |
| 1915..... | 201 | 204 | 201 | 204 | 204 | 197 | 199 | 202 | 198 | 192 | 194 | 203 |
| 1916..... | 204 | 199 | 203 | 204 | 202 | 202 | 204 | 188 | 181 | 171 | 172 | 183 |
| 1917..... | 189 | 189 | 192 | 191 | 193 | 196 | 190 | 180 | 183 | 195 | 198 | 206 |
| 1918..... | 218 | 221 | 213 | 218 | 213 | 208 | 206 | 191 | 172 | 173 | 185 | 194 |
| 1919..... | 200 | 201 | 191 | 194 | 193 | 194 | 194 | 193 | 181 | 175 | 187 | 189 |
| 1920..... | 223 | 227 | 229 | 228 | 211 | 213 | 221 | 226 | 222 | 216 | 218 | 225 |
| Av. 1914-1920. | 203 | 205 | 204 | 205 | 202 | 200 | 201 | 196 | 190 | 188 | 191 | 198 |
| 1921..... | 216 | 216 | 213 | 220 | 224 | 211 | 223 | 225 | 216 | 222 | 216 | 223 |
| 1922..... | 226 | 215 | 213 | 220 | 215 | 211 | 216 | 217 | 211 | 206 | 208 | 212 |
| 1923..... | 222 | 221 | 221 | 215 | 207 | 216 | 222 | 228 | 225 | 206 | 212 | 218 |
| 1924..... | 222 | 224 | 229 | 229 | 226 | 221 | 227 | 237 | 234 | 220 | 219 | 221 |
| 1925..... | 229 | 232 | 238 | 235 | 234 | 230 | 233 | 242 | 233 | 229 | 226 | 237 |
| Av. 1921-1925. | 227 | 226 | 227 | 226 | 221 | 218 | 224 | 230 | 224 | 217 | 216 | 222 |

OMAHA

| | | | | | | | | | | | | |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1909..... | 231 | 223 | 227 | 233 | 232 | 229 | 236 | 239 | 240 | 242 | 248 | 234 |
| 1910..... | 229 | 226 | 231 | 235 | 249 | 249 | 250 | 259 | 278 | 284 | 274 | 262 |
| 1911..... | 245 | 243 | 254 | 255 | 254 | 245 | 242 | 253 | 265 | 265 | 243 | 225 |
| 1912..... | 217 | 222 | 222 | 231 | 233 | 234 | 232 | 238 | 241 | 235 | 235 | 238 |
| 1913..... | 234 | 220 | 238 | 241 | 244 | 245 | 247 | 244 | 249 | 233 | 219 | 218 |
| Av. 1909-1913. | 231 | 229 | 234 | 239 | 242 | 240 | 241 | 247 | 255 | 252 | 244 | 235 |
| 1914..... | 224 | 212 | 238 | 242 | 247 | 250 | 255 | 261 | 268 | 265 | 253 | 242 |
| 1915..... | 241 | 238 | 244 | 252 | 256 | 248 | 249 | 264 | 274 | 265 | 252 | 230 |
| 1916..... | 216 | 216 | 224 | 228 | 232 | 236 | 243 | 247 | 249 | 249 | 224 | 211 |
| 1917..... | 218 | 223 | 226 | 229 | 233 | 239 | 245 | 245 | 256 | 257 | 260 | 243 |
| 1918..... | 240 | 243 | 240 | 242 | 246 | 248 | 261 | 260 | 264 | 264 | 240 | 227 |
| 1919..... | 220 | 235 | 236 | 245 | 238 | 244 | 245 | 255 | 275 | 281 | 271 | 249 |
| 1920..... | 242 | 242 | 250 | 251 | 247 | 247 | 256 | 263 | 272 | 271 | 260 | 248 |
| Av. 1914-1920. | 230 | 233 | 238 | 241 | 243 | 245 | 251 | 256 | 265 | 265 | 251 | 236 |
| 1921..... | 248 | 246 | 252 | 260 | 259 | 255 | 260 | 274 | 288 | 274 | 244 | 232 |
| 1922..... | 235 | 238 | 247 | 255 | 257 | 258 | 267 | 280 | 286 | 276 | 249 | 238 |
| 1923..... | 241 | 244 | 253 | 260 | 265 | 266 | 269 | 283 | 269 | 272 | 262 | 247 |
| 1924..... | 239 | 239 | 245 | 249 | 250 | 250 | 255 | 266 | 264 | 259 | 238 | 217 |
| 1925..... | 216 | 221 | 232 | 242 | 248 | 246 | 255 | 263 | 265 | 255 | 244 | 239 |
| Av. 1921-1925. | 235 | 238 | 246 | 253 | 254 | 253 | 259 | 269 | 274 | 267 | 247 | 235 |

Division of Statistical and Historical Research. Figures prior to 1920 (East St. Louis, 1921), compiled from yearbooks of stockyard companies. Subsequent figures compiled from reports of packer and shipper purchases, reporting service of the Division of Livestock, Meats, and Wool.

TABLE 533.—*Lard and lard substitutes: Production in factories of the United States, by three-month periods, 1919-1925*

[Thousand pounds—i. e., 000 omitted]

LARD

| Year | Jan. 1 to Mar. 31 | Apr. 1 to June 30 | July 1 to Sept. 30 | Oct. 1 to Dec. 31 | Total |
|-----------|----------------------|----------------------|-----------------------|----------------------|-----------|
| 1919..... | 300,954 | 294,572 | 196,080 | 292,430 | 1,084,036 |
| 1920..... | 356,315 | 332,870 | 262,498 | 305,775 | 1,257,458 |
| 1921..... | 410,074 | 377,753 | 315,653 | 351,375 | 1,454,855 |
| 1922..... | 416,049 | 397,424 | 341,348 | 420,819 | 1,575,640 |
| 1923..... | 526,912 | 488,929 | 430,207 | 498,814 | 1,944,862 |
| 1924..... | 590,700 | 508,886 | 402,365 | 432,534 | 1,934,545 |
| 1925..... | 465,614 | 358,571 | 294,489 | 380,810 | 1,499,484 |

NEUTRAL LARD

| | | | | | |
|-----------|--------|--------|--------|--------|--------|
| 1919..... | 25,186 | 32,014 | 11,332 | 20,600 | 90,032 |
| 1920..... | 25,260 | 23,167 | 12,656 | 16,617 | 77,690 |
| 1921..... | 20,246 | 19,315 | 11,846 | 11,703 | 63,110 |
| 1922..... | 11,717 | 8,943 | 11,034 | 17,738 | 49,432 |
| 1923..... | 17,972 | 15,194 | 9,876 | 17,919 | 60,961 |
| 1924..... | 20,745 | 10,671 | 12,886 | 18,022 | 62,324 |
| 1925..... | 13,695 | 11,306 | 9,844 | 11,784 | 46,629 |

COMPOUND AND OTHER SUBSTITUTES

| | | | | | |
|-----------|---------|---------|---------|---------|-----------|
| 1922..... | 187,636 | 146,382 | 207,349 | 242,813 | 784,180 |
| 1923..... | 208,041 | 134,738 | 192,822 | 214,921 | 750,522 |
| 1924..... | 178,146 | 181,023 | 192,377 | 278,889 | 830,435 |
| 1925..... | 237,693 | 248,855 | 300,878 | 330,547 | 1,117,973 |

Division of Statistical and Historical Research. Compiled from quarterly reports of the Bureau of the Census on Animal and Vegetable Fats and Oils.

TABLE 534.—*Hogs: Corn and hog ratios,¹ United States, 1910-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> |
| 1910..... | 12.2 | 12.0 | 13.6 | 14.4 | 13.3 | 12.9 | 12.2 | 11.7 | 13.0 | 14.2 | 15.1 | 14.9 | 13.3 |
| 1911..... | 15.3 | 14.4 | 13.7 | 12.1 | 10.7 | 9.8 | 9.4 | 9.9 | 9.9 | 9.3 | 9.3 | 9.2 | 11.1 |
| 1912..... | 9.1 | 8.8 | 8.6 | 9.0 | 8.4 | 8.1 | 8.3 | 9.1 | 10.1 | 12.0 | 13.2 | 14.1 | 9.9 |
| 1913..... | 13.6 | 13.9 | 14.4 | 14.4 | 12.7 | 12.3 | 12.1 | 11.1 | 10.2 | 10.4 | 10.5 | 10.3 | 12.2 |
| 1914..... | 10.8 | 11.3 | 11.2 | 10.9 | 10.3 | 9.9 | 10.1 | 10.3 | 10.2 | 10.0 | 10.4 | 10.2 | 10.5 |
| 1915..... | 9.5 | 8.6 | 8.4 | 8.5 | 8.7 | 8.7 | 8.7 | 8.5 | 9.2 | 10.8 | 10.6 | 10.1 | 9.2 |
| 1916..... | 9.8 | 10.5 | 11.4 | 11.5 | 11.4 | 11.0 | 10.9 | 10.6 | 11.1 | 10.4 | 10.1 | 9.8 | 10.7 |
| 1917..... | 9.9 | 10.5 | 11.5 | 10.3 | 8.8 | 8.3 | 7.4 | 7.7 | 9.0 | 10.1 | 11.2 | 12.0 | 9.7 |
| 1918..... | 11.2 | 10.3 | 10.1 | 10.2 | 10.3 | 10.0 | 9.9 | 10.1 | 10.8 | 11.0 | 11.5 | 11.3 | 10.6 |
| 1919..... | 11.1 | 11.3 | 11.2 | 11.1 | 10.8 | 10.2 | 10.5 | 10.2 | 9.3 | 9.7 | 9.2 | 9.2 | 10.3 |
| 1920..... | 9.3 | 9.2 | 8.9 | 8.4 | 7.6 | 7.1 | 7.8 | 8.5 | 10.1 | 13.0 | 15.0 | 13.2 | 9.8 |
| 1921..... | 13.5 | 13.5 | 14.3 | 13.0 | 12.5 | 11.0 | 13.1 | 14.8 | 14.0 | 15.9 | 16.0 | 15.2 | 14.0 |
| 1922..... | 15.4 | 16.5 | 15.8 | 15.7 | 15.0 | 14.7 | 14.7 | 13.7 | 13.4 | 13.4 | 12.8 | 11.7 | 14.4 |
| 1923..... | 11.1 | 10.9 | 10.2 | 9.8 | 8.8 | 7.9 | 7.5 | 7.7 | 8.5 | 8.8 | 8.2 | 9.0 | 9.0 |
| 1924..... | 9.0 | 8.5 | 8.6 | 8.6 | 8.5 | 8.1 | 6.7 | 8.0 | 7.7 | 8.7 | 8.7 | 7.9 | 8.2 |
| 1925..... | 8.3 | 8.4 | 10.6 | 11.2 | 10.0 | 9.7 | 11.5 | 11.4 | 11.6 | 13.4 | 14.3 | 14.9 | 11.8 |

Division of Crop and Livestock Estimates.

¹ Number of bushels of corn required to buy 100 pounds of live hogs, based on averages of farm prices of corn and of hogs for the month.

TABLE 535.—*Hogs: Estimated price per 100 pounds, received by producers in the United States, 1910-1925*

| Year beginning November | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Weighted average |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 7.61 | 7.16 | 7.44 | 7.04 | 6.74 | 6.17 | 5.72 | 5.68 | 5.92 | 6.54 | 6.53 | 6.09 | 6.61 |
| 1911..... | 5.98 | 5.72 | 6.74 | 5.79 | 5.94 | 6.78 | 6.79 | 6.65 | 6.64 | 7.11 | 7.47 | 7.70 | 6.43 |
| 1912..... | 7.05 | 6.89 | 6.77 | 7.17 | 7.62 | 7.94 | 7.45 | 7.01 | 7.81 | 7.79 | 7.68 | 7.60 | 7.39 |
| 1913..... | 7.33 | 7.16 | 7.45 | 7.75 | 7.80 | 7.80 | 7.60 | 7.43 | 7.72 | 8.11 | 8.11 | 7.43 | 7.60 |
| Av. 1910-1913..... | 6.96 | 6.73 | 6.85 | 6.94 | 7.02 | 7.17 | 6.89 | 6.84 | 7.02 | 7.39 | 7.45 | 7.20 | 7.01 |
| 1914..... | 7.00 | 6.87 | 6.57 | 6.34 | 6.33 | 6.48 | 6.77 | 6.80 | 6.84 | 6.61 | 6.79 | 7.18 | 6.09 |
| 1915..... | 6.35 | 6.02 | 6.32 | 7.07 | 7.86 | 8.21 | 8.37 | 8.21 | 8.40 | 8.61 | 9.22 | 8.67 | 7.61 |
| 1916..... | 8.74 | 8.76 | 9.16 | 10.33 | 12.32 | 13.61 | 13.72 | 13.60 | 13.35 | 14.24 | 15.69 | 16.15 | 12.10 |
| 1917..... | 15.31 | 15.73 | 15.26 | 15.03 | 15.58 | 15.76 | 15.84 | 15.37 | 15.58 | 16.89 | 17.50 | 16.50 | 15.78 |
| 1918..... | 15.92 | 15.82 | 15.69 | 15.53 | 16.13 | 17.39 | 18.00 | 17.80 | 19.22 | 19.30 | 15.81 | 13.88 | 16.00 |
| 1919..... | 13.30 | 12.66 | 13.36 | 13.62 | 13.59 | 13.73 | 13.44 | 13.18 | 13.65 | 13.59 | 13.98 | 13.67 | 13.43 |
| 1920..... | 11.64 | 8.90 | 8.72 | 8.58 | 9.13 | 7.96 | 7.62 | 7.22 | 8.09 | 8.73 | 7.61 | 7.81 | 8.52 |
| Av. 1914-1920..... | 11.19 | 10.65 | 10.73 | 10.93 | 11.56 | 11.88 | 11.97 | 11.73 | 12.16 | 12.57 | 12.36 | 11.89 | 11.83 |
| 1921..... | 6.66 | 6.52 | 6.59 | 8.24 | 9.08 | 8.83 | 9.05 | 9.11 | 9.12 | 8.54 | 8.23 | 8.33 | 8.10 |
| 1922..... | 7.78 | 7.03 | 7.77 | 7.65 | 7.52 | 7.46 | 7.13 | 6.37 | 6.68 | 6.85 | 7.81 | 7.23 | 7.24 |
| 1923..... | 6.68 | 6.30 | 6.59 | 6.64 | 6.63 | 6.70 | 6.68 | 6.55 | 6.60 | 6.54 | 8.50 | 0.45 | 7.06 |
| 1924..... | 8.62 | 8.39 | 9.31 | 9.62 | 11.83 | 11.64 | 10.78 | 10.82 | 12.02 | 12.10 | 11.50 | 11.16 | 10.46 |
| 1925..... | 10.06 | 10.51 | | | | | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 536.—*Hogs: Average price per 100 pounds at Chicago, by months, 1901-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Weighted average |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1900..... | 6.10 | 6.35 | 6.70 | 7.20 | 7.30 | 7.65 | 7.85 | 7.75 | 8.20 | 7.75 | 8.00 | 8.35 | 7.35 |
| 1910..... | 8.55 | 9.05 | 10.55 | 9.90 | 9.55 | 9.45 | 8.75 | 8.35 | 8.90 | 8.50 | 7.60 | 7.65 | 8.90 |
| 1911..... | 7.95 | 7.40 | 6.85 | 6.25 | 6.00 | 6.25 | 6.70 | 7.30 | 6.45 | 6.45 | 6.30 | 6.40 | 6.70 |
| 1912..... | 6.25 | 6.20 | 7.10 | 7.60 | 7.65 | 7.50 | 7.65 | 8.25 | 8.45 | 8.75 | 7.75 | 7.40 | 7.55 |
| 1913..... | 7.45 | 8.16 | 8.90 | 9.05 | 8.55 | 8.65 | 9.05 | 8.35 | 8.30 | 8.20 | 7.75 | 7.70 | 8.35 |
| Av. 1909-1913..... | 7.26 | 7.43 | 8.02 | 8.04 | 7.81 | 7.90 | 8.00 | 8.00 | 8.15 | 7.93 | 7.48 | 7.50 | 7.77 |
| 1914..... | 8.30 | 8.60 | 8.70 | 8.65 | 8.45 | 8.20 | 8.70 | 9.00 | 8.85 | 7.65 | 7.50 | 7.10 | 8.30 |
| 1915..... | 6.90 | 6.80 | 6.75 | 7.30 | 7.60 | 7.60 | 7.75 | 6.90 | 7.25 | 7.90 | 6.65 | 6.40 | 7.10 |
| 1916..... | 7.20 | 8.20 | 9.65 | 9.75 | 9.85 | 9.70 | 9.80 | 10.30 | 10.70 | 9.80 | 9.60 | 9.95 | 9.60 |
| 1917..... | 10.90 | 12.45 | 14.80 | 15.75 | 15.90 | 15.50 | 15.20 | 16.90 | 18.20 | 17.15 | 17.40 | 16.85 | 15.10 |
| 1918..... | 16.30 | 16.65 | 17.10 | 17.45 | 17.45 | 16.60 | 17.75 | 19.00 | 19.65 | 17.70 | 17.70 | 17.55 | 17.45 |
| 1919..... | 17.60 | 17.65 | 19.10 | 20.40 | 20.60 | 20.40 | 21.85 | 20.00 | 17.45 | 14.35 | 14.20 | 13.60 | 17.85 |
| 1920..... | 14.97 | 14.55 | 14.94 | 14.79 | 14.28 | 14.68 | 14.84 | 14.74 | 15.88 | 14.17 | 11.63 | 9.55 | 13.91 |
| Av. 1914-1920..... | 11.74 | 12.13 | 13.01 | 13.44 | 13.45 | 13.24 | 13.70 | 13.83 | 14.00 | 12.67 | 12.13 | 11.57 | 12.76 |
| 1921..... | 9.41 | 9.42 | 10.00 | 8.50 | 8.35 | 8.19 | 9.69 | 9.26 | 7.61 | 7.72 | 7.01 | 6.92 | 8.51 |
| 1922..... | 8.02 | 9.90 | 10.43 | 10.31 | 10.45 | 10.33 | 9.70 | 8.01 | 8.75 | 8.80 | 8.07 | 8.15 | 9.22 |
| 1923..... | 8.20 | 8.02 | 8.18 | 8.06 | 7.53 | 6.92 | 7.04 | 7.65 | 8.35 | 7.42 | 6.85 | 6.87 | 7.55 |
| 1924..... | 7.10 | 7.06 | 7.35 | 7.38 | 7.84 | 7.64 | 7.68 | 9.38 | 9.57 | 9.91 | 8.07 | 9.38 | 8.11 |
| 1925..... | 10.38 | 11.06 | 13.55 | 12.55 | 12.96 | 12.57 | 13.46 | 12.65 | 12.52 | 11.31 | 11.28 | 10.97 | 11.81 |
| Av. 1921-1925..... | 8.64 | 9.09 | 9.90 | 9.26 | 9.15 | 9.01 | 9.51 | 9.39 | 9.36 | 9.03 | 8.44 | 8.46 | 9.04 |

Division of Statistical and Historical Research. Figures prior to 1920 from Chicago Drovers Journal Yearbook; subsequent figures compiled from reports of packer and shipper purchases of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 537.—Hogs: Estimated price received by producers per 100 pounds, by States, 1925

| State | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Average |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Maine..... | 10.50 | 11.00 | 11.80 | 12.80 | 11.60 | 11.60 | 12.29 | 12.00 | 11.80 | 11.90 | 11.70 | 12.10 | 11.75 |
| New Hampshire..... | 10.50 | 10.70 | 11.80 | 12.80 | 11.50 | 12.00 | 13.20 | 11.40 | 11.60 | 12.00 | 11.00 | 11.60 | 11.70 |
| Vermont..... | 9.20 | 9.70 | 11.20 | 11.10 | 11.00 | 10.20 | 10.80 | 11.40 | 11.00 | 11.20 | 10.20 | 11.90 | 10.74 |
| Massachusetts..... | 10.30 | 10.30 | 12.60 | 13.00 | 11.70 | 12.00 | 12.90 | 13.20 | 12.10 | 12.20 | 12.40 | 11.90 | 12.10 |
| Rhode Island..... | 10.80 | 11.30 | 11.30 | 13.00 | 12.00 | 12.00 | 13.00 | 13.60 | 13.50 | 12.70 | 12.00 | 12.20 | 12.29 |
| Connecticut..... | 10.70 | 11.00 | 12.00 | 13.00 | 11.30 | 12.10 | 12.90 | 14.00 | 13.20 | 13.80 | 11.30 | 12.00 | 12.10 |
| New York..... | 10.20 | 10.50 | 11.30 | 12.60 | 11.90 | 12.10 | 12.30 | 12.60 | 12.20 | 12.00 | 11.80 | 12.00 | 11.74 |
| New Jersey..... | 10.50 | 10.80 | 12.20 | 11.80 | 12.50 | 10.90 | 13.00 | 12.60 | 13.50 | 13.50 | 11.70 | 12.50 | 12.12 |
| Pennsylvania..... | 10.30 | 10.70 | 12.10 | 12.50 | 12.00 | 12.30 | 13.20 | 13.60 | 13.20 | 12.90 | 12.30 | 12.30 | 12.28 |
| Ohio..... | 9.90 | 10.30 | 12.80 | 12.80 | 11.50 | 11.70 | 13.30 | 13.10 | 12.50 | 11.40 | 11.00 | 10.80 | 11.75 |
| Indiana..... | 10.00 | 10.30 | 12.90 | 12.50 | 11.90 | 11.70 | 13.20 | 13.30 | 12.40 | 11.60 | 11.00 | 10.90 | 11.81 |
| Illinois..... | 9.50 | 9.90 | 12.60 | 12.00 | 11.10 | 11.00 | 12.60 | 12.90 | 12.10 | 11.50 | 10.80 | 10.50 | 11.38 |
| Michigan..... | 9.30 | 9.50 | 11.70 | 11.40 | 11.10 | 11.20 | 12.10 | 12.50 | 12.10 | 11.60 | 10.60 | 10.70 | 11.19 |
| Wisconsin..... | 9.00 | 9.40 | 12.00 | 11.70 | 10.50 | 10.70 | 12.10 | 12.00 | 11.20 | 11.20 | 10.40 | 10.20 | 10.87 |
| Minnesota..... | 9.00 | 9.30 | 12.20 | 11.90 | 10.80 | 10.90 | 12.00 | 12.20 | 11.40 | 11.00 | 10.40 | 10.40 | 10.96 |
| Iowa..... | 9.50 | 9.80 | 12.60 | 12.20 | 11.20 | 11.10 | 12.50 | 12.40 | 11.50 | 10.90 | 10.30 | 10.20 | 11.18 |
| Missouri..... | 9.50 | 9.50 | 12.00 | 11.30 | 10.80 | 10.80 | 12.40 | 12.30 | 11.80 | 11.20 | 10.70 | 10.50 | 11.07 |
| North Dakota..... | 8.10 | 8.40 | 10.50 | 10.90 | 9.90 | 9.80 | 10.80 | 11.20 | 10.60 | 10.30 | 9.90 | 9.60 | 10.00 |
| South Dakota..... | 8.90 | 9.50 | 11.80 | 11.80 | 11.00 | 10.60 | 12.10 | 12.10 | 10.80 | 10.60 | 10.30 | 10.00 | 10.79 |
| Nebraska..... | 9.10 | 9.50 | 12.20 | 11.80 | 10.70 | 10.80 | 12.30 | 12.30 | 11.00 | 10.80 | 10.10 | 9.80 | 10.87 |
| Kansas..... | 0.30 | 9.70 | 12.80 | 11.80 | 10.90 | 10.90 | 12.50 | 12.60 | 11.60 | 11.40 | 10.60 | 10.10 | 11.18 |
| Delaware..... | 11.20 | 11.10 | 11.50 | 12.20 | 10.70 | 11.50 | 12.00 | 11.90 | 12.40 | 11.30 | 12.00 | 12.10 | 11.66 |
| Maryland..... | 10.60 | 10.00 | 12.10 | 12.10 | 11.20 | 11.70 | 12.90 | 13.30 | 12.30 | 13.00 | 12.60 | 12.50 | 12.02 |
| Virginia..... | 9.90 | 9.90 | 10.20 | 11.40 | 10.50 | 10.90 | 11.20 | 11.90 | 12.00 | 12.20 | 11.50 | 11.60 | 11.10 |
| West Virginia..... | 9.80 | 9.60 | 10.50 | 11.40 | 10.30 | 11.50 | 11.20 | 11.20 | 11.80 | 11.80 | 11.50 | 11.60 | 11.02 |
| North Carolina..... | 10.90 | 11.00 | 11.40 | 11.00 | 10.10 | 10.60 | 11.10 | 12.60 | 11.60 | 11.80 | 11.70 | 12.20 | 11.33 |
| South Carolina..... | 9.20 | 9.90 | 9.70 | 10.00 | 10.60 | 9.60 | 9.50 | 10.60 | 10.70 | 11.50 | 11.30 | 11.90 | 10.39 |
| Georgia..... | 8.90 | 9.00 | 9.20 | 10.00 | 10.20 | 10.00 | 10.50 | 10.80 | 11.00 | 11.20 | 10.70 | 10.10 | 10.13 |
| Florida..... | 8.00 | 8.80 | 8.60 | 9.80 | 9.30 | 9.00 | 9.40 | 10.50 | 10.00 | 9.80 | 10.40 | 9.50 | 9.32 |
| Kentucky..... | 8.90 | 9.50 | 11.60 | 11.60 | 11.10 | 11.00 | 12.40 | 12.80 | 12.50 | 11.90 | 11.10 | 11.30 | 11.50 |
| Tennessee..... | 9.30 | 9.40 | 11.90 | 11.20 | 10.60 | 10.60 | 11.70 | 11.70 | 11.40 | 11.30 | 11.10 | 11.00 | 10.98 |
| Alabama..... | 8.70 | 8.60 | 8.90 | 9.90 | 9.00 | 9.90 | 10.00 | 10.20 | 10.50 | 11.00 | 11.10 | 10.50 | 9.85 |
| Mississippi..... | 8.40 | 8.50 | 9.70 | 9.10 | 8.60 | 9.60 | 10.20 | 10.20 | 10.40 | 10.10 | 10.40 | 10.50 | 9.64 |
| Arkansas..... | 7.40 | 7.90 | 8.10 | 9.60 | 7.20 | 8.00 | 8.50 | 8.50 | 8.90 | 9.50 | 9.70 | 9.90 | 8.60 |
| Louisiana..... | 8.20 | 8.50 | 8.90 | 8.70 | 8.90 | 9.20 | 9.00 | 8.80 | 8.00 | 9.00 | 9.30 | 9.70 | 8.85 |
| Oklahoma..... | 9.00 | 9.10 | 11.50 | 11.30 | 9.80 | 10.00 | 11.40 | 12.30 | 10.90 | 11.00 | 10.50 | 9.80 | 10.55 |
| Texas..... | 8.50 | 9.40 | 10.80 | 10.70 | 10.10 | 10.10 | 10.30 | 11.00 | 10.80 | 10.70 | 10.40 | 10.70 | 10.29 |
| Montana..... | 8.40 | 8.70 | 10.30 | 11.10 | 10.20 | 10.10 | 10.50 | 11.60 | 11.20 | 11.10 | 10.40 | 10.40 | 10.33 |
| Idaho..... | 9.50 | 9.40 | 11.00 | 12.30 | 11.00 | 11.30 | 11.80 | 12.20 | 11.90 | 11.70 | 10.70 | 10.00 | 11.14 |
| Wyoming..... | 8.20 | 7.60 | 9.90 | 10.30 | 10.20 | 9.40 | 11.00 | 9.70 | 9.10 | 10.00 | 10.10 | 10.20 | 9.64 |
| Colorado..... | 8.80 | 9.30 | 12.20 | 11.50 | 10.00 | 10.40 | 12.20 | 12.10 | 11.70 | 11.20 | 10.60 | 10.30 | 10.86 |
| New Mexico..... | 8.00 | 8.70 | 11.00 | 11.00 | 9.60 | 10.40 | 11.40 | 10.50 | 10.60 | 9.00 | 10.00 | 9.90 | 9.92 |
| Arizona..... | 8.00 | 10.00 | 12.30 | 12.50 | 11.00 | 10.80 | 12.00 | 13.70 | 11.00 | 11.00 | 12.00 | 12.10 | 11.35 |
| Utah..... | 8.90 | 8.30 | 10.10 | 10.50 | 10.20 | 9.90 | 11.00 | 10.60 | 10.40 | 11.90 | 11.70 | 11.40 | 10.41 |
| Nevada..... | 9.00 | 9.50 | 11.10 | 11.60 | 11.50 | 10.00 | 11.60 | 13.00 | 11.50 | 12.00 | 12.50 | 12.20 | 11.29 |
| Washington..... | 10.10 | 10.00 | 12.20 | 12.80 | 11.40 | 11.20 | 12.50 | 13.30 | 13.50 | 12.50 | 12.00 | 11.60 | 11.92 |
| Oregon..... | 9.20 | 9.00 | 11.20 | 10.50 | 9.40 | 10.20 | 11.00 | 13.50 | 12.40 | 12.20 | 11.60 | 11.40 | 10.97 |
| California..... | 10.00 | 10.60 | 12.20 | 12.70 | 12.10 | 11.40 | 12.90 | 13.80 | 13.70 | 13.70 | 13.10 | 12.70 | 12.11 |
| United States..... | 9.31 | 9.62 | 11.83 | 11.64 | 10.78 | 10.82 | 12.02 | 12.19 | 11.60 | 11.16 | 10.66 | 10.51 | 11.00 |

Division of Crop and Livestock Estimates.

TABLE 538.—*Hogs: Average and top price per 100 pounds, at six markets, by months, 1925*

CHICAGO

| Classification | January | February | March | April | May | June | Average, January to June |
|---|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 10.71 | 11.26 | 13.74 | 12.58 | 12.15 | 12.60 | 12.17 |
| Mediumweight (200-250 pounds)..... | 10.33 | 11.02 | 13.68 | 12.64 | 12.24 | 12.56 | 12.08 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 9.81 | 10.73 | 13.46 | 12.52 | 12.15 | 12.26 | 11.82 |
| Light lights (130-160 pounds)..... | 9.00 | 10.08 | 12.75 | 12.15 | 11.87 | 11.78 | 11.27 |
| Packing hogs: | | | | | | | |
| Smooth..... | 10.26 | 10.57 | 12.92 | 11.37 | 11.08 | 11.60 | 11.30 |
| Rough..... | 9.88 | 10.22 | 12.65 | 11.03 | 10.73 | 11.23 | 10.96 |
| Slaughter pigs (130 pounds down), medium to choice..... | 7.95 | 9.18 | 11.86 | 11.49 | 11.50 | 11.34 | 10.55 |
| Bulk of sales..... | 10.40 | 11.12 | 13.60 | 12.58 | 12.16 | 12.50 | 12.06 |
| Top..... | 11.25 | 12.40 | 14.60 | 14.00 | 13.35 | 13.85 | 14.60 |

| Classification | July | August | September | October | November | December | Average, July to December |
|--|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 13.60 | 12.09 | 12.82 | 11.58 | 11.37 | 10.86 | 12.20 |
| Mediumweight (200-250 pounds)..... | 13.77 | 13.23 | 13.11 | 11.67 | 11.46 | 11.09 | 12.39 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 13.62 | 12.89 | 12.64 | 11.44 | 11.30 | 11.14 | 12.17 |
| Light lights (130-160 pounds)..... | 13.37 | 12.72 | 12.40 | 11.32 | 11.27 | 11.31 | 12.06 |
| Packing hogs; smooth and rough..... | 12.11 | 11.57 | 11.18 | 9.85 | 10.13 | 9.81 | 10.69 |
| Slaughter pigs (90-130 pounds), medium to choice..... | 13.06 | 13.10 | 12.57 | 11.72 | 11.55 | 11.88 | 12.31 |
| Feeder and stocker pigs (70-130 pounds), medium to choice..... | 13.45 | 12.77 | 12.44 | 11.03 | 11.24 | 11.00 | 11.99 |
| Bulk of sales..... | 14.75 | 14.55 | 14.25 | 13.40 | 12.00 | 12.30 | 14.75 |
| Top..... | 14.75 | 14.55 | 14.25 | 13.40 | 12.00 | 12.30 | 14.75 |

EAST ST. LOUIS

| Classification | January | February | March | April | May | June | Average, January to June |
|--|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 10.83 | 11.42 | 13.90 | 12.58 | 12.16 | 12.72 | 12.27 |
| Mediumweight (200-250 pounds)..... | 10.75 | 11.36 | 13.86 | 12.65 | 12.18 | 12.73 | 12.27 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 10.16 | 10.92 | 13.56 | 12.57 | 12.24 | 12.56 | 12.60 |
| Light lights (130-160 pounds)..... | 9.32 | 10.26 | 12.96 | 12.14 | 11.97 | 12.28 | 11.49 |
| Packing hogs: | | | | | | | |
| Smooth..... | 9.82 | 10.22 | 12.52 | 10.98 | 10.52 | 11.32 | 10.90 |
| Rough..... | 9.57 | 9.92 | 12.16 | 10.68 | 10.17 | 11.01 | 10.58 |
| Slaughter pigs (130 pounds down), medium to choice..... | 8.10 | 9.40 | 11.89 | 11.40 | 11.51 | 11.80 | 10.68 |
| Feeder and stocker pigs (70-130 pounds), common to choice..... | 7.43 | 8.72 | 10.85 | 10.55 | 10.79 | 11.16 | 9.92 |
| Bulk of sales..... | 10.57 | 11.25 | 13.79 | 12.66 | 12.30 | 12.70 | 12.21 |
| Top..... | 11.30 | 12.65 | 14.60 | 13.80 | 13.25 | 14.05 | 14.63 |

¹ Highest price, not average.

TABLE 538.—Hogs: Average and top price per 100 pounds, at six markets, by months, 1925—Continued

EAST ST. LOUIS—Continued

| Classification | July | August | September | October | November | December | Average, July to December |
|--|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 14.02 | 13.21 | 12.84 | 11.66 | 11.53 | 11.16 | 12.40 |
| Mediumweight (200-250 pounds)..... | 14.09 | 13.46 | 13.21 | 11.84 | 11.64 | 11.33 | 12.60 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 14.03 | 13.62 | 13.31 | 11.90 | 11.72 | 11.56 | 12.69 |
| Light lights (130-160 pounds)..... | 13.79 | 13.51 | 13.14 | 11.90 | 11.73 | 11.62 | 12.62 |
| Packing hogs, smooth and rough..... | 12.11 | 11.47 | 11.11 | 10.14 | 10.09 | 9.58 | 10.75 |
| Slaughter pigs (90-130 pounds), medium to choice..... | 13.27 | 13.16 | 12.80 | 11.93 | 11.84 | 11.67 | 12.44 |
| Feeder and stocker pigs (70-130 pounds), medium to choice..... | 12.60 | 12.48 | 12.21 | 11.63 | 11.60 | 11.28 | 11.08 |
| Bulk of sales..... | 14.14 | 13.59 | 13.26 | 11.92 | 11.74 | 11.52 | 12.70 |
| Top..... | 14.80 | 14.60 | 14.40 | 13.85 | 12.25 | 12.50 | 14.80 |

FORT WORTH

| Classification | January | February | March | April | May | June | Average, January to June |
|---|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 10.67 | 11.32 | 13.53 | 12.14 | 11.63 | 12.15 | 11.91 |
| Mediumweight (200-250 pounds)..... | 10.70 | 11.28 | 13.49 | 12.14 | 11.66 | 12.22 | 11.92 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 10.07 | 10.74 | 13.03 | 11.70 | 11.47 | 12.10 | 11.52 |
| Light lights (130-160 pounds)..... | 9.00 | 9.56 | 11.58 | 10.76 | 10.50 | 11.42 | 10.47 |
| Packing hogs: | | | | | | | |
| Smooth..... | 9.64 | 10.18 | 12.64 | 11.21 | 10.19 | 11.08 | 10.82 |
| Rough..... | 8.54 | 9.08 | 11.83 | 10.70 | 9.55 | 10.31 | 10.00 |
| Slaughter pigs (130 pounds down), medium to choice..... | 7.69 | 8.20 | 9.95 | 9.91 | 9.61 | 10.63 | 9.33 |
| Bulk of sales..... | 10.54 | 11.17 | 13.41 | 12.04 | 11.69 | 12.29 | 11.86 |
| Top..... | 11.25 | 12.40 | 14.40 | 13.25 | 12.95 | 13.60 | 114.40 |

| Classification | July | August | September | October | November | December | Average, July to December |
|--|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Butcher, bacon, and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 13.40 | 12.86 | 12.61 | 11.60 | 11.10 | 11.19 | 12.13 |
| Mediumweight (200-250 pounds)..... | 13.48 | 12.96 | 12.88 | 11.93 | 11.60 | 11.49 | 12.39 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 13.23 | 12.72 | 12.54 | 11.80 | 11.54 | 11.42 | 12.21 |
| Light lights (130-160 pounds)..... | 12.39 | 12.06 | 11.98 | 11.32 | 10.99 | 10.92 | 11.61 |
| Packing hogs, smooth and rough..... | 11.55 | 11.13 | 10.60 | 10.27 | 10.08 | 10.07 | 10.62 |
| Slaughter pigs (90-130 pounds), medium to choice..... | 11.48 | 11.35 | 11.58 | 11.17 | 11.00 | 10.44 | 11.17 |
| Feeder and stocker pigs (70-130 pounds), medium to choice..... | | | | | | | |
| Bulk of sales..... | 13.41 | 12.83 | 12.74 | 12.06 | | 11.08 | |
| Top..... | 14.20 | 14.00 | 13.90 | 13.65 | 12.10 | 12.50 | 14.20 |

¹ Highest price, not average.

TABLE 538.—*Hogs: Average and top price per 100 pounds, at six markets, by months, 1925—Continued*

KANSAS CITY

| Classification | January | February | March | April | May | June | Average, January to June |
|--|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Butcher, bacon, and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 10.45 | 11.06 | 13.49 | 12.17 | 11.68 | 12.34 | 11.87 |
| Mediumweight (200-250 pounds)..... | 10.38 | 10.98 | 13.44 | 12.24 | 11.79 | 12.34 | 11.86 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 9.84 | 10.46 | 13.05 | 12.10 | 11.79 | 12.14 | 11.66 |
| Light lights (130-160 pounds)..... | 8.84 | 9.76 | 12.52 | 11.54 | 11.46 | 11.75 | 10.98 |
| Packing hogs: | | | | | | | |
| Smooth..... | 10.04 | 10.52 | 12.73 | 11.35 | 10.82 | 11.48 | 11.16 |
| Rough..... | 9.85 | 10.35 | 12.50 | 11.12 | 10.58 | 11.25 | 10.94 |
| Slaughter pigs (130 pounds down), medium to choice..... | 7.82 | 8.66 | 11.34 | 11.20 | 11.11 | 11.27 | 10.23 |
| Feeder and stocker pigs (70-130 pounds), common to choice..... | 7.02 | 8.18 | 10.85 | 10.92 | 11.20 | 11.50 | 9.94 |
| Bulk of sales..... | 10.26 | 10.88 | 13.41 | 12.17 | 11.74 | 12.34 | 11.80 |
| Top..... | 10.96 | 12.25 | 14.30 | 13.45 | 12.90 | 13.55 | 14.30 |
| Classification | July | August | September | October | November | December | Average, July to December |
| Butcher, bacon, and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 13.51 | 12.82 | 12.30 | 11.35 | 11.13 | 10.97 | 12.01 |
| Mediumweight (200-250 pounds)..... | 13.60 | 13.14 | 12.67 | 11.48 | 11.23 | 11.12 | 12.21 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 13.41 | 13.18 | 12.76 | 11.51 | 11.29 | 11.23 | 12.23 |
| Light lights (130-160 pounds)..... | 13.21 | 13.15 | 12.76 | 11.44 | 11.32 | 11.37 | 12.21 |
| Packing hogs, smooth and rough..... | 12.21 | 11.70 | 10.91 | 10.18 | 10.26 | 9.72 | 10.83 |
| Slaughter pigs (90-130 pounds), medium to choice..... | 12.05 | 12.66 | 12.33 | 11.34 | 11.34 | 11.39 | 11.95 |
| Feeder and stocker pigs (70-130 pounds), medium to choice..... | 12.44 | 12.67 | 12.29 | 11.74 | 11.60 | 11.50 | 12.05 |
| Bulk of sales..... | 13.53 | 12.95 | 12.46 | 11.34 | 11.19 | 11.05 | 12.09 |
| Top..... | 14.25 | 14.15 | 13.70 | 13.25 | 11.85 | 12.00 | 14.25 |

OMAHA

| Classification | January | February | March | April | May | June | Average, January to June |
|--|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 10.36 | 10.93 | 13.45 | 12.10 | 11.70 | 12.25 | 11.80 |
| Mediumweight (200-250 pounds)..... | 10.17 | 10.82 | 13.38 | 12.08 | 11.74 | 12.21 | 11.73 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 9.82 | 10.46 | 12.99 | 11.93 | 11.68 | 12.07 | 11.49 |
| Light lights (130-160 pounds)..... | 8.86 | 9.72 | 12.56 | 11.49 | 11.54 | 11.70 | 10.97 |
| Packing hogs: | | | | | | | |
| Smooth..... | 9.94 | 10.40 | 12.87 | 11.51 | 11.14 | 11.47 | 11.22 |
| Rough..... | 9.72 | 10.18 | 12.62 | 11.26 | 10.88 | 11.12 | 10.96 |
| Slaughter pigs (130 pounds down), medium to choice..... | 7.74 | 8.70 | 10.94 | 10.27 | 10.65 | 11.19 | 9.92 |
| Feeder and stocker pigs (70-130 pounds), common to choice..... | 6.94 | 7.74 | 9.61 | 9.83 | 10.15 | 10.81 | 9.18 |
| Bulk of sales..... | 10.12 | 10.71 | 13.29 | 12.08 | 11.70 | 12.06 | 11.65 |
| Top..... | 10.85 | 12.25 | 14.35 | 13.25 | 12.85 | 13.45 | 14.35 |

¹ Highest price, not average.

TABLE 538.—Hogs: Average and top prices per 100 pounds, at six markets, by months, 1885—Continued

OMAHA—Continued

| Classification | July | August | September | October | November | December | Average, July to December |
|--|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 13.17 | 12.58 | 12.23 | 11.06 | 11.07 | 10.67 | 11.80 |
| Mediumweight (200-250 pounds)..... | 13.21 | 12.87 | 12.44 | 11.23 | 11.14 | 10.75 | 11.94 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 13.00 | 12.94 | 12.43 | 11.19 | 11.12 | 10.84 | 11.94 |
| Light lights (130-160 pounds)..... | 12.86 | 12.70 | 11.99 | 10.90 | 11.04 | 10.82 | 11.72 |
| Packing hogs, smooth and rough..... | 12.00 | 11.52 | 11.11 | 9.80 | 10.18 | 9.50 | 10.68 |
| Slaughter pigs (90-130 pounds), medium to choice..... | 11.66 | 12.38 | 11.65 | 10.68 | 11.08 | ----- | ----- |
| Feeder and stocker pigs (70-130 pounds), medium to choice..... | 11.23 | ----- | ----- | ----- | 10.90 | 10.87 | ----- |
| Bulk of sales..... | 12.82 | 12.38 | 11.86 | 10.60 | 10.76 | 10.35 | 11.51 |
| Top..... | 14.00 | 13.85 | 13.60 | 13.00 | 11.60 | 11.50 | 14.00 |

SOUTH ST. PAUL

| Classification | January | February | March | April | May | June | Average, January to June |
|--|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 10.11 | 10.82 | 13.32 | 12.17 | 11.70 | 12.14 | 11.71 |
| Mediumweight (200-250 pounds)..... | 9.98 | 10.71 | 13.23 | 12.15 | 11.73 | 12.16 | 11.66 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 9.58 | 10.46 | 13.00 | 12.11 | 11.74 | 12.12 | 11.50 |
| Light lights (130-160 pounds)..... | 8.77 | 9.93 | 12.51 | 11.97 | 11.69 | 12.04 | 11.15 |
| Packing hogs: | | | | | | | |
| Smooth..... | 9.60 | 10.24 | 12.22 | 10.87 | 10.53 | 11.08 | 10.77 |
| Rough..... | 9.44 | 9.98 | 11.04 | 10.62 | 10.26 | 10.80 | 10.51 |
| Slaughter pigs (130 pounds down), medium to choice..... | 7.49 | 9.06 | 11.62 | 11.69 | 11.62 | 11.99 | 10.58 |
| Feeder and stocker pigs (70-130 pounds), common to choice..... | 7.28 | 8.75 | 11.50 | 11.68 | 11.62 | 11.99 | 10.47 |
| Bulk of sales..... | 9.82 | 10.52 | 13.06 | 12.14 | 11.76 | 12.10 | 11.57 |
| Top..... | 10.60 | 12.00 | 14.10 | 13.25 | 12.50 | 13.10 | 14.10 |

| Classification | July | August | September | October | November | December | Average, July to December |
|--|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------|
| Butcher, bacon and shipper hogs: | | | | | | | |
| Medium to choice— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Heavyweight (250-350 pounds)..... | 13.03 | 12.44 | 12.12 | 10.90 | 10.97 | 10.72 | 11.70 |
| Mediumweight (200-250 pounds)..... | 13.15 | 12.63 | 12.37 | 10.99 | 11.02 | 10.83 | 11.83 |
| Common to choice— | | | | | | | |
| Lightweight (160-200 pounds)..... | 13.10 | 12.81 | 12.49 | 11.03 | 11.07 | 10.92 | 11.90 |
| Light lights (130-160 pounds)..... | 12.93 | 12.76 | 12.44 | 11.01 | 11.10 | 11.11 | 11.89 |
| Packing hogs, smooth and rough..... | 11.84 | 11.43 | 10.94 | 9.60 | 9.92 | 9.10 | 10.47 |
| Slaughter pigs (90-130 pounds), medium to choice..... | 12.80 | ----- | ----- | 11.50 | 11.38 | 11.79 | ----- |
| Feeder and stocker pigs (70-130 pounds), medium to choice..... | 13.00 | 12.94 | 12.38 | 11.50 | 11.38 | 11.79 | 12.16 |
| Bulk of sales..... | 12.67 | 12.23 | 11.96 | 10.37 | 10.81 | 10.89 | 11.47 |
| Top..... | 14.00 | 14.00 | 13.75 | 12.75 | 11.60 | 11.75 | 14.00 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.
Classification changed July 1, 1926.

¹ Highest price, not average.

TABLE 539.—*Swine: Slaughter in United States, by States, 1909, 1914, 1919, 1921 and 1923*¹

| State | 1909 | | | | 1914 ¹ |
|-----------------------|---|------------------|---------------------|-----------------|---|
| | In wholesale slaughtering and meat packing establishments | Retail slaughter | On farms and ranges | Total slaughter | In wholesale slaughtering and meat packing establishments |
| | Number | Number | Number | Number | Number |
| California..... | 344, 319 | 134, 523 | 82, 270 | 561, 112 | 400, 306 |
| Colorado..... | 276, 618 | 34, 340 | 52, 081 | 363, 039 | 259, 821 |
| Illinois..... | 7, 293, 544 | 410, 221 | 762, 545 | 8, 466, 310 | 7, 205, 510 |
| Indiana..... | 1, 751, 454 | 256, 527 | 646, 581 | 2, 654, 562 | 1, 840, 811 |
| Iowa..... | 2, 487, 251 | 139, 525 | 507, 167 | 3, 133, 943 | 2, 394, 061 |
| Kansas..... | 4, 191, 927 | 73, 184 | 377, 566 | 4, 642, 677 | 2, 825, 764 |
| Maryland..... | 554, 761 | 110, 163 | 180, 406 | 845, 330 | 622, 626 |
| Massachusetts..... | 1, 501, 456 | 67, 576 | 27, 754 | 1, 596, 786 | 1, 263, 238 |
| Michigan..... | 444, 756 | 150, 426 | 381, 247 | 976, 429 | 761, 380 |
| Minnesota..... | 1, 063, 655 | 88, 133 | 314, 597 | 1, 466, 385 | 1, 559, 491 |
| Missouri..... | 2, 471, 658 | 128, 490 | 949, 318 | 3, 549, 466 | 2, 793, 439 |
| Nebraska..... | 2, 103, 602 | 59, 303 | 261, 515 | 2, 424, 420 | 2, 105, 510 |
| New Jersey..... | 1, 210, 849 | 390, 730 | 73, 709 | 1, 675, 288 | 1, 297, 313 |
| New York..... | 1, 802, 669 | 214, 157 | 386, 264 | 2, 403, 090 | 1, 725, 668 |
| Ohio..... | 1, 725, 285 | 275, 983 | 768, 195 | 2, 769, 463 | 1, 911, 608 |
| Pennsylvania..... | 1, 222, 880 | 120, 616 | 675, 939 | 2, 019, 435 | 1, 573, 974 |
| Texas..... | 939, 674 | 135, 301 | 885, 260 | 1, 960, 235 | 570, 182 |
| Washington..... | 239, 352 | 51, 877 | 92, 600 | 383, 829 | 873, 321 |
| West Virginia..... | 124, 914 | 22, 383 | 206, 701 | 353, 998 | 171, 897 |
| Wisconsin..... | 1, 078, 361 | 114, 993 | 386, 243 | 1, 579, 597 | 1, 110, 440 |
| All other States..... | 1, 041, 631 | 991, 984 | 7, 360, 539 | 9, 394, 174 | 1, 675, 524 |
| Total..... | 33, 870, 616 | 3, 970, 435 | 15, 378, 517 | 53, 219, 568 | 34, 441, 913 |

| State | 1919 ¹ | | 1921 ¹ | 1923 ¹ |
|-----------------------|---|---------------------|------------------------------------|---|
| | In wholesale slaughtering and meat packing establishments | On farms and ranges | Total wholesale and farm slaughter | In wholesale slaughtering and meat packing establishments |
| | Number | Number | Number | Number |
| California..... | 500, 123 | 109, 582 | 609, 705 | 630, 512 |
| Colorado..... | 396, 876 | 104, 380 | 501, 256 | 370, 532 |
| Illinois..... | 9, 976, 191 | 723, 836 | 10, 700, 029 | 7, 827, 427 |
| Indiana..... | 2, 104, 268 | 579, 941 | 2, 684, 209 | 1, 766, 420 |
| Iowa..... | 3, 302, 333 | 537, 961 | 3, 840, 294 | 3, 062, 725 |
| Kansas..... | 4, 538, 052 | 348, 435 | 4, 886, 487 | 3, 149, 278 |
| Maryland..... | 654, 438 | 189, 898 | 844, 336 | 930, 303 |
| Massachusetts..... | 1, 422, 449 | 36, 413 | 1, 458, 862 | 980, 645 |
| Michigan..... | 881, 030 | 348, 798 | 1, 229, 828 | 893, 399 |
| Minnesota..... | 2, 197, 152 | 379, 611 | 2, 576, 763 | 2, 759, 604 |
| Missouri..... | 3, 506, 211 | 796, 082 | 4, 302, 293 | 3, 235, 758 |
| Nebraska..... | 2, 995, 220 | 268, 025 | 3, 263, 245 | 2, 032, 331 |
| New Jersey..... | 1, 242, 798 | 64, 745 | 1, 307, 543 | 1, 431, 551 |
| New York..... | 1, 614, 479 | 404, 104 | 2, 018, 583 | 1, 862, 042 |
| Ohio..... | 2, 542, 304 | 732, 636 | 3, 274, 940 | 2, 811, 198 |
| Pennsylvania..... | 1, 663, 910 | 693, 406 | 2, 357, 316 | 2, 292, 709 |
| Texas..... | 696, 255 | 818, 246 | 1, 514, 501 | 449, 602 |
| Washington..... | 301, 429 | 128, 467 | 429, 896 | 395, 560 |
| West Virginia..... | 316, 827 | 245, 855 | 562, 682 | 318, 602 |
| Wisconsin..... | 1, 444, 115 | 438, 831 | 1, 882, 946 | 1, 288, 792 |
| All other States..... | 2, 224, 266 | 8, 751, 026 | 10, 975, 292 | 2, 207, 784 |
| Total..... | 44, 520, 726 | 16, 800, 230 | 61, 320, 956 | 40, 726, 780 |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of Census.

¹ In addition there were 2,898,994 hogs slaughtered on a custom basis in 1914 and 2,290,539 for 1919. No corresponding data for 1909, 1921, or 1923.² No data collected by Bureau of the Census for 1914, 1921, or 1923, on farm or retail slaughter.³ No data obtainable for retail slaughter in 1919.

TABLE 540.—Hogs: Prices of live hogs in Chicago, and wholesale and retail prices of certain pork products, 1913-1925

| Year | Price of live hogs, Chicago (Per 100 lbs.) | Hams | | | | Bacon | | | |
|----------------|--|----------------------------|----------------------------|--------------------------------------|----------------------------|------------------------------|----------------------------|--------------------------------------|----------------------------|
| | | Smoked, whole-sale | | Retail ¹ | | Short clear sides, wholesale | | Retail | |
| | | Chicago, (Price per pound) | Per cent of live hog price | In lead-ing cities (Price per pound) | Per cent of live hog price | Chicago, (Price per pound) | Per cent of live hog price | In lead-ing cities (Price per pound) | Per cent of live hog price |
| | Dollars | Cents | Per cent | Cents | Per cent | Cents | Per cent | Cents | Per cent |
| 1913..... | 8.35 | 16.6 | 199 | 26.9 | 322 | 12.7 | 152 | 27.0 | 323 |
| 1914..... | 8.30 | 16.7 | 201 | 27.3 | 329 | 13.2 | 159 | 27.5 | 331 |
| 1915..... | 7.10 | 15.3 | 215 | 26.1 | 368 | 11.6 | 163 | 26.9 | 379 |
| 1916..... | 9.60 | 18.5 | 193 | 29.4 | 306 | 14.9 | 155 | 28.7 | 299 |
| 1917..... | 15.10 | 25.2 | 167 | 38.2 | 253 | 24.8 | 164 | 41.0 | 272 |
| 1918..... | 17.45 | 31.8 | 182 | 47.9 | 274 | 27.9 | 160 | 52.9 | 303 |
| 1919..... | 17.85 | 34.3 | 192 | 53.4 | 299 | 29.1 | 163 | 55.4 | 310 |
| 1920..... | 13.91 | 33.4 | 240 | 55.5 | 390 | 20.7 | 149 | 52.3 | 376 |
| 1921..... | 8.51 | 26.8 | 315 | 45.8 | 573 | 13.5 | 159 | 42.7 | 502 |
| 1922..... | 9.22 | 26.5 | 287 | 48.8 | 529 | 14.1 | 153 | 39.8 | 432 |
| 1923..... | 7.55 | 21.2 | 281 | 45.5 | 603 | 12.0 | 159 | 39.1 | 518 |
| 1924..... | 8.11 | 20.2 | 249 | 45.3 | 559 | 14.4 | 178 | 37.7 | 465 |
| 1925..... | 11.81 | 27.1 | 229 | 52.6 | 445 | 22.3 | 189 | 46.7 | 396 |
| 1925..... | | | | | | | | | |
| January..... | 10.38 | 21.9 | 211 | 47.6 | 459 | 20.4 | 197 | 40.3 | 388 |
| February..... | 11.06 | 23.1 | 209 | 48.1 | 435 | 20.6 | 186 | 40.6 | 367 |
| March..... | 13.55 | 26.9 | 199 | 51.2 | 378 | 24.2 | 179 | 44.4 | 328 |
| April..... | 12.55 | 28.2 | 225 | 53.5 | 426 | 23.5 | 167 | 46.0 | 371 |
| May..... | 12.06 | 25.6 | 212 | 53.0 | 439 | 22.1 | 183 | 46.4 | 385 |
| June..... | 12.57 | 26.3 | 209 | 53.0 | 422 | 23.2 | 185 | 47.0 | 374 |
| July..... | 13.46 | 29.3 | 218 | 54.4 | 404 | 23.8 | 177 | 48.7 | 362 |
| August..... | 12.66 | 29.8 | 235 | 54.9 | 434 | 23.5 | 186 | 49.3 | 389 |
| September..... | 12.52 | 29.2 | 233 | 54.0 | 438 | 23.2 | 185 | 49.4 | 395 |
| October..... | 11.31 | 28.3 | 250 | 54.3 | 480 | 22.5 | 199 | 49.6 | 439 |
| November..... | 11.28 | 28.2 | 250 | 53.5 | 474 | 20.8 | 184 | 49.2 | 436 |
| December..... | 10.97 | 28.0 | 255 | 53.1 | 484 | 19.7 | 180 | 48.6 | 443 |

| Year | Fresh pork | | | | Lard | | | |
|----------------|----------------------------|----------------------------|--------------------------------------|----------------------------|----------------------------|----------------------------|--------------------------------------|----------------------------|
| | Pork loins, wholesale | | Pork chops, retail | | Prime contract, wholesale | | Retail | |
| | Chicago, (Price per pound) | Per cent of live hog price | In lead-ing cities (Price per pound) | Per cent of live hog price | New York (Price per pound) | Per cent of live hog price | In lead-ing cities (Price per pound) | Per cent of live hog price |
| | Cents | Per cent | Cents | Per cent | Cents | Per cent | Cents | Per cent |
| 1913..... | 14.9 | 178 | 21.0 | 251 | 11.0 | 132 | 15.8 | 189 |
| 1914..... | 15.4 | 186 | 22.0 | 265 | 10.4 | 125 | 15.6 | 188 |
| 1915..... | 14.3 | 201 | 20.3 | 286 | 9.4 | 132 | 14.8 | 208 |
| 1916..... | 16.2 | 169 | 22.7 | 236 | 13.5 | 141 | 17.5 | 182 |
| 1917..... | 24.4 | 162 | 31.9 | 211 | 21.7 | 144 | 27.6 | 183 |
| 1918..... | 29.5 | 169 | 39.0 | 223 | 25.5 | 146 | 33.3 | 191 |
| 1919..... | 31.5 | 176 | 42.3 | 237 | 29.0 | 162 | 36.9 | 207 |
| 1920..... | 30.7 | 221 | 42.3 | 304 | 20.0 | 144 | 29.5 | 212 |
| 1921..... | 22.5 | 264 | 34.9 | 410 | 11.1 | 130 | 18.0 | 212 |
| 1922..... | 21.7 | 235 | 33.0 | 358 | 11.5 | 125 | 17.0 | 184 |
| 1923..... | 18.0 | 238 | 30.4 | 403 | 12.3 | 163 | 17.7 | 234 |
| 1924..... | 19.1 | 236 | 30.8 | 389 | 13.3 | 164 | 19.0 | 234 |
| 1925..... | 25.0 | 212 | 36.6 | 310 | 16.8 | 142 | 23.3 | 197 |
| 1925..... | | | | | | | | |
| January..... | 17.4 | 168 | 30.7 | 296 | 16.6 | 160 | 22.8 | 220 |
| February..... | 18.0 | 163 | 30.3 | 274 | 16.1 | 146 | 22.8 | 206 |
| March..... | 27.5 | 203 | 37.4 | 276 | 17.1 | 126 | 23.1 | 170 |
| April..... | 25.8 | 206 | 36.8 | 293 | 16.1 | 128 | 23.2 | 185 |
| May..... | 25.1 | 208 | 36.0 | 299 | 16.3 | 135 | 22.6 | 187 |
| June..... | 24.0 | 191 | 36.2 | 288 | 17.6 | 140 | 22.9 | 182 |
| July..... | 29.4 | 218 | 39.2 | 291 | 18.1 | 134 | 23.5 | 175 |
| August..... | 30.0 | 237 | 40.0 | 316 | 17.9 | 141 | 24.3 | 192 |
| September..... | 31.5 | 252 | 40.4 | 323 | 17.8 | 142 | 24.0 | 192 |
| October..... | 26.0 | 220 | 39.1 | 346 | 16.4 | 145 | 24.1 | 213 |
| November..... | 24.3 | 215 | 37.5 | 332 | 16.2 | 144 | 23.3 | 207 |
| December..... | 21.5 | 196 | 35.7 | 325 | 15.0 | 137 | 22.6 | 206 |

Division of Statistical and Historical Research. Wholesale prices of ham, bacon, and pork loins in Chicago and offal in New York. Retail prices in leading cities throughout the United States. Price of live hogs, Bureau of Agricultural Economics; other prices from Bureau of Labor Statistics.

¹ Mostly on sliced ham.

TABLE 541.—Hogs: Trend of average farm prices and average market prices per 100 pounds, at Chicago, 1910-1925

| Year | Weighted average farm price | Average market price at Chicago | Price relatives 1913=100 | | Year | Weighted average farm price | Average market price at Chicago | Price relatives 1913=100 | |
|-----------|-----------------------------|---------------------------------|--------------------------|--------------|-----------|-----------------------------|---------------------------------|--------------------------|--------------|
| | | | Farm price | Market price | | | | Farm price | Market price |
| | <i>Dollars</i> | <i>Dollars</i> | | | | <i>Dollars</i> | <i>Dollars</i> | | |
| 1910..... | 8.12 | 8.90 | 106.1 | 108.6 | 1918..... | 15.82 | 17.45 | 212.6 | 209.0 |
| 1911..... | 6.29 | 6.70 | 84.5 | 83.2 | 1919..... | 16.04 | 17.55 | 215.6 | 213.8 |
| 1912..... | 6.64 | 7.55 | 90.2 | 90.4 | 1920..... | 12.85 | 13.91 | 172.7 | 166.6 |
| 1913..... | 7.44 | 8.35 | 100.0 | 100.0 | 1921..... | 7.85 | 8.51 | 105.5 | 101.9 |
| 1914..... | 7.51 | 8.30 | 100.9 | 99.4 | 1922..... | 8.32 | 9.22 | 111.8 | 110.4 |
| 1915..... | 6.56 | 7.10 | 88.2 | 85.0 | 1923..... | 7.11 | 7.55 | 95.6 | 90.4 |
| 1916..... | 8.11 | 9.60 | 109.0 | 115.0 | 1924..... | 7.46 | 8.11 | 100.3 | 97.1 |
| 1917..... | 13.41 | 15.10 | 180.2 | 180.8 | 1925..... | 10.88 | 11.81 | 146.2 | 141.4 |

Division of Statistical and Historical Research. Farm prices from Division of Crop and Livestock Estimates; market prices compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 542.—Hogs: Monthly slaughter under Federal inspection, 1907-1925

| Year | January | February | March | April | May | June | July |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1907..... | 3,400,531 | 2,920,505 | 2,685,112 | 2,667,170 | 3,317,281 | 3,240,786 | 2,928,806 |
| 1908..... | 4,961,421 | 3,889,804 | 3,111,115 | 3,304,271 | 3,087,525 | 3,093,880 | 2,415,570 |
| 1909..... | 3,875,858 | 2,653,412 | 3,012,659 | 2,342,909 | 2,620,418 | 2,718,569 | 2,097,241 |
| 1910..... | 2,692,780 | 2,323,582 | 1,891,000 | 1,778,410 | 2,206,472 | 2,612,116 | 1,988,463 |
| 1911..... | 2,742,393 | 2,632,830 | 2,972,092 | 2,889,454 | 3,007,507 | 3,462,063 | 2,560,236 |
| 1912..... | 4,146,732 | 3,301,955 | 2,700,401 | 2,411,926 | 2,843,878 | 2,835,470 | 2,353,889 |
| 1913..... | 3,708,086 | 2,843,947 | 2,333,022 | 2,486,664 | 3,045,035 | 3,056,948 | 2,557,054 |
| 1914..... | 3,489,384 | 2,722,703 | 2,547,752 | 2,311,724 | 2,569,928 | 2,925,635 | 2,599,540 |
| 1915..... | 4,273,788 | 3,885,177 | 3,445,787 | 2,563,081 | 2,804,655 | 3,245,822 | 2,493,385 |
| 1916..... | 5,387,333 | 4,275,667 | 3,430,145 | 2,853,326 | 3,274,941 | 3,162,569 | 2,530,249 |
| 1917..... | 4,628,613 | 3,484,014 | 2,984,959 | 2,645,077 | 3,083,518 | 2,684,844 | 2,411,436 |
| 1918..... | 3,900,892 | 3,908,084 | 3,925,986 | 3,290,489 | 3,002,325 | 2,782,702 | 2,910,491 |
| 1919..... | 5,845,686 | 4,266,317 | 3,443,330 | 3,207,671 | 3,743,463 | 3,728,230 | 2,884,325 |
| 1920..... | 5,078,521 | 3,103,530 | 3,481,680 | 2,890,295 | 3,584,781 | 3,506,071 | 2,643,772 |
| 1921..... | 4,347,306 | 3,798,687 | 3,047,424 | 3,003,208 | 3,274,114 | 3,618,132 | 2,820,616 |
| 1922..... | 3,984,704 | 3,479,907 | 3,350,214 | 2,945,757 | 3,716,170 | 4,046,304 | 3,104,322 |
| 1923..... | 5,134,029 | 4,330,575 | 4,837,701 | 4,179,438 | 4,325,130 | 4,302,533 | 3,083,435 |
| 1924..... | 5,911,242 | 5,006,200 | 4,536,372 | 4,073,248 | 4,277,565 | 4,297,552 | 4,113,814 |
| 1925..... | 5,978,622 | 4,446,936 | 3,260,344 | 3,036,716 | 3,186,124 | 3,731,501 | 2,819,385 |

| Year | August | September | October | November | December | Total |
|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| 1907..... | 2,300,785 | 1,988,210 | 2,218,979 | 2,134,622 | 3,093,590 | 32,885,377 |
| 1908..... | 2,281,132 | 2,230,694 | 3,363,060 | 3,802,740 | 4,145,780 | 38,643,161 |
| 1909..... | 1,821,934 | 1,855,445 | 2,397,039 | 2,900,080 | 3,090,262 | 31,394,806 |
| 1910..... | 1,634,083 | 1,838,846 | 1,850,765 | 2,455,654 | 2,828,749 | 26,013,783 |
| 1911..... | 2,051,911 | 2,171,798 | 2,719,927 | 3,639,260 | 3,602,575 | 34,132,955 |
| 1912..... | 1,875,336 | 1,701,088 | 2,454,931 | 3,020,326 | 3,406,795 | 33,052,727 |
| 1913..... | 2,268,333 | 2,132,735 | 2,681,390 | 3,165,206 | 3,918,685 | 34,198,585 |
| 1914..... | 1,799,032 | 1,907,367 | 2,681,852 | 3,047,127 | 4,270,600 | 32,531,841 |
| 1915..... | 2,040,506 | 1,890,460 | 2,493,831 | 3,738,879 | 5,441,833 | 38,381,228 |
| 1916..... | 2,517,259 | 2,287,330 | 3,327,029 | 4,770,913 | 5,267,042 | 43,063,703 |
| 1917..... | 1,704,852 | 1,321,674 | 2,195,291 | 3,042,837 | 3,722,599 | 33,909,704 |
| 1918..... | 2,263,063 | 1,980,006 | 3,018,094 | 4,280,126 | 5,661,890 | 41,214,250 |
| 1919..... | 1,949,413 | 1,997,149 | 2,685,711 | 3,270,172 | 4,790,353 | 41,811,830 |
| 1920..... | 2,190,821 | 1,978,602 | 2,486,940 | 3,328,633 | 3,985,125 | 38,018,684 |
| 1921..... | 2,530,459 | 2,422,350 | 2,800,133 | 3,447,027 | 3,806,797 | 38,982,355 |
| 1922..... | 2,887,755 | 2,747,467 | 3,331,587 | 4,318,065 | 5,201,437 | 43,113,629 |
| 1923..... | 3,866,059 | 3,212,850 | 4,327,951 | 5,340,678 | 5,908,759 | 53,333,708 |
| 1924..... | 3,070,208 | 2,656,960 | 3,489,135 | 4,640,944 | 6,600,306 | 52,872,634 |
| 1925..... | 2,452,825 | 2,567,887 | 3,314,353 | 3,646,155 | 4,633,019 | 43,042,867 |

TABLE 543.—Hogs, pork, and pork products: Statement of the livestock and meat situation, by months, 1925

| Item | Unit | January | February | March | April | May | June | July | August | September | October | November | December | Total |
|--|--------------|---------|----------|---------|---------|---------|---------|---------|---------|-----------|---------|----------|----------|-----------|
| Inspected slaughter hogs | Thousands | 5,979 | 4,447 | 3,299 | 3,027 | 3,186 | 3,732 | 2,819 | 2,453 | 2,598 | 3,314 | 3,046 | 4,533 | 43,043 |
| Carcasses condemned | do | 20 | 16 | 14 | 12 | 13 | 15 | 11 | 11 | 11 | 11 | 11 | 14 | 159 |
| Average live weight | Pounds | 212 | 216 | 219 | 225 | 229 | 231 | 241 | 246 | 259 | 229 | 222 | 225 | 1,226 |
| Total dressed weight (carcasses, not including condemn- ed) | 1,000 pounds | 930,738 | 723,465 | 547,771 | 519,331 | 555,823 | 650,432 | 512,065 | 457,345 | 451,233 | 563,747 | 606,706 | 773,984 | 7,322,710 |
| Lard per 100 pounds live weight | Pounds | 16 | 16 | 16 | 16 | 16 | 16 | 14 | 14 | 14 | 13 | 14 | 15 | 115 |
| Storage first of month: | | | | | | | | | | | | | | |
| Fresh pork | 1,000 pounds | 130,125 | 190,642 | 231,234 | 218,508 | 201,246 | 190,645 | 198,527 | 131,935 | 93,078 | 54,294 | 29,910 | 27,133 | 1,193,858 |
| Cured pork | do | 517,239 | 579,150 | 634,121 | 611,049 | 612,943 | 567,773 | 570,128 | 537,601 | 490,771 | 413,084 | 362,685 | 357,874 | 5,521,197 |
| Lard | do | 61,049 | 112,704 | 151,927 | 150,182 | 151,459 | 133,295 | 145,919 | 145,924 | 114,724 | 71,626 | 37,255 | 33,710 | 1,009,568 |
| Exports: | | | | | | | | | | | | | | |
| Fresh pork | do | 4,564 | 2,361 | 2,092 | 1,890 | 887 | 817 | 566 | 1,053 | 1,777 | 865 | 1,590 | 1,379 | 19,921 |
| Cured pork | do | 58,706 | 50,474 | 56,611 | 35,121 | 35,302 | 41,678 | 37,420 | 34,257 | 35,586 | 33,399 | 33,732 | 42,624 | 494,912 |
| Canned pork | do | 403 | 395 | 469 | 197 | 477 | 490 | 343 | 331 | 383 | 488 | 187 | 569 | 4,702 |
| Sausage | do | 1,174 | 1,282 | 1,304 | 1,333 | 1,153 | 933 | 778 | 787 | 797 | 684 | 762 | 830 | 11,737 |
| Lard | do | 80,546 | 61,476 | 64,250 | 46,018 | 72,408 | 61,192 | 51,645 | 47,585 | 64,407 | 46,569 | 40,918 | 70,669 | 707,683 |
| Imports, fresh pork | do | 478 | 391 | 671 | 635 | 470 | 893 | 755 | 1,023 | 672 | 666 | 323 | 228 | 7,235 |
| Receipts of hogs ¹ | Thousands | 6,105 | 4,538 | 3,628 | 3,247 | 3,283 | 3,507 | 2,768 | 2,543 | 2,741 | 3,390 | 3,843 | 4,380 | 43,929 |
| Stock and feeder ship- ments ¹ | do | 38 | 35 | 52 | 41 | 36 | 49 | 35 | 30 | 33 | 45 | 61 | 77 | 532 |
| Price per 100 pounds: * | Dollars | 10.15 | 10.89 | 13.34 | 12.45 | 11.96 | 12.33 | 13.31 | 12.96 | 12.51 | 11.64 | 11.36 | 11.08 | 11.79 |
| Average cost for slaugh- ter. | do | 10.33 | 11.02 | 13.68 | 12.64 | 12.24 | 12.56 | 13.77 | 13.23 | 13.11 | 11.67 | 11.46 | 11.09 | 12.23 |
| At Chicago—Live hogs, medium weight. | do | | | | | | | | | | | | | |
| At eastern markets— Fresh pork loins, 10-15 pounds. | do | 17.64 | 16.98 | 24.12 | 23.50 | 23.35 | 22.28 | 25.20 | 25.06 | 28.72 | 24.87 | 26.06 | 21.58 | 23.36 |
| Shoulders, skinned. | do | 14.37 | 13.63 | 17.28 | 18.36 | 17.01 | 15.96 | 18.79 | 19.46 | 20.52 | 20.92 | 19.44 | 17.40 | 17.85 |
| Pieces, 6-8 pounds. | do | 12.64 | 12.64 | 15.12 | 15.85 | 15.17 | 13.28 | 18.03 | 17.93 | 18.40 | 18.81 | 17.53 | 16.21 | 16.14 |
| Butts, Boston style. | do | 17.32 | 17.00 | 20.81 | 22.14 | 19.80 | 20.32 | 22.67 | 23.61 | 21.42 | 24.10 | 23.55 | 20.44 | 21.44 |
| Bacon, breakfast. | do | 23.42 | 23.08 | 26.56 | 28.01 | 28.01 | 28.79 | 31.26 | 31.61 | 31.91 | 32.27 | 31.79 | 29.17 | 28.90 |
| Hams, smoked, 10- 12 pounds. | do | 20.58 | 21.22 | 23.75 | 25.98 | 25.12 | 25.21 | 27.26 | 27.52 | 26.93 | 27.00 | 26.35 | 25.50 | 25.45 |
| Lard, tierces | do | 17.67 | 17.04 | 18.03 | 17.77 | 15.88 | 17.72 | 18.72 | 19.00 | 19.02 | 18.10 | 17.00 | 16.38 | 17.78 |
| Hogs on farms Jan. 1 | Thousands | 53,769 | | | | | | | | | | | | |

Division of Statistical and Historical Research. Inspected slaughter from reports of Bureau of Animal Industry. Weights and storage holdings from reports of the Cold Storage Reports Section; receipts, shipments, and prices compiled from data of the reporting service of the Division of Livestock, Meats, and Wool, and number on farm from Division of Crop and Livestock Estimates. Exports and imports from Bureau of Foreign and Domestic Commerce.

* At public stockyards.

† Including reexports.

‡ Simple average, not total.

§ Weighted average, not total.

TABLE 544.—*Pork: Stocks in cold storage warehouses and meat-packing establishments, United States, 1916-1925*
 [Thousand pounds—i. e., 000 omitted]

DRY SALT CURED AND IN PROCESS OF CURE

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1916..... | 145,661 | 194,083 | 228,910 | 208,703 | 202,302 | 208,008 | 202,088 | 205,251 | 183,194 | 140,908 | 118,058 | 142,838 |
| 1917..... | 200,968 | 228,424 | 289,059 | 234,396 | 219,819 | 213,802 | 224,813 | 231,905 | 195,673 | 143,319 | 110,632 | 130,882 |
| 1918..... | 252,664 | 341,422 | 402,734 | 448,114 | 471,900 | 498,785 | 492,549 | 370,203 | 333,472 | 288,572 | 247,194 | 283,002 |
| 1919..... | 337,254 | 471,747 | 430,205 | 430,205 | 425,411 | 402,632 | 381,736 | 366,547 | 338,270 | 332,786 | 281,630 | 242,224 |
| 1920..... | 282,620 | 332,848 | 402,229 | 437,745 | 462,389 | 430,782 | 408,681 | 381,328 | 316,433 | 233,389 | 150,812 | 114,400 |
| 1921..... | 144,997 | 202,909 | 251,883 | 255,300 | 246,448 | 240,610 | 250,752 | 231,511 | 200,291 | 149,974 | 108,611 | 96,731 |
| 1922..... | 111,071 | 126,690 | 139,281 | 145,183 | 142,030 | 157,689 | 186,948 | 179,856 | 165,668 | 122,783 | 85,671 | 83,017 |
| 1923..... | 121,125 | 115,922 | 178,024 | 206,429 | 227,728 | 214,433 | 217,862 | 221,716 | 191,711 | 146,974 | 108,850 | 110,824 |
| 1924..... | 148,121 | 167,507 | 178,288 | 192,634 | 191,882 | 208,009 | 212,158 | 202,618 | 180,127 | 133,702 | 81,460 | 78,871 |
| 1925..... | 118,718 | 186,125 | 180,819 | 142,950 | 146,548 | 142,292 | 162,513 | 164,374 | 152,535 | 128,599 | 106,011 | 96,746 |
| Average 1921-1925..... | 128,806 | 193,231 | 179,655 | 188,577 | 190,726 | 192,211 | 206,048 | 200,015 | 178,070 | 136,806 | 98,121 | 93,238 |

PICKLED, CURED AND IN PROCESS OF CURE

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1916..... | 290,981 | 298,939 | 350,750 | 351,051 | 337,444 | 326,133 | 339,300 | 350,570 | 303,399 | 251,004 | 209,061 | 251,519 |
| 1917..... | 307,478 | 348,269 | 378,847 | 362,031 | 381,236 | 403,185 | 412,810 | 403,704 | 328,943 | 232,182 | 192,884 | 204,907 |
| 1918..... | 290,003 | 322,004 | 369,014 | 402,377 | 406,191 | 397,486 | 372,347 | 365,941 | 315,517 | 249,827 | 233,148 | 242,976 |
| 1919..... | 303,763 | 382,260 | 465,197 | 431,714 | 434,671 | 440,989 | 422,387 | 384,764 | 341,724 | 297,712 | 239,719 | 226,883 |
| 1920..... | 279,467 | 337,238 | 369,026 | 361,973 | 353,964 | 371,593 | 403,719 | 389,896 | 361,381 | 295,460 | 254,838 | 252,270 |
| 1921..... | 294,983 | 316,328 | 376,376 | 367,553 | 355,041 | 366,291 | 366,346 | 346,623 | 320,190 | 257,244 | 212,928 | 221,345 |
| 1922..... | 292,822 | 294,457 | 321,950 | 347,276 | 348,305 | 363,395 | 391,474 | 385,692 | 369,187 | 313,517 | 278,812 | 302,708 |
| 1923..... | 377,107 | 412,906 | 451,279 | 469,130 | 499,119 | 483,673 | 473,569 | 440,441 | 413,788 | 367,374 | 325,456 | 384,604 |
| 1924..... | 434,030 | 468,892 | 500,784 | 512,190 | 500,683 | 483,372 | 473,914 | 443,918 | 408,928 | 351,485 | 283,710 | 290,868 |
| 1925..... | 398,521 | 443,025 | 483,302 | 468,099 | 467,395 | 428,481 | 407,610 | 373,227 | 338,156 | 284,485 | 256,064 | 261,128 |
| Average 1921-1925..... | 351,495 | 365,108 | 426,738 | 432,850 | 434,109 | 424,442 | 422,583 | 399,780 | 370,052 | 314,821 | 271,438 | 293,931 |

FROZEN

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|
| 1916 | 44, 194 | 63, 376 | 88, 604 | 88, 344 | 77, 812 | 83, 195 | 82, 571 | 85, 845 | 63, 420 | 38, 851 | 23, 985 | 32, 015 |
| 1917 | 50, 864 | 66, 062 | 63, 352 | 64, 996 | 74, 728 | 77, 834 | 91, 362 | 96, 648 | 72, 266 | 39, 767 | 23, 347 | 23, 504 |
| 1918 | 41, 693 | 61, 659 | 104, 630 | 116, 548 | 117, 786 | 118, 601 | 117, 976 | 108, 220 | 71, 385 | 46, 593 | 36, 968 | 34, 750 |
| 1919 | 61, 539 | 104, 708 | 128, 897 | 142, 189 | 142, 189 | 144, 212 | 155, 263 | 131, 137 | 90, 510 | 61, 417 | 47, 271 | 44, 894 |
| 1920 | 56, 551 | 106, 677 | 132, 085 | 148, 922 | 144, 453 | 156, 963 | 170, 054 | 161, 804 | 129, 197 | 87, 592 | 67, 148 | 60, 007 |
| 1921 | 93, 990 | 150, 594 | 208, 889 | 219, 964 | 200, 706 | 194, 486 | 182, 163 | 149, 435 | 103, 486 | 64, 682 | 38, 517 | 37, 513 |
| 1922 | 51, 203 | 71, 722 | 96, 219 | 98, 765 | 103, 907 | 114, 571 | 128, 962 | 117, 903 | 84, 815 | 46, 706 | 30, 688 | 33, 774 |
| 1923 | 72, 278 | 120, 196 | 154, 377 | 180, 115 | 213, 224 | 210, 645 | 217, 074 | 195, 002 | 148, 753 | 98, 785 | 71, 640 | 82, 088 |
| 1924 | 126, 718 | 164, 491 | 196, 044 | 227, 284 | 215, 767 | 201, 728 | 186, 566 | 164, 049 | 121, 816 | 77, 966 | 42, 561 | 48, 781 |
| 1925 | 130, 125 | 196, 642 | 231, 234 | 218, 508 | 201, 246 | 180, 645 | 168, 527 | 131, 935 | 93, 078 | 54, 294 | 29, 910 | 27, 153 |
| Average 1921-1925 | 94, 863 | 141, 329 | 175, 953 | 190, 727 | 186, 970 | 180, 415 | 176, 658 | 151, 665 | 110, 390 | 68, 511 | 42, 663 | 45, 858 |

Cold storage report section.

¹ Pickled pork includes sweet pickled, plain brine, and barreled pork.

TABLE 545.—*Lard: Total stocks in cold-storage warehouses and meat-packing establishments, United States, 1916-1925*

[Thousand pounds—1, e. 000 omitted]

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|
| 1916 | 63, 304 | 92, 342 | 111, 897 | 97, 237 | 108, 731 | 85, 113 | 87, 127 | 95, 991 | 82, 028 | 71, 570 | 58, 929 | 58, 990 |
| 1917 | 80, 977 | 86, 208 | 88, 460 | 65, 179 | 61, 640 | 72, 365 | 95, 197 | 112, 249 | 102, 172 | 69, 929 | 57, 045 | 44, 367 |
| 1918 | 54, 539 | 59, 310 | 63, 335 | 83, 854 | 103, 373 | 106, 194 | 107, 871 | 102, 411 | 104, 698 | 69, 398 | 76, 124 | 81, 676 |
| 1919 | 104, 274 | 138, 353 | 125, 410 | 112, 469 | 112, 409 | 83, 096 | 92, 135 | 100, 478 | 87, 947 | 76, 456 | 67, 036 | 49, 147 |
| 1920 | 62, 614 | 97, 649 | 111, 975 | 132, 983 | 141, 819 | 152, 307 | 193, 316 | 191, 531 | 170, 774 | 169, 288 | 47, 329 | 36, 683 |
| 1921 | 59, 319 | 83, 549 | 117, 690 | 128, 614 | 132, 428 | 181, 992 | 204, 301 | 194, 490 | 149, 886 | 85, 115 | 48, 850 | 42, 001 |
| 1922 | 47, 541 | 61, 202 | 61, 297 | 96, 055 | 123, 798 | 154, 254 | 154, 254 | 143, 064 | 119, 755 | 75, 338 | 36, 740 | 32, 598 |
| 1923 | 48, 808 | 56, 295 | 59, 101 | 66, 743 | 85, 251 | 84, 530 | 123, 896 | 145, 573 | 113, 860 | 79, 698 | 35, 225 | 35, 327 |
| 1924 | 49, 340 | 54, 130 | 68, 610 | 85, 722 | 102, 317 | 127, 949 | 152, 539 | 146, 572 | 124, 676 | 84, 168 | 31, 706 | 35, 713 |
| 1925 | 61, 049 | 112, 704 | 151, 927 | 150, 182 | 131, 499 | 138, 265 | 145, 919 | 145, 924 | 114, 724 | 71, 626 | 37, 256 | 33, 710 |
| Average 1921-1925 | 53, 211 | 73, 570 | 91, 725 | 103, 458 | 117, 540 | 131, 313 | 156, 178 | 155, 350 | 124, 980 | 77, 777 | 37, 937 | 35, 851 |

Cold Storage Report Section.

¹ Lard includes all prime steam, kettle-rendered, neutral, and other pure lards. It does not include lard substitutes nor compounds.

TABLE 546.—*Pork and pork products: International trade, average 1911–1913, annual 1922–1924*

[Thousand pounds—1. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|-----------|-----------|-----------|-----------|-----------|------------------|-----------|
| | Average 1911–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 1,977 | 9 | 34 | 19,202 | 89 | 4,841 | 200 | 579 |
| Australia..... | 923 | 6,294 | 1,025 | 13,367 | 12,674 | 12,248 | — | 2,183 |
| Brazil..... | 3,767 | 278 | 13 | 6,428 | 183 | 44,693 | — | 139,205 |
| Canada..... | 29,189 | 47,694 | 62,767 | 103,915 | 54,602 | 108,273 | 28,365 | 10,110 |
| China..... | 7,679 | — | 8,633 | 6,828 | — | 8,515 | — | 475,551 |
| Denmark..... | 7,124 | 298,066 | — | 264,657 | 4,758 | 420,353 | 4,095 | 104,963 |
| Irish Free State..... | — | — | — | — | — | — | 59,308 | 228,747 |
| Netherlands..... | 88,143 | 139,916 | 23,508 | 119,090 | 33,230 | 133,061 | 24,718 | 3,438 |
| New Zealand..... | 248 | 1,049 | 46 | 2,040 | 3 | 4,562 | 46 | — |
| Russia..... | — | 28,871 | — | — | — | — | — | 41,797 |
| Sweden..... | 6,736 | 19,445 | 19,560 | 24,470 | 19,712 | 33,588 | 14,691 | 1,681,654 |
| United States..... | 171 | 1,019,561 | 818 | 1,503,929 | 1,101 | 1,995,920 | 5,683 | — |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | — | — | 94,502 | 681 | 102,106 | 618 | 74,890 | 1,780 |
| Austria-Hungary..... | 14,338 | 3,343 | — | — | — | — | — | — |
| Belgium..... | 22,232 | 16,254 | 48,933 | 10,210 | 44,331 | 12,126 | 28,134 | 10,044 |
| Chile..... | 3,195 | 9 | 94 | 54 | 264 | 282 | — | — |
| Cuba..... | 85,973 | — | 130,840 | — | 145,847 | — | 170,173 | — |
| Czechoslovakia..... | — | — | 106,123 | 484 | 140,220 | 562 | 127,407 | 2,196 |
| Finland..... | (1) | (1) | 12,264 | 2,385 | 15,724 | 275 | 15,745 | 335 |
| France..... | 59,824 | 24,668 | 87,869 | 6,561 | 146,781 | 5,511 | 161,311 | 4,752 |
| Germany..... | 205,669 | 3,532 | 243,600 | 1,168 | 419,087 | 1,412 | 438,416 | 1,189 |
| Italy..... | 74,861 | (1) | 5,079 | 4,627 | 23,333 | 3,230 | 38,476 | 1,503 |
| Norway..... | 9,751 | 26 | 20,906 | 60 | 25,507 | 16 | 17,201 | — |
| Peru..... | (1) | (1) | 9,398 | (1) | 9,391 | 18 | 15,432 | — |
| Philippine Islands..... | 4,414 | — | 6,854 | — | 6,207 | — | 6,498 | — |
| Spain..... | 553 | 641 | 429 | 1,407 | 3,877 | 797 | 5,039 | 4,460 |
| Switzerland..... | 21,976 | 105 | 13,086 | 1,102 | 15,922 | 40 | 13,170 | 69 |
| Union of South Africa..... | 8,249 | 30 | 776 | 474 | 1,378 | 184 | 1,863 | 140 |
| United Kingdom..... | 875,929 | 15,820 | 1,165,248 | 2,534 | 1,435,966 | 5,928 | 1,420,893 | 6,193 |
| Other countries..... | 47,140 | 4,835 | 71,307 | 14,868 | 73,547 | 11,329 | 67,706 | 24,394 |
| Total..... | 1,632,382 | 1,638,145 | 2,133,531 | 2,103,760 | 2,725,779 | 2,708,382 | 2,730,455 | 2,741,282 |

Division of Statistical and Historical Research. Official sources.

1 Year beginning July 1.

2 Not separately stated.

3 Less than 500 pounds.

4 Six months.

TABLE 547.—*Pork: Exports from the United States, by months, 1910–1924*

[Thousand pounds—1. e., 000 omitted]

| Year ended June 30— | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1910..... | 65,364 | 68,289 | 60,183 | 55,302 | 62,729 | 65,638 | 75,401 | 66,675 | 60,599 | 34,227 | 42,229 | 50,415 | 707,108 |
| 1911..... | 60,183 | 67,351 | 56,685 | 49,280 | 50,136 | 71,512 | 75,067 | 79,351 | 85,076 | 87,486 | 100,768 | 96,562 | 879,437 |
| 1912..... | 83,514 | 82,387 | 107,082 | 79,551 | 77,114 | 97,067 | 93,601 | 102,591 | 104,742 | 85,895 | 92,609 | 65,800 | 1,071,958 |
| 1913..... | 72,295 | 77,105 | 77,904 | 64,987 | 65,096 | 79,011 | 91,806 | 106,950 | 96,771 | 82,836 | 83,993 | 76,476 | 976,498 |
| 1914..... | 81,962 | 82,726 | 73,628 | 77,309 | 79,717 | 86,597 | 101,683 | 73,958 | 70,046 | 60,783 | 66,067 | 67,438 | 921,912 |
| 1915..... | 53,086 | 54,215 | 59,388 | 73,414 | 73,756 | 73,691 | 106,325 | 118,657 | 169,112 | 113,501 | 89,263 | 121,772 | 1,106,180 |
| 1916..... | 95,029 | 90,128 | 100,207 | 113,464 | 107,744 | 143,262 | 133,222 | 162,376 | 119,963 | 133,534 | 148,245 | 112,361 | 1,459,535 |
| 1917..... | 76,567 | 83,101 | 106,329 | 95,287 | 113,579 | 156,723 | 199,397 | 122,571 | 167,861 | 137,772 | 127,193 | 103,093 | 1,499,473 |
| 1918..... | 45,502 | 71,295 | 70,460 | 54,037 | 94,189 | 90,333 | 92,864 | 114,347 | 308,011 | 285,763 | 281,335 | 160,305 | 1,691,441 |
| 1919..... | 252,767 | 170,647 | 114,555 | 132,237 | 123,266 | 205,601 | 197,965 | 236,421 | 341,295 | 348,040 | 180,800 | 400,393 | 2,704,077 |
| 1920..... | 240,961 | 179,503 | 117,769 | 117,943 | 131,663 | 144,799 | 137,438 | 147,133 | 185,348 | 87,591 | 134,206 | 137,330 | 1,761,679 |
| 1921..... | 94,117 | 67,701 | 102,470 | 123,052 | 132,686 | 187,091 | 161,095 | 151,301 | 143,085 | 118,122 | 111,040 | 128,941 | 1,521,493 |
| 1922..... | 171,555 | 174,916 | 173,989 | 99,186 | 90,240 | 106,449 | 127,613 | 133,047 | 124,411 | 90,125 | 90,440 | 119,855 | 1,515,826 |
| 1923..... | 133,426 | 127,667 | 120,124 | 128,716 | 124,574 | 155,944 | 106,139 | 163,745 | 183,197 | 164,288 | 165,543 | 131,780 | 1,794,143 |
| 1924..... | 141,665 | 162,948 | 170,631 | 158,196 | 158,908 | 188,605 | 224,658 | 190,660 | 175,420 | 137,570 | 114,758 | 109,335 | 1,933,474 |
| 1925..... | 147,334 | 134,085 | 114,656 | 111,962 | 91,730 | 120,607 | 144,231 | 114,706 | 123,423 | 83,216 | 109,073 | 104,146 | 1,400,149 |
| 1926..... | 89,975 | 83,226 | 100,153 | 81,321 | 76,418 | 115,241 | — | — | — | — | — | — | — |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States.

These figures include exports of fresh, canned, and pickled pork, cured hams and shoulders, bacon, lard, neutral lard, Wiltshire sides, and Cumberland sides.

TABLE 548.—*Bacon:*¹ Exports from the United States, by months, 1910-1926

(Thousand pounds—i. e., 000 omitted)

| Year ended June 30— | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---------------------|---------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 1910..... | 18,112 | 15,061 | 15,535 | 13,422 | 16,585 | 14,978 | 16,343 | 11,474 | 10,755 | 6,342 | 5,528 | 8,028 | 152,163 |
| 1911..... | 10,894 | 13,746 | 12,642 | 9,437 | 8,646 | 14,435 | 12,876 | 10,752 | 11,038 | 16,091 | 17,008 | 19,110 | 156,675 |
| 1912..... | 17,006 | 18,857 | 25,038 | 16,368 | 15,864 | 18,104 | 18,152 | 16,954 | 17,468 | 17,034 | 16,270 | 10,569 | 208,574 |
| 1913..... | 16,518 | 18,688 | 15,360 | 13,681 | 13,870 | 16,567 | 19,819 | 20,325 | 20,880 | 17,051 | 14,423 | 13,812 | 200,994 |
| 1914..... | 16,556 | 19,551 | 16,358 | 17,968 | 16,688 | 19,367 | 20,814 | 17,518 | 13,618 | 12,008 | 11,618 | 11,306 | 193,961 |
| 1915..... | 10,905 | 14,405 | 17,596 | 13,838 | 18,825 | 21,221 | 27,156 | 37,177 | 66,828 | 41,692 | 33,598 | 43,477 | 346,719 |
| 1916..... | 38,503 | 37,679 | 43,371 | 53,410 | 45,870 | 55,472 | 50,087 | 63,810 | 41,892 | 53,443 | 58,343 | 38,023 | 579,809 |
| 1917..... | 30,074 | 43,954 | 49,223 | 41,294 | 48,785 | 73,932 | 91,812 | 51,983 | 67,502 | 57,310 | 60,676 | 50,606 | 607,151 |
| 1918..... | 19,462 | 28,311 | 35,501 | 29,363 | 43,571 | 42,021 | 53,851 | 50,904 | 155,604 | 127,400 | 142,012 | 87,294 | 815,294 |
| 1919..... | 119,894 | 68,858 | 41,540 | 58,132 | 72,862 | 126,437 | 102,679 | 114,840 | 151,086 | 141,814 | 67,664 | 172,441 | 1,333,247 |
| 1920..... | 117,670 | 84,151 | 57,209 | 56,462 | 65,288 | 58,983 | 77,501 | 75,801 | 75,003 | 24,356 | 50,413 | 60,731 | 803,667 |
| 1921..... | 31,523 | 23,333 | 41,372 | 40,839 | 57,031 | 68,784 | 43,202 | 31,637 | 35,349 | 32,852 | 38,464 | 35,012 | 489,298 |
| 1922..... | 48,172 | 45,340 | 44,719 | 23,601 | 15,642 | 21,366 | 26,108 | 30,704 | 31,180 | 20,490 | 19,070 | 24,067 | 350,549 |
| 1923..... | 32,584 | 32,591 | 30,448 | 28,850 | 26,170 | 39,486 | 43,352 | 36,206 | 40,549 | 34,790 | 34,577 | 28,641 | 408,334 |
| 1924..... | 27,581 | 33,004 | 45,161 | 46,689 | 39,027 | 47,131 | 46,014 | 43,771 | 34,002 | 29,533 | 16,942 | 14,045 | 423,500 |
| 1925..... | 23,794 | 26,489 | 24,455 | 22,844 | 15,200 | 16,413 | 24,795 | 20,204 | 22,680 | 12,958 | 12,555 | 13,876 | 236,263 |
| 1926..... | 14,165 | 14,429 | 17,663 | 15,411 | 14,660 | 18,188 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States.

¹ Includes Cumberland sides.

TABLE 549.—*Lard:* Exports from the United States, by months, 1910-1926

(Thousand pounds—i. e., 000 omitted)

| Year ended June 30— | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|---------------------|--------|--------|---------|--------|--------|--------|---------|--------|---------|--------|--------|---------|-----------|
| 1910.. | 28,639 | 33,906 | 26,203 | 27,287 | 27,529 | 34,619 | 39,686 | 38,878 | 32,574 | 17,213 | 20,418 | 29,976 | 362,928 |
| 1911.. | 31,658 | 34,171 | 26,967 | 24,625 | 27,856 | 38,790 | 40,688 | 47,595 | 55,063 | 48,726 | 54,685 | 45,284 | 470,108 |
| 1912.. | 35,446 | 34,912 | 53,670 | 43,008 | 40,829 | 52,548 | 48,405 | 54,143 | 54,707 | 40,179 | 44,900 | 32,364 | 532,256 |
| 1913.. | 32,536 | 33,142 | 43,273 | 36,746 | 40,157 | 46,591 | 44,291 | 51,211 | 49,226 | 42,114 | 48,787 | 41,961 | 519,023 |
| 1914.. | 39,567 | 41,025 | 37,383 | 39,466 | 42,661 | 48,497 | 56,432 | 35,916 | 39,001 | 29,890 | 35,101 | 37,519 | 481,458 |
| 1915.. | 24,987 | 25,202 | 28,538 | 48,241 | 42,053 | 36,046 | 55,520 | 56,133 | 67,259 | 38,336 | 22,293 | 30,834 | 475,532 |
| 1916.. | 21,555 | 25,146 | 28,774 | 28,256 | 30,776 | 46,404 | 34,040 | 41,262 | 37,146 | 39,017 | 48,773 | 45,862 | 427,011 |
| 1917.. | 26,088 | 22,891 | 32,707 | 21,242 | 31,470 | 46,162 | 65,091 | 39,558 | 59,061 | 45,602 | 30,621 | 24,257 | 444,770 |
| 1918.. | 9,364 | 23,553 | 22,145 | 9,639 | 30,742 | 13,069 | 20,706 | 31,683 | 68,721 | 53,885 | 70,751 | 29,248 | 392,506 |
| 1919.. | 68,600 | 51,921 | 33,268 | 46,025 | 27,285 | 37,724 | 37,850 | 08,973 | 97,239 | 86,556 | 55,001 | 114,329 | 721,771 |
| 1920.. | 68,192 | 49,033 | 36,960 | 41,017 | 42,106 | 63,646 | 38,824 | 30,545 | 69,430 | 40,758 | 55,544 | 45,070 | 537,225 |
| 1921.. | 47,061 | 31,021 | 46,326 | 54,174 | 57,319 | 90,080 | 76,185 | 91,841 | 82,617 | 53,276 | 48,604 | 67,656 | 746,157 |
| 1922.. | 83,329 | 87,411 | 104,741 | 56,886 | 51,854 | 64,542 | 73,194 | 75,520 | 64,377 | 42,459 | 50,817 | 57,249 | 812,379 |
| 1923.. | 66,058 | 68,907 | 61,120 | 66,333 | 62,321 | 78,596 | 107,786 | 89,065 | 109,187 | 85,476 | 93,199 | 64,605 | 952,642 |
| 1924.. | 69,479 | 83,758 | 83,630 | 76,378 | 74,251 | 98,578 | 132,758 | 99,910 | 100,726 | 73,307 | 62,648 | 69,475 | 1,014,898 |
| 1925.. | 86,788 | 75,937 | 65,810 | 60,813 | 49,119 | 76,803 | 78,440 | 60,363 | 63,281 | 44,447 | 71,135 | 59,799 | 792,735 |
| 1926.. | 49,414 | 45,740 | 62,646 | 44,745 | 39,979 | 66,840 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States.

TABLE 550.—*Bacon:*¹ *Exports from the United States, by countries, 1910-1925*

[Thousand pounds—i. e., 000 omitted]

| Year ended June 30— | Belgium | France | Italy | Netherlands | Norway | United Kingdom | Other Europe | Total Europe | Canada | Cuba | Other countries | Total |
|-------------------------|---------|---------|--------|-------------|--------|----------------|--------------|--------------|---------|--------|-----------------|-----------|
| 1910..... | 2,206 | 23 | 1,605 | 1,065 | 330 | 133,965 | 956 | 140,180 | 1,838 | 7,046 | 3,099 | 152,183 |
| 1911..... | 3,547 | 1,711 | 6,529 | 4,351 | 3,784 | 116,405 | 9,750 | 146,077 | 1,691 | 6,224 | 2,683 | 156,675 |
| 1912..... | 4,503 | 9,418 | 8,156 | 7,271 | 4,560 | 147,449 | 15,598 | 196,955 | 3,342 | 4,823 | 3,454 | 208,574 |
| 1913..... | 9,141 | 2,097 | 11,781 | 7,639 | 4,054 | 138,133 | 11,426 | 184,271 | 6,868 | 6,658 | 3,197 | 200,994 |
| 1914..... | 5,110 | 197 | 9,732 | 1,718 | 5,469 | 132,820 | 11,881 | 166,917 | 11,083 | 13,734 | 2,230 | 193,964 |
| 1915..... | 5,737 | 44,712 | 1,629 | 8,285 | 11,518 | 201,043 | 48,896 | 321,820 | 10,025 | 13,360 | 1,513 | 346,718 |
| 1916..... | 60,101 | 52,501 | 10,532 | 12,846 | 22,387 | 339,341 | 26,611 | 524,379 | 39,591 | 13,543 | 2,296 | 579,809 |
| 1917..... | 65,220 | 77,036 | 19,378 | 10,625 | 8,296 | 346,758 | 3,952 | 531,265 | 118,710 | 14,915 | 2,262 | 667,152 |
| 1918..... | 68,670 | 73,532 | 74,460 | ----- | 25 | 533,135 | 1,057 | 750,879 | 42,837 | 20,294 | 1,284 | 815,294 |
| 1919..... | 109,591 | 220,391 | 80,552 | 22,477 | 18,182 | 657,048 | 93,630 | 1,201,871 | 26,186 | 9,154 | 1,036 | 1,238,247 |
| 1920..... | 37,654 | 27,997 | 13,398 | 122,084 | 12,869 | 411,285 | 134,116 | 760,303 | 21,639 | 19,567 | 2,158 | 803,667 |
| 1921..... | 29,448 | 5,369 | 14,991 | 43,421 | 6,081 | 244,716 | 104,912 | 449,538 | 12,718 | 23,302 | 1,740 | 489,298 |
| 1922..... | 16,748 | 9,363 | 2,481 | 20,847 | 9,147 | 184,703 | 69,963 | 313,277 | 11,022 | 23,462 | 2,758 | 350,549 |
| 1923..... | 21,215 | 7,758 | 9,259 | 30,972 | 12,269 | 188,274 | 59,006 | 370,756 | 9,925 | 24,830 | 2,823 | 408,334 |
| 1924..... | 16,089 | 14,941 | 38,399 | 37,112 | 10,427 | 161,028 | 105,988 | 383,984 | 9,976 | 28,055 | 3,485 | 423,500 |
| 1925 ¹ | 6,402 | 3,250 | 7,357 | 7,995 | 8,775 | 128,745 | 84,969 | 197,493 | 2,902 | 27,332 | 8,536 | 236,263 |

Division of Statistical and Historical Research. Compiled from Foreign Commerce and Navigation of the United States, 1910-1918; Monthly Summary of Foreign Commerce of the United States, June issues, 1921-1925, and official records of the Bureau of Foreign and Domestic Commerce.

¹ Includes Cumberland sides.² Preliminary.TABLE 551.—*Hams and shoulders:*¹ *Exports from the United States, by countries, 1910-1925*

[Thousand pounds—i. e., 000 omitted]

| Year ended June 30— | Belgium | France | Netherlands | United Kingdom | Other Europe | Total Europe | Canada | Cuba | Mexico | Panama | Other countries | Total |
|-------------------------|---------|---------|-------------|----------------|--------------|--------------|--------|--------|--------|--------|-----------------|---------|
| 1910..... | 5,305 | 8 | 109 | 130,303 | 364 | 136,069 | 2,557 | 2,879 | 903 | 940 | 3,517 | 146,885 |
| 1911..... | 9,092 | 26 | 226 | 135,433 | 720 | 145,497 | 2,918 | 3,876 | 640 | 1,103 | 3,675 | 157,709 |
| 1912..... | 15,018 | 258 | 256 | 169,675 | 1,295 | 186,502 | 6,282 | 5,085 | 938 | 1,088 | 4,149 | 204,044 |
| 1913..... | 5,822 | 316 | 131 | 134,017 | 560 | 140,846 | 6,785 | 6,002 | 782 | 1,029 | 4,101 | 150,545 |
| 1914..... | 4,061 | 122 | 95 | 146,007 | 412 | 150,717 | 4,007 | 5,638 | 350 | 761 | 4,409 | 165,882 |
| 1915..... | 6,596 | 609 | 1,689 | 179,377 | 2,839 | 191,110 | 1,515 | 6,842 | 249 | 623 | 3,362 | 203,701 |
| 1916..... | 2,793 | 7,898 | 570 | 251,026 | 591 | 262,878 | 2,674 | 11,493 | 463 | 976 | 3,725 | 282,209 |
| 1917..... | ----- | 25,864 | 1 | 217,435 | 2,028 | 245,328 | 5,017 | 9,868 | 821 | 630 | 4,393 | 296,657 |
| 1918..... | ----- | 18,436 | ----- | 372,723 | 842 | 392,001 | 14,287 | 9,990 | 465 | 221 | 2,608 | 419,572 |
| 1919..... | 32,883 | 112,813 | 4,020 | 415,620 | 83,703 | 648,739 | 6,974 | 7,641 | 951 | 181 | 2,754 | 667,240 |
| 1920..... | 6,489 | 29,870 | 6,112 | 182,563 | 25,146 | 250,180 | 5,669 | 14,185 | 833 | 332 | 4,257 | 275,456 |
| 1921..... | 6,891 | 1,473 | 1,832 | 134,038 | 1,662 | 145,896 | 8,441 | 12,489 | 1,055 | 434 | 3,697 | 172,012 |
| 1922..... | 9,690 | 894 | 196 | 233,566 | 2,438 | 246,784 | 10,664 | 9,071 | 890 | 473 | 3,760 | 271,642 |
| 1923..... | 13,979 | 2,142 | 937 | 259,353 | 4,259 | 280,670 | 19,636 | 12,784 | 1,028 | 631 | 4,620 | 319,269 |
| 1924..... | 21,185 | 4,587 | 3,799 | 307,771 | 5,620 | 343,262 | 16,779 | 14,249 | 1,063 | 984 | 5,227 | 381,564 |
| 1925 ¹ | 13,400 | 1,113 | 2,223 | 241,150 | 3,040 | 260,926 | 8,174 | 15,743 | 1,098 | 861 | 5,412 | 292,214 |

Division of Statistical and Historical Research. Compiled from Foreign Commerce and Navigation of the United States, 1910-1918; Monthly Summary of Foreign Commerce of the United States, June issues, 1921-1925, and official records of the Bureau of Foreign and Domestic Commerce.

¹ Includes Wiltshire sides.² Preliminary.

TABLE 552.—Lard: Exports from the United States, by countries, 1910-1925

[Thousand pounds—1. c., 000 omitted]

| Year ended June 30— | Belgium | Denmark | Germany | Italy | Netherlands | United Kingdom | Other Europe | Total Europe | Canada | Cuba | Other countries | Total |
|-------------------------|---------|---------|---------|--------|-------------|----------------|--------------|--------------|--------|--------|-----------------|-----------|
| 1910..... | 9,060 | 4,503 | 93,393 | 2,263 | 23,758 | 161,331 | 3,742 | 298,050 | 9,310 | 33,230 | 22,329 | 362,928 |
| 1911..... | 19,900 | 1,496 | 151,620 | 5,781 | 33,221 | 165,412 | 25,083 | 402,513 | 6,556 | 34,969 | 32,070 | 476,108 |
| 1912..... | 21,744 | 3,130 | 159,474 | 3,171 | 38,675 | 180,125 | 32,764 | 445,083 | 7,968 | 42,549 | 36,656 | 532,256 |
| 1913..... | 18,762 | 1,812 | 160,862 | 6,106 | 43,384 | 168,380 | 21,178 | 420,484 | 11,080 | 46,526 | 40,935 | 519,025 |
| 1914..... | 15,915 | 1,404 | 146,209 | 5,959 | 43,470 | 164,633 | 8,067 | 385,717 | 15,990 | 49,610 | 30,135 | 491,458 |
| 1915..... | 5,129 | 72,057 | 3,878 | 4,123 | 22,245 | 180,350 | 98,640 | 395,422 | 7,722 | 45,349 | 27,030 | 475,532 |
| 1916..... | 70,132 | 2,874 | ----- | 3,488 | 15,282 | 192,076 | 48,903 | 330,755 | 6,330 | 53,812 | 36,114 | 427,011 |
| 1917..... | 96,761 | 841 | ----- | 4,982 | 20,446 | 178,111 | 57,559 | 358,700 | 5,370 | 48,733 | 31,961 | 444,770 |
| 1918..... | 116,154 | 75 | ----- | 2,137 | ----- | 159,959 | 46,471 | 324,796 | 894 | 52,574 | 14,242 | 392,506 |
| 1919..... | 190,770 | 22,256 | 9,579 | 1 | 17,683 | 286,451 | 145,016 | 671,756 | 3,565 | 25,572 | 23,878 | 724,771 |
| 1920..... | 55,970 | 13,528 | 49,733 | 16,562 | 78,354 | 165,374 | 100,058 | 479,519 | 11,618 | 68,734 | 27,354 | 587,225 |
| 1921..... | 57,963 | 9,527 | 231,528 | 14,172 | 113,808 | 169,464 | 36,415 | 632,937 | 12,226 | 59,939 | 41,055 | 746,157 |
| 1922..... | 45,691 | 6,923 | 260,716 | 9,051 | 42,831 | 244,465 | 59,300 | 666,877 | 8,852 | 73,926 | 62,724 | 812,379 |
| 1923..... | 50,472 | 5,700 | 328,112 | 29,571 | 47,802 | 241,144 | 53,306 | 756,197 | 14,318 | 87,898 | 94,229 | 952,642 |
| 1924..... | 40,634 | 7,365 | 329,793 | 77,210 | 71,570 | 240,017 | 57,829 | 824,418 | 15,231 | 92,063 | 83,166 | 1,014,898 |
| 1925 ¹ | 22,538 | 4,692 | 251,983 | 41,145 | 50,369 | 223,011 | 30,137 | 623,875 | 9,811 | 80,480 | 72,509 | 792,735 |

Division of Statistical and Historical Research. Compiled from Foreign Commerce and Navigation of the United States, 1910-1918; Monthly Summary of Foreign Commerce of the United States, June issues, 1921-1925, and official records of the Bureau of Foreign and Domestic Commerce.

¹ Preliminary.

TABLE 553.—Lard, pure: Average price per 100 pounds, Chicago, by months, 1905-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Av. |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. |
| 1905..... | 6.73 | 6.74 | 6.92 | 7.12 | 7.18 | 7.20 | 7.09 | 7.70 | 7.51 | 7.12 | 7.08 | 7.51 | 7.16 |
| 1906..... | 7.44 | 7.55 | 8.03 | 8.59 | 8.49 | 8.74 | 8.93 | 8.65 | 7.79 | 9.33 | 9.36 | 8.75 | 8.47 |
| 1907..... | 9.29 | 9.70 | 9.03 | 8.68 | 8.95 | 8.69 | 8.91 | 8.80 | 8.98 | 8.86 | 8.16 | 7.98 | 8.84 |
| 1908..... | 7.70 | 7.21 | 7.67 | 8.19 | 8.42 | 8.66 | 9.39 | 9.33 | 9.94 | 9.62 | 9.31 | 9.23 | 8.72 |
| 1909..... | 9.57 | 9.52 | 10.05 | 10.32 | 10.60 | 11.54 | 11.52 | 11.66 | 12.23 | 12.17 | 12.93 | 13.12 | 11.27 |
| 1910..... | 12.43 | 12.50 | 14.08 | 12.33 | 12.95 | 12.27 | 11.85 | 11.82 | 12.44 | 12.93 | 10.82 | 10.31 | 12.23 |
| 1911..... | 10.32 | 9.50 | 8.83 | 7.93 | 8.03 | 8.17 | 8.30 | 8.97 | 9.32 | 8.85 | 9.07 | 9.00 | 8.86 |
| 1912..... | 9.24 | 8.90 | 9.37 | 10.06 | 10.77 | 10.87 | 10.57 | 11.03 | 11.08 | 11.47 | 11.15 | 10.46 | 10.39 |
| 1913..... | 9.88 | 10.50 | 10.66 | 11.00 | 11.05 | 10.99 | 11.53 | 11.28 | 11.15 | 10.60 | 10.63 | 10.08 | 10.83 |
| Av. 1909-1913..... | 10.29 | 10.18 | 10.60 | 10.33 | 10.68 | 10.77 | 10.75 | 10.89 | 11.24 | 11.20 | 10.92 | 10.71 | 10.72 |
| 1914..... | 10.89 | 10.67 | 10.52 | 10.23 | 9.95 | 10.03 | 10.08 | 9.69 | 9.68 | 10.22 | 10.89 | 10.05 | 10.24 |
| 1915..... | 10.60 | 10.53 | 9.84 | 9.95 | 9.71 | 9.39 | 8.05 | 7.92 | 8.13 | 9.07 | 8.94 | 9.47 | 9.31 |
| 1916..... | 10.32 | 9.99 | 10.79 | 11.77 | 12.80 | 12.87 | 13.12 | 13.44 | 14.47 | 15.24 | 16.91 | 16.66 | 13.21 |
| 1917..... | 15.66 | 17.00 | 19.30 | 21.00 | 22.30 | 21.41 | 20.77 | 22.40 | 24.03 | 24.29 | 27.13 | 25.46 | 21.73 |
| 1918..... | 24.39 | 26.05 | 26.07 | 25.44 | 24.53 | 24.50 | 26.09 | 26.78 | 26.98 | 26.60 | 26.69 | 25.31 | 25.79 |
| 1919..... | 23.46 | 24.83 | 27.35 | 30.09 | 33.58 | 34.15 | 34.76 | 30.01 | 26.19 | 27.41 | 25.86 | 23.11 | 28.40 |
| 1920..... | 23.52 | 23.14 | 22.93 | 22.71 | 22.75 | 22.98 | 21.71 | 21.16 | 22.58 | 23.28 | 22.07 | 18.15 | 22.25 |
| Av. 1914-1920..... | 16.99 | 17.46 | 18.11 | 18.74 | 19.37 | 19.33 | 19.23 | 18.77 | 18.87 | 19.47 | 19.78 | 18.32 | 18.70 |
| 1921..... | 16.03 | 14.91 | 14.48 | 13.07 | 11.88 | 12.03 | 13.94 | 13.65 | 13.51 | 12.16 | 11.62 | 11.25 | 13.21 |
| 1922..... | 11.19 | 12.59 | 15.50 | 12.62 | 13.15 | 13.22 | 13.06 | 13.30 | 13.00 | 14.12 | 13.78 | 13.31 | 13.07 |
| 1923..... | 13.20 | 13.25 | 13.87 | 13.42 | 13.12 | 13.18 | 12.84 | 12.83 | 15.06 | 15.22 | 15.72 | 15.04 | 13.90 |
| 1924..... | 14.62 | 13.03 | 13.84 | 12.50 | 12.10 | 12.13 | 13.65 | 15.94 | 16.25 | 18.05 | 16.68 | 18.00 | 14.65 |
| 1925..... | 17.59 | 17.03 | 18.25 | 17.07 | 16.50 | 18.13 | 18.42 | 18.94 | 18.95 | 18.75 | 18.50 | 16.07 | 17.90 |
| Av. 1921-1925..... | 14.51 | 14.16 | 14.59 | 13.74 | 13.37 | 13.74 | 14.38 | 14.93 | 15.35 | 15.66 | 15.28 | 14.85 | 14.55 |

Division of Statistical and Historical Research. Prior to February, 1920, figures compiled from the National Provisioner; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 554.—Pork, carcass: Average prices per pound in Great Britain, 1909-1925

FIRST QUALITY FRESH BRITISH PORK

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Av. |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1909..... | 12.8 | 12.8 | 12.9 | 13.0 | 12.7 | 12.9 | 13.2 | 13.2 | 13.5 | 14.2 | 14.8 | 15.2 | 13.5 |
| 1910..... | 15.1 | 15.0 | 15.0 | 14.8 | 14.7 | 14.1 | 13.9 | 14.6 | 15.0 | 15.4 | 15.3 | 14.9 | 14.8 |
| 1911..... | 14.5 | 14.2 | 14.2 | 14.0 | 13.2 | 14.6 | 12.2 | 12.2 | 12.7 | 13.2 | 12.8 | 12.5 | 13.2 |
| 1912..... | 12.7 | 12.7 | 12.8 | 12.8 | 12.5 | 12.6 | 12.8 | 13.0 | 14.4 | 15.1 | 15.1 | 15.7 | 13.5 |
| 1913..... | 16.1 | 16.3 | 16.3 | 16.1 | 15.8 | 15.5 | 15.5 | 15.6 | 16.0 | 16.4 | 16.7 | 17.1 | 16.1 |
| Av. 1909-1913..... | 14.2 | 14.2 | 14.2 | 14.1 | 13.8 | 13.9 | 13.5 | 13.7 | 14.3 | 14.9 | 14.9 | 15.1 | 14.2 |
| 1914..... | 16.8 | 16.2 | 16.2 | 15.8 | 14.5 | 13.9 | 13.3 | 14.5 | 15.1 | 16.5 | 16.4 | 16.3 | 15.5 |
| 1915..... | 15.8 | 15.9 | 16.4 | 17.2 | 17.0 | 16.8 | 16.7 | 16.9 | 18.8 | 20.0 | 21.4 | 21.4 | 17.9 |
| 1916..... | 20.1 | 21.6 | 21.6 | 23.6 | 21.9 | 21.7 | 21.7 | 21.7 | 23.8 | 25.4 | 25.0 | 26.1 | 22.8 |
| 1917..... | 26.9 | 27.2 | 27.7 | 28.2 | 26.4 | 27.2 | 28.6 | 25.5 | 29.1 | 28.2 | 28.2 | 28.2 | 27.6 |
| 1918..... | 28.2 | 28.2 | 28.2 | 31.8 | 31.8 | 31.7 | 31.7 | 31.8 | 31.8 | 34.2 | 35.7 | 35.7 | 31.7 |
| 1919..... | 32.1 | 31.8 | 31.2 | 31.0 | 31.1 | 30.8 | 29.5 | 28.5 | 27.9 | 27.8 | 27.2 | 26.3 | 29.6 |
| 1920..... | 26.8 | 31.0 | 36.0 | 41.0 | 37.2 | 36.1 | 37.6 | 35.4 | 36.3 | 36.4 | 34.9 | 34.2 | 35.2 |
| Av. 1914-1920..... | 23.8 | 24.6 | 25.3 | 26.9 | 25.7 | 25.5 | 25.6 | 24.9 | 26.1 | 26.9 | 27.0 | 26.9 | 25.8 |
| 1921..... | 32.5 | 29.7 | 29.7 | 30.5 | 29.0 | 24.9 | 22.9 | 23.5 | 24.5 | 22.8 | 22.5 | 23.2 | 26.3 |
| 1922..... | 22.5 | 23.9 | 24.4 | 25.3 | 25.0 | 23.0 | 23.9 | 24.7 | 26.6 | 27.3 | 28.5 | 30.3 | 24.5 |
| 1923..... | 28.6 | 28.0 | 27.0 | 26.8 | 30.7 | 24.5 | 20.7 | 20.4 | 22.4 | 23.0 | 22.3 | 21.5 | 24.7 |
| 1924..... | 20.4 | 19.2 | 18.5 | 19.2 | 18.1 | 16.6 | 14.1 | 18.1 | 19.0 | 20.2 | 20.5 | 21.0 | 18.7 |
| 1925..... | 23.0 | 22.0 | 22.9 | 23.6 | 22.3 | 20.4 | 20.6 | 21.4 | 24.8 | 26.5 | 27.3 | 28.9 | 23.6 |
| Av. 1921-1925..... | 25.6 | 24.6 | 24.5 | 25.1 | 25.0 | 21.9 | 20.4 | 21.6 | 23.5 | 24.0 | 24.3 | 25.0 | 23.6 |

FIRST QUALITY FROZEN PORK ¹

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Av. |
|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------|
| | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> | <i>Cts.</i> |
| 1909..... | 12.7 | 11.7 | 11.9 | 12.0 | 11.9 | 12.1 | 12.6 | 12.7 | 13.5 | 14.5 | 14.7 | 13.4 | 12.8 |
| 1910..... | 14.5 | 14.0 | 14.9 | 15.2 | 14.7 | 14.2 | 14.2 | 14.3 | 14.7 | 14.9 | 14.5 | 14.2 | 14.6 |
| 1911..... | 13.7 | 13.2 | 14.0 | 13.6 | 12.5 | 11.4 | 11.2 | 11.3 | 12.4 | 11.9 | 11.9 | 12.1 | 12.4 |
| 1912..... | 11.7 | 12.2 | 12.5 | 13.2 | 12.9 | 13.2 | 13.4 | 13.0 | 15.4 | 14.7 | 14.9 | 15.1 | 13.5 |
| 1913..... | 15.0 | 15.4 | 15.8 | 15.3 | 15.0 | 15.0 | 14.6 | 14.8 | 14.9 | 14.5 | 14.2 | 14.5 | 14.9 |
| Av. 1909-1913..... | 13.5 | 13.3 | 13.8 | 13.9 | 13.4 | 13.2 | 13.2 | 13.2 | 14.2 | 14.1 | 14.0 | 13.9 | 13.6 |
| 1914..... | 15.1 | 14.3 | 14.5 | 14.1 | 13.6 | 13.3 | 11.8 | 13.5 | 12.8 | 14.8 | 14.6 | 14.9 | 13.9 |
| 1915..... | 15.0 | 16.8 | 16.7 | 18.6 | 17.6 | 18.4 | 17.9 | 18.1 | 19.8 | 21.0 | 20.2 | 20.6 | 18.4 |
| 1916..... | 15.8 | 16.3 | 16.6 | 18.6 | 17.6 | 18.4 | 17.9 | 18.1 | 19.8 | 21.0 | 20.2 | 20.6 | 18.4 |
| 1917..... | 20.5 | 21.6 | 21.8 | 22.2 | 21.4 | 20.8 | 22.1 | 23.7 | 25.2 | 25.2 | 25.2 | 25.2 | 22.9 |
| 1918..... | 25.2 | 25.2 | 26.9 | 31.8 | 31.8 | 31.7 | 31.7 | 31.8 | 31.8 | 35.7 | 35.7 | 35.7 | 31.2 |
| 1919..... | 32.1 | 31.8 | 31.2 | 31.0 | 31.1 | 30.8 | 26.3 | 25.3 | 24.8 | 24.8 | 24.2 | 22.4 | 28.0 |
| 1920..... | 21.8 | 20.0 | 22.4 | 23.2 | 22.8 | 23.4 | 24.3 | 25.0 | 28.8 | 28.7 | 28.4 | 27.3 | 24.6 |
| 1921..... | 24.2 | 21.3 | 20.2 | 20.0 | 19.6 | 18.2 | 17.2 | 16.2 | 16.2 | 16.2 | 14.4 | 13.8 | 18.1 |
| 1922..... | 13.4 | 13.7 | 13.7 | 13.8 | 13.9 | 13.9 | 16.7 | 16.8 | 18.4 | 18.8 | 19.2 | 19.5 | 16.0 |
| 1923..... | 18.1 | 16.1 | 14.7 | 15.2 | 14.3 | 14.7 | 15.6 | 15.1 | 14.8 | 15.7 | 16.2 | 15.2 | 15.5 |
| 1924..... | 14.4 | 14.5 | 13.8 | 13.6 | 13.6 | 13.3 | (²) | (²) | (²) | (²) | (²) | (²) | ----- |
| 1925..... | (²) | (²) | (²) | (²) | (²) | (²) | (²) | (²) | (²) | (²) | (²) | (²) | ----- |

Division of Statistical and Historical Research. Compiled from Agricultural Statistics 1909-1922, and Agricultural Market Report, 1923-1924 and 1925, Ministry of Agriculture and Fisheries, Great Britain. Converted to cents per pound on the basis of the monthly average rate of exchange as given in Federal Reserve Bulletins.

¹ Interpolated.² Designated "Foreign" prior to 1917.³ No quotations.

TABLE 555.—Hams: Price per pound in Liverpool, 1909-1925

AMERICAN, SHORT CUT, GREEN, FIRSTS¹

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909..... | 11.2 | 10.8 | 11.3 | 12.4 | 12.7 | 12.9 | 12.7 | 14.0 | 12.9 | 13.9 | 14.8 | 14.1 | 12.8 |
| 1910..... | 14.9 | 14.9 | 16.6 | 15.7 | 17.0 | 17.5 | 17.3 | 16.0 | 16.0 | 14.7 | 15.5 | 14.9 | 15.9 |
| 1911..... | 14.2 | 12.6 | 12.6 | 12.4 | 13.3 | 15.9 | 16.1 | 16.7 | 13.3 | 12.4 | 12.8 | 12.0 | 13.7 |
| 1912..... | 12.5 | 11.6 | 12.7 | 13.8 | 14.0 | 12.9 | 14.3 | 14.3 | 14.3 | 15.2 | 15.2 | 15.4 | 13.8 |
| 1913..... | 15.5 | 15.3 | 15.7 | 16.0 | 17.0 | 17.7 | 18.6 | 17.5 | 16.0 | 15.3 | 15.3 | 15.2 | 16.3 |
| Av. 1909-1913..... | 13.7 | 13.0 | 13.8 | 14.1 | 14.8 | 15.4 | 15.8 | 15.7 | 14.5 | 14.3 | 14.7 | 14.3 | 14.5 |
| 1914..... | 15.2 | 14.4 | 15.1 | 14.9 | 14.5 | 16.2 | 16.5 | 18.3 | 17.2 | 15.6 | 16.3 | 16.1 | 15.9 |
| 1915..... | 15.8 | 14.2 | 13.7 | 13.5 | 15.4 | 15.6 | 14.9 | 15.1 | 16.1 | 17.3 | 19.2 | 21.1 | 16.0 |
| 1916..... | 20.1 | 18.1 | 19.4 | 19.8 | 19.4 | 19.5 | 20.4 | 22.5 | 22.5 | 22.9 | 22.3 | 21.2 | 20.7 |
| 1917..... | 24.0 | 27.4 | 27.6 | 28.2 | 28.9 | 27.4 | 28.2 | 29.1 | 29.1 | 29.1 | 31.4 | 35.4 | 29.1 |
| 1918..... | 35.4 | 35.4 | 35.4 | 35.5 | 35.5 | 35.4 | 37.0 | 37.9 | 37.9 | 37.9 | 37.9 | 37.9 | 36.7 |
| 1919..... | 37.9 | 37.9 | 37.5 | 37.6 | 37.8 | 39.3 | 38.1 | 36.8 | 36.4 | 36.3 | 37.6 | 32.8 | 37.2 |
| 1920..... | 31.9 | 29.4 | 31.1 | 34.1 | 32.5 | 33.3 | 38.1 | 35.8 | 34.9 | 34.5 | 34.3 | 35.0 | 33.8 |
| Av. 1914-1920..... | 25.8 | 25.3 | 25.7 | 26.2 | 26.3 | 26.7 | 27.7 | 27.9 | 27.7 | 27.7 | 28.8 | 28.5 | 27.0 |
| 1921..... | 30.2 | 31.2 | 31.5 | 27.0 | 23.1 | 28.6 | 34.9 | 30.0 | 21.1 | 20.4 | 25.7 | 24.1 | 27.3 |
| 1922..... | 24.5 | 26.5 | 25.4 | 26.0 | 28.4 | 29.4 | 27.8 | 23.3 | 20.4 | 21.0 | 21.6 | 20.2 | 21.5 |
| 1923..... | 10.9 | 18.9 | 19.1 | 18.7 | 19.4 | 20.7 | 24.1 | 22.2 | 20.3 | 20.5 | 22.1 | 19.5 | 20.4 |
| 1924..... | 18.9 | 17.9 | 16.8 | 17.7 | 18.0 | 19.9 | 20.7 | 18.8 | 21.9 | 22.7 | 23.1 | 19.4 | 19.4 |
| 1925..... | 24.8 | 21.3 | 22.8 | 23.9 | 23.2 | 26.2 | 27.7 | 28.0 | 27.7 | 28.4 | 28.6 | 29.1 | 26.0 |
| Av. 1921-1925..... | 23.7 | 23.2 | 23.1 | 22.5 | 22.4 | 24.6 | 26.9 | 24.8 | 21.7 | 22.4 | 24.1 | 23.2 | 23.5 |

AMERICAN, LONG CUT, GREEN, FIRSTS¹

| | | | | | | | | | | | | | |
|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|--------------|--------------|-------------|--------------|
| 1909..... | 10.5 | 10.3 | 11.4 | 12.4 | 13.1 | 13.8 | 13.6 | 14.9 | 14.2 | 15.1 | 14.4 | 14.4 | 13.2 |
| 1910..... | 14.5 | 14.9 | 17.7 | 17.0 | 17.7 | 18.6 | 18.3 | 17.0 | 17.3 | 17.6 | 16.1 | 14.3 | 16.8 |
| 1911..... | 14.1 | 12.6 | 12.6 | 12.7 | 13.9 | 15.9 | 15.9 | 16.7 | 13.3 | 13.5 | 13.3 | 12.0 | 13.9 |
| 1912..... | 11.6 | 11.6 | 12.5 | 13.6 | 14.7 | 14.0 | 13.9 | 13.9 | 14.1 | 15.2 | 14.9 | 15.1 | 13.8 |
| 1913..... | 15.5 | 15.7 | 16.6 | 16.8 | 18.1 | 18.6 | 18.8 | 18.1 | 16.4 | 15.2 | 15.2 | 14.8 | 16.6 |
| Av. 1909-1913..... | 13.2 | 13.0 | 14.2 | 14.5 | 15.5 | 16.2 | 16.1 | 16.1 | 15.1 | 15.3 | 14.8 | 14.1 | 14.9 |
| 1914..... | 14.8 | 14.5 | 15.1 | 15.1 | 15.0 | 16.5 | 16.9 | 18.5 | 16.9 | 15.6 | 16.9 | 16.1 | 16.0 |
| 1915..... | 15.6 | 14.2 | 13.9 | 13.7 | 16.0 | 16.6 | 15.7 | 15.1 | 16.1 | 18.4 | 19.6 | 20.7 | 16.3 |
| 1916..... | 19.1 | 18.1 | 18.6 | 19.4 | 18.8 | 19.1 | 19.8 | 22.3 | 22.9 | 23.8 | 24.4 | 22.0 | 20.7 |
| 1917..... | 22.7 | 25.9 | 27.2 | 27.8 | 28.7 | 26.7 | 28.2 | 29.1 | 29.1 | 29.1 | 35.0 | 36.1 | 28.8 |
| 1918..... | 36.1 | 36.1 | 36.1 | 36.1 | 36.1 | 36.1 | 37.9 | 37.9 | 37.9 | 37.9 | 37.9 | 37.9 | 37.0 |
| 1919..... | 37.9 | 37.9 | 37.5 | 38.0 | 38.2 | 39.5 | 38.1 | 36.8 | 36.4 | 36.3 | 37.5 | 32.8 | 37.2 |
| 1920..... | 31.9 | 29.4 | 31.1 | 34.1 | 32.5 | 33.3 | 38.1 | 35.8 | 34.9 | 34.5 | 34.3 | 35.0 | 33.7 |
| Av. 1914-1920..... | 25.4 | 25.2 | 25.6 | 26.3 | 26.6 | 26.8 | 27.8 | 27.9 | 27.7 | 27.9 | 29.4 | 28.7 | 27.1 |
| 1921..... | 31.1 | 32.1 | 32.4 | 27.0 | 22.6 | 28.3 | 34.9 | 31.0 | 23.3 | 20.7 | 23.9 | 21.5 | 27.4 |
| 1922..... | 21.1 | 25.3 | 25.4 | 27.2 | 30.2 | 30.8 | 28.0 | 23.7 | 20.2 | 20.0 | 20.4 | 19.6 | 24.3 |
| 1923..... | 19.1 | 18.9 | 19.3 | 21.9 | 21.1 | 21.4 | 22.6 | 22.6 | 21.9 | 20.8 | 22.7 | 18.5 | 20.9 |
| 1924..... | 17.4 | 16.2 | 15.7 | 15.7 | 15.8 | 16.8 | 18.7 | 19.6 | 19.6 | 20.4 | ----- | 23.6 | ----- |
| 1925..... | 22.2 | 20.8 | 21.8 | 23.3 | 23.2 | 25.3 | 27.8 | 28.0 | 27.9 | ----- | ----- | 26.6 | ----- |
| Av. 1921-1925..... | 22.2 | 22.7 | 22.9 | 23.0 | 22.6 | 24.5 | 26.4 | ----- | 22.6 | ----- | ----- | 22.0 | ----- |

Division of Statistical and Historical Research. Compiled from Return of Market Prices, Great Britain Ministry of Agriculture and Fisheries. Average for the last week of the month 1909-1923; subsequently monthly average of weekly quotations. Converted to cents per pound on the basis of the monthly average rate of exchange as given in Federal Reserve Bulletins.

¹Short cut, regular American commercial ham; long cut, longer both in the butt and shank. Green, cured in pickle or salt but not smoked.

²Average of London and Bristol prices, and closely approximates Liverpool price.

TABLE 556.—*Bacon, Wiltshire sides,¹ green, firsts: Average price per pound at Bristol, England, 1909-1925*

| Year and month | Ameri- can | Canadi- an | Dan- ish | Irish | Brit- ish | Year and month | Ameri- can | Canadi- an | Dan- ish | Irish | Brit- ish |
|--------------------|---------------|---------------|--------------|--------------|--------------|-------------------|---------------|---------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| Av. 1909-1913..... | 14.2 | 14.8 | 15.6 | 16.1 | 17.0 | 1917..... | 30.1 | ----- | ----- | 33.0 | 33.6 |
| 1909..... | 13.6 | 14.3 | 15.0 | 15.9 | 16.7 | 1918..... | 38.5 | ----- | ----- | ----- | 30.3 |
| 1910..... | 15.2 | 15.6 | 15.9 | 16.6 | 17.8 | 1919..... | 37.1 | 37.9 | ----- | 38.4 | 38.4 |
| 1911..... | 12.8 | 13.1 | 14.3 | 14.8 | 15.8 | 1920..... | 31.6 | 33.1 | 34.2 | 41.7 | 42.8 |
| 1912..... | 13.8 | 14.5 | 15.9 | 15.8 | 16.3 | 1921..... | 21.8 | 26.5 | 32.8 | 34.7 | 36.2 |
| 1913..... | 15.8 | 16.3 | 17.1 | 17.4 | 18.4 | 1922..... | 21.2 | 25.2 | 29.7 | 32.5 | 33.3 |
| 1914..... | 15.5 | 15.7 | 16.4 | 17.6 | 18.2 | 1923..... | 17.5 | 20.9 | 23.6 | 25.8 | 27.0 |
| 1915..... | 17.0 | 18.4 | 20.4 | 20.8 | 21.4 | 1924..... | 16.6 | 19.2 | 21.3 | 22.8 | 23.5 |
| 1916..... | 19.8 | 22.0 | 24.0 | 24.7 | 26.0 | 1925..... | 23.0 | 24.7 | 27.5 | 29.7 | 30.0 |
| 1924..... | | | | | | 1925..... | | | | | |
| January..... | 14.2 | 17.6 | 19.6 | 22.1 | 23.2 | January..... | 19.5 | 21.9 | 25.7 | 26.9 | 27.0 |
| February..... | 13.6 | 17.5 | 19.0 | 21.2 | 22.9 | February..... | 18.5 | 21.2 | 24.7 | 27.3 | 27.5 |
| March..... | 13.7 | 17.6 | 18.8 | 19.9 | 21.4 | March..... | 21.1 | 22.7 | 25.5 | 28.6 | 29.4 |
| April..... | 13.6 | 17.6 | 18.6 | 21.1 | 22.0 | April..... | 22.0 | 23.5 | 26.8 | 29.4 | 29.9 |
| May..... | 13.4 | 17.7 | 19.5 | 22.4 | 22.9 | May..... | 21.3 | 23.2 | 26.5 | 29.3 | 29.5 |
| June..... | 13.9 | 18.0 | 21.0 | 22.9 | 23.4 | June..... | 23.6 | 25.1 | 26.7 | 30.2 | 29.9 |
| July..... | 15.1 | 18.6 | 21.8 | 22.2 | 23.1 | July..... | 24.1 | 24.3 | 26.5 | 29.0 | 29.4 |
| August..... | 19.7 | 20.1 | 23.5 | 24.2 | 24.7 | August..... | 26.4 | 28.1 | 29.6 | 30.9 | 31.6 |
| September..... | 19.2 | 19.8 | 22.2 | 23.4 | 24.2 | September..... | 26.6 | 27.5 | 30.0 | 32.7 | 32.9 |
| October..... | 21.0 | 22.5 | 23.8 | 24.2 | 24.3 | October..... | 24.9 | 25.9 | 29.8 | 31.2 | 31.2 |
| November..... | 21.4 | 22.1 | 23.9 | 24.4 | 24.5 | November..... | 24.2 | 25.7 | 28.2 | 29.8 | 30.2 |
| December..... | 19.9 | 21.7 | 24.1 | 25.2 | 25.6 | December..... | 25.7 | 27.4 | 30.0 | 31.3 | 32.4 |

Division of Statistical and Historical Research. Compiled from Agricultural Market Report, Ministry of Agriculture and Fisheries, Great Britain, average for the last week of each month. Converted to cents per pound on the basis of the monthly average rate of exchange as given in Federal Reserve Bulletins.

¹Entire half of hog in one piece, head off, backbone out, ribs in.

TABLE 557.—*Lard, American prime western steam: Average price per pound in Liverpool, 1909-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Aver- age. |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1900..... | 10.7 | 10.6 | 11.2 | 11.4 | 11.8 | 12.7 | 12.8 | 12.8 | 13.4 | 13.6 | 14.7 | 14.9 | 12.6 |
| 1910..... | 14.1 | 14.0 | 15.5 | 14.8 | 14.5 | 13.7 | 13.3 | 13.1 | 13.6 | 13.8 | 12.7 | 11.5 | 13.7 |
| 1911..... | 11.5 | 11.4 | 10.0 | 9.1 | 9.2 | 9.1 | 9.1 | 9.9 | 10.4 | 9.9 | 10.2 | 10.1 | 10.0 |
| 1912..... | 10.2 | 10.0 | 10.2 | 10.9 | 11.4 | 11.6 | 11.4 | 11.8 | 12.4 | 13.0 | 12.6 | 11.9 | 11.4 |
| 1913..... | 11.2 | 11.8 | 12.2 | 12.4 | 12.3 | 12.2 | 12.7 | 12.7 | 12.6 | 12.1 | 12.2 | 12.1 | 12.2 |
| Av. 1909-1913..... | 11.5 | 11.6 | 11.8 | 11.7 | 11.8 | 11.9 | 11.9 | 12.1 | 12.5 | 12.5 | 12.5 | 12.1 | 12.0 |
| 1914..... | 12.3 | 11.8 | 11.5 | 11.3 | 10.8 | 10.9 | 11.0 | 12.6 | 11.4 | 11.3 | 12.2 | 11.7 | 11.6 |
| 1915..... | 12.0 | 11.6 | 11.1 | 11.2 | 11.1 | 10.6 | 9.3 | 8.3 | 8.9 | 10.2 | 10.8 | 11.7 | 10.6 |
| 1916..... | 12.7 | 12.4 | 13.8 | 15.4 | 16.5 | 15.7 | 15.4 | 15.7 | 17.3 | 18.3 | 20.3 | 20.1 | 16.1 |
| 1917..... | 20.4 | 24.8 | 29.3 | 27.7 | 26.3 | 23.8 | 23.8 | 25.0 | 25.9 | 27.1 | 28.2 | 28.6 | 25.9 |
| 1918..... | 28.6 | ----- | ----- | ----- | 31.7 | 31.7 | ----- | ----- | 33.2 | 33.0 | ----- | ----- | ----- |
| 1919..... | ----- | ----- | ----- | ----- | ----- | 38.1 | 37.1 | 36.3 | 36.5 | 36.8 | 35.6 | 32.9 | ----- |
| 1920..... | 32.0 | 29.5 | 32.9 | 27.2 | ----- | 27.4 | 26.7 | ----- | ----- | ----- | 23.8 | 24.2 | ----- |
| 1921..... | 23.4 | 23.3 | 15.7 | 13.2 | 11.7 | 12.1 | 13.6 | 13.4 | 13.2 | 12.2 | 12.6 | 11.7 | 14.7 |
| 1922..... | 11.9 | 12.9 | 13.1 | 12.8 | 13.6 | 13.5 | 13.2 | 13.3 | 12.7 | 13.2 | 14.1 | 13.6 | 13.1 |
| 1923..... | 13.3 | 13.0 | 13.7 | 13.6 | 12.9 | 13.0 | 12.7 | 12.7 | 14.0 | 14.5 | 15.7 | 15.1 | 13.7 |
| 1924..... | 14.8 | 13.1 | 13.2 | 12.7 | 12.3 | 12.2 | 13.7 | 15.8 | 15.8 | 18.1 | 17.2 | 18.1 | 14.8 |
| 1925..... | 18.0 | 17.5 | 18.7 | 17.8 | 17.6 | 19.1 | 19.3 | 19.2 | 19.2 | 17.9 | 17.8 | 16.6 | 18.2 |
| Av. 1921-1925..... | 16.2 | 16.0 | 14.9 | 14.0 | 13.6 | 14.0 | 14.5 | 14.9 | 15.0 | 15.2 | 15.5 | 15.0 | 14.9 |

Division of Statistical and Historical Research. Compiled from Manchester Guardian. An average of Friday quotations. Converted to cents per pound on the basis of the monthly average rate of exchange as given in Federal Reserve Bulletins.

¹Interpolated. ²Government control of prices began Sept. 3, 1917, and ended on Feb. 28, 1921.

HOG-CHOLERA CONTROL

TABLE 558.—Hogs: Cholera-control work by Bureau of Animal Industry, 1919-1925

| Year ended June 30, and State | Bureau veterinarians engaged in work ¹ | Premises investi- gated | Demonstrations | | Autop- sies per- formed | Farms quarant- ined or cared | Farms cleaned and dis- infected | Out- breaks reported to bureau veterinarians |
|----------------------------------|---|-------------------------------|----------------|-----------------|-------------------------------|---------------------------------------|--|--|
| | | | Number | Hogs treated | | | | |
| 1919..... | 180 | 93,512 | ----- | 233,987 | 53,586 | 9,564 | 4,382 | 12,336 |
| 1920..... | 140 | 46,125 | 3,037 | 347,702 | 10,963 | 6,129 | 2,099 | 9,798 |
| 1921..... | 54 | 20,433 | 3,420 | 67,295 | 3,888 | 2,268 | 656 | 7,951 |
| 1922..... | 80 | 47,137 | 4,343 | 88,846 | 5,390 | 1,401 | 439 | 7,920 |
| 1923..... | 70.91 | 52,348 | 5,234 | 108,562 | 5,247 | 1,772 | 741 | 7,204 |
| 1924..... | 45.22 | 20,443 | 3,178 | 78,007 | 3,686 | 1,634 | 847 | 7,225 |
| 1925..... | | | | | | | | |
| Alabama..... | 2 | 1,562 | 502 | 8,188 | 75 | ----- | ----- | 224 |
| Arkansas..... | .67 | 271 | 32 | 1,109 | 13 | ----- | ----- | 94 |
| California..... | .5 | 93 | 7 | 376 | 36 | ----- | ----- | 34 |
| Colorado..... | .15 | 36 | ----- | ----- | 17 | ----- | ----- | ----- |
| Delaware..... | .76 | 605 | 81 | 896 | 110 | ----- | 60 | 60 |
| Florida..... | 1.5 | 870 | 691 | 17,092 | 113 | ----- | 46 | 269 |
| Georgia..... | 1.5 | 1,882 | 181 | 3,334 | 62 | ----- | 2 | 150 |
| Idaho..... | 1 | 820 | 13 | 850 | 44 | 14 | 13 | 27 |
| Illinois..... | 1.75 | 1,287 | 3 | 99 | 256 | 225 | 248 | 405 |
| Indiana..... | 2 | 986 | 15 | 474 | 186 | 41 | 4 | 85 |
| Iowa..... | | 740 | 5 | 379 | 79 | ----- | 2 | 156 |
| Kansas..... | .15 | 25 | 2 | 46 | 52 | ----- | ----- | 32 |
| Kentucky..... | 1.7 | 2,455 | 64 | 1,447 | 193 | ----- | 13 | 8 |
| Louisiana..... | .15 | 102 | 6 | 425 | ----- | ----- | ----- | 8 |
| Maryland..... | 2 | 2,992 | 27 | 263 | 236 | 285 | 3 | 503 |
| Michigan..... | 2 | 1,222 | 77 | 3,053 | 154 | 30 | 1 | 168 |
| Mississippi..... | 1 | 852 | 56 | 1,049 | 6 | ----- | ----- | 55 |
| Missouri..... | 1 | 1,636 | 3 | 29 | 77 | 5 | 1 | 261 |
| Montana..... | .03 | 66 | ----- | ----- | 12 | 8 | 2 | 14 |
| Nebraska..... | .15 | 78 | ----- | ----- | 80 | ----- | ----- | 13 |
| North Carolina..... | .75 | 391 | 35 | 274 | 16 | ----- | ----- | 10 |
| North Dakota..... | .75 | 217 | ----- | ----- | 47 | 171 | 63 | 171 |
| Ohio..... | 1.5 | 1,155 | ----- | ----- | 46 | ----- | ----- | 73 |
| Oklahoma..... | 2 | 1,503 | 27 | 1,140 | 53 | 24 | ----- | 28 |
| South Carolina..... | 1 | 396 | 378 | 6,566 | 35 | ----- | ----- | 83 |
| South Dakota..... | .75 | 153 | 2 | 231 | 51 | ----- | ----- | 63 |
| Tennessee..... | 1 | 224 | 11 | 305 | 41 | 29 | ----- | 132 |
| Texas..... | 1.5 | 512 | 7 | 154 | 10 | 3 | ----- | 39 |
| Virginia..... | .75 | 400 | 68 | 1,634 | 121 | ----- | 4 | 128 |
| Washington..... | .54 | 74 | 2 | 58 | 17 | 8 | 1 | 20 |
| Wisconsin..... | 1.5 | 555 | 68 | 1,465 | 145 | 43 | 7 | 46 |
| Total..... | 34.04 | 24,060 | 2,353 | 51,331 | 2,383 | 886 | 470 | 3,437 |

Bureau of Animal Industry.

NOTE.—Owing to the emergency created by the outbreak of foot-and-mouth disease in Texas and California, it was necessary to assign many of the veterinarians from the hog-cholera force to the eradication of foot-and-mouth disease for a part of the year.

¹ Fractions denote veterinarians devoting a part of their time to the work.

SHEEP

TABLE 559.—Sheep: Number and value on farms, United States, January 1, 1910-1926

| Jan. 1 | Number | Price per head Jan. 1 | Farm value Jan. 1 | Jan. 1 | Number | Price per head Jan. 1 | Farm value Jan. 1 |
|--------------------|------------------|-----------------------------|-----------------------------|-------------------------|------------------|-----------------------------|-----------------------------|
| | <i>Thousands</i> | <i>Dollars</i> | <i>Thousand dollars</i> | | <i>Thousands</i> | <i>Dollars</i> | <i>Thousand dollars</i> |
| 1910, Apr. 15..... | 58,448 | 4.12 | 216,030 | 1920..... | 39,025 | 10.47 | 408,586 |
| 1911..... | 53,633 | 3.91 | 209,535 | | | | |
| 1912..... | 52,362 | 3.46 | 181,170 | A. v. 1914-1920..... | 47,487 | 7.72 | 366,754 |
| 1913..... | 51,482 | 3.94 | 202,779 | | | | |
| 1914..... | 49,719 | 4.02 | 200,045 | 1921..... | 37,452 | 6.30 | 235,856 |
| 1915..... | 49,956 | 4.80 | 224,687 | 1922..... | 36,327 | 4.80 | 174,545 |
| 1916..... | 48,625 | 5.17 | 251,694 | 1923..... | 37,223 | 7.51 | 279,464 |
| 1917..... | 47,616 | 7.12 | 339,529 | 1924..... | 36,300 | 7.87 | 301,455 |
| 1918..... | 48,603 | 11.82 | 574,575 | 1925..... | 30,390 | 9.63 | 379,302 |
| 1919..... | 48,896 | 11.63 | 568,265 | 1926 ¹ | 40,748 | 10.50 | 427,647 |

Division of Crop and Livestock Estimates. Figures in italics are census returns.

¹ Preliminary.

TABLE 560.—*Sheep, including lambs: Number and value on farms, January 1, 1925 and 1926*

| State | Number, Jan. 1— | | Average value per head Jan. 1— | | Farm value, Jan. 1— | |
|---------------------|------------------|-------------------|-----------------------------------|----------------|-----------------------|-----------------------|
| | 1925 | 1925 ¹ | 1925 | 1926 | 1925 | 1926 ¹ |
| | <i>Thousands</i> | <i>Thousands</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Thous. dollars</i> | <i>Thous. dollars</i> |
| Maine..... | 89 | 95 | 7.60 | 8.00 | 676 | 768 |
| New Hampshire..... | 16 | 17 | 8.90 | 8.60 | 142 | 146 |
| Vermont..... | 44 | 45 | 9.00 | 8.90 | 390 | 400 |
| Massachusetts..... | 14 | 12 | 8.90 | 9.40 | 125 | 113 |
| Rhode Island..... | 3 | 3 | 9.30 | 9.00 | 28 | 27 |
| Connecticut..... | 8 | 8 | 8.80 | 9.40 | 70 | 75 |
| New York..... | 570 | 599 | 10.70 | 11.60 | 6,099 | 6,948 |
| New Jersey..... | 8 | 9 | 9.20 | 10.50 | 74 | 94 |
| Pennsylvania..... | 492 | 507 | 8.90 | 9.70 | 4,379 | 4,918 |
| Ohio..... | 2,178 | 2,222 | 8.90 | 9.50 | 19,384 | 21,109 |
| Indiana..... | 650 | 689 | 10.60 | 11.60 | 6,890 | 7,992 |
| Illinois..... | 694 | 722 | 10.40 | 11.50 | 7,218 | 8,303 |
| Michigan..... | 1,194 | 1,254 | 11.20 | 11.90 | 13,313 | 14,923 |
| Wisconsin..... | 351 | 368 | 10.30 | 11.00 | 3,615 | 4,043 |
| Minnesota..... | 402 | 499 | 11.60 | 11.20 | 5,359 | 5,589 |
| Iowa..... | 891 | 891 | 11.20 | 11.80 | 9,988 | 10,514 |
| Missouri..... | 1,018 | 1,038 | 9.40 | 10.00 | 9,569 | 10,350 |
| North Dakota..... | 313 | 360 | 9.80 | 11.20 | 3,067 | 4,032 |
| South Dakota..... | 680 | 700 | 10.60 | 10.80 | 7,181 | 7,560 |
| Nebraska..... | 840 | 775 | 10.50 | 10.90 | 8,837 | 8,443 |
| Kansas..... | 376 | 432 | 9.10 | 10.00 | 3,425 | 4,320 |
| Delaware..... | 2 | 2 | 9.30 | 9.30 | 19 | 19 |
| Maryland..... | 93 | 96 | 9.50 | 10.50 | 884 | 1,008 |
| Virginia..... | 373 | 373 | 8.90 | 10.10 | 3,320 | 3,757 |
| West Virginia..... | 514 | 446 | 7.60 | 9.40 | 3,906 | 4,192 |
| North Carolina..... | 90 | 82 | 6.20 | 6.70 | 558 | 549 |
| South Carolina..... | 15 | 14 | 4.30 | 4.00 | 64 | 56 |
| Georgia..... | 60 | 60 | 3.40 | 3.20 | 204 | 192 |
| Florida..... | 60 | 57 | 3.30 | 3.00 | 198 | 171 |
| Kentucky..... | 715 | 751 | 8.90 | 10.10 | 6,364 | 7,585 |
| Tennessee..... | 319 | 313 | 5.90 | 7.40 | 1,892 | 2,316 |
| Alabama..... | 60 | 51 | 4.30 | 4.00 | 258 | 204 |
| Mississippi..... | 123 | 122 | 2.80 | 3.00 | 358 | 366 |
| Arkansas..... | 80 | 76 | 3.80 | 4.80 | 304 | 365 |
| Louisiana..... | 108 | 105 | 3.20 | 3.00 | 346 | 315 |
| Oklahoma..... | 70 | 77 | 7.20 | 9.00 | 504 | 693 |
| Texas..... | 3,465 | 3,465 | 7.40 | 7.90 | 25,641 | 27,374 |
| Montana..... | 2,679 | 2,837 | 10.40 | 11.40 | 26,822 | 32,342 |
| Idaho..... | 2,291 | 2,337 | 10.80 | 11.80 | 24,786 | 27,577 |
| Wyoming..... | 2,808 | 3,032 | 10.80 | 11.70 | 30,326 | 35,474 |
| Colorado..... | 2,616 | 2,459 | 10.20 | 10.60 | 26,631 | 26,065 |
| New Mexico..... | 2,360 | 2,502 | 8.40 | 9.40 | 19,848 | 23,519 |
| Arizona..... | 1,155 | 1,211 | 7.80 | 9.00 | 9,009 | 10,899 |
| Utah..... | 2,248 | 2,405 | 11.00 | 11.70 | 24,706 | 28,133 |
| Nevada..... | 1,108 | 1,163 | 10.80 | 11.60 | 12,011 | 13,491 |
| Washington..... | 549 | 576 | 10.90 | 11.70 | 6,001 | 6,739 |
| Oregon..... | 2,012 | 2,112 | 10.20 | 11.40 | 20,502 | 24,077 |
| California..... | 2,621 | 2,778 | 9.20 | 10.60 | 24,035 | 29,447 |
| United States..... | 39,390 | 40,748 | 9.63 | 10.50 | 379,302 | 427,647 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 561.—*Sheep: Numbers in countries having 100,000 and over, pre-war and years 1921-1926*

[Thousands—i. e., 000 omitted]

| Country | Month of estimate | Average-pre-war ¹ | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 |
|----------------------------------|-------------------|------------------------------|--------|--------|--------|--------|--------|--------|
| NORTH AND CENTRAL AMERICA | | | | | | | | |
| Canada | June | 2,208 | 3,676 | 3,264 | 2,754 | 2,685 | 2,756 | |
| United States ² | | 51,929 | 37,452 | 36,327 | 37,223 | 38,300 | 39,360 | 40,748 |
| Mexico | June | 5,484 | | | 1,382 | 1,728 | | |
| Guatemala | | 514 | 105 | 185 | 133 | | | |
| SOUTH AMERICA | | | | | | | | |
| Colombia | | 4246 | | | | | | |
| Venezuela | | 177 | 113 | | | | | |
| Peru | | | | 11,056 | 11,084 | | | |
| Bolivia | | 1,449 | | | | | | |
| Chile | | 3,477 | | 4,560 | | | | |
| Brazil | September | 10,550 | 7,953 | | | | | |
| Uruguay | | 28,286 | 11,473 | | | 14,445 | | |
| Paraguay | December | 7600 | | | | | | |
| Argentina | do | 43,725 | 45,996 | 46,134 | 36,209 | | | |
| Falkland Islands | | 711 | 668 | 666 | 647 | 635 | | |
| EUROPE | | | | | | | | |
| Iceland | | 589 | 554 | 571 | 550 | | | |
| England and Wales | June | 18,346 | 13,832 | 13,438 | 13,836 | 14,813 | 15,975 | |
| Scotland | do | 7,028 | 6,659 | 6,684 | 6,786 | 6,880 | 7,053 | |
| Ireland | do | 3,787 | 3,708 | 3,567 | 3,458 | 3,235 | 3,297 | |
| Norway ³ | do | 1,398 | 957 | | 1,525 | 1,507 | 1,529 | |
| Sweden | do | 1,205 | 1,568 | | | | | |
| Denmark | July | 533 | 522 | 412 | 374 | 302 | 265 | |
| Holland | May-June | 842 | 668 | | | | | |
| Belgium | December | 189 | | | | | | |
| France | do | 16,176 | 9,506 | 9,600 | 9,782 | 9,925 | 10,172 | 10,537 |
| Spain | do | 15,778 | | 20,522 | 10,377 | 18,550 | 18,460 | |
| Portugal | | 9,073 | 5,851 | | | | | |
| Italy | March-April | 11,615 | 12,029 | | | | | |
| Switzerland | April | 161 | 244 | | | | | |
| Germany | December | 4,988 | 6,454 | 5,891 | 5,566 | 6,105 | 5,735 | 4,742 |
| Austria | do | 301 | 454 | 597 | | | | |
| Czechoslovakia | do | 1,322 | 986 | | | 1,426 | | |
| Hungary | April | 2,406 | | 1,352 | 1,537 | 1,814 | 1,891 | |
| Yugoslavia | January | 10,496 | 7,011 | 7,821 | 7,512 | 7,639 | | |
| Greece | | 5,884 | 5,789 | | | | | |
| Bulgaria | December | 8,551 | 3,923 | | | | 7,450 | |
| Rumania | | 11,126 | 11,119 | 12,321 | 12,481 | 13,612 | | |
| Poland | | 4,268 | 2,396 | | | 2,500 | | |
| Lithuania | | 1,152 | 1,073 | 1,228 | 1,413 | 1,399 | | |
| Latvia | June | 996 | 1,132 | 1,161 | 1,488 | 1,235 | 1,182 | |
| Estonia | | 486 | 531 | 745 | 699 | 607 | | |
| Finland | September | 1,330 | 1,572 | 1,571 | 1,550 | 1,485 | | |
| Russia ⁴ | Summer | 43,154 | 41,033 | 33,000 | 47,371 | 56,191 | 63,493 | |

¹ Average for 5-year period immediately preceding war if available, otherwise for any year within this period except as otherwise stated. In countries having changed boundaries the figures are estimates for one year only of numbers within present boundaries.

² Revised estimates of the Division of Crop and Livestock Estimates 1921-1926. These figures are made on the basis of census figures of 1920 and 1925, of annual assessment data and other information. The estimates prepared in the Bureau of Animal Industry by adjustment of the census figures to a January 1 basis and including all animals in towns and villages as well as on farms and ranges are as follows: Average, 58,900; 1921, 67,200; 1922, 67,700; 1923, 68,900; 1924, 68,200; and 1925, 66,000.

³ Year 1902.

⁴ Year 1916.

⁵ Year 1920.

⁶ Year 1908.

⁷ Year 1915.

⁸ June 1914.

⁹ Numbers in rural communities only.

¹⁰ September.

¹¹ Year 1906.

¹² Year 1918.

¹³ Estimated for present boundaries. The number in former boundaries on Apr. 6, 1918, was 11,753,910. No census was made as of December, 1923, which estimate would have been considered as of January, 1924, in this table as explained in the general note, so the figure for October, 1923, has been used.

¹⁴ Unofficial.

¹⁵ Goats included.

TABLE 561.—*Sheep: Numbers in countries having 100,000 and over, pre-war and years 1921-1926—Continued*

[Thousands—i. e., 000 omitted]

| Country | Month of estimate | Average-pre-war ¹ | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 |
|--|-------------------|------------------------------|-----------------------|----------------------|-----------------------|---------|-----------------------|------|
| AFRICA | | | | | | | | |
| Morocco..... | | ⁷ 3, 175 | 6, 733 | 6, 319 | 7, 121 | 8, 215 | | |
| Algeria..... | September | 8, 757 | 6, 333 | 6, 025 | 5, 397 | | | |
| Libia (Italian)..... | | 996 | | | | | | |
| Tunis..... | | 705 | 2, 038 | 1, 920 | 1, 451 | 1, 379 | | |
| French West Africa (excluding Sudan)..... | | | 3, 802 | 3, 681 | | | | |
| French Sudan..... | | | 2, 164 | 2, 030 | 2, 324 | | | |
| Gold Coast ¹⁰ | | 250 | 552 | | | | | |
| Nigeria..... | | | 1, 909 | 1, 882 | 1, 683 | | | |
| French Cameroon ¹⁰ | | | | 298 | 250 | | | |
| Egypt..... | September | | 986 | 942 | 962 | 1, 085 | | |
| Anglo-Egyptian Sudan..... | | | 1, 660 | 1, 619 | 1, 632 | 1, 638 | | |
| Italian Somaliland..... | | | ¹ 1, 666 | | | | | |
| Eritrea (Italian)..... | | ¹⁰ 1, 585 | ¹ 1, 263 | ¹⁰ 1, 701 | | | | |
| Kenya Colony..... | March-June | 5, 469 | 2, 741 | 2, 464 | 2, 547 | 2, 510 | | |
| Uganda..... | | 612 | 222 | 267 | 304 | 531 | | |
| French Equatorial Africa ¹⁰ | | | 1, 073 | 1, 126 | | | | |
| Belgian Congo..... | | 300 | 300 | 300 | | | | |
| British Southwest Africa..... | | 555 | 927 | 1, 033 | 937 | 1, 009 | | |
| Bechuanaland..... | | ¹⁰ 558 | 138 | | | | | |
| Union of South Africa..... | | 30, 637 | 51, 730 | 51, 696 | 51, 418 | 55, 003 | | |
| Basutoland..... | | 1, 569 | 1, 860 | 1, 904 | 1, 953 | 2, 002 | | |
| Rhodesia, Southern..... | December | 300 | 331 | 331 | 317 | 325 | | |
| Swaziland..... | | 164 | 67 | 38 | 76 | 77 | | |
| Tanganyika Territory..... | | ¹⁰ 2, 793 | ¹⁰ 3, 405 | | ¹⁰ 3, 940 | | | |
| ASIA | | | | | | | | |
| Cyprus ¹⁷ | March | 279 | 266 | 281 | 255 | 240 | | |
| Turkey, European, and Asiatic..... | | 19, 713 | | | 11, 914 | | | |
| Palestine..... | February-March | | 232 | 262 | | 298 | | |
| Persia..... | | | | | | | ¹⁰ 4, 000 | |
| Syria..... | | | | 2, 128 | 2, 099 | | | |
| India: | | | | | | | | |
| British..... | December-April | 23, 164 | 22, 075 | 22, 082 | 22, 338 | | | |
| Native States..... | do. | ¹⁰ 8, 038 | 12, 491 | 11, 821 | 11, 199 | | | |
| Russia ¹⁰ | | 37, 678 | ¹⁰ 10, 950 | ¹⁰ 6, 963 | ¹⁰ 10, 888 | 22, 656 | ¹⁰ 14, 558 | |
| China (includes Manchuria)..... | | 22, 186 | | | | | | |
| Philippine Islands..... | December | 96 | 196 | 223 | 258 | 302 | | |
| Dutch East Indies: | | | | | | | | |
| Java and Madura..... | | | 842 | 968 | | | | |
| Outer Possessions..... | | | 113 | 117 | | | | |
| OCEANIA | | | | | | | | |
| Australia..... | December | 89, 008 | 77, 898 | 82, 226 | 78, 803 | 80, 110 | 83, 083 | |
| New Zealand..... | April | 25, 696 | 23, 285 | 22, 222 | 23, 081 | 23, 776 | 24, 548 | |

Division of Statistical and Historical Research. Census returns are in italics; other returns are in Roman. All estimates for countries reporting as of December have been considered as of January of the following year.

¹ 1920.⁷ 1915.¹⁰ Unofficial.¹¹ Goats included.¹⁷ Sheep one year and above. It is stated that 30 per cent may be added for those under that age.¹⁸ Excludes Turkestan and Transcaucasia. The number in Turkestan and Azerbaijan (part of Transcaucasia) in 1920 amounted to 4,745,000 sheep and 1,663,000 goats.

TABLE 562.—*Sheep: Yearly losses per 1,000 from disease and exposure, 1890-1925*

| Year ended Apr. 30 | Loss per 1,000 | | Year ended Apr. 30 | Loss per 1,000 | | Year ended Apr. 30 | Loss per 1,000 | | Year ended Apr. 30 | Loss per 1,000 | |
|--------------------|----------------|---------------|--------------------|----------------|---------------|--------------------|----------------|---------------|--------------------|----------------|---------------|
| | From disease | From exposure | | From disease | From exposure | | From disease | From exposure | | From disease | From exposure |
| 1890..... | 24.0 | 51.0 | 1890..... | 21.0 | 35.0 | 1908..... | 22.5 | 22.9 | 1917..... | 21.8 | 32.4 |
| 1891..... | 23.0 | 17.0 | 1900..... | 20.0 | 18.0 | 1909..... | 26.6 | 28.3 | 1918..... | 19.8 | 19.3 |
| 1892..... | 19.0 | 14.0 | 1901..... | 24.0 | 22.0 | 1910..... | 27.5 | 43.9 | 1919..... | 19.7 | 24.4 |
| 1893..... | 24.0 | 20.0 | 1902..... | 25.0 | 31.6 | 1911..... | 25.5 | 23.0 | 1920..... | 23.7 | 34.6 |
| 1894..... | 20.0 | 15.0 | 1903..... | 27.8 | 53.6 | 1912..... | 26.7 | 47.0 | 1921..... | 23.1 | 15.6 |
| 1895..... | 28.0 | 29.0 | 1904..... | 26.0 | 37.7 | 1913..... | 24.8 | 25.0 | 1922..... | 21.4 | 25.4 |
| 1896..... | 27.0 | 21.0 | 1905..... | 24.6 | 30.8 | 1914..... | 21.9 | 22.0 | 1923..... | 22.4 | 24.1 |
| 1897..... | 23.0 | 32.0 | 1906..... | 22.2 | 37.0 | 1915..... | 21.6 | 21.7 | 1924..... | 20.1 | 17.4 |
| 1898..... | 23.0 | 27.0 | 1907..... | 25.6 | 35.4 | 1916..... | 21.6 | 21.7 | 1925..... | 18.2 | 20.3 |

Division of Crop and Livestock Estimates. As reported by crop reporters May 1, for year ending Apr. 30.

TABLE 563.—*Sheep: Receipts and shipments at principal markets and at all markets, 1909-1925*

[Thousands—i. e., 000 omitted]

RECEIPTS

| Year | Chi- cago | Den- ver | East St. Louis | Fort Worth | Kansas City | Omaha | South St. Joseph | South St. Paul | Stour City | Total nine mar- kets | All other mar- kets report- ing ¹ | Total all mar- kets report- ing ¹ |
|-----------|--------------|-------------|----------------------|---------------|----------------|-------|------------------------|----------------------|---------------|-------------------------------|---|---|
| 1909..... | 4,441 | 634 | 776 | 188 | 1,645 | 2,167 | 621 | 496 | 78 | 11,046 | () | () |
| 1910..... | 5,229 | 596 | 736 | 163 | 1,641 | 2,085 | 560 | 865 | 151 | 13,126 | () | () |
| 1911..... | 5,730 | 617 | 902 | 167 | 2,175 | 2,978 | 718 | 712 | 212 | 14,327 | () | () |
| 1912..... | 6,056 | 777 | 1,031 | 284 | 2,134 | 2,951 | 729 | 698 | 267 | 14,767 | () | () |
| 1913..... | 5,903 | 620 | 950 | 328 | 2,095 | 3,222 | 812 | 785 | 271 | 14,886 | () | () |
| 1914..... | 5,378 | 692 | 749 | 408 | 2,002 | 3,114 | 830 | 795 | 404 | 14,372 | () | () |
| 1915..... | 3,510 | 765 | 648 | 363 | 1,815 | 3,268 | 878 | 704 | 337 | 12,288 | 0,147 | 18,435 |
| 1916..... | 4,291 | 1,409 | 671 | 431 | 1,768 | 3,171 | 804 | 623 | 321 | 13,479 | 7,213 | 20,692 |
| 1917..... | 3,595 | 2,060 | 531 | 406 | 1,499 | 3,017 | 670 | 430 | 267 | 12,444 | 7,732 | 20,216 |
| 1918..... | 4,630 | 1,652 | 536 | 335 | 1,667 | 3,386 | 827 | 630 | 387 | 14,050 | 8,435 | 22,485 |
| 1919..... | 5,244 | 2,087 | 724 | 453 | 1,945 | 3,789 | 1,007 | 912 | 686 | 10,847 | 10,409 | 27,256 |
| 1920..... | 4,005 | 2,079 | 605 | 394 | 1,687 | 2,891 | 843 | 729 | 358 | 13,591 | 9,947 | 23,539 |
| 1921..... | 4,734 | 1,468 | 636 | 357 | 1,780 | 2,753 | 931 | 633 | 288 | 13,580 | 10,588 | 24,168 |
| 1922..... | 3,874 | 1,867 | 628 | 325 | 1,574 | 2,533 | 730 | 499 | 223 | 12,253 | 10,111 | 22,364 |
| 1923..... | 4,098 | 1,557 | 561 | 386 | 1,671 | 2,970 | 979 | 474 | 216 | 13,192 | 8,833 | 22,025 |
| 1924..... | 4,192 | 2,040 | 489 | 373 | 1,569 | 2,844 | 1,089 | 476 | 310 | 13,382 | 8,819 | 22,201 |
| 1925..... | 3,969 | 2,357 | 559 | 314 | 1,500 | 2,420 | 1,143 | 545 | 360 | 13,167 | 8,933 | 22,100 |

SHIPMENTS

| | | | | | | | | | | | | |
|-----------|-------|-------|-----|-----|-----|-------|-----|-----|-----|-------|-------|--------|
| 1909..... | 940 | () | 114 | () | () | 959 | 127 | 348 | 34 | 2,522 | () | () |
| 1910..... | 1,494 | () | 77 | () | () | 1,694 | 137 | 689 | 79 | 4,170 | () | () |
| 1911..... | 1,283 | () | 108 | () | () | 1,565 | 152 | 542 | 62 | 3,713 | () | () |
| 1912..... | 1,175 | () | 97 | () | () | 1,343 | 154 | 431 | 35 | 3,235 | () | () |
| 1913..... | 1,450 | () | 70 | () | () | 1,586 | 175 | 596 | 70 | 3,947 | () | () |
| 1914..... | 1,273 | () | 44 | () | () | 1,198 | 170 | 565 | 87 | 3,337 | () | () |
| 1915..... | 1,258 | 853 | 72 | 163 | 611 | 1,369 | 264 | 536 | 124 | 4,050 | 2,700 | 6,750 |
| 1916..... | 829 | 1,291 | 86 | 259 | 556 | 1,301 | 181 | 485 | 114 | 5,102 | 6,091 | 9,193 |
| 1917..... | 836 | 1,958 | 69 | 248 | 583 | 1,638 | 207 | 319 | 97 | 5,955 | 5,055 | 11,010 |
| 1918..... | 1,205 | 1,484 | 68 | 175 | 744 | 1,953 | 248 | 463 | 178 | 6,518 | 5,086 | 12,201 |
| 1919..... | 1,309 | 1,822 | 125 | 276 | 783 | 2,150 | 301 | 676 | 408 | 7,850 | 6,735 | 14,585 |
| 1920..... | 1,202 | 1,864 | 140 | 204 | 623 | 1,474 | 228 | 416 | 160 | 6,311 | 6,252 | 12,563 |
| 1921..... | 1,353 | 1,263 | 245 | 207 | 485 | 1,194 | 200 | 298 | 98 | 5,207 | 6,036 | 11,333 |
| 1922..... | 1,273 | 1,693 | 223 | 244 | 558 | 1,094 | 154 | 176 | 69 | 6,484 | 6,193 | 11,677 |
| 1923..... | 1,414 | 1,685 | 207 | 231 | 554 | 1,288 | 226 | 194 | 80 | 5,879 | 5,551 | 11,730 |
| 1924..... | 1,381 | 1,875 | 177 | 218 | 624 | 1,242 | 282 | 157 | 116 | 5,972 | 6,822 | 11,794 |
| 1925..... | 1,109 | 2,189 | 221 | 174 | 459 | 899 | 279 | 199 | 86 | 5,615 | 6,095 | 11,710 |

Division of Statistical and Historical Research. Prior to 1915 receipts compiled from yearbooks of stock-yard companies; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool. Prior to 1915 shipments compiled from yearbooks of stockyard companies, except East St. Louis (1909 to 1914 from Merchants' Exchange Annual Report); subsequent figures from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Figures prior to 1915 not obtainable.

TABLE 564.—*Sheep: Receipts at all public stockyards, 1915-1925*

[Thousands—i. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1915 ¹ | 1,517 | 1,257 | 1,248 | 1,019 | 1,050 | 1,080 | 1,264 | 1,725 | 2,501 | 2,359 | 2,042 | 1,373 | 18,435 |
| 1916 ¹ | 1,450 | 1,280 | 1,156 | 1,144 | 1,347 | 1,394 | 1,451 | 1,984 | 2,650 | 3,231 | 2,126 | 1,479 | 20,692 |
| 1917..... | 1,578 | 1,384 | 1,256 | 1,152 | 1,059 | 1,240 | 1,353 | 1,763 | 2,554 | 3,195 | 2,099 | 1,583 | 20,210 |
| 1918..... | 1,354 | 1,096 | 1,270 | 1,159 | 1,214 | 1,429 | 1,639 | 2,270 | 3,496 | 3,327 | 2,605 | 1,626 | 22,455 |
| 1919..... | 1,594 | 1,157 | 1,268 | 1,438 | 1,468 | 1,775 | 2,287 | 3,360 | 3,854 | 3,754 | 2,845 | 2,456 | 27,256 |
| 1920..... | 1,614 | 1,416 | 1,315 | 1,466 | 1,488 | 1,640 | 2,034 | 2,606 | 2,895 | 3,027 | 2,471 | 1,566 | 23,538 |
| 1921..... | 1,792 | 1,516 | 1,750 | 1,677 | 1,916 | 1,849 | 1,776 | 2,500 | 2,618 | 3,042 | 2,068 | 1,664 | 24,168 |
| 1922..... | 1,835 | 1,399 | 1,465 | 1,227 | 1,692 | 1,700 | 1,677 | 1,951 | 2,303 | 3,311 | 2,288 | 1,516 | 22,364 |
| 1923..... | 1,636 | 1,366 | 1,430 | 1,447 | 1,794 | 1,426 | 1,661 | 1,800 | 2,659 | 3,464 | 1,816 | 1,526 | 22,025 |
| 1924..... | 1,697 | 1,412 | 1,367 | 1,348 | 1,344 | 1,550 | 1,672 | 2,005 | 3,027 | 3,295 | 1,879 | 1,005 | 22,201 |
| 1925..... | 1,467 | 1,388 | 1,504 | 1,641 | 1,689 | 1,003 | 1,099 | 2,064 | 2,627 | 3,198 | 1,712 | 1,608 | 22,100 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹Complete information for 1915 and 1916, particularly on disposition of stock, is not obtainable from many markets.

TABLE 565.—*Sheep: Receipts at Chicago, East St. Louis, Kansas City, and Omaha combined, 1909-1925*

[Thousands—i. e., 000 omitted]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--------------------|-------|------|------|------|-----|------|-------|-------|-------|-------|-------|------|
| 1909..... | 576 | 565 | 700 | 593 | 465 | 607 | 636 | 862 | 1,206 | 1,281 | 841 | 700 |
| 1910..... | 651 | 522 | 551 | 477 | 577 | 631 | 794 | 1,199 | 1,609 | 1,820 | 1,258 | 702 |
| 1911..... | 822 | 686 | 740 | 686 | 763 | 796 | 807 | 1,085 | 1,566 | 2,003 | 1,115 | 810 |
| 1912..... | 1,020 | 849 | 856 | 770 | 665 | 671 | 837 | 1,052 | 1,528 | 1,906 | 1,113 | 905 |
| 1913..... | 892 | 750 | 710 | 770 | 737 | 732 | 831 | 963 | 1,869 | 1,848 | 1,059 | 970 |
| Av. 1909-1913..... | 792 | 674 | 711 | 659 | 641 | 687 | 781 | 1,032 | 1,556 | 1,772 | 1,083 | 819 |
| 1914..... | 934 | 863 | 909 | 858 | 707 | 716 | 723 | 979 | 1,558 | 1,512 | 705 | 779 |
| 1915..... | 799 | 670 | 723 | 540 | 469 | 531 | 637 | 931 | 1,337 | 1,000 | 868 | 736 |
| 1916..... | 742 | 697 | 632 | 586 | 632 | 659 | 634 | 991 | 1,301 | 1,408 | 854 | 701 |
| 1917..... | 796 | 683 | 632 | 502 | 441 | 470 | 526 | 650 | 1,111 | 1,210 | 715 | 759 |
| 1918..... | 716 | 525 | 620 | 518 | 538 | 554 | 726 | 969 | 1,770 | 1,569 | 952 | 741 |
| 1919..... | 780 | 647 | 564 | 623 | 612 | 742 | 1,068 | 1,461 | 1,968 | 1,400 | 951 | 937 |
| 1920..... | 666 | 619 | 590 | 462 | 532 | 632 | 827 | 1,139 | 1,288 | 946 | 817 | 631 |
| Av. 1914-1920..... | 776 | 659 | 673 | 597 | 562 | 615 | 739 | 1,027 | 1,476 | 1,291 | 837 | 766 |
| 1921..... | 813 | 700 | 819 | 754 | 729 | 725 | 645 | 1,100 | 1,173 | 1,095 | 685 | 664 |
| 1922..... | 753 | 602 | 640 | 517 | 659 | 690 | 695 | 826 | 835 | 1,072 | 726 | 594 |
| 1923..... | 782 | 665 | 735 | 690 | 672 | 529 | 711 | 807 | 1,179 | 1,231 | 612 | 685 |
| 1924..... | 811 | 595 | 601 | 598 | 544 | 671 | 740 | 895 | 1,405 | 943 | 546 | 742 |
| 1925..... | 596 | 619 | 727 | 655 | 630 | 612 | 687 | 897 | 1,060 | 821 | 512 | 558 |
| Av. 1921-1925..... | 751 | 636 | 704 | 643 | 647 | 645 | 696 | 899 | 1,130 | 1,032 | 616 | 660 |

Division of Statistical and Historical Research. Prior to 1915 figures compiled from yearbooks of the stockyard companies; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 566.—*Sheep: Receipts, local slaughter, and stocker and feeder shipments, public stockyards, 1916-1925*

[Thousands—i. e., 000 omitted]

RECEIPTS

| Market | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Albany, N. Y. | 23 | 45 | 1 | 1 | (1) | (1) | (1) | | | |
| Amarillo, Tex. | 56 | 168 | 155 | 236 | 189 | 38 | 73 | 101 | 159 | 148 |
| Atlanta, Ga. | | 2 | 1 | 2 | 1 | 2 | 2 | 5 | 3 | 6 |
| Augusta, Ga. | | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) |
| Baltimore, Md. | 279 | 349 | 359 | 371 | 367 | 466 | 306 | 284 | 288 | 307 |
| Boston, Mass. | 3 | 3 | 4 | 4 | 5 | 2 | 2 | 4 | 2 | 3 |
| Buffalo, N. Y. | 1,024 | 756 | 904 | 1,100 | 1,052 | 1,380 | 1,191 | 1,228 | 1,166 | 1,059 |
| Chatanooga, Tenn. | 4 | 2 | 3 | 3 | 2 | 3 | 4 | 2 | 1 | 2 |
| Cheyenne, Wyo. | | 210 | 371 | 442 | 223 | 148 | 139 | 169 | 157 | 105 |
| Chicago, Ill. | 4,291 | 3,595 | 4,630 | 5,214 | 4,005 | 4,734 | 3,874 | 4,098 | 4,192 | 3,969 |
| Cincinnati, Ohio | 332 | 270 | 275 | 335 | 366 | 438 | 394 | 345 | 327 | 370 |
| Cleveland, Ohio | 254 | 320 | 370 | 467 | 420 | 370 | 360 | 333 | 305 | 416 |
| Dallas, Tex. | 1 | (1) | (1) | (1) | 1 | 1 | 1 | (1) | (1) | (1) |
| Dayton, Ohio | 4 | 4 | 5 | 11 | 9 | 7 | 8 | 7 | 8 | 8 |
| Denver, Colo. | 1,409 | 2,060 | 1,652 | 2,087 | 2,079 | 1,468 | 1,867 | 1,857 | 2,040 | 2,357 |
| Detroit, Mich. | 284 | 297 | 279 | 344 | 328 | 343 | 356 | 208 | 393 | 367 |
| East St. Louis, Ill. | 671 | 631 | 536 | 724 | 605 | 636 | 628 | 561 | 480 | 559 |
| El Paso, Tex. | 117 | 211 | 88 | 252 | 136 | 71 | 49 | 73 | 41 | 124 |
| Evansville, Ind. | 7 | 9 | 11 | 14 | 14 | 8 | 11 | 8 | 6 | 7 |
| Fort Wayne, Ind. | | | | | | | | 5 | 18 | 20 |
| Fort Worth, Tex. | 431 | 406 | 335 | 453 | 394 | 357 | 325 | 386 | 373 | 314 |
| Fostoria, Ohio | 12 | 12 | 10 | 11 | 17 | 21 | 14 | 12 | 15 | 14 |
| Indianapolis, Ind. | 98 | 102 | 114 | 131 | 136 | 145 | 147 | 124 | 123 | 147 |
| Jacksonville, Fla. | 1 | (1) | 2 | 2 | 1 | (1) | (1) | (1) | (1) | (1) |
| Jersey City, N. J. | 1,646 | 1,329 | 1,095 | 1,632 | 1,554 | 1,094 | 1,854 | 1,276 | 1,230 | 1,213 |
| Kansas City, Mo. | 1,758 | 1,499 | 1,667 | 1,945 | 1,687 | 1,780 | 1,574 | 1,071 | 1,569 | 1,500 |
| Knoxville, Tenn. | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 3 |
| Lafayette, Ind. | 2 | 4 | 5 | 8 | 8 | 4 | 4 | 6 | 6 | 6 |
| Lancaster, Pa. | 1 | 100 | 257 | 74 | 122 | 12 | 27 | 53 | 15 | 18 |
| Laredo, Tex. | | | | | | | | 1 | 3 | 3 |
| Los Angeles, Calif. | | | | | | | | 75 | 102 | 30 |
| Louisville, Ky. | 343 | 272 | 257 | 273 | 277 | 286 | 318 | 265 | 213 | 229 |
| Marion, Ohio | | | 2 | 32 | 50 | 15 | 13 | 11 | 12 | 8 |
| Memphis, Tenn. | 4 | (1) | 2 | 1 | 2 | (1) | 1 | 2 | 1 | 4 |
| Milwaukee, Wis. | 55 | 48 | 57 | 65 | 61 | 59 | 45 | 40 | 37 | 45 |
| Montgomery, Ala. | | 1 | 7 | 7 | 4 | 2 | 2 | 3 | 2 | 3 |
| Moultrie, Ga. | | | | | | 1 | 1 | (1) | (1) | (1) |
| Muncie, Ind. | | | | | | | | | | 11 |
| Nashville, Tenn. | 47 | 94 | 114 | 147 | 129 | 138 | 152 | 129 | 116 | 145 |
| Newark, N. J. | | | | | | | | 29 | 33 | 38 |
| New Orleans, La. | 4 | 6 | 9 | 6 | 6 | 4 | 4 | 4 | 2 | 2 |
| New York, N. Y. | 94 | 80 | 271 | 291 | 158 | 221 | 143 | 74 | 68 | 109 |
| North Salt Lake, Utah | 404 | 357 | 424 | 388 | 481 | 368 | 459 | 449 | 618 | 688 |
| Ogden, Utah | | 380 | 423 | 516 | 603 | 576 | 704 | 849 | 665 | 884 |
| Oklahoma City, Okla. | 115 | 50 | 32 | 19 | 15 | 18 | 18 | 0 | 9 | 10 |
| Omaha, Nebr. | 3,171 | 3,017 | 3,366 | 3,789 | 2,891 | 2,753 | 2,523 | 2,970 | 2,844 | 2,420 |
| Pasco, Wash. | | | 58 | 131 | 92 | 72 | 66 | 66 | 84 | 71 |
| Peoria, Ill. | 1 | 1 | 1 | 4 | 3 | 7 | 3 | 4 | 3 | 6 |
| Philadelphia, Pa. | 282 | 185 | 231 | 208 | 349 | 464 | 352 | 248 | 251 | 227 |
| Pittsburgh, Pa. | 337 | 563 | 553 | 767 | 922 | 1,197 | 1,204 | 1,045 | 979 | 910 |
| Portland, Oreg. | 171 | 141 | 149 | 215 | 236 | 329 | 205 | 179 | 199 | 179 |
| Pueblo, Colo. | 806 | 800 | 762 | 837 | 734 | 541 | 648 | 704 | 875 | 713 |
| Richmond, Va. | 10 | 8 | 7 | 10 | 10 | 13 | 9 | 9 | 9 | 8 |
| South St. Joseph, Mo. | 804 | 679 | 827 | 1,007 | 843 | 931 | 730 | 979 | 1,089 | 1,143 |
| South St. Paul, Minn. | 623 | 430 | 630 | 912 | 729 | 633 | 499 | 451 | 476 | 545 |
| San Antonio, Tex. | 26 | 51 | 41 | 88 | 70 | 49 | 66 | 23 | 18 | 11 |
| Seattle, Wash. | 20 | 9 | 52 | 102 | 91 | 91 | 70 | 86 | 100 | 78 |
| Sioux City, Iowa | 321 | 267 | 387 | 686 | 358 | 288 | 223 | 216 | 310 | 390 |
| Sioux Falls, S. Dak. | | (1) | 2 | 37 | 5 | 2 | 2 | 5 | 5 | 2 |
| Spokane, Wash. | 32 | 39 | 102 | 117 | 127 | 73 | 63 | 28 | 48 | 37 |
| Springfield, Ohio | | | | | | | | 9 | 14 | 16 |
| Toledo, Ohio | 29 | 34 | 29 | 54 | 69 | 23 | 20 | 13 | 28 | 20 |
| Washington, D. C. | 15 | 7 | 8 | 20 | 27 | 35 | 21 | 17 | 16 | 14 |
| Wichita, Kans. | 21 | 27 | 40 | 69 | 39 | 32 | 82 | 120 | 84 | 89 |
| Discontinued ¹ | 347 | 333 | 491 | 583 | 435 | 524 | 497 | 7 | (1) | |
| Total | 20,692 | 20,216 | 22,485 | 27,256 | 23,538 | 24,168 | 22,364 | 22,025 | 22,201 | 22,100 |

¹ Not over 500.

² Includes only those markets which have been totally discontinued.

TABLE 566.—*Sheep: Receipts, local slaughter, and stocker and feeder shipments public stockyards, 1916-1925—Continued*

[Thousands—i. e., 000 omitted]

LOCAL SLAUGHTER

| Market | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Albany, N. Y. | ----- | 2 | (¹) | (¹) | (¹) | (¹) | ----- | ----- | ----- | ----- |
| Atlanta, Ga. | ----- | (¹) | (¹) | (¹) | (¹) | (¹) | ----- | ----- | ----- | ----- |
| Augusta, Ga. | ----- | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Baltimore, Md. | 93 | 60 | 85 | 103 | 121 | 186 | 144 | 131 | 126 | 104 |
| Buffalo, N. Y. | 183 | 110 | 142 | 231 | 263 | 243 | 193 | 161 | 138 | 129 |
| Chattanooga, Tenn. | ----- | ----- | 2 | 2 | 2 | 3 | ----- | 2 | 1 | 2 |
| Chicago, Ill. | 3,462 | 2,759 | 3,425 | 3,635 | 2,803 | 3,383 | 2,601 | 2,684 | 2,812 | 2,860 |
| Cincinnati, Ohio. | 79 | 51 | 52 | 84 | 81 | 121 | 91 | 62 | 60 | 53 |
| Cleveland, Ohio. | 144 | 118 | 132 | 176 | 168 | 234 | 189 | 186 | 181 | 188 |
| Dallas, Tex. | 1 | (¹) | (¹) | (¹) | 1 | 1 | 1 | (¹) | (¹) | (¹) |
| Dayton, Ohio. | 2 | 2 | 2 | 4 | 6 | 5 | 5 | 5 | 6 | 5 |
| Denver, Colo. | 116 | 95 | 174 | 241 | 239 | 180 | 172 | 169 | 168 | 167 |
| Detroit, Mich. | 209 | 156 | 138 | 212 | 216 | 168 | 196 | 194 | 212 | 200 |
| East St. Louis, Ill. | 584 | 462 | 408 | 599 | 466 | 391 | 505 | 354 | 311 | 338 |
| El Paso, Tex. | ----- | 3 | 6 | 3 | 7 | 7 | 7 | 8 | 9 | 6 |
| Evansville, Ind. | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 2 | 2 | 1 |
| Fort Wayne, Ind. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 1 | 2 | 1 |
| Fort Worth, Tex. | 189 | 144 | 131 | 164 | 206 | 157 | 80 | 155 | 155 | 141 |
| Fostoria, Ohio. | ----- | 4 | (¹) | (¹) | (¹) | (¹) | 2 | (¹) | (¹) | (¹) |
| Indianapolis, Ind. | 31 | 21 | 16 | 26 | 31 | 44 | 64 | 61 | 56 | 58 |
| Jacksonville, Fla. | ----- | (¹) | 1 | 1 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Jersey City, N. J. | 1,546 | 1,329 | 1,095 | 1,532 | 1,554 | 1,994 | 1,854 | 1,276 | 1,230 | 1,213 |
| Kansas City, Mo. | 1,177 | 886 | 951 | 1,176 | 1,066 | 1,307 | 1,000 | 1,101 | 1,046 | 1,046 |
| Knoxville, Tenn. | (¹) | (¹) | 1 | 1 | 1 | 1 | 1 | 1 | (¹) | (¹) |
| Lafayette, Ind. | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Lancaster, Pa. | ----- | ----- | 1 | 1 | 2 | 2 | 1 | 2 | 3 | 3 |
| Laredo, Tex. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 1 | 3 | 3 |
| Los Angeles, Calif. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 71 | 102 | 28 |
| Louisville, Ky. | 25 | 20 | 24 | 24 | 29 | 26 | 27 | 24 | 18 | 22 |
| Marion, Ohio. | ----- | ----- | (¹) | (¹) | 1 | (¹) | (¹) | (¹) | (¹) | (¹) |
| Memphis, Tenn. | ----- | ----- | ----- | (¹) | ----- | (¹) | (¹) | (¹) | (¹) | 1 |
| Milwaukee, Wis. | 38 | 38 | 34 | 42 | 45 | 47 | (¹) | (¹) | 33 | 34 |
| Montgomery, Ala. | ----- | ----- | ----- | 1 | 1 | (¹) | (¹) | (¹) | 1 | (¹) |
| Muncie, Ind. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | (¹) |
| Nashville, Tenn. | 1 | 9 | 13 | 15 | 18 | 23 | 27 | 21 | 20 | 20 |
| Newark, N. J. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 29 | 33 | 38 |
| New Orleans, La. | 4 | 5 | 7 | 4 | 3 | 3 | 2 | 2 | 2 | 1 |
| New York, N. Y. | 94 | 83 | 271 | 291 | 158 | 221 | 143 | 75 | 68 | 109 |
| North Salt Lake, Utah | 13 | 46 | 26 | 17 | 15 | 67 | 20 | 19 | 45 | 44 |
| Ogden, Utah. | ----- | 8 | 43 | 24 | 17 | 14 | 8 | 7 | 9 | 4 |
| Oklahoma City, Okla. | 72 | 27 | 14 | 8 | 5 | 12 | 12 | 4 | 6 | 6 |
| Omaha, Nebr. | 1,870 | 1,378 | 1,433 | 1,639 | 1,417 | 1,626 | 1,440 | 1,682 | 1,602 | 1,522 |
| Pasco, Wash. | ----- | ----- | (¹) | (¹) | ----- | ----- | ----- | ----- | ----- | ----- |
| Peoria, Ill. | 1 | 1 | 1 | 1 | 2 | 3 | 1 | 1 | 1 | 1 |
| Philadelphia, Pa. | ----- | 170 | 220 | 286 | 343 | 446 | 345 | 244 | 246 | 223 |
| Pittsburgh, Pa. | 111 | 85 | 95 | 103 | 125 | 148 | 117 | 117 | 115 | 105 |
| Portland, Oreg. | 112 | 87 | 77 | 109 | 104 | 151 | 95 | 104 | 96 | 94 |
| Richmond, Va. | 2 | 4 | 5 | 6 | 7 | 10 | 9 | 8 | 7 | 6 |
| South St. Joseph, Mo. | 624 | 472 | 580 | 706 | 615 | 730 | 576 | 764 | 805 | 866 |
| South St. Paul, Minn. | 152 | 118 | 176 | 251 | 300 | 316 | 319 | 253 | 314 | 347 |
| San Antonio, Tex. | ----- | 9 | 1 | 1 | 2 | 2 | 4 | 2 | 3 | 3 |
| Seattle, Wash. | 20 | 9 | 52 | 101 | 90 | 91 | 69 | 83 | 99 | 75 |
| Sioux City, Iowa. | 216 | 170 | 210 | 282 | 199 | 191 | 153 | 136 | 193 | 274 |
| Sioux Falls, S. Dak. | ----- | (¹) | (¹) | (¹) | 2 | 1 | (¹) | (¹) | (¹) | (¹) |
| Spokane, Wash. | 1 | 4 | 9 | 13 | 16 | 26 | 11 | 8 | 13 | 10 |
| Springfield, Ohio. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | (¹) | 1 | (¹) |
| Toledo, Ohio. | 8 | 8 | 2 | 4 | 2 | 8 | 3 | 4 | 1 | 1 |
| Washington, D. C. | 15 | 6 | 8 | 20 | 27 | 34 | 20 | 17 | 15 | 14 |
| Wichita, Kans. | 4 | 2 | 4 | 6 | 6 | 6 | 13 | 17 | 27 | 30 |
| Discontinued ¹ | 32 | 175 | 137 | 197 | 196 | 228 | 206 | 2 | (¹) | ----- |
| Total | 11,228 | 9,142 | 10,266 | 12,646 | 10,981 | 12,858 | 10,660 | 10,271 | 10,399 | 10,399 |

¹ Not over 500.² Includes only those markets which have been totally discontinued.

TABLE 566.—*Sheep: Receipts, local slaughter, and stocker and feeder shipments public stockyards, 1916-1925—Continued*

[Thousands—i. e., 000 omitted]

STOCKER AND FEEDER SHIPMENTS

| Market | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Amarillo, Tex. | 17 | 79 | 50 | 116 | 86 | 23 | 23 | 62 | 127 | 96 |
| Atlanta, Ga. | | | | (1) | | (1) | (1) | 1 | | |
| Augusta, Ga. | | | | (1) | (1) | (1) | | | (1) | |
| Baltimore, Md. | 2 | 1 | 1 | 2 | 1 | (1) | 1 | 1 | 1 | (1) |
| Buffalo, N. Y. | 14 | 18 | 21 | 14 | 23 | 4 | 3 | 2 | 9 | 9 |
| Chattanooga, Tenn. | | | 1 | 1 | (1) | | | | | |
| Chicago, Ill. | 467 | 634 | 968 | 1,106 | 899 | 621 | 688 | 682 | 707 | 597 |
| Cincinnati, Ohio | 5 | 1 | 5 | 8 | 8 | 13 | 15 | 15 | 11 | 18 |
| Cleveland, Ohio | | 1 | 3 | 4 | (1) | 4 | 7 | 4 | 3 | |
| Denver, Colo. | 741 | 1,030 | 921 | 1,200 | 1,349 | 643 | 1,068 | 1,068 | 1,130 | 1,115 |
| Detroit, Mich. | 5 | 5 | 3 | 8 | 20 | 14 | 12 | 12 | 10 | 10 |
| East St. Louis, Ill. | 36 | 48 | 48 | 70 | 60 | 33 | 50 | 51 | 46 | 12 |
| El Paso, Tex. | | 164 | 43 | 189 | 95 | 21 | 30 | 37 | 15 | 78 |
| Evansville, Ind. | | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) |
| Fort Wayne, Ind. | | | | | | | | (1) | 1 | 3 |
| Fort Worth, Tex. | 72 | 127 | 111 | 164 | 71 | 80 | 136 | 39 | 50 | 60 |
| Fostoria, Ohio | | | (1) | (1) | 1 | 1 | (1) | 1 | 1 | (1) |
| Indianapolis, Ind. | | 4 | 5 | | 5 | 10 | 9 | 5 | 9 | 17 |
| Jacksonville, Fla. | (1) | | (1) | 1 | 1 | | (1) | | | |
| Kansas City, Mo. | 460 | 510 | 602 | 672 | 474 | 324 | 385 | 407 | 368 | 319 |
| Knoxville, Tenn. | | 2 | 1 | 1 | (1) | | 2 | | | |
| Lafayette, Ind. | (1) | (1) | 1 | 1 | 1 | 1 | | 1 | 1 | 2 |
| Laredo, Tex. | | | | | | | | (1) | 1 | (1) |
| Los Angeles, Calif. | | | | | | | | 4 | (1) | 1 |
| Louisville, Ky. | | | 27 | 31 | 20 | 25 | 34 | 34 | 18 | 26 |
| Marion, Ohio | | | (1) | 2 | 1 | 1 | 2 | 2 | 1 | (1) |
| Memphis, Tenn. | (1) | | (1) | | | (1) | (1) | (1) | (1) | (1) |
| Milwaukee, Wis. | 1 | 1 | 4 | 1 | 1 | | | | | |
| Montgomery, Ala. | | | (1) | (1) | 1 | (1) | (1) | (1) | (1) | (1) |
| Muncie, Ind. | | | | | | | | | | 1 |
| Nashville, Tenn. | 5 | 3 | 2 | 19 | 6 | 4 | 4 | 2 | 1 | 2 |
| Newark, N. J. | | (1) | 2 | 1 | 1 | 1 | 1 | (1) | (1) | 1 |
| New Orleans, La. | | | | | | | | | | |
| North Salt Lake, Utah | 47 | 159 | 215 | 277 | 211 | 142 | 276 | 234 | 345 | 378 |
| Ogden, Utah | | 1 | 41 | 171 | 133 | 197 | 281 | 360 | 244 | 306 |
| Oklahoma City, Okla. | 24 | 13 | 6 | 6 | 3 | 2 | 3 | 3 | 2 | 2 |
| Omaha, Nebr. | 1,026 | 1,302 | 1,592 | 1,787 | 1,124 | 670 | 757 | 889 | 823 | 503 |
| Pasco, Wash. | | | 59 | 131 | 68 | | | | | |
| Peoria, Ill. | | | (1) | 1 | 1 | | | | 2 | 4 |
| Portland, Oreg. | 15 | 27 | 18 | 27 | 40 | 13 | 7 | 5 | 8 | 6 |
| Pueblo, Colo. | | | 20 | (1) | 1 | (1) | 3 | 212 | 347 | 299 |
| Richmond, Va. | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 |
| South St. Joseph, Mo. | 97 | 124 | 126 | 200 | 142 | 107 | 113 | 150 | 229 | 203 |
| South St. Paul, Minn. | 140 | 92 | 109 | 201 | 113 | 78 | 66 | 91 | 63 | 63 |
| San Antonio, Tex. | 9 | 1 | 17 | 46 | 33 | 5 | 38 | 7 | 6 | 4 |
| Sioux City, Iowa | 87 | 62 | 129 | 272 | 90 | 64 | 45 | 42 | 64 | 61 |
| Sioux Falls, S. Dak. | | (1) | (1) | 23 | 1 | (1) | (1) | 1 | (1) | (1) |
| Spokane, Wash. | | 16 | 24 | 35 | 75 | 12 | 22 | 12 | 12 | 16 |
| Toledo, Ohio | | | (1) | 3 | 3 | (1) | (1) | | (1) | (1) |
| Wichita, Kans. | 1 | 11 | 16 | 19 | 3 | 2 | 17 | 37 | 22 | 29 |
| Discontinued ¹ | 5 | 11 | 16 | 52 | 14 | 75 | 46 | (1) | | |
| Total | 3,277 | 4,448 | 5,208 | 6,956 | 5,180 | 3,095 | 4,167 | 4,478 | 4,679 | 4,332 |

Division of Statistical and Historical Research. Compiled from reports made by stockyards to the Division of Livestock, Meats, and Wool.

¹ Not over 500.

² Includes only those markets which have been totally discontinued.

TABLE 567.—*Sheep: Receipts, local slaughter, and stocker and feeder shipments at certain public stockyards, 1925*

[Thousands—i. e., 000 omitted]

| Stockyard | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|------------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| Baltimore, Md.: | | | | | | | | | | | | | |
| Receipts | 10 | 7 | 6 | 7 | 21 | 26 | 36 | 69 | 44 | 40 | 29 | 12 | 307 |
| Local slaughter | 9 | 5 | 5 | 6 | 10 | 8 | 13 | 11 | 12 | 10 | 9 | 6 | 104 |
| Stocker and feeder shipments | 0 | 0 | 0 | 0 | 0 | (1) | 0 | 0 | (1) | (1) | (1) | 0 | (1) |
| Buffalo, N. Y.: | | | | | | | | | | | | | |
| Receipts | 134 | 102 | 93 | 95 | 93 | 40 | 37 | 53 | 78 | 107 | 113 | 114 | 1,059 |
| Local slaughter | 12 | 9 | 12 | 11 | 12 | 5 | 6 | 9 | 13 | 13 | 16 | 11 | 129 |
| Stocker and feeder shipments | 1 | 1 | 1 | 2 | (1) | (1) | 0 | (1) | (1) | 2 | 1 | 1 | 9 |

¹ Not over 500.

TABLE 567.—*Sheep: Receipts, local slaughter, and stocker and feeder shipments at certain public stockyards, 1925—Continued*

[Thousands—1. e., 000 omitted]

| Stockyard | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|-----------------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| Chicago, Ill.: | | | | | | | | | | | | | |
| Receipts..... | 305 | 305 | 338 | 834 | 314 | 267 | 292 | 373 | 419 | 410 | 272 | 340 | 3,969 |
| Local slaughter..... | 207 | 199 | 241 | 252 | 250 | 250 | 260 | 278 | 262 | 251 | 197 | 215 | 2,860 |
| Stocker and feeder shipments..... | 26 | 29 | 26 | 10 | 13 | 10 | 25 | 85 | 138 | 132 | 48 | 55 | 597 |
| Cincinnati, Ohio: | | | | | | | | | | | | | |
| Receipts..... | 3 | 2 | 2 | 3 | 23 | 100 | 95 | 71 | 40 | 14 | 9 | 7 | 370 |
| Local slaughter..... | 3 | 2 | 1 | 3 | 3 | 12 | 6 | 3 | 6 | 5 | 5 | 4 | 53 |
| Stocker and feeder shipments..... | 0 | 0 | 0 | 0 | (1) | 3 | 6 | 6 | 2 | 1 | (1) | (7) | 18 |
| Cleveland, Ohio: | | | | | | | | | | | | | |
| Receipts..... | 33 | 17 | 25 | 41 | 30 | 15 | 15 | 22 | 49 | 53 | 58 | 58 | 416 |
| Local slaughter..... | 12 | 9 | 15 | 16 | 8 | 13 | 14 | 19 | 19 | 23 | 20 | 20 | 188 |
| Denver, Colo.: | | | | | | | | | | | | | |
| Receipts..... | 147 | 177 | 184 | 187 | 106 | 65 | 88 | 146 | 282 | 647 | 231 | 97 | 2,357 |
| Local slaughter..... | 16 | 18 | 20 | 15 | 14 | 12 | 15 | 13 | 12 | 13 | 8 | 11 | 167 |
| Stocker and feeder shipments..... | 34 | 33 | 18 | 7 | 8 | 11 | 19 | 45 | 121 | 556 | 204 | 59 | 1,115 |
| Detroit, Mich.: | | | | | | | | | | | | | |
| Receipts..... | 38 | 22 | 15 | 18 | 16 | 8 | 9 | 20 | 47 | 63 | 65 | 46 | 37 |
| Local slaughter..... | 18 | 13 | 4 | 9 | 11 | 7 | 8 | 14 | 25 | 27 | 34 | 30 | 209 |
| Stocker and feeder shipments..... | 1 | 0 | (1) | (1) | (1) | (1) | (1) | (1) | 3 | 4 | 1 | 1 | 10 |
| East St. Louis, Ill.: | | | | | | | | | | | | | |
| Receipts..... | 23 | 23 | 26 | 14 | 38 | 87 | 80 | 70 | 54 | 60 | 38 | 46 | 5.9 |
| Local slaughter..... | 12 | 8 | 13 | 5 | 28 | 68 | 59 | 47 | 26 | 25 | 26 | 21 | 338 |
| Stocker and feeder shipments..... | 2 | 0 | 0 | (1) | 1 | 1 | 2 | (1) | 3 | 2 | (1) | 1 | 12 |
| Fort Worth, Tex.: | | | | | | | | | | | | | |
| Receipts..... | 30 | 18 | 22 | 20 | 24 | 25 | 35 | 23 | 34 | 32 | 22 | 29 | 314 |
| Local slaughter..... | 7 | 6 | 9 | 11 | 12 | 11 | 17 | 10 | 16 | 19 | 12 | 11 | 141 |
| Stocker and feeder shipments..... | 11 | 1 | 1 | 2 | 4 | 4 | 13 | 3 | 6 | 9 | 3 | 3 | 60 |
| Indianapolis, Ind.: | | | | | | | | | | | | | |
| Receipts..... | 6 | 2 | 3 | 1 | 3 | 14 | 15 | 19 | 30 | 24 | 12 | 18 | 147 |
| Local slaughter..... | 3 | 1 | 1 | 1 | 2 | 8 | 9 | 11 | 10 | 5 | 3 | 4 | 58 |
| Stocker and feeder shipments..... | (1) | (1) | (1) | (1) | (1) | 2 | 3 | 8 | 7 | 1 | (1) | 1 | 17 |
| Jersey City, N. J.: | | | | | | | | | | | | | |
| Receipts..... | 70 | 72 | 67 | 70 | 73 | 151 | 149 | 187 | 105 | 113 | 84 | 82 | 1,213 |
| Local slaughter..... | 70 | 72 | 67 | 70 | 73 | 151 | 149 | 187 | 105 | 113 | 84 | 82 | 1,213 |
| Stocker and feeder shipments..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kansas City, Mo.: | | | | | | | | | | | | | |
| Receipts..... | 92 | 98 | 134 | 128 | 123 | 108 | 127 | 137 | 204 | 151 | 83 | 115 | 1,500 |
| Local slaughter..... | 77 | 63 | 98 | 109 | 93 | 83 | 90 | 76 | 114 | 90 | 66 | 87 | 1,049 |
| Stocker and feeder shipments..... | 12 | 12 | 8 | 7 | 11 | 24 | 27 | 51 | 76 | 60 | 14 | 17 | 319 |
| Los Angeles, Calif.: | | | | | | | | | | | | | |
| Receipts..... | 3 | 2 | 6 | 5 | 3 | 3 | (1) | 1 | 3 | 1 | 1 | 2 | 30 |
| Local slaughter..... | 3 | 3 | 5 | 5 | 2 | 2 | 1 | 1 | 3 | 1 | (1) | 2 | 28 |
| Stocker and feeder shipments..... | 0 | 0 | 0 | (1) | 1 | (1) | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Milwaukee, Wis.: | | | | | | | | | | | | | |
| Receipts..... | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 6 | 8 | 13 | 5 | 2 | 45 |
| Local slaughter..... | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 5 | 7 | 5 | 4 | 2 | 34 |
| Oklahoma City, Okla.: | | | | | | | | | | | | | |
| Receipts..... | (1) | 1 | (1) | (1) | 1 | 1 | 2 | 1 | 1 | 2 | 1 | (1) | 10 |
| Local slaughter..... | (1) | (1) | (1) | (1) | 1 | 1 | 1 | 1 | (1) | (1) | 1 | 1 | 6 |
| Stocker and feeder shipments..... | 0 | (1) | (1) | (1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Omaha, Nebr.: | | | | | | | | | | | | | |
| Receipts..... | 176 | 194 | 229 | 179 | 156 | 150 | 189 | 287 | 383 | 201 | 119 | 157 | 2,420 |
| Local slaughter..... | 135 | 127 | 156 | 142 | 129 | 130 | 141 | 142 | 141 | 88 | 78 | 113 | 1,522 |
| Stocker and feeder shipments..... | 11 | 15 | 14 | 6 | 6 | 11 | 41 | 125 | 209 | 106 | 27 | 22 | 563 |
| Pittsburgh, Pa.: | | | | | | | | | | | | | |
| Receipts..... | 56 | 54 | 67 | 73 | 75 | 108 | 118 | 98 | 72 | 58 | 61 | 70 | 610 |
| Local slaughter..... | 9 | 6 | 7 | 10 | 10 | 10 | 9 | 8 | 10 | 9 | 8 | 9 | 105 |
| Stocker and feeder shipments..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Portland, Ore.: | | | | | | | | | | | | | |
| Receipts..... | 11 | 7 | 6 | 8 | 20 | 30 | 28 | 24 | 15 | 14 | 9 | 7 | 179 |
| Local slaughter..... | 6 | 4 | 3 | 3 | 12 | 14 | 17 | 14 | 8 | 6 | 5 | 2 | 94 |
| Stocker and feeder shipments..... | (1) | (1) | (1) | 0 | 1 | 1 | (1) | 1 | 1 | 2 | (1) | (1) | 6 |
| South St. Joseph, Mo.: | | | | | | | | | | | | | |
| Receipts..... | 91 | 107 | 149 | 110 | 113 | 53 | 55 | 72 | 104 | 108 | 79 | 98 | 1,143 |
| Local slaughter..... | 75 | 81 | 108 | 94 | 96 | 50 | 40 | 49 | 60 | 69 | 59 | 76 | 866 |
| Stocker and feeder shipments..... | 15 | 12 | 13 | 9 | 10 | 3 | 7 | 21 | 42 | 33 | 19 | 19 | 203 |
| South St. Paul, Minn.: | | | | | | | | | | | | | |
| Receipts..... | 47 | 33 | 15 | 9 | 8 | 5 | 12 | 38 | 81 | 141 | 93 | 63 | 545 |
| Local slaughter..... | 25 | 16 | 11 | 10 | 7 | 6 | 11 | 28 | 53 | 80 | 63 | 38 | 347 |
| Stocker and feeder shipments..... | 2 | 1 | (1) | (1) | (1) | 1 | 1 | 4 | 13 | 23 | 12 | 6 | 63 |
| Sioux City, Iowa: | | | | | | | | | | | | | |
| Receipts..... | 51 | 38 | 26 | 18 | 7 | 3 | 10 | 19 | 43 | 58 | 40 | 47 | 360 |
| Local slaughter..... | 41 | 31 | 24 | 17 | 7 | 3 | 7 | 14 | 24 | 33 | 34 | 39 | 274 |
| Stocker and feeder shipments..... | 2 | 5 | 1 | (1) | (1) | 1 | 2 | 3 | 14 | 22 | 5 | 6 | 61 |
| Wichita, Kans.: | | | | | | | | | | | | | |
| Receipts..... | 4 | 3 | 6 | 2 | 3 | 5 | 8 | 17 | 9 | 17 | 8 | 7 | 89 |
| Local slaughter..... | 2 | 3 | 3 | 1 | 3 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 30 |
| Stocker and feeder shipments..... | 1 | 0 | 0 | 0 | (1) | (1) | 1 | 7 | 3 | 12 | 4 | 1 | 29 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool. Local slaughter data from stockyards.

1 Not over 500.

TABLE 568.—Feeding sheep: Inspected shipments from public stockyards, 1925

| Origin and destination | January | February | March | April | May | June | July | August | September | October | November | December | Total |
|---------------------------|---------|----------|--------|--------|--------|--------|---------|---------|-----------|---------|----------|----------|-----------|
| MARKET ORIGIN | | | | | | | | | | | | | |
| Chicago, Ill. | 19,700 | 31,019 | 20,248 | 8,552 | 12,083 | 10,342 | 25,571 | 78,921 | 143,437 | 120,631 | 120,631 | 63,401 | 590,509 |
| Denver, Colo. | 22,676 | 15,563 | 9,064 | 3,812 | 5,394 | 1,920 | 4,949 | 18,172 | 130,139 | 555,365 | 186,450 | 53,007 | 1,022,411 |
| Pt. Worth, Tex. | 11,163 | 7,364 | 2,000 | 2,657 | 4,320 | 4,004 | 6,155 | 3,332 | 8,230 | 9,681 | 3,239 | 10,965 | 62,160 |
| Kansas City, Kans. | 9,369 | 7,157 | 3,133 | 2,387 | 6,649 | 10,866 | 20,640 | 32,564 | 57,818 | 40,309 | 11,696 | | 214,863 |
| Louisville, Ky. | | | 523 | | | 1,964 | 9,588 | 11,256 | 9,263 | 2,401 | | | 26,627 |
| National Stockyards, Ill. | 24 | | | | 604 | 1,977 | 4,920 | 4,140 | 9,253 | | | 2,773 | 26,627 |
| Omaha, Nebr. | 14,068 | 16,688 | 20,963 | 7,966 | 8,160 | 11,188 | 42,107 | 128,524 | 202,691 | 105,689 | 30,361 | 27,190 | 610,915 |
| Sioux City, Iowa | 2,621 | 3,839 | 1,071 | 63 | 129 | 1,329 | 4,452 | 2,354 | 12,550 | 21,248 | 5,447 | 5,247 | 56,575 |
| South St. Joseph, Mo. | 3,965 | 1,409 | 1,102 | | | 104 | 1,456 | 9,460 | 16,884 | 12,006 | 3,739 | 2,839 | 52,248 |
| South St. Paul, Minn. | 1,615 | 1,554 | 101 | 294 | | 357 | 1,536 | 2,763 | 10,476 | 17,279 | 9,923 | 5,114 | 46,032 |
| All other inspected | 2,737 | 1,636 | 1,338 | 3,545 | 2,314 | 3,133 | 4,039 | 12,819 | 8,555 | 19,533 | 7,048 | 4,401 | 71,699 |
| Total | 83,938 | 85,279 | 63,443 | 30,602 | 39,873 | 46,184 | 121,717 | 309,525 | 603,118 | 905,001 | 306,503 | 178,196 | 2,783,704 |
| STATE DESTINATION | | | | | | | | | | | | | |
| Colorado | 9,473 | 8,850 | 4,773 | 3,113 | 5,614 | 1,920 | 4,949 | 3,519 | 60,651 | 352,462 | 118,637 | 35,725 | 609,706 |
| Illinois | 5,943 | 1,833 | 1,178 | 2,224 | 3,126 | 7,118 | 19,424 | 68,175 | 77,134 | 31,427 | 8,119 | 22,900 | 246,296 |
| Indiana | 3,023 | 1,039 | 3,947 | 2,446 | 7,254 | 2,586 | 16,563 | 36,071 | 63,008 | 39,918 | 1,260 | 4,617 | 185,582 |
| Iowa | 3,588 | 6,533 | 2,529 | 2,700 | 691 | 2,635 | 28,153 | 60,123 | 99,976 | 66,505 | 17,485 | 11,413 | 302,361 |
| Kansas | 17,028 | 3,083 | 1,446 | 1,147 | 531 | 7,376 | 7,273 | 24,377 | 51,389 | 40,508 | 11,029 | 13,334 | 178,487 |
| Kentucky | | | 633 | | 337 | 1,995 | 11,033 | 13,706 | 4,396 | 6,867 | | 212 | 33,179 |
| Michigan | 10,391 | 27,420 | 22,511 | 5,906 | 3,452 | 2,212 | 5,719 | 11,450 | 46,246 | 61,452 | 30,962 | 38,537 | 290,268 |
| Minnesota | 545 | 485 | 101 | | | 337 | 2,257 | 2,984 | 8,546 | 8,802 | 3,467 | 3,467 | 32,494 |
| Missouri | 4,354 | 1,710 | 2,321 | 2,651 | 3,625 | 5,403 | 9,985 | 30,282 | 41,271 | 24,874 | 6,373 | 5,377 | 138,326 |
| Nebraska | 30,606 | 22,968 | 19,111 | 9,697 | 9,752 | 5,107 | 9,747 | 42,587 | 107,287 | 238,223 | 85,596 | 31,099 | 606,380 |
| Ohio | | | 370 | 1,316 | 924 | 1,208 | 2,046 | 2,426 | 6,479 | 6,479 | 1,339 | 598 | 25,735 |
| South Dakota | | 121 | | | | | 765 | | | 2,227 | 1,539 | 488 | 11,109 |
| Texas | 1,419 | 751 | 278 | 1,589 | 2,386 | 2,519 | 1,222 | 437 | 6,259 | 2,227 | 3,134 | 2,724 | 25,015 |
| Wisconsin | 2,889 | 2,774 | 1,756 | 2,237 | 403 | 403 | 1,592 | 6,779 | 12,345 | 9,378 | 1,350 | 1,656 | 41,157 |
| All other | 4,021 | 7,237 | 2,499 | 3,721 | 2,237 | 5,345 | 3,121 | 5,844 | 13,571 | 16,170 | 8,044 | 5,769 | 77,619 |
| Total | 83,938 | 85,279 | 63,443 | 30,602 | 39,873 | 46,184 | 121,717 | 309,525 | 603,118 | 905,001 | 306,503 | 178,196 | 2,783,704 |

Division of Statistical and Historical Research. Compiled from Bureau of Animal Industry Inspection records.

TABLE 569.—*Sheep: Estimated price per 100 pounds received by producers, United States, 1910-1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Weight- ed av. |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 5.63 | 5.09 | 5.64 | 6.10 | 5.79 | 5.44 | 5.47 | 4.68 | 4.81 | 4.68 | 4.63 | 4.54 | 5.24 |
| 1911..... | 4.47 | 4.34 | 4.45 | 4.55 | 4.51 | 4.24 | 4.19 | 3.98 | 3.91 | 3.68 | 3.65 | 3.71 | 4.16 |
| 1912..... | 8.89 | 4.01 | 4.12 | 4.57 | 4.74 | 4.52 | 4.21 | 4.26 | 4.11 | 4.19 | 4.05 | 4.21 | 4.24 |
| 1913..... | 4.35 | 4.63 | 4.97 | 5.16 | 4.91 | 4.84 | 4.20 | 4.32 | 4.23 | 4.16 | 4.27 | 4.46 | 4.55 |
| Av. 1910-1913... | 4.58 | 4.52 | 4.80 | 5.10 | 4.99 | 4.76 | 4.52 | 4.31 | 4.26 | 4.18 | 4.15 | 4.23 | 4.55 |
| 1914..... | 4.67 | 4.67 | 4.77 | 4.96 | 4.87 | 4.70 | 4.75 | 4.87 | 4.80 | 4.81 | 4.68 | 4.95 | 4.79 |
| 1915..... | 4.95 | 5.14 | 5.36 | 5.60 | 5.54 | 5.43 | 5.35 | 5.16 | 5.06 | 5.18 | 5.18 | 5.38 | 5.27 |
| 1916..... | 5.62 | 5.90 | 6.35 | 6.61 | 6.66 | 6.54 | 6.33 | 6.22 | 6.25 | 6.20 | 6.41 | 6.77 | 6.29 |
| 1917..... | 7.33 | 8.17 | 9.21 | 9.69 | 10.15 | 9.84 | 9.32 | 9.33 | 10.05 | 10.24 | 10.20 | 10.44 | 9.45 |
| 1918..... | 10.55 | 10.75 | 11.41 | 11.98 | 12.32 | 11.56 | 11.04 | 10.99 | 10.79 | 10.35 | 10.11 | 9.46 | 10.95 |
| 1919..... | 9.68 | 9.95 | 10.45 | 11.33 | 10.93 | 10.34 | 9.25 | 9.06 | 8.69 | 8.46 | 8.35 | 8.53 | 9.63 |
| 1920..... | 9.34 | 9.97 | 10.25 | 10.66 | 10.34 | 9.13 | 8.21 | 7.54 | 7.24 | 6.62 | 6.20 | 5.54 | 8.51 |
| Av. 1914-1920... | 7.43 | 7.79 | 8.26 | 8.69 | 8.69 | 8.22 | 7.75 | 7.60 | 7.55 | 7.41 | 7.30 | 7.30 | 7.84 |
| 1921..... | 5.30 | 5.01 | 5.27 | 5.11 | 5.11 | 4.74 | 4.34 | 4.38 | 4.11 | 3.96 | 3.84 | 4.10 | 4.65 |
| 1922..... | 4.57 | 5.71 | 6.51 | 6.43 | 6.65 | 6.09 | 6.11 | 5.98 | 5.70 | 5.93 | 6.02 | 6.27 | 5.96 |
| 1923..... | 6.88 | 6.83 | 7.06 | 7.20 | 6.92 | 6.43 | 6.43 | 6.22 | 6.57 | 6.33 | 6.20 | 6.39 | 6.05 |
| 1924..... | 6.71 | 6.82 | 7.22 | 7.45 | 7.33 | 7.09 | 6.60 | 6.32 | 6.30 | 6.32 | 6.39 | 6.84 | 6.81 |
| 1925..... | 7.86 | 8.41 | 8.20 | 8.42 | 7.53 | 7.04 | 7.17 | 7.32 | 7.27 | 7.31 | 7.51 | 7.79 | 7.70 |

Division of Crop and Livestock Estimates.

TABLE 570.—*Lambs: Estimated price per 100 pounds received by producers, United States, 1910-1925*

| Year beginning June | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | Weight- ed av. |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1910..... | 7.13 | 6.71 | 5.70 | 5.85 | 5.78 | 5.54 | 5.60 | 5.71 | 5.44 | 5.49 | 5.77 | 5.74 | 5.79 |
| 1911..... | 5.51 | 5.42 | 5.25 | 5.02 | 4.68 | 4.68 | 4.93 | 5.22 | 5.15 | 5.38 | 5.98 | 6.16 | 5.28 |
| 1912..... | 6.02 | 5.74 | 5.60 | 5.49 | 5.42 | 5.37 | 5.70 | 6.03 | 6.34 | 6.56 | 6.59 | 6.66 | 5.96 |
| 1913..... | 6.36 | 6.05 | 5.50 | 5.51 | 5.51 | 5.64 | 5.85 | 6.16 | 6.18 | 6.31 | 6.47 | 6.49 | 6.03 |
| Av. 1910-1913..... | 6.28 | 5.98 | 5.51 | 5.47 | 5.35 | 5.31 | 5.52 | 5.78 | 5.78 | 5.94 | 6.20 | 6.20 | 5.76 |
| 1914..... | 6.47 | 6.55 | 6.26 | 6.27 | 6.09 | 6.14 | 6.33 | 6.47 | 6.67 | 6.06 | 7.35 | 7.32 | 6.49 |
| 1915..... | 7.26 | 7.21 | 6.70 | 6.71 | 6.70 | 6.76 | 7.02 | 7.29 | 7.78 | 8.10 | 8.68 | 8.49 | 7.38 |
| 1916..... | 8.36 | 8.16 | 8.15 | 8.22 | 8.02 | 8.41 | 8.72 | 9.59 | 10.51 | 11.46 | 12.03 | 12.51 | 9.50 |
| 1917..... | 12.64 | 11.19 | 12.08 | 13.06 | 14.09 | 13.79 | 13.81 | 13.83 | 13.77 | 14.11 | 15.34 | 15.30 | 13.00 |
| 1918..... | 14.08 | 14.20 | 14.20 | 13.73 | 13.20 | 12.54 | 12.44 | 12.71 | 13.17 | 14.03 | 14.61 | 14.34 | 13.65 |
| 1919..... | 13.89 | 13.09 | 12.91 | 12.25 | 11.47 | 11.45 | 11.85 | 12.91 | 14.08 | 14.17 | 14.63 | 14.26 | 13.05 |
| 1920..... | 12.82 | 11.79 | 10.84 | 10.31 | 9.65 | 9.37 | 8.46 | 8.44 | 7.76 | 7.90 | 7.65 | 7.78 | 9.41 |
| Av. 1914-1920..... | 10.92 | 10.31 | 10.16 | 10.08 | 9.59 | 9.78 | 9.80 | 10.18 | 10.53 | 10.83 | 11.44 | 11.44 | 10.44 |
| 1921..... | 7.59 | 7.37 | 6.99 | 6.27 | 5.98 | 6.12 | 6.60 | 7.33 | 8.87 | 10.21 | 10.64 | 10.39 | 7.88 |
| 1922..... | 9.87 | 9.55 | 9.39 | 9.43 | 10.06 | 10.30 | 10.49 | 10.69 | 10.83 | 11.01 | 10.69 | 11.00 | 10.30 |
| 1923..... | 10.72 | 10.60 | 9.96 | 10.28 | 10.17 | 10.01 | 10.10 | 10.19 | 10.53 | 11.22 | 11.32 | 11.43 | 10.64 |
| 1924..... | 11.21 | 10.50 | 10.15 | 10.18 | 10.35 | 10.55 | 10.96 | 12.69 | 13.13 | 13.48 | 12.22 | 11.99 | 11.45 |
| 1925..... | 11.62 | 11.71 | 11.80 | 11.95 | 12.04 | 12.20 | 12.67 | ----- | ----- | ----- | ----- | ----- | ----- |

Division of Crop and Livestock Estimates.

TABLE 571.—*Farm prices of sheep, per head, by ages, United States, January 1, 1912-1926*

| Jan. 1— | Under 1 year old | Ewes 1 year and over | Weth- ers 1 year and over | Rams | Jan. 1— | Under 1 year old | Ewes 1 year and over | Weth- ers 1 year and over | Rams |
|-----------|------------------------|-------------------------------|---------------------------------------|--------------|-----------|------------------------|-------------------------------|---------------------------------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1912..... | 2.64 | 3.45 | 3.43 | 8.26 | 1920..... | 8.06 | 11.03 | 9.00 | 21.63 |
| 1913..... | 3.11 | 3.98 | 3.93 | 8.80 | 1921..... | 5.34 | 6.37 | 5.93 | 15.10 |
| 1914..... | 3.22 | 4.09 | 4.06 | 8.49 | 1922..... | 4.24 | 4.84 | 4.07 | 11.37 |
| 1915..... | 3.62 | 4.59 | 4.48 | 9.01 | 1923..... | 6.66 | 7.69 | 6.05 | 14.23 |
| 1916..... | 4.13 | 5.35 | 5.02 | 10.32 | 1924..... | 6.89 | 8.08 | 8.95 | 15.51 |
| 1917..... | 5.63 | 7.48 | 6.78 | 13.62 | 1925..... | 8.38 | 10.01 | 7.32 | 16.97 |
| 1918..... | 9.06 | 12.70 | 11.26 | 20.84 | 1926..... | 8.89 | 10.97 | 7.87 | 18.48 |
| 1919..... | 8.82 | 12.44 | 11.02 | 21.90 | | | | | |

Division of Crop and Livestock Estimates.

TABLE 572.—*Sheep: Estimated farm price per 100 pounds received by producers, by States, 1925*

| State | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Average |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Maine..... | 6.80 | 6.90 | 7.90 | 7.10 | 7.80 | 7.50 | 7.30 | 6.70 | 6.00 | 7.20 | 6.10 | 6.50 | 6.98 |
| New Hampshire..... | 6.50 | 6.30 | 6.50 | 6.00 | ----- | ----- | 6.50 | 6.50 | 5.70 | 5.50 | 5.00 | 6.00 | 6.05 |
| Vermont..... | 4.80 | 4.80 | 5.40 | 5.20 | ----- | 5.00 | 5.00 | 4.50 | 4.80 | 4.00 | 4.50 | 6.00 | 4.96 |
| Massachusetts..... | ----- | ----- | ----- | ----- | ----- | ----- | 6.00 | ----- | 6.50 | ----- | 5.00 | 6.50 | 6.00 |
| Rhode Island..... | ----- | 6.50 | 6.50 | 7.00 | 7.00 | 6.50 | ----- | 7.50 | 7.00 | 7.00 | 7.00 | 7.50 | 6.95 |
| Connecticut..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 7.00 | 8.00 | ----- | 9.00 | 8.00 | 8.00 |
| New York..... | 6.60 | 7.00 | 6.50 | 6.20 | 5.90 | 6.20 | 6.10 | 5.80 | 6.00 | 6.20 | 6.00 | 6.40 | 6.29 |
| New Jersey..... | ----- | ----- | 7.30 | 7.80 | ----- | ----- | ----- | 9.00 | 5.50 | 5.50 | ----- | 6.00 | 6.85 |
| Pennsylvania..... | 6.40 | 7.40 | 7.90 | 8.20 | 7.40 | 6.20 | 7.00 | 6.30 | 6.30 | 6.80 | 7.20 | 6.80 | 6.99 |
| Ohio..... | 7.00 | 7.20 | 7.40 | 7.00 | 7.10 | 5.60 | 6.00 | 6.00 | 6.50 | 6.30 | 6.30 | 6.80 | 6.60 |
| Indiana..... | 6.40 | 6.80 | 6.00 | 6.20 | 5.20 | 4.00 | 5.10 | 5.20 | 5.50 | 5.30 | 5.40 | 6.10 | 5.68 |
| Illinois..... | 7.90 | 7.90 | 7.70 | 7.80 | 6.40 | 5.20 | 5.80 | 6.50 | 7.10 | 6.80 | 6.30 | 7.50 | 6.91 |
| Michigan..... | 6.50 | 7.10 | 7.80 | 7.20 | 6.40 | 5.80 | 6.30 | 5.50 | 6.00 | 6.90 | 6.00 | 6.50 | 6.50 |
| Wisconsin..... | 6.50 | 6.50 | 7.10 | 6.20 | 6.70 | 5.60 | 5.60 | 5.80 | 5.80 | 5.70 | 5.70 | 6.40 | 6.13 |
| Minnesota..... | 7.20 | 7.00 | 8.20 | 8.10 | 7.10 | 6.80 | 7.30 | 6.90 | 7.20 | 7.00 | 6.90 | 7.60 | 7.28 |
| Iowa..... | 7.80 | 8.00 | 8.00 | 7.10 | 7.40 | 6.30 | 7.30 | 6.50 | 6.60 | 7.20 | 7.20 | 8.50 | 7.32 |
| Missouri..... | 7.00 | 7.50 | 6.90 | 7.50 | 7.00 | 5.70 | 5.80 | 5.50 | 6.30 | 5.80 | 6.80 | 7.90 | 6.64 |
| North Dakota..... | 7.20 | 7.50 | 8.50 | 7.50 | 8.00 | 7.10 | 7.50 | 6.90 | 6.30 | 6.90 | 7.40 | 7.50 | 7.28 |
| South Dakota..... | 8.10 | 10.00 | 9.40 | 8.40 | 8.50 | 6.50 | 7.20 | 7.60 | 7.90 | 7.90 | 7.40 | 9.00 | 8.10 |
| Nebraska..... | 9.00 | 8.50 | 9.50 | 9.00 | 9.50 | 8.10 | 8.20 | 7.00 | 7.00 | 7.00 | 7.60 | 8.80 | 8.36 |
| Kansas..... | 8.10 | 8.00 | 7.80 | 8.80 | 7.90 | 7.20 | 7.60 | 6.70 | 7.70 | 7.20 | 7.60 | 8.60 | 7.77 |
| Delaware..... | ----- | ----- | ----- | ----- | ----- | ----- | 7.00 | 6.00 | 6.00 | 6.00 | 6.60 | ----- | 6.32 |
| Maryland..... | 6.50 | 7.00 | 7.40 | 6.50 | 6.80 | 6.80 | 5.00 | 5.50 | 6.30 | 5.70 | 6.50 | 6.50 | 6.38 |
| Virginia..... | 6.70 | 6.70 | 6.20 | 6.60 | 5.80 | 5.40 | 5.70 | 5.70 | 6.00 | 5.50 | 7.00 | 6.60 | 6.16 |
| West Virginia..... | 6.30 | 7.50 | 7.40 | 6.50 | 7.60 | 7.90 | 6.90 | 7.20 | 6.50 | 6.70 | 6.90 | 7.40 | 7.07 |
| North Carolina..... | 6.50 | 6.30 | 7.30 | 7.40 | 7.50 | 6.70 | 6.00 | 7.00 | 6.00 | 7.00 | 9.00 | 7.70 | 7.03 |
| South Carolina..... | 6.90 | 7.00 | 8.60 | 8.00 | ----- | ----- | 6.50 | ----- | 6.00 | 7.00 | 9.00 | 8.30 | 7.56 |
| Georgia..... | 5.50 | 5.80 | 7.60 | 7.40 | 8.00 | 6.00 | 6.60 | 5.90 | 6.00 | 6.00 | 6.00 | 6.50 | 6.44 |
| Florida..... | ----- | ----- | 4.50 | 5.00 | 5.00 | 4.00 | 5.70 | 4.00 | 5.00 | 5.30 | 6.00 | 5.00 | 4.95 |
| Kentucky..... | 6.30 | 6.80 | 7.00 | 7.00 | 6.20 | 5.60 | 5.50 | 6.30 | 6.10 | 6.00 | 6.10 | 6.50 | 6.28 |
| Tennessee..... | 6.00 | 6.00 | 5.60 | 6.40 | 5.40 | 5.40 | 5.80 | 6.00 | 6.30 | 5.50 | 5.60 | 5.90 | 5.83 |
| Alabama..... | 5.50 | ----- | 7.70 | 8.00 | 5.90 | 6.50 | 6.50 | ----- | 5.50 | 4.50 | 6.70 | 5.60 | 6.21 |
| Mississippi..... | 4.60 | 5.30 | 4.50 | 4.00 | 4.50 | 4.10 | 5.20 | 5.20 | 4.80 | 4.50 | 5.60 | 4.60 | 4.73 |
| Arkansas..... | 4.90 | 4.80 | 5.50 | ----- | 5.60 | 4.30 | 4.40 | 5.90 | 6.90 | 5.50 | 4.80 | 5.50 | 5.23 |
| Louisiana..... | ----- | ----- | ----- | 5.00 | ----- | ----- | 7.20 | ----- | 5.90 | ----- | 6.00 | 7.00 | 6.18 |
| Oklahoma..... | ----- | ----- | 8.00 | 8.00 | 9.00 | 6.00 | ----- | 7.20 | 6.80 | 6.00 | 7.00 | 8.30 | 7.37 |
| Texas..... | 7.60 | 7.80 | 7.70 | 7.70 | 7.90 | 6.10 | 7.90 | 7.70 | 7.20 | 7.10 | 6.70 | 7.70 | 7.44 |
| Montana..... | 10.00 | 9.60 | 8.80 | 9.00 | 8.40 | 7.50 | 7.30 | 7.70 | 8.20 | 8.70 | 8.90 | 8.50 | 8.55 |
| Idaho..... | 6.50 | 8.00 | 5.00 | 7.00 | 7.30 | 6.10 | 6.60 | 7.30 | 7.40 | 7.80 | 7.00 | 7.70 | 6.98 |
| Wyoming..... | 10.00 | 10.70 | 10.00 | 10.00 | 11.00 | 10.00 | 8.60 | 10.00 | 8.20 | 8.30 | 9.00 | 9.50 | 9.61 |
| Colorado..... | 8.40 | 9.00 | 8.60 | 10.00 | 9.00 | 7.00 | 7.00 | 7.60 | 8.50 | 7.60 | 7.70 | 7.70 | 8.18 |
| New Mexico..... | ----- | 9.80 | ----- | 9.50 | 10.00 | 8.80 | 8.80 | 8.30 | 7.00 | 8.00 | 7.20 | 7.60 | 8.45 |
| Arizona..... | ----- | 8.40 | 7.10 | 9.30 | 9.50 | 7.00 | 8.20 | 8.20 | 6.90 | 5.30 | 6.00 | 6.00 | 7.35 |
| Utah..... | 9.00 | 9.50 | 10.50 | 9.60 | 8.60 | 8.80 | 8.00 | 8.10 | 8.50 | 8.10 | 8.90 | 8.60 | 8.85 |
| Nevada..... | ----- | ----- | 7.00 | 8.90 | 8.50 | 7.00 | ----- | ----- | ----- | 8.00 | 8.50 | 8.50 | 8.06 |
| Washington..... | 7.80 | 9.00 | 10.10 | 9.10 | 7.30 | 6.70 | 7.40 | 6.70 | 7.80 | 7.30 | 7.60 | 7.50 | 7.86 |
| Oregon..... | 8.10 | 8.00 | 9.70 | 9.20 | 7.60 | 6.70 | 6.60 | 7.70 | 7.20 | 7.70 | 8.90 | 7.40 | 7.87 |
| California..... | 7.80 | 8.60 | 10.20 | 9.20 | 7.60 | 7.90 | 7.70 | 7.40 | 7.70 | 8.10 | 9.00 | 9.10 | 8.36 |
| United States..... | 7.86 | 8.41 | 8.20 | 8.42 | 7.53 | 7.04 | 7.17 | 7.32 | 7.27 | 7.31 | 7.51 | 7.79 | 7.65 |

Division of Crop and Livestock Estimates.

TABLE 573.—*Lambs: Estimated farm price per 100 pounds, received by producers, by States, 1925*

| State | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Aver- age |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Maine..... | 10.80 | 11.40 | 13.00 | 12.20 | 12.30 | 12.00 | 13.10 | 12.30 | 11.00 | 10.70 | 10.80 | 12.20 | 11.82 |
| New Hampshire..... | | 12.20 | 12.00 | 12.00 | 12.00 | 12.50 | | | 12.00 | 11.50 | 12.00 | 12.10 | 12.03 |
| Vermont..... | 11.00 | 11.50 | 12.50 | 11.00 | 11.00 | 11.50 | 10.20 | 11.00 | 11.50 | 11.70 | 12.00 | 11.50 | 11.37 |
| Massachusetts..... | | | | | | | 13.00 | | 13.00 | 13.00 | 11.00 | 11.20 | 12.24 |
| Rhode Island..... | | 13.50 | 14.50 | 13.50 | 13.50 | | | | 13.00 | 13.00 | 13.50 | 13.00 | 13.44 |
| Connecticut..... | | | | | | 15.00 | | | 14.00 | 14.00 | 14.00 | 13.50 | 14.10 |
| New York..... | 14.00 | 13.60 | 14.00 | 13.40 | 12.40 | 12.60 | 12.50 | 11.90 | 12.30 | 12.40 | 12.40 | 12.90 | 12.87 |
| New Jersey..... | | | 15.20 | 15.00 | | 12.70 | | | 12.50 | 11.00 | | 12.00 | 13.07 |
| Pennsylvania..... | 12.00 | 13.20 | 13.10 | 13.50 | 13.50 | 12.50 | 11.70 | 11.60 | 11.60 | 11.80 | 11.90 | 12.00 | 12.42 |
| Ohio..... | 14.10 | 14.60 | 14.60 | 13.30 | 12.80 | 12.00 | 11.80 | 11.70 | 12.00 | 12.20 | 12.20 | 13.00 | 12.86 |
| Indiana..... | 13.00 | 13.70 | 13.50 | 12.10 | 12.30 | 11.60 | 11.80 | 11.50 | 11.80 | 11.80 | 11.90 | 12.80 | 12.32 |
| Illinois..... | 13.40 | 13.80 | 14.40 | 13.10 | 13.40 | 12.90 | 12.50 | 12.80 | 12.80 | 12.30 | 12.70 | 13.50 | 12.13 |
| Michigan..... | 13.50 | 13.90 | 14.90 | 13.00 | 11.90 | 12.20 | 12.60 | 11.90 | 12.40 | 12.60 | 12.60 | 13.40 | 12.91 |
| Wisconsin..... | 13.00 | 13.20 | 13.90 | 12.10 | 11.40 | 11.40 | 12.00 | 12.10 | 11.70 | 12.40 | 12.30 | 12.80 | 12.36 |
| Minnesota..... | 13.50 | 13.30 | 13.40 | 12.40 | 11.90 | 11.80 | 12.30 | 12.20 | 11.80 | 12.20 | 12.30 | 13.40 | 12.54 |
| Iowa..... | 14.30 | 14.60 | 14.30 | 12.60 | 12.70 | 12.20 | 12.50 | 12.30 | 12.60 | 12.60 | 12.50 | 13.50 | 13.06 |
| Missouri..... | 13.80 | 13.40 | 12.80 | 12.50 | 12.40 | 11.80 | 11.70 | 11.40 | 11.60 | 11.60 | 11.90 | 12.80 | 12.31 |
| North Dakota..... | 12.00 | 11.70 | 13.10 | 11.30 | 11.90 | 11.10 | 11.50 | 11.40 | 11.40 | 13.70 | 11.60 | 12.40 | 11.76 |
| South Dakota..... | 13.50 | 14.70 | 13.80 | 12.80 | 12.10 | 12.00 | 12.70 | 12.00 | 12.30 | 12.40 | 12.50 | 13.00 | 12.82 |
| Nebraska..... | 15.00 | 14.70 | 14.60 | 13.00 | 12.70 | 12.10 | 12.30 | 12.80 | 12.50 | 13.50 | 12.90 | 13.50 | 13.26 |
| Kansas..... | 13.80 | 14.00 | 13.10 | 12.80 | 12.20 | 12.00 | 12.00 | 12.10 | 12.60 | 12.00 | 12.30 | 12.90 | 12.65 |
| Delaware..... | | | | | | 13.80 | 14.00 | | | 11.00 | 12.60 | | 12.85 |
| Maryland..... | 13.00 | 14.00 | 14.40 | 14.40 | 14.40 | 13.30 | 13.30 | 12.80 | 12.40 | 13.00 | 13.00 | 14.00 | 13.50 |
| Virginia..... | 11.80 | 12.00 | 12.20 | 12.80 | 12.70 | 12.00 | 11.00 | 11.60 | 11.60 | 11.50 | 12.00 | 12.20 | 12.08 |
| West Virginia..... | 10.00 | 11.10 | 11.60 | 11.10 | 11.20 | 11.70 | 11.30 | 11.20 | 11.40 | 11.60 | 11.40 | 11.60 | 11.27 |
| North Carolina..... | 10.00 | | 11.30 | 11.10 | 10.60 | 10.50 | 9.80 | 10.00 | 11.00 | 10.90 | 11.60 | 10.40 | 10.65 |
| South Carolina..... | 10.00 | 10.00 | 10.20 | 9.40 | | 7.60 | 8.30 | 8.50 | 9.00 | 10.00 | 11.00 | 10.00 | 9.45 |
| Georgia..... | 7.40 | 9.00 | 9.80 | 10.20 | | 8.40 | 9.20 | 8.30 | 9.00 | 7.70 | 10.00 | 9.50 | 8.95 |
| Florida..... | | | 5.70 | 6.00 | | 5.00 | 5.70 | | | 7.00 | 8.00 | | 6.78 |
| Kentucky..... | 11.00 | 12.00 | 13.00 | 12.50 | 12.60 | 11.80 | 11.80 | 12.40 | 12.00 | 11.70 | 11.60 | 12.50 | 12.08 |
| Tennessee..... | 10.10 | 10.60 | 12.00 | 10.80 | 11.50 | 11.20 | 10.40 | 10.00 | 9.70 | 9.50 | 9.50 | 10.30 | 10.47 |
| Alabama..... | 7.30 | | | 10.10 | 11.00 | 8.10 | 9.10 | | 6.50 | 6.80 | 8.60 | 7.60 | 8.32 |
| Mississippi..... | 6.50 | 7.60 | 6.60 | 6.20 | 7.10 | 6.80 | 9.90 | | 6.10 | 6.20 | 9.00 | 6.90 | 7.17 |
| Arkansas..... | 6.60 | 6.60 | 7.50 | 8.50 | 7.30 | 6.20 | 9.00 | 7.10 | 8.70 | 7.50 | 6.70 | 8.50 | 7.52 |
| Louisiana..... | | | | | | | 11.50 | | 6.70 | 7.00 | 9.00 | 9.50 | 8.74 |
| Oklahoma..... | | | 11.80 | 12.00 | 11.00 | | 11.00 | 9.70 | 10.90 | 10.10 | 10.50 | 12.00 | 11.00 |
| Texas..... | 10.00 | 10.10 | 10.40 | 10.40 | 10.40 | 9.50 | 11.60 | 10.00 | 10.40 | 10.10 | 10.20 | 11.60 | 10.39 |
| Montana..... | 12.80 | 12.50 | 13.10 | 11.70 | 10.70 | 10.60 | 10.90 | 11.50 | 11.50 | 12.10 | 12.90 | 12.20 | 11.85 |
| Idaho..... | 10.50 | 12.00 | 12.20 | 11.00 | 12.10 | 10.80 | 10.80 | 11.70 | 11.30 | 11.60 | 11.80 | 12.00 | 11.50 |
| Wyoming..... | 12.00 | 12.50 | 13.30 | 12.30 | 12.80 | 13.00 | 12.10 | 12.20 | 12.40 | 12.10 | 13.00 | 13.00 | 12.56 |
| Colorado..... | 14.00 | 14.50 | 14.70 | 12.60 | 12.70 | 12.80 | 12.50 | 12.90 | 13.20 | 12.90 | 13.40 | 13.40 | 13.30 |
| New Mexico..... | | 12.00 | | 12.50 | 12.50 | 11.10 | 11.20 | 12.00 | 12.10 | 12.30 | 10.30 | 11.50 | 11.78 |
| Arizona..... | | 13.00 | 9.20 | 10.00 | 13.00 | 11.00 | 11.80 | 11.50 | 10.60 | 10.70 | 10.50 | 11.50 | 11.07 |
| Utah..... | 12.00 | 12.60 | 13.10 | 11.90 | 11.10 | 11.50 | 11.60 | 11.10 | 11.80 | 11.60 | 11.40 | 12.10 | 11.82 |
| Nevada..... | | | 14.00 | 11.00 | 11.00 | 11.20 | 11.00 | 11.50 | 11.50 | 12.10 | 12.90 | 13.60 | 11.98 |
| Washington..... | 11.50 | 13.00 | 13.60 | 12.10 | 11.70 | 10.00 | 10.90 | 11.50 | 11.00 | 11.00 | 10.90 | 10.70 | 11.49 |
| Oregon..... | 10.30 | 11.00 | 12.40 | 11.30 | 10.50 | 9.50 | 9.80 | 10.70 | 10.80 | 11.10 | 11.30 | 11.50 | 10.85 |
| California..... | 12.50 | 13.50 | 14.10 | 13.00 | 11.90 | 11.60 | 11.30 | 11.70 | 11.80 | 12.40 | 12.70 | 12.90 | 12.45 |
| United States..... | 12.69 | 13.13 | 13.48 | 12.22 | 11.99 | 11.62 | 11.71 | 11.80 | 11.95 | 12.04 | 12.20 | 12.67 | 12.29 |

Division of Crop and Livestock Estimates.

TABLE 574.—*Sheep and lambs, native and western: Average price per 100 pounds Chicago, by months, 1909-1925*

SHEEP

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average ¹ |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1909..... | 4.90 | 4.92 | 5.28 | 5.60 | 6.05 | 5.28 | 4.68 | 4.50 | 4.65 | 4.35 | 4.52 | 4.92 | 4.97 |
| 1910..... | 5.55 | 6.50 | 7.60 | 7.60 | 6.55 | 5.10 | 4.20 | 4.20 | 4.25 | 3.95 | 3.70 | 3.90 | 5.25 |
| 1911..... | 4.10 | 4.15 | 4.70 | 4.20 | 4.45 | 3.80 | 3.95 | 3.50 | 3.80 | 3.65 | 3.45 | 3.55 | 3.94 |
| 1912..... | 4.30 | 4.15 | 5.30 | 5.90 | 6.15 | 4.50 | 4.25 | 4.05 | 4.15 | 4.00 | 4.05 | 4.45 | 4.90 |
| 1913..... | 5.35 | 5.90 | 6.40 | 6.45 | 5.85 | 5.05 | 4.50 | 4.35 | 4.30 | 4.55 | 4.00 | 4.95 | 5.19 |
| Av. 1909-1913..... | 4.84 | 5.12 | 5.56 | 5.95 | 5.81 | 4.75 | 4.32 | 4.12 | 4.23 | 4.10 | 4.09 | 4.35 | 4.70 |
| 1914..... | 5.50 | 5.70 | 5.95 | 6.25 | 5.05 | 5.10 | 5.40 | 5.55 | 5.30 | 5.30 | 5.65 | 5.40 | 5.56 |
| 1915..... | 5.80 | 6.45 | 7.45 | 7.70 | 7.35 | 5.50 | 6.05 | 6.25 | 5.75 | 6.00 | 5.85 | 6.20 | 6.36 |
| 1916..... | 7.20 | 7.75 | 8.25 | 8.15 | 8.20 | 7.35 | 7.25 | 7.35 | 7.80 | 7.50 | 8.00 | 9.00 | 7.82 |
| 1917..... | 10.00 | 11.25 | 11.70 | 12.10 | 13.00 | 10.00 | 9.10 | 9.75 | 11.15 | 11.65 | 11.25 | 11.50 | 11.04 |
| 1918..... | 12.20 | 12.35 | 13.60 | 15.65 | 14.75 | 13.45 | 12.65 | 13.15 | 11.80 | 10.45 | 9.85 | 9.40 | 12.44 |
| 1919..... | 10.35 | 11.35 | 14.05 | 14.50 | 12.25 | 9.30 | 9.70 | 9.75 | 8.30 | 8.15 | 8.30 | 9.60 | 10.17 |
| 1920..... | 11.80 | 13.35 | 13.40 | 14.25 | 12.25 | 8.80 | 8.90 | 7.70 | 6.85 | 6.45 | 5.75 | 4.70 | 9.49 |
| Av. 1914-1920..... | 8.98 | 9.74 | 10.63 | 11.23 | 10.49 | 8.45 | 8.44 | 8.50 | 8.14 | 7.93 | 7.81 | 7.97 | 9.03 |
| 1921..... | 5.07 | 4.90 | 6.14 | 6.58 | 6.33 | 4.46 | 5.08 | 4.53 | 4.49 | 4.71 | 4.40 | 4.92 | 5.13 |
| 1922..... | 7.26 | 8.28 | 9.17 | 9.33 | 7.35 | 5.59 | 6.12 | 5.63 | 6.05 | 6.25 | 7.48 | 7.28 | 7.15 |
| 1923..... | 7.72 | 8.08 | 8.64 | 8.90 | 6.74 | 6.00 | 5.16 | 7.09 | 7.29 | 6.35 | 6.89 | 7.37 | 7.10 |
| 1924..... | 8.16 | 9.12 | 10.50 | 10.21 | 8.11 | 5.82 | 5.66 | 6.18 | 5.46 | 6.60 | 6.62 | 8.45 | 7.57 |
| 1925..... | 10.33 | 9.69 | 9.22 | 7.84 | 7.96 | 6.25 | 7.48 | 6.83 | 6.95 | 7.64 | 8.16 | 9.57 | 8.16 |
| Av. 1921-1925..... | 7.71 | 8.01 | 8.73 | 8.57 | 7.30 | 5.42 | 5.90 | 6.05 | 6.05 | 6.31 | 6.71 | 7.52 | 7.02 |

LAMBS

| | | | | | | | | | | | | | |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1909..... | 7.35 | 7.50 | 7.65 | 7.85 | 8.25 | 7.60 | 7.70 | 7.35 | 6.80 | 6.50 | 7.10 | 7.50 | 7.43 |
| 1910..... | 8.30 | 8.65 | 9.40 | 9.10 | 8.40 | 7.60 | 7.10 | 6.70 | 6.80 | 6.65 | 6.25 | 6.10 | 7.59 |
| 1911..... | 6.20 | 6.05 | 6.10 | 5.50 | 5.85 | 6.10 | 6.30 | 6.35 | 5.70 | 5.75 | 5.14 | 5.75 | 5.93 |
| 1912..... | 6.50 | 6.15 | 7.30 | 7.95 | 8.30 | 6.90 | 7.25 | 7.10 | 7.00 | 6.75 | 7.15 | 7.75 | 7.18 |
| 1913..... | 8.55 | 8.50 | 8.60 | 8.40 | 7.40 | 6.85 | 7.55 | 7.40 | 7.15 | 7.05 | 7.25 | 7.60 | 7.99 |
| Av. 1909-1913..... | 7.38 | 7.37 | 7.81 | 7.79 | 7.64 | 7.01 | 7.18 | 6.98 | 6.69 | 6.54 | 6.66 | 6.94 | 7.16 |
| 1914..... | 7.90 | 7.60 | 7.65 | 7.60 | 8.10 | 7.95 | 8.45 | 8.15 | 7.80 | 7.80 | 8.75 | 8.30 | 7.99 |
| 1915..... | 8.40 | 8.75 | 9.55 | 9.65 | 10.10 | 9.20 | 8.75 | 8.90 | 8.75 | 8.75 | 8.80 | 9.00 | 9.05 |
| 1916..... | 10.30 | 10.90 | 11.10 | 10.45 | 10.75 | 9.55 | 10.55 | 10.75 | 10.60 | 10.15 | 11.40 | 12.70 | 10.77 |
| 1917..... | 13.85 | 14.30 | 14.25 | 14.40 | 16.90 | 15.25 | 15.65 | 15.50 | 17.50 | 17.40 | 16.75 | 16.45 | 15.68 |
| 1918..... | 17.20 | 16.90 | 17.55 | 19.20 | 18.00 | 16.85 | 18.50 | 17.50 | 17.25 | 15.35 | 15.10 | 14.60 | 16.98 |
| 1919..... | 16.25 | 17.40 | 19.05 | 18.15 | 16.25 | 14.05 | 17.10 | 16.75 | 14.85 | 15.00 | 14.50 | 15.40 | 16.31 |
| 1920..... | 19.50 | 19.95 | 18.80 | 18.80 | 17.40 | 14.25 | 15.55 | 13.20 | 13.30 | 12.35 | 11.53 | 10.96 | 15.47 |
| Av. 1914-1920..... | 13.34 | 13.64 | 13.99 | 14.04 | 13.93 | 12.44 | 13.51 | 12.96 | 12.86 | 12.37 | 12.40 | 12.63 | 13.18 |
| 1921..... | 10.72 | 9.07 | 9.91 | 9.69 | 11.07 | 10.67 | 10.09 | 9.46 | 8.86 | 8.66 | 9.25 | 10.80 | 9.85 |
| 1922..... | 12.67 | 14.49 | 15.39 | 14.10 | 12.95 | 12.42 | 13.04 | 12.51 | 13.53 | 13.94 | 14.17 | 14.93 | 13.68 |
| 1923..... | 14.09 | 14.85 | 14.56 | 14.42 | 14.12 | 14.81 | 14.22 | 12.89 | 13.52 | 12.93 | 12.75 | 12.90 | 13.80 |
| 1924..... | 13.53 | 14.95 | 16.06 | 16.22 | 15.23 | 14.12 | 13.79 | 13.57 | 13.38 | 13.52 | 14.03 | 16.47 | 14.57 |
| 1925..... | 18.28 | 17.59 | 16.28 | 14.85 | 13.06 | 15.86 | 15.11 | 14.88 | 16.19 | 15.20 | 15.44 | 16.15 | 15.66 |
| Av. 1921-1925..... | 13.98 | 14.19 | 14.44 | 13.86 | 13.29 | 13.58 | 13.25 | 12.66 | 12.90 | 12.85 | 13.13 | 14.27 | 13.53 |

Division of Statistical and Historical Research. Figures prior to 1921 for sheep, and prior to November, 1920, for lambs, compiled from Chicago Drovers Journal Yearbook; subsequent figures from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Simple average of monthly average prices.

TABLE 575.—*Sheep: Average price per 100 pounds at six markets, by months, 1925*

CHICAGO

| Classification | January | February | March | April | May | June | Average, January to June |
|---|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to prime..... | Dollars 17.28 | Dollars 16.79 | Dollars 16.04 | Dollars 14.62 | Dollars 12.72 | Dollars 15.06 | Dollars 15.42 |
| Heavy weight (92 lbs. up), medium to prime..... | | | 15.13 | 13.57 | 11.62 | | |
| All weights, cull and common..... | 14.55 | 14.38 | 13.73 | 12.45 | 10.50 | 12.16 | 12.96 |
| Spring lambs— | | | | | | | |
| Medium to choice..... | | | | | 15.21 | | |
| Yearling wethers, medium to prime..... | 15.12 | 14.53 | 13.45 | 11.22 | 10.28 | 12.38 | 12.83 |
| Wethers (2 yrs. old and over), medium to prime..... | 10.64 | 10.42 | 11.04 | 9.72 | 8.29 | 8.88 | 9.83 |
| Ewes— | | | | | | | |
| Common to choice..... | 8.88 | 7.98 | 8.37 | 7.63 | 6.74 | 5.80 | 7.57 |
| Canner and cull..... | 5.11 | 4.56 | 4.79 | 4.41 | 3.30 | 2.82 | 4.16 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice..... | 16.30 | 16.50 | 16.22 | 14.27 | | | |

| Classification | July | August | September | October | November | December | Average, July to December |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to choice..... | Dollars 14.69 | Dollars 14.47 | Dollars 14.73 | Dollars 14.71 | Dollars 15.03 | Dollars 15.74 | Dollars 14.90 |
| Heavy weight (92 lbs. up), medium to choice..... | | | | | | | |
| All weights, cull and common..... | 12.12 | 12.36 | 12.50 | 12.30 | 12.61 | 13.31 | 12.63 |
| Yearling wethers—medium to choice..... | 11.72 | 11.08 | 11.13 | 11.43 | 11.51 | 12.24 | 11.62 |
| Ewes— | | | | | | | |
| Common to choice..... | 6.64 | 6.42 | 6.36 | 6.37 | 6.57 | 7.50 | 6.64 |
| Canner and cull..... | 3.11 | 3.00 | 3.01 | 3.00 | 3.12 | 3.81 | 3.18 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice..... | 14.24 | 14.66 | 14.85 | 14.98 | 14.73 | 15.69 | 14.86 |

EAST ST. LOUIS

| Classification | January | February | March | April | May | June | Average, January to June |
|---|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to prime..... | Dollars 16.90 | Dollars 16.54 | Dollars 15.94 | Dollars 14.30 | Dollars 12.42 | Dollars 14.09 | Dollars 15.03 |
| Heavy weight (92 lbs. up), medium to prime..... | | | | | 10.90 | | |
| All weights, cull and common..... | 14.14 | 14.18 | 14.03 | 12.45 | 9.69 | 10.94 | 12.57 |
| Spring lambs— | | | | | | | |
| Medium to choice..... | | | | | 14.75 | | |
| Yearling wethers, medium to prime..... | 13.66 | 13.64 | 13.16 | 11.22 | 9.51 | 11.04 | 12.04 |
| Wethers (2 yrs. old and over), medium to prime..... | 9.89 | 9.98 | 10.08 | 9.84 | 7.65 | 7.98 | 9.19 |
| Ewes— | | | | | | | |
| Common to choice..... | 8.11 | 7.89 | 8.12 | 7.89 | 5.91 | 4.64 | 7.04 |
| Canner and cull..... | 4.45 | 4.50 | 4.74 | 4.44 | 2.68 | 2.06 | 3.81 |

TABLE 575.—*Sheep: Average price per 100 pounds at six markets, by months, 1925—*
Continued

EAST ST. LOUIS—Continued

| Classification | July | August | September | October | November | December | Average, July to December |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to choice..... | Dollars 13.66 | Dollars 13.83 | Dollars 14.12 | Dollars 14.32 | Dollars 14.49 | Dollars 15.35 | Dollars 14.30 |
| Heavy weight (92 lbs. up), medium to choice..... | 10.51 | 10.98 | 11.26 | 11.92 | 12.06 | 12.66 | 11.56 |
| All weights, cull and common..... | 10.63 | 10.72 | 10.71 | 11.20 | 11.23 | 12.04 | 11.09 |
| Yearling wethers, medium to choice..... | | | | | | | |
| Ewes— | | | | | | | |
| Common to choice..... | 5.22 | 5.79 | 5.75 | 5.72 | 6.09 | 6.90 | 5.91 |
| Canner and cull..... | 2.17 | 2.50 | 2.52 | 2.72 | 2.91 | 3.26 | 2.68 |

FORT WORTH

| Classification | January | February | March | April | May | June | Average January to June |
|---|---------|----------|---------|---------|---------|---------|-------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to prime..... | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| All weights, cull and common..... | | | | | | | |
| Yearling wethers, medium to prime..... | | | | | | | |
| Wethers (2 yrs. old and over), medium to prime..... | 8.44 | 9.25 | 9.19 | 7.61 | 8.00 | 7.34 | 8.30 |
| Ewes— | | | | | | | |
| Common to choice..... | 7.10 | 7.92 | 8.00 | 6.23 | 5.50 | 5.08 | 6.64 |
| Canner and cull..... | 3.37 | 4.40 | 4.50 | 3.42 | 3.00 | 2.72 | 3.57 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice..... | | 13.68 | 13.50 | | | | |

| Classification | July | August | September | October | November | December | Average July to December |
|--|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to choice..... | Dollars 11.99 | Dollars 11.94 | Dollars 12.52 | Dollars 12.75 | Dollars 13.08 | Dollars 14.19 | Dollars 12.74 |
| All weights, cull and common..... | 8.92 | 8.94 | 9.32 | 9.50 | 9.72 | 11.10 | 9.54 |
| Yearling wethers, medium to choice..... | 9.73 | 10.16 | 10.50 | 10.42 | 10.46 | 10.50 | 10.30 |
| Ewes— | | | | | | | |
| Common to choice..... | 5.08 | 5.71 | 6.25 | 6.25 | 6.25 | 6.25 | 5.96 |
| Canner and cull..... | 2.64 | 2.87 | 3.00 | 3.00 | 3.00 | 3.00 | 2.92 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice..... | | | | | | | |

TABLE 575.—*Sheep: Average price per 100 pounds at six markets, by months, 1925—*
Continued

KANSAS CITY

| Classification | January | February | March | April | May | June | Average January to June |
|--|---------------|---------------|---------------|---------------|---------------|---------------|-------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to prime | Dollars 16.67 | Dollars 16.28 | Dollars 15.64 | Dollars 14.16 | Dollars 12.02 | Dollars 14.46 | Dollars 14.87 |
| All weights, cull and common | 14.12 | 13.86 | 13.06 | 11.77 | 9.70 | 11.19 | 12.28 |
| Spring lambs— | | | | | | | |
| Medium to choice | | | | | 14.23 | | |
| Yearling wethers, medium to prime | 13.80 | 13.59 | 12.94 | 11.25 | 9.94 | 10.76 | 12.05 |
| Wethers (2 yrs. old and over), medium to prime | 9.83 | 9.21 | 9.52 | 8.89 | 7.89 | 7.32 | 8.78 |
| Ewes— | | | | | | | |
| Common to choice | 8.61 | 7.78 | 8.22 | 7.59 | 6.44 | 5.32 | 7.33 |
| Canner and cull | 4.84 | 4.42 | 4.48 | 4.17 | 3.15 | 2.44 | 3.92 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice | 14.92 | | | | | | |

| Classification | July | August | September | October | November | December | Average July to December |
|---|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to choice | Dollars 14.09 | Dollars 14.15 | Dollars 14.30 | Dollars 14.30 | Dollars 14.50 | Dollars 14.87 | Dollars 14.37 |
| All weights, cull and common | 10.62 | 11.00 | 11.27 | 11.33 | 11.80 | 12.04 | 11.34 |
| Yearling wethers, medium to choice | 10.77 | 10.99 | 10.94 | 11.00 | 11.47 | 11.90 | 11.18 |
| Ewes— | | | | | | | |
| Common to choice | 5.73 | 5.96 | 6.03 | 6.34 | 6.38 | 6.90 | 6.22 |
| Canner and cull | 2.50 | 2.66 | 2.72 | 2.90 | 3.12 | 3.32 | 2.87 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice | | | 14.10 | 13.95 | 14.11 | | |

OMAHA

| Classification | January | February | March | April | May | June | Average January to June |
|--|---------------|---------------|---------------|---------------|---------------|---------------|-------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to prime | Dollars 16.68 | Dollars 16.14 | Dollars 15.48 | Dollars 14.20 | Dollars 12.37 | Dollars 14.59 | Dollars 14.91 |
| Heavy weight (92 lbs. up), medium to prime | | | 14.53 | 13.36 | 11.18 | | |
| All weights, cull and common | 14.24 | 13.87 | 13.12 | 12.27 | 10.20 | 12.17 | 12.64 |
| Spring lambs— | | | | | | | |
| Medium to choice | | | | | 14.75 | | |
| Yearling wethers, medium to prime | 13.88 | 13.80 | 12.87 | 10.79 | 9.18 | 11.90 | 12.07 |
| Wethers (2 yrs. old and over), medium to prime | 9.06 | 9.01 | 9.72 | 8.93 | 7.46 | 8.48 | 9.08 |
| Ewes— | | | | | | | |
| Common to choice | 8.62 | 7.76 | 8.38 | 7.45 | 6.28 | 5.35 | 7.31 |
| Canner and cull | 5.00 | 4.36 | 4.79 | 4.23 | 2.75 | 2.51 | 3.94 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice | 15.81 | 15.99 | 15.32 | 13.12 | | | |

TABLE 575.—*Sheep: Average price per 100 pounds at six markets, by months, 1925—*
Continued

OMAHA—Continued

| Classification | July | August | September | October | November | December | Average July to December |
|--|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to choice..... | Dollars 14.09 | Dollars 14.08 | Dollars 14.22 | Dollars 14.32 | Dollars 14.42 | Dollars 15.31 | Dollars 14.41 |
| Heavy weight (92 lbs. up), medium to choice..... | 11.67 | 11.94 | 11.86 | 11.77 | 12.04 | 13.00 | 12.05 |
| All weights, cull and common..... | 11.18 | 10.78 | 10.64 | 10.70 | 10.90 | 11.76 | 10.99 |
| Yearling wethers, medium to choice..... | | | | | | | |
| Common to choice..... | 5.92 | 5.78 | 5.88 | 6.13 | 6.28 | 7.12 | 6.18 |
| Canner and cull..... | 3.01 | 2.75 | 2.80 | 2.88 | 2.89 | 3.70 | 3.00 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice..... | 13.18 | 14.03 | 14.30 | 14.48 | 14.79 | 14.98 | 14.29 |
| Feeding ewes, medium to choice..... | | 5.48 | 6.43 | | | | |

SOUTH ST. PAUL

| Classification | January | February | March | April | May | June | Average January to June |
|---|---------------|---------------|---------------|---------------|---------------|---------------|-------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to prime..... | Dollars 16.24 | Dollars 15.80 | Dollars 15.12 | Dollars 13.70 | Dollars 11.86 | Dollars 14.14 | Dollars 14.48 |
| Heavy weight (92 lbs. up), medium to prime..... | | | 14.16 | 12.74 | 10.63 | | |
| All weights, cull and common..... | 13.12 | 13.30 | 12.74 | 11.44 | 9.58 | 11.47 | 11.94 |
| Spring lambs— | | | | | | | |
| Medium to choice..... | | | | | 14.42 | | |
| Yearling wethers, medium to prime..... | 13.73 | 13.43 | 12.58 | 10.50 | 9.26 | 11.63 | 11.86 |
| Wethers (2 yrs. old and over), medium to prime..... | 9.28 | 9.51 | 9.06 | 9.05 | 7.44 | 8.20 | 8.91 |
| Ewes— | | | | | | | |
| Common to choice..... | 7.70 | 7.50 | 7.76 | 6.87 | 6.08 | 5.04 | 6.82 |
| Canner and cull..... | 3.76 | 3.81 | 3.90 | 3.53 | 2.62 | 2.23 | 3.31 |
| Feeding sheep and lambs: | | | | | | | |
| Feeding lambs, medium to choice..... | 14.01 | | | | | | |

| Classification | July | August | September | October | November | December | Average July to December |
|--|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
| Slaughter sheep and lambs: | | | | | | | |
| Lambs— | | | | | | | |
| Light and handy weight (84 lbs. down), medium to choice..... | Dollars 13.80 | Dollars 13.51 | Dollars 13.75 | Dollars 13.86 | Dollars 14.30 | Dollars 14.86 | Dollars 14.01 |
| Heavy weight (92 lbs. up), medium to choice..... | | | | | | | |
| All weights, cull and common..... | 11.09 | 11.35 | 11.30 | 11.30 | 11.35 | 11.91 | 11.39 |
| Ewes— | | | | | | | |
| Common to choice..... | 5.80 | 5.95 | 5.69 | 5.75 | 5.88 | 6.78 | 5.96 |
| Canner and cull..... | 2.58 | 2.72 | 2.62 | 2.62 | 2.68 | 3.00 | 2.70 |
| Feeding lambs, medium to choice..... | | | | | | | |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.
Classification changed July 1, 1925.

TABLE 576.—*Sheep and lambs: Trend of average farm prices and average market prices, per 100 pounds, at Chicago, 1910-1925*

| Year | Farm price | | Average market price at Chicago | | Price relatives (1913=100) | | | |
|-----------|-------------------------|-----------------------|---------------------------------|----------------|----------------------------|-------|--------------|-------|
| | Sheep, weighted average | Lambs, simple average | Sheep | Lambs | Farm price | | Market price | |
| | | | | | Sheep | Lambs | Sheep | Lambs |
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | | | | |
| 1910..... | 5.08 | 6.40 | 5.26 | 7.59 | 113.9 | 105.8 | 101.3 | 98.7 |
| 1911..... | 4.07 | 5.30 | 3.94 | 5.93 | 91.3 | 87.6 | 75.9 | 77.1 |
| 1912..... | 4.20 | 5.60 | 4.60 | 7.18 | 94.2 | 92.6 | 88.6 | 93.4 |
| 1913..... | 4.46 | 6.05 | 5.19 | 7.69 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1914..... | 4.79 | 6.31 | 5.56 | 7.99 | 107.4 | 104.3 | 107.1 | 103.9 |
| 1915..... | | | | | | | | |
| 1916..... | 5.23 | 6.85 | 6.36 | 9.05 | 117.3 | 113.2 | 122.5 | 117.7 |
| 1917..... | 6.27 | 8.19 | 7.82 | 10.77 | 140.6 | 135.4 | 150.7 | 140.1 |
| 1918..... | 9.54 | 12.23 | 11.04 | 15.68 | 213.9 | 202.1 | 212.7 | 203.9 |
| 1919..... | 10.82 | 13.98 | 12.44 | 16.98 | 242.6 | 231.1 | 239.7 | 220.8 |
| 1920..... | 9.36 | 12.98 | 10.47 | 16.31 | 209.6 | 214.5 | 201.7 | 212.1 |
| 1921..... | | | | | | | | |
| 1922..... | 8.11 | 11.94 | 9.49 | 15.47 | 181.8 | 197.4 | 182.9 | 201.2 |
| 1923..... | 4.55 | 7.20 | 5.13 | 9.86 | 102.0 | 119.0 | 98.8 | 128.2 |
| 1924..... | 5.96 | 9.70 | 7.15 | 13.68 | 133.6 | 160.3 | 137.8 | 177.9 |
| 1925..... | 6.65 | 10.50 | 7.10 | 13.89 | 149.1 | 173.6 | 136.8 | 180.6 |
| 1926..... | 6.80 | 10.72 | 7.67 | 14.57 | 152.5 | 177.2 | 145.9 | 189.5 |
| 1927..... | 5.55 | 12.29 | 8.16 | 15.66 | 124.4 | 203.1 | 157.2 | 203.6 |

Division of Statistical and Historical Research. Farm prices from Division of Crop and Livestock Estimates; market prices from data of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 577.—*Sheep and lambs: Slaughter in the United States, by States, 1909, 1914, 1919, 1921 and 1923¹*

| State | 1909 | | | | 1914 ² | | | | 1919 ³ | | | | 1921 ⁴ | | 1923 ⁵ | |
|-----------------------|---|------------------|---------------------|-----------------|---|---|---------------------|------------------------------------|---|---|---|---|---|---|---|---|
| | In wholesale slaughtering and meat-packing establishments | Retail slaughter | On farms and ranges | Total slaughter | In wholesale slaughtering and meat-packing establishments | In wholesale slaughtering and meat-packing establishments | On farms and ranges | Total wholesale and farm slaughter | In wholesale slaughtering and meat-packing establishments | In wholesale slaughtering and meat-packing establishments | In wholesale slaughtering and meat-packing establishments | In wholesale slaughtering and meat-packing establishments | In wholesale slaughtering and meat-packing establishments | In wholesale slaughtering and meat-packing establishments | In wholesale slaughtering and meat-packing establishments | In wholesale slaughtering and meat-packing establishments |
| | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number |
| Calif..... | 1,071,998 | 228,012 | 35,915 | 1,335,925 | 1,427,260 | 1,196,079 | 20,283 | 1,218,362 | 1,536,027 | 1,607,538 | | | | | | |
| Colo..... | 55,606 | 61,001 | 19,945 | 136,552 | 81,141 | 212,702 | 17,678 | 230,380 | 159,848 | 154,404 | | | | | | |
| Ill..... | 3,892,142 | 23,839 | 4,284 | 3,919,935 | 4,882,940 | 4,358,564 | 4,376 | 4,362,940 | 3,681,302 | 2,879,624 | | | | | | |
| Iowa..... | 49,577 | 18,857 | 6,180 | 74,614 | 307,419 | 264,432 | 7,404 | 271,836 | 200,690 | 146,971 | | | | | | |
| Kans..... | 1,136,027 | 5,504 | 2,399 | 1,143,930 | 1,559,114 | 1,200,980 | 4,692 | 1,205,672 | 1,309,424 | 1,146,361 | | | | | | |
| Mass..... | 342,491 | 5,549 | 2,412 | 350,452 | 370,835 | 217,145 | 1,601 | 218,747 | 396,669 | (*) | | | | | | |
| Mich..... | 88,285 | 76,129 | 17,818 | 182,232 | 125,537 | 193,346 | 10,232 | 203,577 | 162,880 | 202,035 | | | | | | |
| Minn..... | 133,244 | 58,609 | 16,321 | 208,084 | 198,665 | 208,946 | 12,332 | 221,278 | 341,301 | 259,482 | | | | | | |
| Mo..... | 546,649 | 11,194 | 7,461 | 565,304 | 776,751 | 742,156 | 8,207 | 750,363 | 823,609 | 827,471 | | | | | | |
| Nebr..... | 1,127,962 | 1,763 | 1,753 | 1,131,478 | 1,797,072 | 1,575,954 | 3,160 | 1,579,114 | 1,598,563 | 1,053,143 | | | | | | |
| N. J..... | 423,724 | 78,948 | 1,229 | 503,901 | 426,063 | 425,059 | 975 | 426,034 | 586,080 | 494,222 | | | | | | |
| N. Y..... | 1,918,721 | 278,695 | 51,277 | 2,248,693 | 1,999,134 | 1,489,649 | 30,845 | 1,520,494 | 2,123,999 | 1,988,143 | | | | | | |
| Ohio..... | 229,985 | 134,824 | 16,754 | 381,563 | 300,337 | 258,291 | 10,778 | 269,069 | 307,385 | 235,500 | | | | | | |
| Pa..... | 445,471 | 127,636 | 28,218 | 601,325 | 436,881 | 284,397 | 20,331 | 304,728 | 524,721 | 409,866 | | | | | | |
| Tex..... | 77,805 | 19,598 | 9,396 | 106,799 | 284,050 | 151,285 | 9,159 | 160,444 | 148,604 | 158,973 | | | | | | |
| Wash..... | 290,383 | 27,700 | 7,380 | 325,463 | 362,854 | 237,440 | 8,656 | 246,096 | 209,116 | 207,110 | | | | | | |
| All other States..... | 425,431 | 782,144 | 300,874 | 1,508,449 | 607,700 | 478,875 | 263,899 | 742,774 | 597,552 | 823,013 | | | | | | |
| Total..... | 12,255,601 | 1,039,672 | 529,526 | 14,724,699 | 15,943,743 | 13,497,300 | 454,608 | 13,931,908 | 14,707,770 | 13,193,856 | | | | | | |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of the Census.

¹ In addition 795,519 sheep, lambs, goats, and kids were slaughtered for others in 1914 and 269,128 in 1919. No corresponding data for 1909, 1921, or 1923.

² No data collected by Bureau of the Census for 1914, 1921, or 1923 on farm or retail slaughter.

³ No data obtainable for retail slaughter in 1919.

⁴ Included in "all other States."

TABLE 578.—*Sheep and lambs: Monthly slaughter under Federal inspection, 1907-1925*

| Year | January | February | March | April | May | June | July |
|------|-----------|-----------|-----------|-----------|-----------|------------|-----------|
| 1907 | 1,016,701 | 837,329 | 841,528 | 861,005 | 768,571 | 735,065 | 864,940 |
| 1908 | 871,642 | 724,857 | 677,048 | 663,624 | 731,785 | 841,716 | 801,112 |
| 1909 | 906,338 | 805,561 | 903,369 | 839,010 | 712,103 | 842,528 | 964,114 |
| 1910 | 903,242 | 770,796 | 726,675 | 692,807 | 795,699 | 920,900 | 967,378 |
| 1911 | 1,129,800 | 1,018,696 | 1,059,388 | 974,072 | 1,085,306 | 1,146,429 | 1,149,617 |
| 1912 | 1,383,239 | 1,151,431 | 1,105,620 | 970,574 | 962,679 | 1,028,426 | 1,181,246 |
| 1913 | 1,192,485 | 960,882 | 883,197 | 1,048,656 | 1,127,345 | 1,134,615 | 1,273,490 |
| 1914 | 1,296,625 | 1,112,500 | 1,143,188 | 1,149,928 | 1,084,577 | 1,113,437 | 1,171,105 |
| 1915 | 1,196,268 | 945,912 | 986,203 | 829,906 | 739,051 | 882,662 | 983,484 |
| 1916 | 976,417 | 903,755 | 861,470 | 768,683 | 854,014 | 989,824 | 930,169 |
| 1917 | 956,416 | 818,640 | 861,331 | 777,346 | 632,451 | 710,031 | 688,205 |
| 1918 | 779,934 | 655,015 | 735,505 | 613,814 | 659,063 | 737,208 | 869,403 |
| 1919 | 1,003,890 | 753,940 | 737,836 | 807,766 | 894,324 | 931,466 | 1,160,470 |
| 1920 | 954,607 | 828,426 | 787,867 | 713,796 | 670,674 | 817,553 | 1,048,428 |
| 1921 | 1,068,346 | 958,019 | 1,075,213 | 1,040,628 | 984,903 | 1,116,079 | 1,059,902 |
| 1922 | 954,329 | 775,841 | 837,216 | 739,117 | 872,069 | 1,028,136 | 961,109 |
| 1923 | 1,021,211 | 836,473 | 977,426 | 959,697 | 972,291 | 914,472 | 961,791 |
| 1924 | 1,083,095 | 911,988 | 868,398 | 859,774 | 959,300 | 975,306 | 1,050,734 |
| 1925 | 980,490 | 854,408 | 984,254 | 1,012,142 | 1,029,633 | 999,321 | 1,071,074 |
| | | | | | | | |
| Year | August | September | October | November | December | Total | |
| 1907 | 900,462 | 891,953 | 972,656 | 793,155 | 768,707 | 10,252,070 | |
| 1908 | 932,367 | 1,064,376 | 1,047,568 | 928,266 | 930,305 | 10,304,660 | |
| 1909 | 1,018,698 | 1,153,327 | 1,169,232 | 1,028,673 | 999,684 | 11,342,637 | |
| 1910 | 1,095,036 | 1,154,289 | 1,206,237 | 1,124,698 | 1,014,173 | 11,408,020 | |
| 1911 | 1,268,405 | 1,256,948 | 1,428,228 | 1,303,770 | 1,199,787 | 14,020,446 | |
| 1912 | 1,380,635 | 1,439,630 | 1,722,955 | 1,424,063 | 1,219,756 | 14,970,254 | |
| 1913 | 1,243,440 | 1,486,305 | 1,513,922 | 1,257,546 | 1,283,870 | 14,405,759 | |
| 1914 | 1,169,430 | 1,379,097 | 1,330,529 | 1,111,857 | 1,167,069 | 14,220,342 | |
| 1915 | 1,130,236 | 1,219,649 | 1,116,002 | 1,132,460 | 1,040,693 | 12,211,765 | |
| 1916 | 1,172,838 | 1,158,116 | 1,172,118 | 1,120,852 | 1,033,110 | 11,941,366 | |
| 1917 | 765,939 | 740,122 | 821,933 | 763,781 | 808,799 | 9,314,904 | |
| 1918 | 936,683 | 1,028,645 | 1,194,208 | 1,139,292 | 970,927 | 10,319,877 | |
| 1919 | 1,233,883 | 1,291,979 | 1,413,905 | 1,227,190 | 1,234,577 | 12,691,115 | |
| 1920 | 1,041,580 | 1,150,776 | 1,067,821 | 968,235 | 932,417 | 10,982,180 | |
| 1921 | 1,236,992 | 1,249,032 | 1,285,430 | 1,040,390 | 889,980 | 13,004,904 | |
| 1922 | 1,023,787 | 1,013,281 | 981,232 | 882,213 | 857,611 | 10,928,911 | |
| 1923 | 956,580 | 989,500 | 1,048,239 | 915,229 | 977,681 | 11,528,550 | |
| 1924 | 1,063,108 | 1,149,675 | 1,147,514 | 919,963 | 971,916 | 11,990,881 | |
| 1925 | 1,030,751 | 1,085,837 | 1,083,073 | 878,892 | 981,118 | 12,000,994 | |

Bureau of Animal Industry.

TABLE 579.—*Mutton and lamb, frozen: Cold-storage holdings, United States, 1916-1925*

[Thousand pounds—i. e., 000 omitted]

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|
| 1916..... | 4,976 | 5,286 | 5,812 | 5,084 | 3,858 | 2,525 | 1,939 | 2,098 | 2,135 | 2,579 | 3,465 | 5,000 |
| 1917..... | 4,886 | 5,895 | 4,949 | 4,872 | 4,369 | 3,508 | 4,580 | 3,912 | 2,716 | 2,768 | 4,194 | 5,400 |
| 1918..... | 7,403 | 6,315 | 7,835 | 5,599 | 3,348 | 3,860 | 2,429 | 3,150 | 4,046 | 5,275 | 8,645 | 9,635 |
| 1919..... | 12,760 | 11,360 | 8,013 | 6,505 | 7,623 | 7,718 | 7,279 | 7,263 | 7,817 | 8,318 | 7,894 | 9,400 |
| 1920..... | 10,290 | 7,787 | 5,781 | 3,517 | 2,579 | 5,735 | 4,311 | 2,299 | 11,021 | 25,325 | 48,997 | 58,702 |
| 1921..... | 68,032 | 78,082 | 59,304 | 38,520 | 25,129 | 15,877 | 8,714 | 6,751 | 5,903 | 5,993 | 6,840 | 7,520 |
| 1922..... | 6,444 | 3,914 | 2,863 | 2,878 | 2,071 | 2,310 | 3,720 | 3,308 | 3,376 | 3,473 | 3,458 | 3,633 |
| 1923..... | 4,523 | 5,980 | 5,758 | 6,635 | 5,774 | 4,445 | 3,556 | 2,752 | 1,785 | 1,719 | 1,997 | 2,014 |
| 1924..... | 2,493 | 2,306 | 2,173 | 1,719 | 2,093 | 2,273 | 2,917 | 2,257 | 2,230 | 2,525 | 3,166 | 3,326 |
| 1925..... | 2,949 | 2,336 | 2,294 | 2,090 | 1,908 | 1,913 | 1,515 | 1,349 | 1,339 | 1,112 | 1,435 | 1,549 |
| A v. 1921-1925. | 16,888 | 18,524 | 14,478 | 10,308 | 7,413 | 5,364 | 4,068 | 3,283 | 2,927 | 2,964 | 3,379 | 3,608 |

Cold Storage Report Section.

TABLE 580.—*Sheep, lamb, and mutton: Statement of the livestock and meat situation by months, 1925*

| Item | Unit | Jan. | Feb. | Mar. | Apr. | May | June | July |
|--|--------------|--------|--------|--------|--------|--------|--------|--------|
| Inspected slaughter..... | Thousands.. | 991 | 854 | 984 | 1,012 | 1,030 | 999 | 1,071 |
| Carcasses condemned..... | do..... | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Average liveweight..... | Pounds..... | 86 | 88 | 88 | 85 | 81 | 74 | 75 |
| Average dressed weight..... | do..... | 40 | 41 | 41 | 40 | 40 | 36 | 37 |
| Total dressed weight (carcasses, not including condemned)..... | 1,000 pounds | 39,655 | 34,910 | 40,572 | 40,609 | 40,698 | 36,417 | 39,374 |
| Storage first of month, fresh lamb and mutton..... | do..... | 2,949 | 2,336 | 2,294 | 2,090 | 1,998 | 1,913 | 1,535 |
| Exports, fresh lamb and mutton ¹ | do..... | 73 | 57 | 135 | 66 | 119 | 268 | 295 |
| Imports, fresh lamb and mutton..... | do..... | 79 | 58 | 69 | 44 | 98 | 11 | 96 |
| Receipts of sheep ² | Thousands.. | 1,467 | 1,388 | 1,504 | 1,541 | 1,689 | 1,603 | 1,690 |
| Stockers and feeder shipments ³ | do..... | 138 | 119 | 94 | 109 | 178 | 137 | 193 |
| Price per 100 pounds: | | | | | | | | |
| Average cost for slaughter..... | Dollars..... | 15.98 | 16.16 | 15.34 | 13.36 | 13.37 | 13.63 | 13.50 |
| At Chicago— | | | | | | | | |
| Lambs, 84 pounds down, medium-prime..... | do..... | 17.28 | 16.79 | 16.04 | 14.62 | 12.72 | 15.06 | 14.69 |
| Sheep, medium-choice..... | do..... | 9.76 | 9.20 | 9.70 | 8.68 | 7.52 | 7.34 | 7.48 |
| At eastern markets— | | | | | | | | |
| Lamb carcasses, good grade..... | do..... | 27.27 | 26.94 | 25.63 | 23.64 | 24.66 | 27.02 | 27.17 |
| Mutton, good grade..... | do..... | 16.08 | 15.52 | 17.24 | 16.38 | 17.10 | 14.52 | 15.36 |
| Sheep on farms, Jan. 1..... | Thousands.. | 39,390 | | | | | | |

| Item | Unit | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--|--------------|--------|--------|--------|--------|--------|---------|
| Inspected slaughter..... | Thousands.. | 1,031 | 1,086 | 1,083 | 870 | 981 | 12,001 |
| Carcasses condemned..... | do..... | 1 | 2 | 2 | 1 | 1 | 14 |
| Average liveweight..... | Pounds..... | 78 | 70 | 80 | 82 | 85 | 182 |
| Average dressed weight..... | do..... | 38 | 38 | 39 | 39 | 40 | 139 |
| Total dressed weight (carcasses, not including condemned)..... | 1,000 pounds | 38,869 | 40,904 | 41,701 | 34,040 | 39,468 | 467,316 |
| Storage first of month, fresh lamb and mutton..... | do..... | 1,349 | 1,330 | 1,112 | 1,435 | 1,549 | 1,825 |
| Exports, Fresh lamb and mutton ⁴ | do..... | 236 | 143 | 53 | 58 | 38 | 1,541 |
| Imports, fresh lamb and mutton..... | do..... | 55 | 427 | 962 | 647 | 224 | 2,770 |
| Receipts of sheep ² | Thousands.. | 2,064 | 2,627 | 3,198 | 1,712 | 1,608 | 22,100 |
| Stockers and feed shipments ³ | do..... | 421 | 857 | 1,392 | 475 | 219 | 4,332 |
| Price per 100 pounds: | | | | | | | |
| Average cost for slaughter..... | Dollars..... | 13.41 | 13.45 | 13.79 | 13.71 | 14.72 | 14.22 |
| At Chicago— | | | | | | | |
| Lambs, 84 pounds down, medium-prime..... | do..... | 14.47 | 14.73 | 14.71 | 15.03 | 15.74 | 15.16 |
| Sheep, medium-choice..... | do..... | 6.83 | 6.95 | 7.64 | 8.16 | 9.57 | 8.24 |
| At eastern markets— | | | | | | | |
| Lamb carcasses, good grade..... | do..... | 26.15 | 26.46 | 26.16 | 27.92 | 27.78 | 26.40 |
| Mutton, good grade..... | do..... | 14.82 | 15.69 | 16.27 | 16.34 | 16.17 | 15.96 |
| Sheep on farms, Jan. 1..... | Thousands.. | | | | | | |

Division of Statistical and Historical Research. Inspected slaughter from reports of Bureau of Animal Industry. Weights and storage holdings from reports of the Cold Storage Report Section; receipts, shipments, and prices compiled from data of the reporting service of the Division of Livestock, Meats, and Wool, and number on farm from Division of Crop and Livestock Estimates. Exports and imports from Bureau of Foreign and Domestic Commerce.

¹ Weighted average, not total.

² Simple average, not total.

³ Including reexports.

⁴ At public stockyards.

TABLE 581.—Mutton: International trade, average 1911-1913, annual 1922-1924
[Thousand pounds—i. e., 000 omitted]

| Country | Year ended December 31 | | | | | | | |
|--------------------------------------|------------------------|------------------|---------|----------|---------|---------|------------------|---------|
| | Average 1911-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | | 148,457 | | 180,103 | | 178,784 | | 184,311 |
| Australia..... | 7 | 149,958 | 134 | 1167,613 | 137 | 139,805 | | 140,291 |
| Canada..... | 4,717 | 48 | 2,061 | 4,688 | 1,350 | 1,707 | 1,367 | 922 |
| Netherlands..... | 76 | 17,212 | 961 | 16,266 | 2,298 | 14,138 | 1,347 | 17,566 |
| New Zealand..... | | 235,509 | | 331,288 | | 240,054 | | 278,426 |
| Union of South Africa..... | 1,914 | 75 | 211 | 275 | 73 | 179 | 46 | 176 |
| Uruguay..... | | 3,292 | | 19,698 | | 34,509 | | |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Belgium..... | (²) | (²) | 2,246 | 534 | 2,013 | 318 | 2,976 | 1,829 |
| Denmark..... | 3,828 | 341 | 25 | 157 | 1,651 | 211 | 1,100 | 61 |
| France..... | 930 | 334 | 14,445 | 776 | 20,555 | 813 | 24,475 | 251 |
| Germany..... | 1,046 | 350 | 3,674 | 109 | 2,902 | 46 | 3,156 | 711 |
| Hongkong..... | | | 483 | | 457 | 2 | 502 | 3 |
| Sweden..... | 1,218 | 100 | 594 | 808 | 422 | 167 | 651 | 105 |
| United Kingdom..... | 590,639 | | 664,554 | | 663,147 | | 577,170 | |
| United States..... | 185 | 4,146 | 12,155 | 1,951 | 5,215 | 2,087 | 2,166 | 1,415 |
| Other countries..... | 924 | 489 | 1,133 | 18 | 973 | 352 | 1,811 | — |
| Total..... | 611,744 | 560,284 | 702,576 | 724,284 | 701,088 | 523,071 | 616,779 | 535,225 |

Division of Statistical and Historical Research. Official sources.

¹ Year beginning July 1.

² Not separately stated.

WOOL

TABLE 582.—Wool, raw: Production, imports, exports, and apparent consumption, United States, 1910-1925

[Thousands of pounds—i. e., 000 omitted]

| Year | Production | | | Imports ¹ | Reexports ¹ | Net imports | Exports of domestic wool | Excess of imports over all exports | Apparent consumption |
|-----------|------------|--------|---------|----------------------|------------------------|-------------|--------------------------|------------------------------------|----------------------|
| | Fleece | Pulled | Total | | | | | | |
| 1910..... | 281,303 | 40,000 | 321,303 | 180,135 | 9,055 | 171,080 | ² 48 | 171,032 | 492,395 |
| 1911..... | 277,548 | 41,000 | 318,548 | 155,923 | 3,511 | 152,412 | (²) | 152,412 | 470,960 |
| 1912..... | 262,543 | 41,500 | 304,043 | 238,118 | 1,816 | 236,302 | (²) | 236,302 | 540,345 |
| 1913..... | 252,675 | 43,500 | 296,175 | 151,814 | 3,860 | 147,954 | ² 77 | 147,877 | 414,052 |
| 1914..... | 247,192 | 43,000 | 290,192 | 260,165 | 6,426 | 253,739 | ² 335 | 253,404 | 543,596 |
| 1915..... | 245,726 | 40,000 | 285,726 | 412,721 | 2,098 | 410,623 | ² 8,158 | 402,465 | 688,191 |
| 1916..... | 244,890 | 43,600 | 288,490 | 449,190 | 2,128 | 447,062 | 3,910 | 443,152 | 731,633 |
| 1917..... | 241,892 | 40,000 | 281,892 | 420,995 | 1,421 | 419,574 | 1,827 | 417,747 | 699,639 |
| 1918..... | 256,870 | 42,000 | 298,870 | 453,727 | 515 | 453,212 | 407 | 452,805 | 751,675 |
| 1919..... | 249,958 | 48,300 | 298,258 | 445,893 | 5,689 | 440,204 | 2,840 | 437,364 | 756,622 |
| 1920..... | 235,005 | 42,900 | 277,905 | 259,618 | 12,636 | 246,982 | 8,845 | 238,137 | 510,042 |
| 1921..... | 223,062 | 48,500 | 271,562 | 320,686 | 1,605 | 319,081 | 1,927 | 317,154 | 588,696 |
| 1922..... | 222,560 | 42,000 | 264,560 | 376,673 | 4,425 | 372,248 | 453 | 371,795 | 636,355 |
| 1923..... | 224,330 | 42,500 | 266,830 | 394,250 | 24,188 | 370,062 | 535 | 369,527 | 636,357 |
| 1924..... | 242,405 | 43,800 | 286,205 | 268,213 | 27,756 | 240,457 | 309 | 240,148 | 526,353 |
| 1925..... | 254,260 | 46,800 | 301,060 | 329,352 | 7,168 | 322,184 | 273 | 321,910 | 622,970 |

Division of Livestock, Meats, and Wool. Production figures 1910-1913 from the National Association of Wool Manufacturers; 1914-1925 from the Division of Crop and Livestock Estimates; Imports and exports from the Bureau of Foreign and Domestic Commerce.

¹ Imports and reexports include hair of camel, goat, alpaca, etc. Imports of hair not separately stated prior to July 1, 1913; since that date it has constituted less than 2 per cent of the total every year except 1915, when it was 2.4 per cent.

² Exports for fiscal years ending June 30 of the years shown.

³ Included in all other articles.

⁴ No transactions.

TABLE 583.—*Wool, fleece: Estimated production, by States, 1923-1925*

| State | Production | | | Weight per fleece | | | Number of fleeces | | |
|---------------------|-------------------------|-------------------------|-------------------------|-------------------|---------------|-------------------|------------------------|------------------------|------------------------|
| | 1923 | 1924 | 1925 ¹ | 1923 | 1924 | 1925 ¹ | 1923 | 1924 | 1925 ¹ |
| | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>1,000 pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Thous- ands</i> | <i>Thous- ands</i> | <i>Thous- ands</i> |
| Maine..... | 567 | 542 | 554 | 6.3 | 6.3 | 6.6 | 90 | 86 | 84 |
| New Hampshire..... | 119 | 112 | 102 | 6.6 | 6.6 | 6.8 | 18 | 17 | 15 |
| Vermont..... | 275 | 273 | 286 | 6.4 | 6.5 | 6.8 | 43 | 42 | 42 |
| Massachusetts..... | 105 | 83 | 87 | 6.2 | 6.4 | 6.7 | 16 | 13 | 13 |
| Rhode Island..... | 20 | 19 | 20 | 6.5 | 6.4 | 6.7 | 3 | 3 | 3 |
| Connecticut..... | 44 | 48 | 58 | 5.5 | 6.0 | 7.2 | 8 | 8 | 8 |
| New York..... | 2,968 | 3,181 | 3,497 | 0.9 | 6.9 | 7.3 | 430 | 461 | 479 |
| New Jersey..... | 47 | 54 | 42 | 5.0 | 6.0 | 6.0 | 9 | 9 | 7 |
| Pennsylvania..... | 3,148 | 2,908 | 3,012 | 6.5 | 6.7 | 6.8 | 484 | 434 | 443 |
| Ohio..... | 14,313 | 13,899 | 14,685 | 7.3 | 7.3 | 7.5 | 1,961 | 1,904 | 1,958 |
| Indiana..... | 3,820 | 4,060 | 4,019 | 7.1 | 7.0 | 7.1 | 538 | 580 | 566 |
| Illinois..... | 3,280 | 3,625 | 4,930 | 7.6 | 7.6 | 7.9 | 433 | 477 | 624 |
| Michigan..... | 7,282 | 7,252 | 8,008 | 7.4 | 7.4 | 7.7 | 984 | 980 | 1,040 |
| Wisconsin..... | 2,271 | 2,190 | 2,340 | 7.4 | 7.3 | 7.8 | 307 | 300 | 300 |
| Minnesota..... | 2,225 | 2,599 | 3,294 | 7.5 | 7.6 | 7.9 | 297 | 342 | 417 |
| Iowa..... | 4,973 | 5,244 | 5,538 | 7.5 | 7.6 | 7.8 | 663 | 690 | 710 |
| Missouri..... | 5,411 | 6,700 | 5,996 | 7.0 | 6.7 | 6.9 | 773 | 1,000 | 869 |
| North Dakota..... | 1,648 | 1,778 | 2,248 | 8.0 | 7.9 | 8.0 | 206 | 225 | 281 |
| South Dakota..... | 4,021 | 4,275 | 4,350 | 7.6 | 7.5 | 7.5 | 529 | 570 | 580 |
| Nebraska..... | 1,738 | 1,668 | 1,666 | 7.9 | 7.8 | 8.0 | 220 | 214 | 208 |
| Kansas..... | 1,933 | 1,288 | 1,872 | 7.7 | 7.4 | 7.2 | 251 | 174 | 260 |
| Delaware..... | 13 | 16 | 17 | 5.5 | 5.5 | 5.7 | 2 | 3 | 3 |
| Maryland..... | 512 | 484 | 576 | 6.4 | 5.9 | 6.0 | 80 | 82 | 96 |
| Virginia..... | 1,622 | 1,656 | 1,633 | 4.8 | 4.9 | 4.6 | 338 | 338 | 355 |
| West Virginia..... | 2,600 | 2,496 | 2,538 | 5.2 | 5.2 | 5.2 | 500 | 480 | 488 |
| North Carolina..... | 397 | 385 | 348 | 4.9 | 5.2 | 4.7 | 81 | 74 | 74 |
| South Carolina..... | 103 | 94 | 62 | 4.5 | 4.5 | 4.4 | 23 | 21 | 14 |
| Georgia..... | 156 | 162 | 158 | 3.0 | 3.0 | 3.1 | 52 | 54 | 51 |
| Florida..... | 163 | 157 | 177 | 3.4 | 3.2 | 3.4 | 48 | 49 | 52 |
| Kentucky..... | 2,715 | 2,776 | 3,001 | 4.9 | 4.5 | 4.8 | 554 | 617 | 644 |
| Tennessee..... | 1,300 | 1,338 | 1,292 | 4.5 | 4.4 | 4.5 | 289 | 304 | 287 |
| Alabama..... | 227 | 235 | 165 | 3.6 | 3.7 | 3.3 | 77 | 77 | 50 |
| Mississippi..... | 454 | 376 | 349 | 3.2 | 3.3 | 3.2 | 143 | 114 | 109 |
| Arkansas..... | 320 | 328 | 360 | 4.7 | 4.5 | 5.0 | 68 | 73 | 72 |
| Louisiana..... | 385 | 366 | 304 | 3.4 | 3.7 | 3.3 | 113 | 99 | 92 |
| Oklahoma..... | 490 | 533 | 454 | 7.0 | 7.4 | 7.2 | 70 | 72 | 63 |
| Texas..... | 19,700 | 25,990 | 24,960 | 7.4 | 8.0 | 8.0 | 2,662 | 3,250 | 3,120 |
| Montana..... | 17,775 | 19,314 | 20,871 | 8.4 | 8.7 | 8.7 | 2,116 | 2,220 | 2,399 |
| Idaho..... | 15,455 | 16,800 | 17,347 | 8.1 | 8.0 | 8.3 | 1,908 | 2,100 | 2,090 |
| Wyoming..... | 19,520 | 19,760 | 22,360 | 8.0 | 8.0 | 8.6 | 2,440 | 2,470 | 2,600 |
| Colorado..... | 6,580 | 6,580 | 7,312 | 7.0 | 7.0 | 7.5 | 940 | 940 | 975 |
| New Mexico..... | 10,890 | 12,408 | 12,113 | 6.6 | 6.0 | 5.9 | 1,650 | 2,068 | 2,033 |
| Arizona..... | 5,798 | 6,240 | 6,400 | 6.5 | 6.0 | 6.4 | 892 | 1,049 | 1,000 |
| Utah..... | 17,210 | 16,884 | 18,040 | 7.9 | 8.2 | 8.8 | 2,178 | 2,050 | 2,050 |
| Nevada..... | 7,942 | 8,000 | 7,811 | 7.6 | 8.0 | 7.3 | 1,045 | 1,000 | 1,070 |
| Washington..... | 4,409 | 4,635 | 4,400 | 8.3 | 9.0 | 8.8 | 501 | 515 | 500 |
| Oregon..... | 13,200 | 15,688 | 16,720 | 9.0 | 9.1 | 8.8 | 1,467 | 1,724 | 1,900 |
| California..... | 14,181 | 16,856 | 17,850 | 7.2 | 7.3 | 7.5 | 1,970 | 2,300 | 2,380 |
| United States..... | 224,330 | 242,405 | 254,312 | 7.4 | 7.4 | 7.6 | 30,455 | 32,681 | 33,494 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 584.—Wool: International trade, average 1909–1913, annual 1922–1924

[Thous.: 1 pounds—i. e., 000 omitted]

| Country | Year ended December 31 | | | | | | | |
|--------------------------------------|------------------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|
| | Average, 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 2, 445 | 19, 871 | 2, 925 | 16, 266 | 4, 007 | 21, 541 | 2, 751 | 18, 740 |
| Argentina..... | 214 | 325, 204 | 140 | 437, 479 | 381 | 363, 692 | 195 | 269, 848 |
| Australia..... | 324 | 676, 679 | 1 1, 353 | 833, 139 | 1 6, 842 | 724, 981 | 1 2 164 | 559, 396 |
| Brazil..... | 2 511 | 2, 969 | 2 814 | 7, 850 | 2 1, 249 | 4, 765 | | 7, 477 |
| British India..... | 23, 721 | 56, 496 | 20, 586 | 51, 738 | 23, 854 | 37, 719 | 4 11, 363 | 4 51, 443 |
| Chile..... | 1, 247 | 28, 223 | 183 | 27, 980 | 228 | 23, 064 | | 19, 520 |
| China..... | | 42, 684 | | 77, 792 | | 56, 562 | | 74, 236 |
| Greece..... | 281 | 294 | 586 | 1, 439 | 613 | 749 | 1, 387 | 1, 241 |
| Hungary..... | | | 1, 007 | 9, 390 | 1, 214 | 7, 973 | 2 1, 671 | 11, 536 |
| Irish Free State..... | | | | | | | 1, 381 | 19, 717 |
| Morocco..... | | 8, 607 | | 4, 099 | | 14, 540 | | 15, 594 |
| New Zealand..... | 108 | 194, 801 | 130 | 326, 404 | 213 | 223, 689 | 61 | 211, 254 |
| Persia..... | 2 753 | 10, 023 | 2 480 | 4 4, 004 | 1 1, 743 | 2 8, 023 | | |
| Peru..... | 4 3 | 9, 353 | 81 | 10, 088 | 51 | 11, 087 | | 13, 861 |
| Spain..... | 2, 446 | 28, 505 | 5, 044 | 13, 449 | 3, 104 | 14, 214 | 1 1, 335 | 2 10, 236 |
| Union of South Africa..... | 7 | 164, 633 | 51 | 235, 576 | 201 | 179, 475 | 70 | 188, 261 |
| Uruguay..... | | 139, 178 | 13 | 105, 785 | | 96, 951 | | 2 100, 100 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | | | 16, 961 | 5, 575 | 19, 084 | 1, 894 | 15, 734 | 1, 722 |
| Austria-Hungary..... | 63, 942 | 9, 622 | | | | | | |
| Belgium..... | 300, 367 | 196, 440 | 194, 617 | 77, 138 | 169, 775 | 57, 598 | 161, 226 | 55, 817 |
| Bulgaria..... | 1 1, 485 | 2 117 | 3, 189 | 5, 441 | | | 3, 206 | |
| Canada..... | 7, 794 | 1, 323 | 15, 907 | 7, 159 | 21, 099 | 6, 318 | 15, 389 | 6, 320 |
| Czechoslovakia..... | | | 36, 138 | 3, 086 | 33, 234 | 3, 786 | 67, 510 | 8, 204 |
| Denmark..... | 2, 337 | 1, 124 | 1, 782 | 319 | 3, 357 | 342 | 2, 444 | 582 |
| Finland..... | 1, 794 | 30 | 3, 935 | 13 | 3, 063 | 2 54 | 3, 257 | 2 7 |
| France..... | 601, 628 | 84, 973 | 681, 514 | 47, 479 | 579, 290 | 46, 062 | 498, 587 | 38, 091 |
| Germany..... | 481, 988 | 42, 817 | 422, 265 | 16, 012 | 293, 667 | 19, 275 | 321, 274 | 25, 529 |
| Italy..... | 30, 145 | 3, 933 | 85, 253 | 9, 402 | 77, 170 | 5, 208 | 78, 325 | 6, 020 |
| Japan..... | 10, 223 | | 76, 154 | | 69, 455 | | 70, 744 | |
| Netherlands..... | 31, 991 | 26, 362 | 14, 777 | 3, 829 | 12, 573 | 4, 665 | 12, 557 | 2, 727 |
| Norway..... | 3, 644 | 123 | 4, 309 | 163 | 3, 453 | 534 | 2, 718 | 717 |
| Poland..... | | | 60, 442 | 1, 153 | 42, 325 | 835 | 36, 308 | 2, 680 |
| Rumania..... | 2, 473 | 3, 538 | 2 4, 794 | 2 62 | 4, 876 | 4 | 1, 113 | 161 |
| Russia..... | 106, 184 | 32, 406 | 2 72 | 2 10, 570 | 2 10, 148 | 2 108 | 2 14, 240 | 2 1, 429 |
| Sweden..... | 7, 267 | 149 | 11, 166 | 163 | 11, 447 | 265 | 10, 625 | 276 |
| Switzerland..... | 11, 211 | 338 | 15, 102 | 246 | 15, 094 | 186 | 14, 227 | 161 |
| United Kingdom..... | 550, 931 | 42, 027 | 700, 092 | 61, 270 | 360, 831 | 57, 821 | 435, 738 | 62, 314 |
| United States..... | 203, 298 | 2 46 | 376, 673 | 453 | 394, 250 | 2 535 | 208, 213 | 309 |
| Yugoslavia..... | | | 2 3, 439 | 2 11 | 11, 986 | 2 313 | 10, 051 | 2 116 |
| Other countries..... | 6, 509 | 35, 047 | 3, 291 | 27, 754 | 5, 434 | 27, 331 | 4, 797 | 24, 315 |
| Total..... | 2, 459, 331 | 2, 190, 905 | 2, 765, 271 | 2, 435, 235 | 2, 191, 372 | 1, 962, 159 | 2, 073, 661 | 1, 800, 487 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. "Wools" in this table includes washed, unwashed, scoured, pulled wool, slip, and all other animal fibers included in the United States classification of wool. The following items have been considered as not within this classification: Carded, combed, dyed wool, fleeces; sheep, lamb, and goatskins with hair on, mill waste, matts, and tops.

- 1 Year beginning July 1.
- 2 International Institute of Agriculture.
- 3 Four-year average.
- 4 Twelve months' sea-trade, three months' land-trade
- 5 Three-year average.
- 6 Six months.
- 7 One year only.

TABLE 585.—*Stocks of wool, tops, and noils held by dealers and manufacturers in United States, 1918-1925*

[Thousand pounds—1. e., 000 omitted]

| Date | Held by dealers | | | | | Held by manufacturers | | | | |
|-------------------------|-----------------|---------|--------|-------|-------|-----------------------|---------|--------|--------|--------|
| | Grease | Scoured | Pulled | Tops | Noils | Grease | Scoured | Pulled | Tops | Noils |
| 1918 | | | | | | | | | | |
| Jan. 1..... | 156,639 | 27,849 | 12,229 | 4,642 | 7,565 | 172,342 | 20,912 | 9,627 | 18,677 | 13,567 |
| Apr. 1..... | 91,209 | 22,887 | 14,444 | 3,555 | 6,054 | 135,773 | 23,672 | 9,234 | 16,117 | 11,387 |
| July 1..... | 202,241 | 11,721 | 10,478 | 2,074 | 3,848 | 136,267 | 19,601 | 9,433 | 14,251 | 13,064 |
| Oct. 1..... | 219,659 | 12,926 | 10,701 | 347 | 3,655 | 101,900 | 16,230 | 8,449 | 12,288 | 12,467 |
| 1919 | | | | | | | | | | |
| Jan. 1..... | 81,923 | 12,347 | 10,215 | 1,422 | 5,104 | 59,665 | 13,816 | 4,170 | 10,395 | 12,385 |
| Apr. 1..... | 23,690 | 7,952 | 5,984 | 898 | 2,823 | 72,637 | 13,654 | 6,663 | 10,962 | 10,381 |
| July 1..... | 198,298 | 22,155 | 10,108 | 1,801 | 2,877 | 150,239 | 16,117 | 9,179 | 11,388 | 9,820 |
| Oct. 1..... | 207,264 | 27,921 | 14,497 | 3,446 | 3,184 | 181,301 | 17,705 | 7,829 | 15,286 | 9,822 |
| 1920 | | | | | | | | | | |
| Jan. 1..... | 152,003 | 24,630 | 17,907 | 4,735 | 3,893 | 152,089 | 20,030 | 6,302 | 13,875 | 7,316 |
| Apr. 1..... | 123,247 | 26,279 | 17,710 | 3,646 | 4,305 | 139,333 | 24,412 | 9,359 | 14,328 | 8,670 |
| July 1..... | 144,837 | 27,963 | 15,207 | 4,487 | 6,041 | 112,434 | 23,078 | 6,762 | 15,439 | 9,002 |
| Oct. 1..... | 179,376 | 29,988 | 11,229 | 5,564 | 4,764 | 79,762 | 15,612 | 7,593 | 16,839 | 9,124 |
| 1921 | | | | | | | | | | |
| Jan. 1..... | 188,822 | 27,814 | 14,352 | 6,616 | 5,434 | 119,766 | 17,291 | 6,895 | 18,851 | 9,991 |
| Apr. 1..... | 194,891 | 22,807 | 15,505 | 7,623 | 3,690 | 165,398 | 18,442 | 11,296 | 19,325 | 9,316 |
| July 1..... | 176,584 | 19,703 | 12,127 | 4,883 | 4,139 | 164,713 | 18,042 | 10,787 | 20,247 | 8,101 |
| Oct. 1..... | 181,574 | 19,480 | 11,201 | 4,005 | 3,009 | 180,727 | 19,736 | 10,484 | 23,184 | 7,463 |
| 1922¹ | | | | | | | | | | |
| Jan. 1..... | 102,384 | 13,468 | 9,222 | 2,866 | 2,453 | 171,597 | 21,097 | 9,312 | 17,536 | 7,136 |
| Apr. 1..... | 70,415 | 10,995 | 6,969 | 2,206 | 1,373 | 171,026 | 25,406 | 10,419 | 18,029 | 7,176 |
| July 1..... | 156,523 | 13,447 | 6,988 | 2,627 | 1,619 | 165,810 | 22,201 | 9,642 | 20,720 | 6,709 |
| Oct. 1..... | 176,377 | 16,521 | 7,384 | 3,327 | 2,695 | 191,351 | 20,336 | 8,686 | 19,227 | 5,904 |
| 1923¹ | | | | | | | | | | |
| Jan. 1..... | 134,644 | 22,150 | 11,106 | 3,658 | 6,158 | 193,492 | 20,596 | 8,824 | 20,211 | 7,644 |
| Apr. 1..... | 126,158 | 24,734 | 13,503 | 3,378 | 6,378 | 175,422 | 21,787 | 11,930 | 18,402 | 8,247 |
| July 1..... | 186,729 | 21,075 | 13,126 | 5,125 | 5,977 | 161,435 | 18,464 | 11,148 | 16,579 | 8,364 |
| Oct. 1..... | 175,843 | 21,679 | 10,531 | 3,136 | 6,675 | 130,935 | 15,992 | 8,960 | 16,998 | 7,511 |
| 1924¹ | | | | | | | | | | |
| Jan. 1..... | 144,014 | 16,665 | 7,700 | 2,988 | 3,783 | 121,173 | 16,947 | 8,971 | 16,543 | 7,206 |
| Apr. 1..... | 100,846 | 16,239 | 9,561 | 4,172 | 1,806 | 124,345 | 15,310 | 7,669 | 17,141 | 6,828 |
| July 1..... | 154,931 | 12,840 | 8,829 | 4,461 | 983 | 126,985 | 13,987 | 6,140 | 16,323 | 5,659 |
| Oct. 1..... | 132,952 | 12,544 | 7,475 | 3,809 | 1,994 | 129,330 | 15,165 | 6,747 | 16,562 | 4,867 |
| 1925¹ | | | | | | | | | | |
| Jan. 1..... | 98,712 | 18,380 | 9,799 | 3,285 | 2,583 | 113,026 | 15,315 | 7,368 | 16,258 | 6,719 |
| Apr. 1..... | 65,912 | 10,819 | 12,624 | 2,754 | 2,412 | 95,122 | 16,437 | 7,025 | 15,921 | 6,020 |
| July 1..... | 147,654 | 15,039 | 11,267 | 2,571 | 3,292 | 95,021 | 16,455 | 7,381 | 15,252 | 5,463 |
| Oct. 1..... | 136,043 | 15,809 | 9,715 | 2,240 | 2,704 | 102,261 | 13,621 | 6,623 | 15,880 | 6,207 |

Division of Statistical and Historical Research. Compiled from Wool Stock Reports issued quarterly by the Bureau of Agricultural Economics and the Bureau of the Census. Stocks held by the Government are not included.

¹ Figures do not include estimates for firms not reporting.

TABLE 586.—Wool: Estimated production in terms of grease, average 1909–1913 calendar years 1923–1925

(Figures subject to revision)

[Thousand pounds—1. e., 000 omitted]

| Country | Average 1909–1913 | 1923 | 1924 | 1925 preliminary |
|--|-------------------|-------------|-------------|------------------|
| Australia..... | 727, 709 | 590, 546 | 676, 681 | 1 711, 000 |
| Argentina..... | 332, 321 | 341, 713 | 299, 000 | 2 299, 000 |
| New Zealand..... | 174, 942 | 208, 979 | 208, 269 | 4 188, 000 |
| United States..... | 313, 648 | 268, 830 | 265, 205 | 301, 000 |
| Union of South Africa..... | 154, 636 | 182, 904 | 187, 879 | 200, 000 |
| United Kingdom..... | 136, 021 | 101, 065 | 109, 300 | 109, 853 |
| Uruguay..... | 133, 101 | 104, 000 | 97, 000 | 110, 000 |
| Total above countries..... | 1, 979, 178 | 1, 796, 937 | 1, 861, 334 | 1, 919, 000 |
| World, as estimated by United States Department of Commerce..... | 3, 231, 000 | 2, 719, 000 | 2, 806, 442 | 2, 892, 416 |
| World, as estimated by National Association of Wool Manufacturers..... | 2, 905, 850 | 2, 721, 000 | | |

Division of Statistical and Historical Research. Sources: Australia.—1909–1913 average production calendar years 1909–1911, and years ended June 30, 1913 and 1914. Years 1923 and 1924, Quarterly Summary Australian Statistics September, 1925. Year 1925, see note 1. Argentina.—1909–1913 exports, Buenos Aires, Aug. 19, 1913, quoting La Prensa Aug. 18, 1912. Year 1923, Argentine Ministry of Agriculture, Mar. 20, 1924. Year 1924, see note 2. Year 1925, see note 3. New Zealand.—Years 1909–1913, 1923, and 1924, Dalgity & Co. Year 1925, see note 4. United States.—Division of Crop and Livestock Estimates, Union of South Africa.—Average, 1909–1913. Exports, Sept. 1 to Aug. 30, 1909–1910 to 1913–1914. Years 1923 and 1924, exports, Sept. 1 to Aug. 30. Year 1925, see note 5. United Kingdom.—Average, 1909–1913, calendar years. Year 1923, Yorkshire Observer Trade Review, 1924. Year 1924, estimate of Minister of Agriculture in letter from assistant trade commissioner Jan. 6, 1925, page 3. Year 1925, Yorkshire Observer, Uruguay.—Average 1909–1913 and 1922 exports. Year 1924, Commerce Reports, Sept. 7, 1925. Year 1925, Acting Commercial Attaché Law B. Clark, Montevideo, Oct. 12, 1925, page 74. This estimate may be exceeded according to information received from Consul U. Grant Smith, Dec. 17, 1925. It may reach 125,000,000 pounds.

1 Based on increase in receipts of Australian wool into store from Oct. 1 to Dec. 31, 1925, compared with preceding year and information furnished by Trade Commissioner Babbitt as to the weight per bale. This estimate may be too high as information from other sources state that it is not wool that last year's figures will be exceeded to any extent.

2 Estimate based on 12 months exports October–September, stocks of unshipped wool on hand Sept. 24, 1925 and estimated home consumption.

3 Estimated from information furnished by Commercial Attaché Feely stating that clip was about the same as last year.

4 Estimate of Government statistician quoted by Vice Consul J. C. Hudson, Wellington, Feb. 2, 1926. The vice consul states that this is a little too high and is more likely to be 30,000,000 to 35,000,000 pounds less than last year.

5 Estimate based on estimated increase over preceding year.

TABLE 587.—Wool (unwashed): Estimated price per pound, received by producers United States, 1910–1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Weighted average |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1910..... | 24.5 | 24.6 | 24.9 | 22.3 | 22.8 | 19.5 | 19.0 | 19.5 | 17.7 | 18.1 | 17.9 | 17.8 | 20.5 |
| 1911..... | 17.3 | 17.3 | 16.8 | 16.7 | 14.7 | 15.5 | 15.4 | 16.0 | 15.5 | 15.5 | 15.6 | 15.6 | 15.6 |
| 1912..... | 16.2 | 16.3 | 16.9 | 17.3 | 17.8 | 18.7 | 18.9 | 18.8 | 18.7 | 18.5 | 18.6 | 18.6 | 18.1 |
| 1913..... | 18.6 | 18.7 | 18.4 | 17.7 | 16.3 | 15.6 | 15.9 | 15.8 | 15.5 | 15.5 | 15.6 | 16.1 | 16.4 |
| A v. 1910–1913..... | 19.2 | 19.2 | 19.2 | 18.2 | 17.9 | 17.3 | 17.3 | 17.5 | 17.0 | 16.9 | 16.9 | 17.0 | 17.6 |
| 1914..... | 15.7 | 15.7 | 16.4 | 16.8 | 17.2 | 18.4 | 18.5 | 18.7 | 18.6 | 18.0 | 18.1 | 18.6 | 17.7 |
| 1915..... | 18.6 | 20.2 | 22.8 | 22.7 | 22.0 | 23.7 | 24.2 | 22.8 | 22.8 | 22.7 | 22.7 | 23.3 | 22.8 |
| 1916..... | 23.3 | 24.2 | 25.9 | 26.3 | 28.0 | 28.7 | 28.6 | 29.0 | 28.4 | 28.7 | 29.4 | 30.8 | 27.9 |
| 1917..... | 31.8 | 32.7 | 36.7 | 38.8 | 43.7 | 49.8 | 54.3 | 54.8 | 54.2 | 55.5 | 55.9 | 58.2 | 47.8 |
| 1918..... | 58.1 | 57.1 | 60.0 | 60.0 | 58.2 | 57.4 | 57.5 | 57.4 | 57.7 | 57.7 | 56.4 | 56.2 | 57.9 |
| 1919..... | 55.2 | 51.1 | 51.3 | 47.9 | 48.0 | 50.5 | 51.8 | 52.2 | 51.3 | 50.6 | 51.0 | 51.6 | 50.3 |
| 1920..... | 53.3 | 52.5 | 51.5 | 51.3 | 50.3 | 38.6 | 29.5 | 28.3 | 28.0 | 27.5 | 24.9 | 21.9 | 39.1 |
| A v. 1914–1920..... | 36.6 | 36.2 | 37.8 | 37.2 | 38.2 | 38.2 | 37.8 | 37.7 | 37.4 | 37.2 | 36.9 | 37.2 | 37.6 |
| 1921..... | 19.6 | 19.8 | 18.9 | 17.9 | 16.0 | 15.4 | 15.5 | 15.4 | 15.5 | 15.8 | 15.6 | 16.9 | 16.4 |
| 1922..... | 18.0 | 22.3 | 25.0 | 24.8 | 29.0 | 32.8 | 32.5 | 31.6 | 31.6 | 32.2 | 33.2 | 35.3 | 29.8 |
| 1923..... | 35.3 | 35.3 | 37.3 | 39.2 | 41.7 | 41.5 | 38.3 | 37.0 | 37.1 | 36.9 | 36.4 | 36.2 | 35.9 |
| 1924..... | 36.6 | 37.5 | 38.2 | 38.4 | 37.4 | 36.0 | 34.3 | 33.5 | 35.5 | 37.3 | 40.1 | 42.2 | 36.9 |
| 1925..... | 42.8 | 43.2 | 43.0 | 40.8 | 36.9 | 35.7 | 39.4 | 38.1 | 37.8 | 37.2 | 37.8 | 39.5 | 38.5 |

Division of Crop and Livestock Estimates.

TABLE 588.—*Wool: Average price per pound, Boston market, 1910–1925*

TERRITORY—FINE STAPLE, SCOURED

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | \$0.74 | \$0.73 | \$0.71 | \$0.68 | \$0.63 | \$0.61 | \$0.61 | \$0.62 | \$0.62 | \$0.63 | \$0.63 | \$0.63 | \$0.65 |
| 1911..... | .61 | .59 | .54 | .53 | .52 | .52 | .55 | .56 | .59 | .60 | .61 | .61 | .57 |
| 1912..... | .61 | .61 | .61 | .61 | .61 | .61 | .63 | .68 | .68 | .68 | .67 | .67 | .64 |
| 1913..... | .66 | .64 | .59 | .56 | .55 | .54 | .54 | .54 | .53 | .53 | .53 | .52 | .50 |
| 1914..... | .52 | .50 | .57 | .59 | .60 | .61 | .61 | .63 | .61 | .59 | .61 | .61 | .59 |
| 1915..... | .63 | .73 | .73 | .71 | .69 | .71 | .71 | .71 | .71 | .71 | .71 | .73 | .71 |
| 1916..... | .74 | .77 | .77 | .79 | .79 | .81 | .82 | .85 | .89 | .89 | .97 | 1.05 | .84 |
| 1917..... | 1.13 | 1.23 | 1.28 | 1.33 | 1.38 | 1.74 | 1.74 | 1.78 | 1.81 | 1.80 | 1.80 | 1.80 | 1.57 |
| 1918..... | 1.80 | 1.80 | 1.83 | 1.85 | 1.80 | 1.80 | 1.85 | 1.80 | 1.80 | 1.85 | 1.80 | 1.80 | 1.82 |
| 1919..... | 1.60 | 1.52 | 1.58 | 1.65 | 1.65 | 1.75 | 1.85 | 1.85 | 1.85 | 2.00 | 2.00 | 2.00 | 1.78 |
| 1920..... | 2.00 | 2.05 | 2.05 | 2.00 | 2.00 | 1.75 | 1.60 | 1.45 | 1.30 | 1.20 | .95 | .90 | 1.60 |
| Av. 1914–1920..... | 1.20 | 1.24 | 1.28 | 1.27 | 1.27 | 1.31 | 1.31 | 1.30 | 1.28 | 1.29 | 1.26 | 1.27 | 1.27 |
| 1921..... | .84 | .90 | .89 | .88 | .86 | .82 | .82 | .82 | .82 | .82 | .84 | .88 | .85 |
| 1922..... | .97 | 1.10 | 1.10 | 1.09 | 1.27 | 1.34 | 1.35 | 1.31 | 1.30 | 1.34 | 1.39 | 1.40 | 1.25 |
| 1923..... | 1.43 | 1.44 | 1.44 | 1.49 | 1.53 | 1.50 | 1.44 | 1.37 | 1.32 | 1.30 | 1.30 | 1.34 | 1.41 |
| 1924..... | 1.37 | 1.41 | 1.41 | 1.36 | 1.33 | 1.28 | 1.30 | 1.36 | 1.44 | 1.48 | 1.60 | 1.68 | 1.42 |
| 1925..... | 1.67 | 1.65 | 1.58 | 1.42 | 1.24 | 1.31 | 1.37 | 1.31 | 1.28 | 1.32 | 1.32 | 1.30 | 1.40 |
| Av. 1921–1925..... | 1.26 | 1.30 | 1.28 | 1.25 | 1.25 | 1.25 | 1.26 | 1.23 | 1.23 | 1.25 | 1.29 | 1.32 | 1.27 |

Division of Statistical and Historical Research. 1910–1920 data from quarterly reports of the National Association of Wool Manufacturers. 1921–1924 data from Boston Commercial Bulletin, average of weekly range.

¹Prices June–December, 1920, largely nominal.

TABLE 589.—*Wool, Territory, three-eighths blood combing, scoured: Average wholesale price per pound on Boston market, 1910–1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1910..... | 60 | 61 | 60 | 57 | 56 | 56 | 56 | 57 | 57 | 56 | 54 | 53 |
| 1911..... | 54 | 54 | 52 | 49 | 49 | 50 | 50 | 52 | 52 | 48 | 46 | 48 |
| 1912..... | 51 | 52 | 51 | 51 | 51 | 52 | 58 | 58 | 58 | 58 | 58 | 58 |
| 1913..... | 58 | 58 | 55 | 50 | 49 | 48 | 48 | 48 | 48 | 47 | 46 | 45 |
| 1914..... | 43 | 47 | 47 | 47 | 50 | 52 | 52 | 49 | 48 | 49 | 51 | 53 |
| 1915..... | 56 | 63 | 66 | 66 | 66 | 66 | 66 | 68 | 68 | 68 | 67 | 69 |
| 1916..... | 70 | 71 | 71 | 71 | 72 | 74 | 76 | 78 | 79 | 80 | 87 | 90 |
| 1917..... | 91 | 100 | 102 | 110 | 118 | 132 | 132 | 138 | 146 | 148 | 148 | 148 |
| 1918..... | 148 | 149 | 152 | 152 | 142 | 142 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| 1919..... | 126 | 121 | 121 | 110 | 118 | 120 | 128 | 137 | 138 | 127 | 130 | 135 |
| 1920..... | 135 | 135 | 131 | 130 | 125 | 112 | 99 | 95 | 88 | 74 | 65 | 56 |
| Av. 1914–1920..... | 96 | 98 | 99 | 98 | 99 | 100 | ----- | ----- | ----- | ----- | ----- | ----- |
| 1921..... | 53 | 55 | 55 | 54 | 53 | 50 | 51 | 52 | 52 | 52 | 54 | 58 |
| 1922..... | 63 | 79 | 77 | 74 | 83 | 88 | 88 | 90 | 92 | 95 | 99 | 98 |
| 1923..... | 100 | 105 | 105 | 107 | 111 | 111 | 109 | 105 | 108 | 101 | 104 | 108 |
| 1924..... | 109 | 112 | 112 | 109 | 105 | 96 | 97 | 107 | 113 | 117 | 124 | 132 |
| 1925..... | 132 | 131 | 125 | 110 | 92 | 100 | 102 | 102 | 102 | 102 | 110 | 109 |
| Av. 1921–1925..... | 91 | 95 | 95 | 91 | 89 | 89 | 89 | 91 | 92 | 93 | 98 | 101 |

Division of Statistical and Historical Research. Compiled from weekly quotations in Boston Commercial Bulletin.

¹Not reported. Prices fixed by Government.

TABLE 590.—Wool: Average price per pound, Boston market, 1900-1925

[Ohio, Pennsylvania, and West Virginia, $\frac{3}{4}$ blood—unwashed]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1900 | 29 | 28 | 27 | 27 | 26 | 25 | 25 | 24 | 24 | 24 | 23 | 24 | 26 |
| 1901 | 24 | 23 | 23 | 23 | 22 | 20 | 20 | 20 | 21 | 21 | 21 | 22 | 22 |
| 1902 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 23 | 23 | 24 | 22 |
| 1903 | 25 | 25 | 25 | 23 | 23 | 24 | 24 | 24 | 26 | 26 | 26 | 26 | 25 |
| 1904 | 25 | 26 | 26 | 26 | 26 | 28 | 28 | 28 | 29 | 29 | 31 | 32 | 28 |
| 1905 | 32 | 31 | 30 | 31 | 35 | 36 | 36 | 35 | 35 | 35 | 35 | 34 | 34 |
| 1906 | 34 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 34 | 34 | 34 | 33 |
| 1907 | 34 | 34 | 34 | 33 | 32 | 32 | 32 | 33 | 33 | 33 | 31 | 30 | 33 |
| 1908 | 31 | 31 | 30 | 29 | 25 | 26 | 25 | 25 | 26 | 26 | 27 | 28 | 27 |
| Av. 1904-1908 | 31 | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 32 | 32 | 31 |
| 1909 | 29 | 30 | 31 | 33 | 34 | 35 | 36 | 36 | 37 | 37 | 37 | 37 | 34 |
| 1910 | 37 | 37 | 36 | 34 | 31 | 28 | 28 | 28 | 28 | 29 | 29 | 29 | 31 |
| 1911 | 29 | 28 | 27 | 26 | 24 | 24 | 25 | 25 | 25 | 25 | 26 | 26 | 26 |
| 1912 | 27 | 28 | 28 | 28 | 28 | 28 | 29 | 30 | 31 | 31 | 31 | 31 | 29 |
| 1913 | 31 | 31 | 30 | 27 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 23 |
| Av. 1909-1913 | 31 | 31 | 30 | 30 | 28 | 28 | 28 | 29 | 29 | 29 | 29 | 29 | 29 |
| 1914 | 23 | 23 | 24 | 24 | 26 | 27 | 28 | 28 | 27 | 27 | 29 | 30 | 26 |
| 1915 | 31 | 37 | 38 | 35 | 35 | 37 | 38 | 37 | 37 | 37 | 37 | 38 | 36 |
| 1916 | 39 | 40 | 40 | 40 | 40 | 40 | 41 | 42 | 42 | 41 | 44 | 49 | 42 |
| 1917 | 48 | 53 | 54 | 57 | 61 | 71 | 75 | 75 | 77 | 75 | 76 | 76 | 67 |
| 1918 | 77 | 77 | 80 | 78 | 76 | 76 | 78 | 76 | 76 | 78 | 76 | 76 | 77 |
| 1919 | 75 | 66 | 60 | 60 | 60 | 62 | 72 | 70 | 70 | 67 | 68 | 70 | 67 |
| 1920 ¹ | 70 | 70 | 70 | 66 | 61 | 54 | 50 | 45 | 43 | 40 | 32 | 30 | 53 |
| Av. 1914-1920 | 52 | 52 | 52 | 51 | 51 | 52 | 54 | 53 | 53 | 52 | 52 | 53 | 53 |
| 1921 | 29 | 30 | 30 | 30 | 29 | 28 | 27 | 26 | 26 | 27 | 28 | 32 | 28 |
| 1922 | 37 | 41 | 41 | 39 | 43 | 48 | 47 | 47 | 48 | 50 | 54 | 54 | 40 |
| 1923 | 56 | 58 | 57 | 58 | 58 | 58 | 57 | 56 | 54 | 54 | 54 | 50 | 50 |
| 1924 | 56 | 58 | 58 | 57 | 53 | 49 | 50 | 54 | 58 | 61 | 64 | 71 | 57 |
| 1925 | 71 | 70 | 65 | 67 | 60 | 54 | 56 | 54 | 52 | 54 | 57 | 56 | 58 |
| Av. 1921-1925 | 50 | 51 | 50 | 48 | 47 | 47 | 47 | 47 | 48 | 49 | 51 | 54 | 49 |

Division of Statistical and Historical Research. 1900-1920, from quarterly reports of the National Association of Wool Manufacturers; 1921-1925, from Boston Commercial Bulletin, average of weekly range.

¹ Prices June to December, 1920, are largely nominal.

TABLE 591.—Wool: Average price per pound in England, 1909-1925

LINCOLN HOGGETTS¹

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909 | 17.8 | 18.0 | 18.0 | 18.0 | 18.0 | 19.5 | 19.5 | 19.0 | 19.5 | 20.0 | 20.0 | 20.0 | 18.9 |
| 1910 | 20.0 | 21.0 | 21.0 | 21.0 | 20.5 | 19.5 | 19.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.2 |
| 1911 | 20.0 | 20.5 | 20.5 | 20.5 | 20.2 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 21.0 | 20.2 | 20.2 |
| 1912 | 21.3 | 20.8 | 20.8 | 20.8 | 20.3 | 20.8 | 21.3 | 21.8 | 22.3 | 22.8 | 23.2 | 23.7 | 21.7 |
| 1913 | 25.4 | 25.9 | 26.4 | 26.4 | 26.4 | 26.9 | 26.9 | 27.9 | 25.8 | 25.8 | 25.8 | 25.3 | 26.2 |
| Av. 1909-1913 | 20.8 | 21.2 | 21.3 | 21.3 | 21.1 | 21.3 | 21.3 | 21.7 | 21.5 | 21.6 | 22.0 | 21.9 | 21.4 |
| 1914 | 25.8 | 27.3 | 27.4 | 27.4 | 27.5 | 26.5 | 25.5 | 26.0 | 25.9 | 26.8 | 28.6 | 28.4 | 21.9 |
| 1915 | 28.5 | 34.1 | 34.5 | 35.0 | 33.4 | 35.8 | 35.7 | 33.8 | 33.7 | 34.2 | 36.0 | 36.9 | 31.3 |
| 1916 ¹ | 37.6 | 37.7 | 39.7 | 39.7 | 38.7 | 37.7 | 37.7 | 37.7 | 38.7 | 39.6 | 41.6 | 43.5 | 39.2 |
| 1920 | 42.8 | 39.4 | 44.0 | 45.7 | 38.5 | 34.5 | 32.1 | 33.2 | 30.7 | 27.5 | 25.7 | 20.4 | 31.5 |
| 1921 | 21.9 | 21.0 | 17.9 | 17.2 | 16.6 | 13.4 | 12.5 | 13.3 | 14.0 | 14.5 | 15.7 | 15.2 | 16.1 |
| 1922 | 17.2 | 17.7 | 17.8 | 18.8 | 19.5 | 20.9 | 22.2 | 22.3 | 22.2 | 22.7 | 22.3 | 22.0 | 20.6 |
| 1923 | 23.8 | 24.4 | 24.5 | 24.2 | 24.1 | 24.5 | 25.8 | 25.7 | 25.5 | 25.0 | 24.2 | 24.5 | 24.7 |
| 1924 | 25.3 | 30.1 | 31.3 | 31.7 | 32.7 | 33.3 | 32.8 | 34.7 | 33.8 | 37.9 | 42.3 | 47.0 | 34.2 |
| 1925 | 46.8 | 45.7 | 43.8 | 42.0 | 34.4 | 29.4 | 29.4 | 30.9 | 31.3 | 33.3 | 36.3 | 35.4 | 36.5 |
| Av. 1921-1925 | 27.0 | 27.8 | 27.1 | 26.8 | 25.5 | 24.3 | 24.5 | 26.4 | 26.4 | 26.7 | 28.2 | 29.0 | 26.4 |

TABLE 591.—*Wool: Average price per pound in England, 1909-1925—Continued*LINCOLN WETHERS¹

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1909..... | 15.5 | 16.0 | 16.0 | 16.0 | 16.0 | 16.5 | 15.5 | 16.0 | 17.0 | 17.0 | 18.0 | 18.5 | 16.5 |
| 1910..... | 18.5 | 20.0 | 20.0 | 19.5 | 19.0 | 18.5 | 17.5 | 19.0 | 20.0 | 19.5 | 19.0 | 20.0 | 19.2 |
| 1911..... | 19.7 | 20.0 | 20.2 | 20.0 | 19.5 | 19.5 | 19.5 | 19.0 | 19.0 | 19.0 | 19.5 | 19.5 | 19.5 |
| 1912..... | 20.2 | 20.3 | 19.8 | 19.7 | 19.5 | 19.8 | 20.8 | 21.3 | 21.8 | 22.3 | 22.7 | 23.2 | 20.1 |
| 1913..... | 23.8 | 25.4 | 25.9 | 25.9 | 25.8 | 25.9 | 25.4 | 24.8 | 24.8 | 24.8 | 24.8 | 24.7 | 25.2 |
| A v. 1909-1913..... | 19.5 | 20.3 | 20.4 | 20.2 | 20.0 | 20.0 | 19.7 | 20.0 | 20.5 | 20.5 | 20.8 | 21.2 | 20.1 |
| 1914..... | 24.3 | 24.8 | 25.3 | 24.9 | 24.4 | 24.4 | 23.4 | 24.0 | 24.4 | 26.8 | 28.6 | 27.4 | 25.2 |
| 1915..... | 27.2 | 33.1 | 33.5 | 34.0 | 33.4 | 35.8 | 35.7 | 33.8 | 33.7 | 34.2 | 36.0 | 36.9 | 33.9 |
| 1916 ² | 37.6 | 37.7 | 39.7 | 39.7 | 38.7 | 37.7 | 37.7 | 37.7 | 38.7 | 39.6 | 41.6 | 43.5 | 39.2 |
| 1920..... | 41.3 | 38.0 | 42.5 | 42.4 | 33.7 | 32.1 | 28.1 | 26.4 | 25.6 | 21.7 | 20.0 | 17.5 | 30.8 |
| 1921..... | 17.2 | 16.1 | 13.0 | 12.3 | 11.6 | 9.8 | 9.8 | 10.3 | 10.5 | 11.3 | 12.0 | 11.7 | 12.1 |
| 1922..... | 13.2 | 13.6 | 13.7 | 13.8 | 14.4 | 14.4 | 15.2 | 15.3 | 14.3 | 14.3 | 15.4 | 17.8 | 14.6 |
| 1923..... | 18.4 | 19.1 | 19.1 | 18.9 | 19.3 | 19.7 | 20.1 | 20.4 | 20.3 | 20.7 | 21.9 | 23.6 | 20.1 |
| 1924..... | 24.8 | 20.6 | 30.4 | 30.8 | 31.8 | 32.4 | 32.3 | 33.8 | 33.4 | 36.0 | 39.4 | 44.0 | 34.5 |
| 1925..... | 43.8 | 46.7 | 39.8 | 37.0 | 30.3 | 26.3 | 28.3 | 29.3 | 29.3 | 31.3 | 33.3 | 32.3 | 33.7 |
| A v. 1921-1925..... | 23.5 | 25.0 | 23.2 | 22.6 | 21.5 | 20.5 | 21.1 | 21.8 | 21.6 | 22.7 | 24.4 | 25.9 | 23.0 |

Division of Statistical and Historical Research. From the Yorkshire Observer "Trade Review" of 1922 for 1909-1922; subsequently from annual issues of that publication. Converted at par prior to 1912; after 1911, converted to cents per pound on the basis of the monthly average rate of exchange as given in Federal Reserve Bulletins.

¹ First shorn fleeces, but not lambs' wool.

² Period of price control. Approximate issue prices: 1917, 50 cts.; 1918, 55 cts.; 1919, 46-48 cts.

³ Includes all fleeces shorn after the first.

TABLE 592.—*Wool: Consumption in United States, by classes, 1918-1925*

[Thousand pounds—i. e., 000 omitted]

GREASE

| Year | Combing | | Clothing | | Carpet | | Total | |
|---------------------|----------|---------|----------|---------|-----------------|-----------------|----------|---------|
| | Domestic | Foreign | Domestic | Foreign | Foreign combing | Foreign filling | Domestic | Foreign |
| 1918..... | 164,878 | 217,571 | 17,845 | 17,350 | 16,414 | 15,703 | 182,723 | 267,038 |
| 1919..... | 192,936 | 172,346 | 20,095 | 11,869 | 24,672 | 28,747 | 203,931 | 237,634 |
| 1920..... | 134,824 | 172,546 | 17,914 | 11,997 | 28,356 | 28,364 | 152,738 | 241,263 |
| 1921..... | 159,340 | 117,704 | 20,243 | 11,134 | 22,968 | 27,291 | 179,583 | 179,097 |
| 1922..... | 210,142 | 87,061 | 26,750 | 8,344 | 58,797 | 51,664 | 236,802 | 205,806 |
| 1923..... | 111,494 | 169,540 | 17,487 | 7,072 | 72,231 | 63,215 | 128,981 | 312,058 |
| 1924..... | 152,960 | 81,635 | 15,483 | 3,508 | 54,042 | 60,047 | 168,443 | 199,232 |
| 1925..... | 135,278 | 84,598 | 15,506 | 1,580 | 56,848 | 62,037 | 150,784 | 205,060 |
| A v. 1921-1925..... | 153,843 | 108,108 | 19,004 | 6,329 | 52,977 | 52,851 | 172,937 | 220,264 |
| 1925..... | | | | | | | | |
| January..... | 14,568 | 8,119 | 1,652 | 162 | 6,298 | 5,580 | 16,220 | 20,159 |
| February..... | 11,994 | 7,026 | 1,544 | 152 | 5,927 | 5,380 | 13,538 | 18,485 |
| March..... | 10,002 | 6,835 | 1,613 | 130 | 6,374 | 6,239 | 11,515 | 19,578 |
| April..... | 8,496 | 6,579 | 1,188 | 112 | 6,035 | 6,352 | 9,684 | 19,078 |
| May..... | 7,509 | 5,952 | 1,133 | 145 | 4,794 | 5,193 | 8,642 | 16,084 |
| June..... | 8,168 | 6,851 | 927 | 100 | 4,090 | 4,332 | 9,095 | 15,373 |
| July..... | 10,361 | 6,716 | 1,120 | 112 | 4,061 | 4,985 | 11,490 | 15,874 |
| August..... | 12,152 | 6,005 | 1,496 | 125 | 3,809 | 5,022 | 13,648 | 14,961 |
| September..... | 13,072 | 6,089 | 1,355 | 162 | 4,359 | 4,710 | 14,427 | 15,310 |
| October..... | 13,577 | 7,622 | 1,295 | 105 | 3,818 | 4,929 | 15,172 | 16,474 |
| November..... | 12,021 | 7,722 | 1,227 | 133 | 3,614 | 4,880 | 13,248 | 16,349 |
| December..... | 13,068 | 9,082 | 1,047 | 158 | 3,669 | 4,435 | 14,105 | 17,344 |

TABLE 592.—Wool: Consumption in United States, by classes, 1918-1925—Con.

[Thousands of pounds—1. e., 000 omitted]

SCOURED

| Year | Combing | | Clothing | | Carpet | | Total | |
|---------------------|----------|---------|----------|---------|-----------------|-----------------|----------|---------|
| | Domestic | Foreign | Domestic | Foreign | Foreign combing | Foreign filling | Domestic | Foreign |
| 1918..... | 11,033 | 16,623 | 30,466 | 64,846 | 1,177 | 2,777 | 41,499 | 85,423 |
| 1919..... | 5,767 | 4,520 | 30,902 | 28,662 | 1,279 | 4,407 | 36,669 | 38,838 |
| 1920..... | 5,908 | 5,492 | 30,263 | 22,828 | 1,359 | 5,645 | 36,169 | 35,322 |
| 1921..... | 7,074 | 3,040 | 34,630 | 18,236 | 630 | 4,147 | 41,704 | 20,053 |
| 1922..... | 8,374 | 2,753 | 47,547 | 19,347 | 1,285 | 5,410 | 55,921 | 28,795 |
| 1923..... | 7,051 | 3,774 | 42,506 | 21,900 | 1,010 | 4,914 | 49,557 | 31,007 |
| 1924..... | 5,804 | 3,409 | 40,718 | 16,089 | 533 | 3,122 | 46,522 | 23,153 |
| 1925..... | 6,393 | 3,698 | 40,720 | 12,568 | 843 | 3,091 | 47,113 | 20,200 |
| A v. 1921-1925..... | 6,939 | 3,335 | 41,224 | 17,630 | 860 | 4,137 | 48,163 | 25,962 |
| 1925 | | | | | | | | |
| January..... | 592 | 408 | 3,549 | 1,344 | 77 | 290 | 4,111 | 2,119 |
| February..... | 712 | 377 | 3,269 | 1,160 | 53 | 349 | 3,981 | 1,939 |
| March..... | 489 | 296 | 3,737 | 1,013 | 132 | 402 | 4,226 | 1,813 |
| April..... | 428 | 320 | 3,558 | 1,104 | 38 | 295 | 3,986 | 1,777 |
| May..... | 448 | 225 | 3,275 | 1,159 | 49 | 264 | 3,723 | 1,717 |
| June..... | 660 | 191 | 3,231 | 1,019 | 48 | 258 | 3,891 | 1,516 |
| July..... | 581 | 211 | 3,270 | 929 | 93 | 178 | 3,851 | 1,411 |
| August..... | 495 | 204 | 3,278 | 914 | 63 | 243 | 3,773 | 1,424 |
| September..... | 475 | 594 | 3,490 | 945 | 60 | 171 | 3,965 | 1,770 |
| October..... | 491 | 397 | 3,731 | 1,107 | 63 | 289 | 4,222 | 1,856 |
| November..... | 531 | 247 | 3,271 | 899 | 47 | 156 | 3,802 | 1,349 |
| December..... | 491 | 258 | 3,061 | 975 | 100 | 176 | 3,532 | 1,509 |

PULLED

| | | | | | | | | |
|---------------------|-------|-------|--------|-------|-------|-------|--------|--------|
| 1918..... | 9,977 | 2,085 | 8,497 | 2,018 | 179 | 1,277 | 18,474 | 7,059 |
| 1919..... | 9,707 | 537 | 8,809 | 944 | 321 | 2,224 | 18,516 | 4,026 |
| 1920..... | 7,514 | 675 | 6,116 | 714 | 420 | 2,199 | 13,630 | 4,308 |
| 1921..... | 9,445 | 1,125 | 11,024 | 1,052 | 1,149 | 2,680 | 20,469 | 6,006 |
| 1922..... | 9,609 | 960 | 9,840 | 1,485 | 2,264 | 3,415 | 19,449 | 8,124 |
| 1923..... | 8,052 | 1,923 | 8,315 | 2,080 | 2,884 | 5,409 | 16,367 | 12,296 |
| 1924..... | 5,852 | 703 | 9,492 | 1,241 | 1,052 | 4,707 | 15,344 | 7,703 |
| 1925..... | 6,165 | 1,728 | 9,071 | 895 | 2,351 | 6,640 | 15,230 | 11,614 |
| A v. 1921-1925..... | 7,825 | 1,288 | 9,548 | 1,351 | 1,940 | 4,570 | 17,373 | 9,149 |
| 1925 | | | | | | | | |
| January..... | 473 | 52 | 805 | 44 | 215 | 313 | 1,278 | 624 |
| February..... | 468 | 205 | 690 | 61 | 110 | 390 | 1,158 | 759 |
| March..... | 363 | 230 | 728 | 171 | 178 | 344 | 1,091 | 921 |
| April..... | 514 | 36 | 908 | 128 | 111 | 552 | 1,422 | 827 |
| May..... | 387 | 34 | 872 | 79 | 201 | 407 | 1,259 | 721 |
| June..... | 633 | 103 | 702 | 80 | 161 | 500 | 1,335 | 834 |
| July..... | 752 | 68 | 712 | 49 | 184 | 405 | 1,464 | 700 |
| August..... | 623 | 105 | 737 | 61 | 195 | 637 | 1,360 | 999 |
| September..... | 394 | 82 | 788 | 35 | 232 | 860 | 1,172 | 1,209 |
| October..... | 617 | 180 | 695 | 75 | 245 | 831 | 1,312 | 1,331 |
| November..... | 612 | 387 | 752 | 57 | 225 | 746 | 1,264 | 1,415 |
| December..... | 439 | 245 | 682 | 55 | 306 | 665 | 1,121 | 1,271 |

Division of Statistical and Historical Research. Compiled from Wool Consumption Reports issued monthly by the Bureau of Agricultural Economics, January, 1918-April, 1922; and by the Bureau of the Census, May, 1922-December, 1925.

TABLE 593.—Livestock: Receipts, local slaughter, and stocker and feeder shipments at all public stockyards in United States, 1915-1925

[Thousands—1, e., 000 omitted]

| Year | Cattle | | | Hogs | | | Sheep | | |
|-----------|----------|-----------------|------------------------------|----------|-----------------|------------------------------|----------|-----------------|------------------------------|
| | Receipts | Local slaughter | Stocker and feeder shipments | Receipts | Local slaughter | Stocker and feeder shipments | Receipts | Local slaughter | Stocker and feeder shipments |
| 1915..... | 14, 553 | 7, 912 | (¹) | 36, 213 | 24, 893 | (¹) | 18, 435 | 10, 254 | (¹) |
| 1916..... | 17, 676 | 10, 294 | 3, 847 | 43, 265 | 30, 984 | 194 | 20, 892 | 11, 228 | 3, 277 |
| 1917..... | 23, 066 | 13, 275 | 4, 803 | 38, 042 | 25, 440 | 788 | 20, 216 | 9, 142 | 4, 448 |
| 1918..... | 25, 295 | 14, 874 | 5, 013 | 44, 863 | 30, 441 | 989 | 22, 485 | 10, 266 | 5, 208 |
| 1919..... | 24, 624 | 13, 033 | 5, 286 | 44, 469 | 30, 018 | 902 | 27, 266 | 12, 646 | 6, 966 |
| 1920..... | 22, 197 | 12, 194 | 4, 102 | 42, 121 | 26, 761 | 728 | 23, 538 | 10, 961 | 5, 190 |
| 1921..... | 19, 787 | 11, 078 | 3, 504 | 41, 101 | 26, 335 | 499 | 24, 168 | 12, 858 | 3, 095 |
| 1922..... | 23, 217 | 12, 435 | 4, 929 | 44, 067 | 28, 737 | 593 | 22, 364 | 10, 669 | 4, 167 |
| 1923..... | 23, 211 | 13, 030 | 4, 553 | 55, 330 | 36, 172 | 820 | 22, 025 | 10, 271 | 4, 478 |
| 1924..... | 23, 695 | 13, 850 | 3, 966 | 55, 414 | 35, 188 | 497 | 22, 201 | 10, 399 | 4, 679 |
| 1925..... | 24, 067 | 14, 462 | 3, 823 | 43, 929 | 27, 665 | 532 | 22, 100 | 10, 399 | 4, 332 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Complete information for 1915 and 1916, particularly on disposition of stock, is not obtainable from many markets.

TABLE 594.—Livestock: Number of animals slaughtered at Federal-inspected plants, 1907-1925

| Year ending June 30— | Cattle | Calves | Sheep | Goats | Swine | Horses | Total |
|----------------------|--------------|-------------|--------------|----------|--------------|---------|--------------|
| 1907..... | 7, 621, 717 | 1, 763, 574 | 9, 681, 876 | 52, 149 | 31, 815, 900 | ----- | 50, 985, 216 |
| 1908..... | 7, 116, 275 | 1, 995, 487 | 9, 702, 545 | 45, 953 | 35, 113, 077 | ----- | 53, 973, 337 |
| 1909..... | 7, 325, 337 | 2, 046, 711 | 10, 802, 903 | 69, 193 | 35, 427, 931 | ----- | 55, 672, 075 |
| 1910..... | 7, 962, 189 | 2, 295, 099 | 11, 149, 937 | 115, 811 | 27, 556, 021 | ----- | 49, 179, 057 |
| 1911..... | 7, 781, 030 | 2, 219, 908 | 13, 005, 502 | 64, 145 | 29, 910, 303 | ----- | 52, 976, 948 |
| 1912..... | 7, 532, 005 | 2, 242, 920 | 14, 208, 724 | 63, 983 | 34, 960, 378 | ----- | 59, 014, 019 |
| 1913..... | 7, 155, 820 | 2, 098, 484 | 14, 724, 465 | 56, 556 | 32, 287, 538 | ----- | 56, 322, 882 |
| 1914..... | 6, 724, 117 | 1, 814, 904 | 14, 958, 834 | 121, 827 | 33, 289, 705 | ----- | 56, 909, 387 |
| 1915..... | 6, 964, 502 | 1, 735, 902 | 12, 909, 089 | 165, 533 | 36, 247, 858 | ----- | 58, 022, 884 |
| 1916..... | 7, 404, 288 | 2, 043, 022 | 11, 985, 926 | 180, 356 | 40, 482, 799 | ----- | 62, 101, 391 |
| 1917..... | 9, 299, 489 | 2, 679, 745 | 11, 343, 418 | 174, 649 | 40, 210, 847 | ----- | 63, 708, 148 |
| 1918..... | 10, 938, 287 | 3, 323, 077 | 8, 769, 498 | 149, 603 | 35, 449, 247 | ----- | 58, 620, 612 |
| 1919..... | 11, 241, 991 | 3, 674, 227 | 11, 268, 370 | 125, 660 | 44, 398, 389 | ----- | 70, 708, 637 |
| 1920..... | 9, 706, 819 | 4, 227, 558 | 12, 334, 827 | 77, 270 | 38, 981, 914 | 1, 089 | 65, 332, 477 |
| 1921..... | 8, 179, 572 | 3, 896, 207 | 12, 462, 435 | 20, 027 | 37, 702, 866 | 1, 335 | 62, 252, 442 |
| 1922..... | 7, 871, 467 | 3, 924, 255 | 11, 968, 434 | 13, 758 | 39, 416, 439 | 1, 898 | 63, 196, 241 |
| 1923..... | 9, 020, 536 | 4, 337, 780 | 11, 403, 703 | 25, 129 | 48, 600, 069 | 1, 459 | 73, 397, 676 |
| 1924..... | 9, 188, 652 | 4, 667, 948 | 11, 505, 001 | 31, 279 | 54, 410, 481 | 4, 699 | 79, 814, 060 |
| 1925..... | 9, 773, 883 | 5, 185, 316 | 12, 203, 159 | 26, 570 | 48, 459, 608 | 11, 909 | 75, 660, 445 |

Bureau of Animal Industry.

TABLE 595.—Livestock: Combined farm values, by States, Jan. 1, 1920-1926

| State | Cattle, hogs, and sheep | | | Horses and mules | | | Total (cattle, hogs, sheep, horses, and mules) | | | Rank in aggregate value | |
|---------------------|-------------------------|------------|------------|--------------------|------------|------------|--|------------|------------|-------------------------|-------|
| | Average, 1920-1924 | 1925 | 1926 | Average, 1920-1924 | 1925 | 1926 | Average, 1920-1924 | 1925 | 1926 | 1925 | 1926 |
| | Mil. dols. | Mil. dols. | Mil. dols. | Mil. dols. | Mil. dols. | Mil. dols. | Mil. dols. | Mil. dols. | Mil. dols. | Order | Order |
| Maine..... | 15 | 12 | 14 | 12 | 10 | 10 | 27 | 22 | 24 | 42 | 42 |
| New Hampshire..... | 9 | 6 | 8 | 4 | 3 | 2 | 13 | 9 | 10 | 46 | 46 |
| Vermont..... | 24 | 19 | 23 | 9 | 7 | 6 | 33 | 26 | 29 | 39 | 40 |
| Massachusetts..... | 17 | 14 | 15 | 7 | 5 | 5 | 24 | 19 | 20 | 43 | 43 |
| Rhode Island..... | 3 | 2 | 2 | 1 | 1 | 1 | 4 | 3 | 3 | 48 | 48 |
| Connecticut..... | 13 | 11 | 13 | 5 | 4 | 4 | 18 | 15 | 17 | 45 | 45 |
| New York..... | 141 | 110 | 137 | 63 | 49 | 47 | 204 | 159 | 184 | 10 | 10 |
| New Jersey..... | 17 | 12 | 14 | 10 | 7 | 6 | 27 | 19 | 20 | 44 | 44 |
| Pennsylvania..... | 107 | 85 | 99 | 61 | 46 | 46 | 168 | 131 | 145 | 15 | 14 |
| Ohio..... | 148 | 126 | 138 | 79 | 57 | 58 | 227 | 183 | 196 | 9 | 9 |
| Indiana..... | 121 | 102 | 118 | 64 | 46 | 50 | 185 | 148 | 168 | 11 | 11 |
| Illinois..... | 195 | 176 | 204 | 110 | 84 | 86 | 305 | 250 | 290 | 3 | 3 |
| Michigan..... | 100 | 92 | 99 | 53 | 42 | 42 | 153 | 134 | 141 | 14 | 15 |
| Wisconsin..... | 183 | 159 | 192 | 68 | 55 | 55 | 251 | 214 | 247 | 6 | 6 |
| Minnesota..... | 164 | 162 | 191 | 74 | 65 | 65 | 238 | 227 | 256 | 8 | 4 |
| Iowa..... | 331 | 326 | 301 | 115 | 94 | 92 | 446 | 420 | 453 | 1 | 1 |
| Missouri..... | 163 | 127 | 115 | 88 | 60 | 60 | 251 | 187 | 205 | 8 | 7 |
| North Dakota..... | 54 | 51 | 57 | 52 | 41 | 41 | 106 | 92 | 98 | 17 | 16 |
| South Dakota..... | 115 | 107 | 112 | 46 | 36 | 36 | 161 | 143 | 147 | 12 | 13 |
| Nebraska..... | 182 | 181 | 196 | 68 | 59 | 60 | 250 | 240 | 256 | 4 | 5 |
| Kansas..... | 139 | 131 | 142 | 80 | 60 | 59 | 219 | 191 | 201 | 7 | 8 |
| Delaware..... | 3 | 3 | 3 | 3 | 2 | 2 | 6 | 5 | 5 | 47 | 47 |
| Maryland..... | 21 | 17 | 19 | 15 | 12 | 12 | 36 | 29 | 31 | 38 | 38 |
| Virginia..... | 48 | 37 | 37 | 39 | 28 | 25 | 87 | 65 | 62 | 29 | 28 |
| West Virginia..... | 33 | 26 | 27 | 17 | 12 | 11 | 50 | 38 | 38 | 37 | 37 |
| North Carolina..... | 41 | 28 | 28 | 57 | 46 | 44 | 98 | 74 | 72 | 22 | 22 |
| South Carolina..... | 25 | 15 | 13 | 43 | 30 | 29 | 68 | 45 | 42 | 35 | 35 |
| Georgia..... | 46 | 29 | 27 | 62 | 43 | 42 | 108 | 72 | 69 | 23 | 25 |
| Florida..... | 26 | 17 | 16 | 12 | 9 | 9 | 38 | 26 | 25 | 41 | 41 |
| Kentucky..... | 55 | 42 | 47 | 54 | 34 | 33 | 109 | 76 | 80 | 20 | 20 |
| Tennessee..... | 51 | 34 | 36 | 62 | 41 | 38 | 113 | 75 | 74 | 21 | 21 |
| Alabama..... | 35 | 22 | 21 | 46 | 33 | 35 | 81 | 55 | 56 | 30 | 30 |
| Mississippi..... | 38 | 20 | 22 | 50 | 38 | 37 | 88 | 58 | 59 | 27 | 29 |
| Arkansas..... | 33 | 20 | 22 | 45 | 30 | 29 | 78 | 60 | 61 | 32 | 33 |
| Louisiana..... | 29 | 19 | 18 | 36 | 24 | 23 | 65 | 43 | 41 | 36 | 36 |
| Oklahoma..... | 68 | 47 | 53 | 65 | 47 | 42 | 133 | 94 | 95 | 16 | 17 |
| Texas..... | 247 | 175 | 173 | 163 | 133 | 118 | 410 | 308 | 291 | 2 | 2 |
| Montana..... | 70 | 70 | 77 | 30 | 20 | 17 | 100 | 90 | 94 | 18 | 18 |
| Idaho..... | 51 | 47 | 55 | 19 | 11 | 12 | 70 | 58 | 67 | 29 | 26 |
| Wyoming..... | 55 | 54 | 64 | 8 | 6 | 6 | 63 | 60 | 70 | 26 | 24 |
| Colorado..... | 80 | 70 | 74 | 27 | 18 | 19 | 107 | 88 | 93 | 19 | 19 |
| New Mexico..... | 68 | 49 | 55 | 12 | 9 | 8 | 80 | 58 | 68 | 28 | 27 |
| Arizona..... | 50 | 37 | 43 | 10 | 8 | 6 | 60 | 45 | 49 | 34 | 34 |
| Utah..... | 38 | 39 | 46 | 9 | 7 | 7 | 47 | 46 | 53 | 33 | 31 |
| Nevada..... | 26 | 23 | 28 | 4 | 3 | 3 | 20 | 26 | 31 | 40 | 39 |
| Washington..... | 37 | 35 | 35 | 24 | 17 | 17 | 61 | 52 | 52 | 31 | 32 |
| Oregon..... | 53 | 51 | 56 | 22 | 16 | 15 | 75 | 67 | 71 | 24 | 23 |
| California..... | 136 | 112 | 129 | 39 | 30 | 28 | 175 | 142 | 157 | 13 | 12 |
| United States..... | 3,704 | 3,149 | 3,504 | 2,042 | 1,538 | 1,497 | 5,746 | 4,687 | 5,061 | ----- | ----- |

Division of Crop and Livestock Estimates.

TABLE 596.—*Meat and meat products¹ prepared under Federal inspection, 1907-1925*

(Thousand pounds—1. e., 000 omitted)

| Year ending June 30— | Pork placed in cure | Sausage chopped | Canned meats | Lard | Lard compounds and substitutes | Oleo products | Oleo-marine | All other products | Total |
|----------------------|---------------------|-----------------|--------------|-----------|--------------------------------|---------------|-------------|--------------------|-----------|
| 1907..... | 2,248,886 | 267,760 | 106,196 | 1,008,602 | 353,549 | 283,971 | 56,694 | 145,554 | 4,464,213 |
| 1908..... | 2,676,907 | 416,200 | 102,582 | 1,433,778 | 436,448 | 323,426 | 79,380 | 330,487 | 5,958,298 |
| 1909..... | 2,686,061 | 487,095 | 123,810 | 1,308,986 | 488,249 | 295,889 | 91,068 | 1,340,289 | 6,791,437 |
| 1910..... | 2,216,680 | 485,864 | 127,263 | 948,468 | 671,626 | 296,429 | 139,158 | 1,338,576 | 6,223,961 |
| 1911..... | 2,568,149 | 488,814 | 144,942 | 1,185,503 | 672,845 | 330,688 | 117,848 | 1,425,444 | 6,934,233 |
| 1912..... | 2,633,752 | 523,893 | 153,871 | 1,309,140 | 648,443 | 297,038 | 128,319 | 1,585,103 | 7,279,559 |
| 1913..... | 2,545,358 | 531,626 | 115,237 | 1,222,857 | 670,802 | 264,705 | 145,356 | 1,596,869 | 7,094,810 |
| 1914..... | 2,568,335 | 542,017 | 120,473 | 1,187,963 | 590,409 | 274,625 | 143,999 | 1,605,475 | 7,033,290 |
| 1915..... | 2,913,328 | 502,875 | 235,963 | 1,277,734 | 520,899 | 273,019 | 145,931 | 1,663,491 | 7,533,070 |
| 1916..... | 2,922,381 | 565,047 | 164,200 | 1,277,870 | 397,089 | 287,047 | 152,388 | 1,708,972 | 7,474,904 |
| 1917..... | 2,918,211 | 635,860 | 283,319 | 1,119,315 | 466,198 | 279,197 | 225,074 | 1,736,459 | 7,663,633 |
| 1918..... | 3,152,549 | 624,827 | 468,633 | 943,851 | 453,164 | 263,630 | 265,335 | 1,743,196 | 7,905,185 |
| 1919..... | 3,717,838 | 607,002 | 632,259 | 1,256,043 | 469,732 | 266,808 | 231,170 | 1,907,590 | 9,169,042 |
| 1920..... | 2,903,854 | 682,521 | 211,621 | 1,316,918 | 328,567 | 364,992 | 217,561 | 1,749,224 | 7,765,158 |
| 1921..... | 2,501,885 | 583,777 | 86,240 | 1,487,820 | 339,366 | 253,397 | 151,638 | 1,723,607 | 7,127,820 |
| 1922..... | 2,725,061 | 568,626 | 169,481 | 1,659,331 | 312,014 | 268,034 | 118,197 | 1,666,402 | 7,427,118 |
| 1923..... | 3,366,258 | 679,315 | 160,132 | 2,017,939 | 336,843 | 278,137 | 129,767 | 1,920,156 | 8,888,547 |
| 1924..... | 3,502,368 | 707,323 | 183,026 | 2,110,660 | 363,320 | 299,008 | 142,881 | 2,136,254 | 9,401,840 |
| 1925..... | 3,176,714 | 736,877 | 214,330 | 1,733,933 | 458,518 | 287,271 | 133,836 | 2,170,598 | 8,912,077 |

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¹ The above figures do not represent production, as a product may be inspected more than once in course of further manufacture.TABLE 597.—*Livestock: Condemnation of animals and primal parts under Federal meat inspection, 1907-1925*

| Year ended June 30— | Cattle | | Calves | | Sheep | | Goats | | Swine | | Horses | | Total | |
|---------------------|-----------|---------|-----------|-------|-----------|-------|-----------|-------------|-----------|-------|-----------|-------|-----------|-----------|
| | Carcasses | Parts | Carcasses | Parts | Carcasses | Parts | Carcasses | Parts | Carcasses | Parts | Carcasses | Parts | Carcasses | Parts |
| 1907..... | 27,933 | 93,174 | 6,414 | 245 | 9,524 | 296 | 42 | 105,879 | 436,161 | ..... | ..... | ..... | 149,702 | 520,876 |
| 1908..... | 33,216 | 97,492 | 5,854 | 396 | 8,060 | 196 | 33 | 1127,953 | 636,589 | ..... | ..... | ..... | 175,126 | 704,666 |
| 1909..... | 35,103 | 96,739 | 8,213 | 409 | 10,747 | 179 | 82 | 1,84,912 | 799,300 | ..... | ..... | ..... | 141,057 | 899,626 |
| 1910..... | 42,426 | 122,187 | 7,634 | 500 | 11,127 | 24 | 226 | 1,32,439 | 726,829 | ..... | ..... | ..... | 113,742 | 874,211 |
| 1911..... | 39,402 | 123,969 | 7,654 | 781 | 10,789 | 7,394 | 61 | 59,477 | 877,528 | ..... | ..... | ..... | 117,383 | 1,060,672 |
| 1912..... | 50,363 | 134,783 | 8,927 | 1,212 | 15,402 | 3,871 | 84 | 1,129,002 | 323,992 | ..... | ..... | ..... | 206,778 | 466,859 |
| 1913..... | 50,775 | 130,139 | 9,216 | 1,377 | 16,657 | 939 | 76 | 1,173,937 | 373,903 | ..... | ..... | ..... | 250,661 | 506,449 |
| 1914..... | 48,356 | 138,085 | 6,696 | 1,234 | 20,563 | 1,564 | 746 | 830,942 | 422,275 | ..... | ..... | ..... | 281,303 | 563,166 |
| 1915..... | 62,665 | 178,409 | 6,380 | 1,750 | 17,680 | 298 | 658 | 14,222,605 | 464,217 | ..... | ..... | ..... | 299,958 | 644,688 |
| 1916..... | 57,673 | 186,915 | 6,640 | 1,988 | 16,063 | 1,007 | 667 | 161,206,711 | 546,290 | ..... | ..... | ..... | 286,964 | 728,361 |
| 1917..... | 78,773 | 249,637 | 10,168 | 2,927 | 16,758 | 418 | 1,351 | 42,164,682 | 628,298 | ..... | ..... | ..... | 271,732 | 781,307 |
| 1918..... | 68,208 | 178,940 | 8,127 | 2,308 | 12,568 | 227 | 419 | 116,943 | 347,006 | ..... | ..... | ..... | 206,265 | 528,481 |
| 1919..... | 69,636 | 166,791 | 9,220 | 2,479 | 14,385 | 330 | 318 | 17,131,274 | 433,433 | ..... | ..... | ..... | 214,833 | 603,080 |
| 1920..... | 58,621 | 194,058 | 13,520 | 2,868 | 20,031 | 627 | 135 | 1,135,477 | 550,580 | 04 | ..... | ..... | 4,228,148 | 748,136 |
| 1921..... | 46,981 | 176,762 | 7,720 | 2,323 | 12,682 | 270 | 23 | 10,124,208 | 492,132 | 19 | ..... | ..... | 7,191,533 | 671,504 |
| 1922..... | 55,158 | 166,935 | 11,406 | 2,376 | 10,489 | 496 | 30 | 21,162,926 | 697,393 | 30 | ..... | ..... | 240,071 | 867,221 |
| 1923..... | 73,830 | 176,332 | 11,624 | 2,383 | 13,383 | 232 | 51 | 4,109,689 | 532,317 | 14 | ..... | ..... | 1,298,263 | 1,011,329 |
| 1924..... | 58,937 | 176,080 | 12,739 | 2,866 | 12,835 | 575 | 321 | 230,879 | 1,179,301 | 36 | ..... | ..... | 346,767 | 1,358,535 |
| 1925..... | 92,073 | 189,561 | 11,122 | 2,837 | 12,707 | 396 | 114 | 181,764 | 1,101,806 | 40 | ..... | ..... | 1,297,820 | 1,294,621 |

Bureau of Animal Industry.

TABLE 598.—*Livestock, cattle and calves: Causes of condemnation of carcasses, Federal meat inspection, 1907-1925*

CATTLE

| Year ended June 30— | Acti- nomy- cosis (lump jaw) | Bone dis- eases | Emac- iation | Icterus (jaun- dice) | Imma- turity | Inju- ries, bruises, etc. | Pneu- monia, pleu- risy, enter- itis, hepati- tis, no- phri- tis, me- tritis, etc. | Septi- cemia, pye- mia, and uræmia | Tuber- culosis | Tu- mors and abs- cesses | All other causes | Total |
|------------------------|--|-----------------------|-----------------|----------------------------|-----------------|------------------------------------|---|--|-------------------|--------------------------------------|------------------------|--------|
| 1907..... | 661 | (1) | (1) | (1) | ----- | 2,290 | 1,376 | 917 | 19,305 | 180 | 3,204 | 27,933 |
| 1908..... | 667 | (1) | (1) | 125 | ----- | 1,856 | 1,506 | 1,015 | 24,371 | 116 | 3,560 | 33,216 |
| 1909..... | 589 | (1) | (1) | 60 | ----- | 2,261 | 1,418 | 845 | 24,525 | 107 | 5,298 | 35,103 |
| 1910..... | 527 | (1) | 6,476 | 74 | ----- | 3,333 | 1,872 | 1,027 | 27,638 | 171 | 1,308 | 42,426 |
| 1911..... | 547 | (1) | 4,492 | 49 | ----- | 2,222 | 2,281 | 1,320 | 27,186 | 156 | 1,149 | 39,402 |
| 1912..... | 726 | (1) | 5,722 | 40 | ----- | 1,892 | 3,062 | 1,468 | 35,273 | 190 | 1,960 | 50,363 |
| 1913..... | 380 | (1) | 6,575 | 73 | ----- | 3,013 | 4,001 | 1,501 | 33,001 | 232 | 1,999 | 50,775 |
| 1914..... | 430 | (1) | 6,897 | 55 | ----- | 3,151 | 4,502 | 1,609 | 29,738 | 323 | 1,761 | 48,350 |
| 1915..... | 598 | (1) | 6,360 | 34 | ----- | 2,988 | 5,081 | 1,539 | 32,644 | 344 | 2,908 | 52,496 |
| 1916..... | 1,200 | (1) | 7,122 | 60 | ----- | 2,204 | 5,953 | 1,572 | 37,085 | 464 | 1,919 | 57,579 |
| 1917..... | 1,204 | (1) | 14,254 | 45 | ----- | 3,829 | 7,920 | 2,443 | 46,351 | 563 | 2,097 | 78,706 |
| 1918..... | 391 | (1) | 12,492 | 40 | ----- | 2,950 | 6,575 | 2,529 | 40,792 | 732 | 1,655 | 68,156 |
| 1919..... | 350 | (1) | 8,043 | 71 | ----- | 2,553 | 6,348 | 2,801 | 37,600 | 611 | 1,170 | 59,547 |
| 1920..... | 556 | (1) | 7,652 | 61 | ----- | 2,396 | 5,945 | 2,861 | 37,492 | 606 | 1,033 | 58,662 |
| 1921..... | 591 | (1) | 2,313 | 97 | ----- | 1,576 | 5,406 | 2,248 | 33,328 | 510 | 785 | 46,854 |
| 1922..... | 786 | 45 | 2,767 | 84 | ----- | 1,756 | 5,952 | 2,582 | 39,434 | 966 | 798 | 55,170 |
| 1923..... | 785 | 139 | 4,895 | 103 | ----- | 3,612 | 8,181 | 3,368 | 49,839 | 1,332 | 1,046 | 73,300 |
| 1924..... | 658 | 77 | 6,608 | 123 | ----- | 4,158 | 7,855 | 4,363 | 56,760 | 1,436 | 1,854 | 83,923 |
| 1925..... | 1,097 | 141 | 7,010 | 104 | ----- | 6,066 | 8,663 | 4,595 | 61,104 | 1,560 | 1,115 | 92,035 |

CALVES

| Year ended June 30— | | (1) | (1) | (1) | | | | | | | | |
|------------------------|-------|-----|-------|-----|-------|-------|-------|-------|-----|-----|-------|--------|
| 1907..... | ----- | (1) | (1) | (1) | 3,585 | 464 | 656 | 234 | 68 | 62 | 1,345 | 6,414 |
| 1908..... | 3 | (1) | (1) | 183 | 3,097 | 315 | 267 | 302 | 159 | 46 | 1,482 | 5,854 |
| 1909..... | ----- | (1) | (1) | 45 | 4,376 | 341 | 295 | 523 | 177 | 28 | 2,428 | 8,213 |
| 1910..... | 1 | (1) | 1,762 | 43 | 3,472 | 499 | 346 | 309 | 184 | 35 | 873 | 7,521 |
| 1911..... | 26 | (1) | 1,203 | 31 | 3,533 | 373 | 325 | 440 | 204 | 27 | 1,292 | 7,654 |
| 1912..... | 7 | (1) | 1,574 | 37 | 4,511 | 429 | 841 | 326 | 276 | 17 | 909 | 8,927 |
| 1913..... | 3 | (1) | 2,301 | 26 | 3,948 | 684 | 920 | 296 | 450 | 20 | 698 | 9,216 |
| 1914..... | 9 | (1) | 1,295 | 35 | 2,297 | 542 | 626 | 253 | 407 | 22 | 1,210 | 6,096 |
| 1915..... | 12 | (1) | 760 | 28 | 2,352 | 425 | 757 | 249 | 440 | 28 | 890 | 5,941 |
| 1916..... | 16 | (1) | 1,438 | 67 | 1,601 | 380 | 1,385 | 296 | 687 | 29 | 882 | 6,081 |
| 1917..... | 10 | (1) | 2,855 | 51 | 1,851 | 478 | 2,868 | 390 | 656 | 25 | 928 | 10,112 |
| 1918..... | 21 | (1) | 2,041 | 57 | 1,749 | 402 | 1,678 | 879 | 477 | 52 | 753 | 8,109 |
| 1919..... | 30 | (1) | 1,971 | 91 | 3,131 | 449 | 1,503 | 580 | 508 | 49 | 890 | 9,202 |
| 1920..... | 13 | (1) | 3,106 | 132 | 6,224 | 553 | 1,764 | 687 | 545 | 29 | 767 | 13,820 |
| 1921..... | 45 | (1) | 1,285 | 129 | 2,825 | 375 | 1,234 | 733 | 553 | 78 | 446 | 7,703 |
| 1922..... | 27 | 55 | 2,009 | 130 | 5,087 | 405 | 1,574 | 553 | 659 | 104 | 805 | 11,406 |
| 1923..... | 45 | 161 | 1,796 | 127 | 4,257 | 697 | 2,310 | 926 | 747 | 63 | 686 | 11,815 |
| 1924..... | 30 | 102 | 2,185 | 136 | 4,661 | 894 | 2,321 | 1,260 | 634 | 56 | 457 | 12,726 |
| 1925..... | 17 | 94 | 2,069 | 152 | 3,629 | 1,045 | 1,964 | 980 | 708 | 41 | 396 | 11,068 |

Bureau of Animal Industry.

1 Included in "All other causes."

TABLE 599.—Livestock, sheep and hogs: Causes of condemnation of carcasses, Federal meat inspection, 1907-1925

SHEEP

| Year ended June 30 | Bone diseases | Caseous lymphadenitis | Emaciation | Icterus (jaundice) | Injuries, bruises, etc. | Pneumonia, pleurisy, enteritis, hepatitis, nephritis, metritis, etc. | Septicemia, pyemia, and uremia | Tuberculosis | Tumors and abscesses | All other causes | Total |
|--------------------|---------------|-----------------------|------------|--------------------|-------------------------|--|--------------------------------|--------------|----------------------|------------------|--------|
| 1907..... | (1) | 1,360 | (1) | (1) | 793 | 1,093 | 779 | ----- | 402 | 5,097 | 9,524 |
| 1908..... | (1) | 1,034 | (1) | 869 | 647 | 1,100 | 688 | 8 | 105 | 3,739 | 8,090 |
| 1909..... | (1) | 1,023 | (1) | 862 | 793 | 1,479 | 678 | 21 | 102 | 5,821 | 10,747 |
| 1910..... | (1) | 1,122 | 5,376 | 909 | 657 | 1,572 | 539 | ----- | 164 | 788 | 11,127 |
| 1911..... | (1) | 1,078 | 5,038 | 939 | 621 | 1,838 | 705 | 1 | 131 | 438 | 10,789 |
| 1912..... | (1) | 1,597 | 7,542 | 1,308 | 725 | 2,614 | 780 | 3 | 122 | 711 | 15,402 |
| 1913..... | (1) | 2,340 | 5,586 | 1,881 | 1,150 | 3,650 | 876 | 1 | 106 | 1,067 | 16,557 |
| 1914..... | (1) | 4,695 | 6,425 | 1,896 | 934 | 4,463 | 1,041 | 4 | 119 | 984 | 20,563 |
| 1915..... | (1) | 4,367 | 4,318 | 1,351 | 732 | 5,344 | 694 | 6 | 67 | 732 | 17,611 |
| 1916..... | (1) | 3,190 | 3,593 | 1,324 | 627 | 4,983 | 576 | ----- | 89 | 675 | 15,057 |
| 1917..... | (1) | 2,672 | 5,531 | 1,256 | 572 | 5,479 | 641 | 3 | 118 | 477 | 16,749 |
| 1918..... | (1) | 1,566 | 4,979 | 702 | 278 | 4,000 | 638 | ----- | 98 | 243 | 12,564 |
| 1919..... | (1) | 1,481 | 5,148 | 1,488 | 435 | 4,799 | 557 | 12 | 96 | 365 | 14,871 |
| 1920..... | (1) | 2,050 | 9,485 | 1,216 | 582 | 5,313 | 879 | 17 | 141 | 345 | 20,028 |
| 1921..... | (1) | 1,069 | 5,520 | 1,594 | 628 | 4,448 | 827 | 12 | 153 | 595 | 12,666 |
| 1922..... | 107 | 740 | 2,195 | 1,247 | 734 | 3,984 | 766 | 3 | 202 | 498 | 10,476 |
| 1923..... | 288 | 950 | 2,240 | 2,079 | 560 | 5,480 | 1,101 | 8 | 138 | 473 | 13,317 |
| 1924..... | 281 | 876 | 2,811 | 1,715 | 602 | 4,739 | 1,314 | 13 | 152 | 350 | 12,853 |
| 1925..... | 227 | 1,165 | 3,040 | 1,329 | 678 | 4,738 | 1,047 | ----- | 140 | 337 | 12,701 |

SWINE

| | | Emaciation | Hog cholera | | | | | | | | |
|-----------|-------|------------|-------------|-------|-------|--------|--------|---------|-------|--------|---------|
| 1907..... | (1) | (1) | 21,506 | (1) | 592 | 4,540 | 5,545 | 65,618 | 1,493 | 6,595 | 105,879 |
| 1908..... | (1) | (1) | 27,234 | 1,794 | 334 | 6,846 | 7,076 | 77,584 | 1,280 | 5,775 | 127,933 |
| 1909..... | (1) | (1) | 20,789 | 1,623 | 372 | 6,329 | 7,173 | 45,113 | 1,778 | 4,335 | 86,912 |
| 1910..... | (1) | 932 | 7,677 | 1,248 | 383 | 4,502 | 5,561 | 28,882 | 932 | 2,322 | 52,439 |
| 1911..... | (1) | 690 | 10,721 | 1,594 | 412 | 4,601 | 6,056 | 31,517 | 1,086 | 2,800 | 59,477 |
| 1912..... | (1) | 1,568 | 56,931 | 2,975 | 728 | 8,997 | 8,607 | 42,267 | 1,054 | 5,275 | 129,002 |
| 1913..... | (1) | 1,256 | 88,547 | 3,242 | 1,046 | 14,115 | 10,228 | 47,630 | 1,715 | 6,158 | 173,937 |
| 1914..... | (1) | 914 | 116,107 | 3,075 | 1,197 | 17,011 | 11,738 | 48,252 | 2,179 | 4,469 | 204,942 |
| 1915..... | (1) | 904 | 101,953 | 2,624 | 1,086 | 21,540 | 13,184 | 66,023 | 1,811 | 4,780 | 213,905 |
| 1916..... | (1) | 949 | 64,464 | 3,090 | 1,360 | 20,671 | 14,122 | 74,109 | 2,185 | 14,187 | 195,107 |
| 1917..... | (1) | 1,061 | 33,450 | 2,097 | 1,332 | 18,920 | 13,794 | 76,807 | 1,548 | 3,911 | 188,480 |
| 1918..... | (1) | 544 | 20,967 | 2,109 | 698 | 15,353 | 9,810 | 59,740 | 1,158 | 2,690 | 115,079 |
| 1919..... | (1) | 728 | 23,925 | 2,824 | 725 | 19,079 | 10,761 | 65,838 | 1,317 | 3,605 | 128,305 |
| 1920..... | (1) | 966 | 23,789 | 3,385 | 847 | 22,306 | 11,652 | 65,609 | 1,493 | 3,429 | 133,476 |
| 1921..... | 152 | 745 | 16,693 | 4,002 | 1,003 | 18,822 | 11,014 | 64,830 | 1,793 | 3,525 | 122,699 |
| 1922..... | 2,928 | 756 | 32,562 | 4,619 | 1,461 | 23,852 | 15,405 | 70,304 | 2,197 | 6,049 | 160,133 |
| 1923..... | 6,101 | 1,331 | 28,815 | 6,154 | 1,723 | 31,776 | 21,333 | 88,688 | 3,199 | 7,205 | 196,325 |
| 1924..... | 7,652 | 1,316 | 44,725 | 5,971 | 1,861 | 33,470 | 24,097 | 100,110 | 4,314 | 8,254 | 232,670 |
| 1925..... | 8,012 | 1,169 | 19,001 | 4,397 | 1,277 | 26,211 | 23,841 | 86,282 | 3,366 | 6,871 | 180,427 |

Bureau of Animal Industry.

* Included in "All other causes."

TABLE 600.—Meats and lard: Consumption, 1907–1925

| Calendar year | Consumption | | | | | | | | Percentage of total consumption | | | | | |
|-----------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------|----------------------|-----------------------|---------------------------------|-------------|----------------------|-----------------|-------------|-------------|
| | Beef | Veal | Total, beef and veal | Lamb and mutton | Pork | Total meats ¹ | Lard | Total, meats and lard | Beef | Veal | Total, beef and veal | Lamb and mutton | Pork | Total meats |
| | Mil- lion lbs. | Mil- lion lbs. | Mil- lion lbs. | Mil- lion lbs. | Mil- lion lbs. | Mil- lion lbs. | Mil- lion lbs. | Mil- lion lbs. | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent |
| 1907 | 6,780 | 644 | 7,424 | 558 | 6,624 | 14,612 | 1,055 | 15,667 | 46.4 | 4.4 | 50.8 | 3.8 | 45.3 | 100.0 |
| 1908 | 6,367 | 627 | 6,994 | 557 | 6,981 | 14,537 | 1,154 | 15,691 | 43.8 | 4.3 | 48.1 | 3.8 | 48.0 | 100.0 |
| 1909 | 6,835 | 683 | 7,518 | 601 | 6,100 | 14,230 | 1,042 | 15,272 | 48.0 | 4.8 | 52.8 | 4.2 | 43.0 | 100.0 |
| 1910 | 6,561 | 686 | 7,247 | 596 | 5,881 | 13,735 | 1,052 | 14,787 | 47.8 | 5.0 | 52.8 | 4.3 | 42.8 | 100.0 |
| 1911 | 6,342 | 656 | 6,998 | 729 | 6,703 | 14,494 | 1,063 | 15,557 | 43.8 | 4.5 | 48.3 | 5.0 | 46.7 | 100.0 |
| 1912 | 5,807 | 667 | 6,474 | 773 | 6,570 | 13,825 | 1,088 | 14,893 | 42.0 | 4.8 | 46.8 | 5.6 | 47.5 | 100.0 |
| 1913 | 5,852 | 487 | 6,339 | 725 | 6,707 | 13,860 | 1,100 | 14,969 | 42.2 | 3.6 | 45.7 | 5.2 | 49.0 | 100.0 |
| A. v. 1909–1913 | 6,270 | 636 | 6,915 | 685 | 6,422 | 14,031 | 1,065 | 15,096 | 44.7 | 4.5 | 49.2 | 4.9 | 45.8 | 100.0 |
| 1914 | 5,722 | 437 | 6,159 | 724 | 6,812 | 13,714 | 1,192 | 14,906 | 41.7 | 3.2 | 44.9 | 5.3 | 49.7 | 100.0 |
| 1915 | 5,414 | 428 | 5,842 | 622 | 6,068 | 13,140 | 1,281 | 14,430 | 41.2 | 3.3 | 44.5 | 4.7 | 50.7 | 100.0 |
| 1916 | 5,639 | 536 | 6,175 | 613 | 6,848 | 13,658 | 1,368 | 15,026 | 41.3 | 3.0 | 44.2 | 4.5 | 50.1 | 100.0 |
| 1917 | 6,083 | 662 | 6,745 | 473 | 5,704 | 12,940 | 1,195 | 14,135 | 47.0 | 5.0 | 52.0 | 3.7 | 44.1 | 100.0 |
| 1918 | 6,522 | 765 | 7,287 | 486 | 6,834 | 14,322 | 1,374 | 15,696 | 45.5 | 5.3 | 50.8 | 3.4 | 45.6 | 100.0 |
| 1919 | 6,474 | 808 | 7,282 | 607 | 6,629 | 14,528 | 1,292 | 15,820 | 44.6 | 5.5 | 50.1 | 4.2 | 45.6 | 100.0 |
| 1920 | 6,713 | 814 | 7,527 | 588 | 7,318 | 15,438 | 1,416 | 16,854 | 43.5 | 5.3 | 48.8 | 3.8 | 47.3 | 100.0 |
| A. v. 1914–1920 | 6,081 | 636 | 6,717 | 588 | 6,645 | 13,964 | 1,303 | 15,267 | 43.5 | 4.6 | 48.1 | 4.2 | 47.6 | 100.0 |
| 1921 | 6,171 | 751 | 6,922 | 639 | 7,792 | 15,354 | 1,223 | 16,577 | 40.2 | 4.9 | 45.1 | 4.2 | 50.7 | 100.0 |
| 1922 | 6,043 | 797 | 7,440 | 545 | 8,270 | 16,267 | 1,558 | 17,815 | 40.9 | 4.9 | 45.8 | 3.4 | 50.8 | 100.0 |
| 1923 | 6,850 | 872 | 7,722 | 576 | 9,531 | 17,832 | 1,707 | 19,539 | 38.4 | 4.9 | 43.3 | 3.2 | 53.4 | 100.0 |
| 1924 | 6,903 | 935 | 7,928 | 589 | 9,660 | 18,189 | 1,749 | 19,938 | 38.4 | 5.0 | 43.4 | 3.3 | 53.3 | 100.0 |
| 1925 | 7,166 | 1,004 | 8,170 | 597 | 8,749 | 17,520 | 1,523 | 19,043 | 40.9 | 5.7 | 46.6 | 3.4 | 50.0 | 100.0 |
| A. v. 1921–1925 | 6,765 | 872 | 7,637 | 580 | 8,802 | 17,030 | 1,552 | 18,582 | 39.7 | 5.1 | 44.8 | 3.5 | 51.7 | 100.0 |

Bureau of Animal Industry. Based on carcass weights. Edible offal not included.

¹ Includes small quantity of goat meat.

TABLE 601.—Meats and lard: Annual per capita consumption, 1907–1925

| Calendar year | Beef | Veal | Lamb and mutton | Pork, not including lard | Total meat ¹ | Lard | Total meat and lard |
|--------------------|--------|--------|-----------------|--------------------------|-------------------------|--------|---------------------|
| | Pounds | Pounds | Pounds | Pounds | Pounds | Pounds | Pounds |
| 1907 | 77.5 | 7.4 | 6.4 | 75.7 | 167.1 | 12.1 | 179.2 |
| 1908 | 71.5 | 7.0 | 6.3 | 78.4 | 163.3 | 12.9 | 176.2 |
| 1909 | 78.4 | 7.5 | 6.6 | 87.3 | 167.0 | 11.5 | 188.5 |
| 1910 | 71.1 | 7.4 | 6.5 | 83.7 | 148.9 | 11.4 | 160.3 |
| 1911 | 67.7 | 7.0 | 7.8 | 72.2 | 154.8 | 11.3 | 166.1 |
| 1912 | 61.1 | 7.0 | 8.1 | 69.1 | 145.4 | 11.2 | 156.6 |
| 1913 | 60.6 | 5.0 | 7.5 | 70.4 | 143.6 | 11.4 | 155.0 |
| Average, 1909–1913 | 67.2 | 6.8 | 7.3 | 88.5 | 149.9 | 11.4 | 161.3 |
| 1914 | 58.4 | 4.4 | 7.4 | 69.6 | 140.0 | 12.2 | 152.2 |
| 1915 | 54.5 | 4.3 | 6.3 | 67.1 | 132.4 | 12.9 | 145.3 |
| 1916 | 56.0 | 5.3 | 6.1 | 68.0 | 135.6 | 13.6 | 149.2 |
| 1917 | 59.5 | 6.5 | 4.6 | 55.8 | 126.6 | 11.7 | 138.3 |
| 1918 | 63.0 | 7.4 | 4.7 | 63.1 | 134.4 | 13.3 | 151.7 |
| 1919 | 61.6 | 7.7 | 5.8 | 63.1 | 138.3 | 12.3 | 150.6 |
| 1920 | 63.1 | 7.6 | 5.5 | 68.8 | 145.1 | 13.3 | 158.4 |
| Average, 1914–1920 | 59.4 | 6.2 | 5.8 | 65.1 | 136.6 | 12.8 | 149.4 |
| 1921 | 57.2 | 7.0 | 5.9 | 72.3 | 142.4 | 11.3 | 153.7 |
| 1922 | 60.8 | 7.3 | 5.0 | 75.7 | 148.8 | 14.3 | 163.1 |
| 1923 | 61.9 | 7.9 | 5.2 | 86.1 | 161.1 | 15.4 | 176.5 |
| 1924 | 62.4 | 8.3 | 5.3 | 86.3 | 162.3 | 15.6 | 177.9 |
| 1925 | 63.1 | 8.8 | 5.3 | 77.1 | 154.3 | 13.4 | 167.7 |
| Average, 1921–1925 | 61.1 | 7.9 | 5.3 | 79.5 | 153.8 | 14.0 | 167.8 |

Bureau of Animal Industry. Based on carcass weights. Edible offal not included.

¹ Includes small quantity of goat meat.

TABLE 602.—*Livestock slaughter statistics: Sources of supply, classification slaughter costs, weights and yields, 1922-1925*¹

CATTLE

| Year and month | Medium of obtaining supply | | Sex classification | | | Average live weight per 100 pounds | Average live weight | Dressed weight as percentage of live weight | By-product yield (on basis of live weight) | | |
|----------------|----------------------------|---------------|--------------------|------------------|----------|------------------------------------|---------------------|---|--|--------------|----------|
| | Stock-yards | Other sources | Bulls and stags | Cows and heifers | Steers | | | | Edible fat ² | Edible offal | Hides |
| | Per cent | Per cent | Per cent | Per cent | Per cent | Dollars | Pounds | Per cent | Per cent | Per cent | Per cent |
| 1922 | | | | | | | | | | | |
| July..... | 88.90 | 11.10 | 5.10 | 35.60 | 59.30 | 7.36 | 985.46 | 54.60 | 4.02 | 2.95 | 6.64 |
| August..... | 89.13 | 10.87 | 4.03 | 40.16 | 55.81 | 6.94 | 972.85 | 54.05 | 3.73 | 2.85 | 6.73 |
| September..... | 89.63 | 10.37 | 4.27 | 43.84 | 51.89 | 6.53 | 965.37 | 53.29 | 3.46 | 2.84 | 6.68 |
| October..... | 88.29 | 11.71 | 4.34 | 50.99 | 44.67 | 6.09 | 957.77 | 52.32 | 3.15 | 2.83 | 6.79 |
| November..... | 91.40 | 8.60 | 4.36 | 51.93 | 43.71 | 5.63 | 946.17 | 51.84 | 3.11 | 2.72 | 6.81 |
| December..... | 92.26 | 7.74 | 4.10 | 49.85 | 46.05 | 6.07 | 957.62 | 52.68 | 3.57 | 2.81 | 6.76 |
| 1923 | | | | | | | | | | | |
| January..... | 91.89 | 8.11 | 3.51 | 49.58 | 46.91 | 6.58 | 979.66 | 54.00 | 4.09 | 2.77 | 6.67 |
| February..... | 91.13 | 8.87 | 4.80 | 44.18 | 51.02 | 6.89 | 973.54 | 54.80 | 4.28 | 2.90 | 6.71 |
| March..... | 90.45 | 9.55 | 3.18 | 42.57 | 54.25 | 7.19 | 973.12 | 55.08 | 4.38 | 2.92 | 6.70 |
| April..... | 91.16 | 8.85 | 2.52 | 47.54 | 49.64 | 7.51 | 970.54 | 55.51 | 4.46 | 2.85 | 6.74 |
| May..... | 90.27 | 9.73 | 6.70 | 37.51 | 55.79 | 7.82 | 949.66 | 55.79 | 4.26 | 2.85 | 6.72 |
| June..... | 88.12 | 11.88 | 3.89 | 37.41 | 58.70 | 7.90 | 955.28 | 55.01 | 4.18 | 2.84 | 6.75 |
| July..... | 83.31 | 16.69 | 4.46 | 43.18 | 52.26 | 7.26 | 943.18 | 53.99 | 3.78 | 2.80 | 6.73 |
| August..... | 88.12 | 11.88 | 3.91 | 48.29 | 47.80 | 7.03 | 933.88 | 53.97 | 3.42 | 2.74 | 6.82 |
| September..... | 82.12 | 7.88 | 4.58 | 49.52 | 45.90 | 6.59 | 939.07 | 53.38 | 3.75 | 2.79 | 6.87 |
| October..... | 91.28 | 8.72 | 3.63 | 54.40 | 41.97 | 6.01 | 940.04 | 52.79 | 3.21 | 2.82 | 6.73 |
| November..... | 88.27 | 11.73 | 4.17 | 61.19 | 34.64 | 5.64 | 933.51 | 53.83 | 3.12 | 2.77 | 6.98 |
| December..... | 88.76 | 11.24 | 3.29 | 54.78 | 41.93 | 6.23 | 952.37 | 52.39 | 3.54 | 2.56 | 6.94 |
| 1924 | | | | | | | | | | | |
| January..... | 90.11 | 9.89 | 3.16 | 51.68 | 45.16 | 6.65 | 965.94 | 53.16 | 3.84 | 2.85 | 6.95 |
| February..... | 88.70 | 11.30 | 3.39 | 50.40 | 46.21 | 6.07 | 966.46 | 53.94 | 3.94 | 2.86 | 6.94 |
| March..... | 88.41 | 11.59 | 5.39 | 46.99 | 47.62 | 7.14 | 967.21 | 54.09 | 4.13 | 2.93 | 6.71 |
| April..... | 91.43 | 8.57 | 5.28 | 42.25 | 52.47 | 7.57 | 962.00 | 54.35 | 4.19 | 2.86 | 6.71 |
| May..... | 90.09 | 9.91 | 4.71 | 38.77 | 56.52 | 7.92 | 948.28 | 55.17 | 4.33 | 2.68 | 6.79 |
| June..... | 89.81 | 10.19 | 3.52 | 40.85 | 56.13 | 7.40 | 951.14 | 54.94 | 4.29 | 2.89 | 6.76 |
| July..... | 91.13 | 8.87 | 3.01 | 41.98 | 55.01 | 7.19 | 940.28 | 54.96 | 4.21 | 2.82 | 6.82 |
| August..... | 91.23 | 8.77 | 4.04 | 44.86 | 51.10 | 7.06 | 951.55 | 54.35 | 3.98 | 2.76 | 6.73 |
| September..... | 91.41 | 8.59 | 5.28 | 50.33 | 44.89 | 6.33 | 938.50 | 53.51 | 3.74 | 2.87 | 6.79 |
| October..... | 92.23 | 7.77 | 5.38 | 56.97 | 37.65 | 5.75 | 938.68 | 52.32 | 3.40 | 2.81 | 6.80 |
| November..... | 91.08 | 8.92 | 3.22 | 62.61 | 34.17 | 5.34 | 932.89 | 51.06 | 3.30 | 2.90 | 6.77 |
| December..... | 91.73 | 8.27 | 2.61 | 57.19 | 40.20 | 5.66 | 947.26 | 51.88 | 3.47 | 2.77 | 6.89 |
| 1925 | | | | | | | | | | | |
| January..... | 91.99 | 8.01 | 2.55 | 52.01 | 45.44 | 6.51 | 974.82 | 53.41 | 3.89 | 2.77 | 6.89 |
| February..... | 90.14 | 9.86 | 2.92 | 49.71 | 47.37 | 6.87 | 976.97 | 53.96 | 3.98 | 2.60 | 6.83 |
| March..... | 90.93 | 9.07 | 2.91 | 48.86 | 48.28 | 7.67 | 970.57 | 54.10 | 4.07 | 2.94 | 6.74 |
| April..... | 90.28 | 9.72 | 5.10 | 39.87 | 55.03 | 8.20 | 976.82 | 55.02 | 4.21 | 2.96 | 6.64 |
| May..... | 88.25 | 10.75 | 3.72 | 39.49 | 56.79 | 8.16 | 966.45 | 54.81 | 4.20 | 2.82 | 6.62 |
| June..... | 88.72 | 11.28 | 3.90 | 43.83 | 52.27 | 7.86 | 962.90 | 53.92 | 3.86 | 2.91 | 6.65 |
| July..... | 90.38 | 9.62 | 3.65 | 45.97 | 50.38 | 7.55 | 946.43 | 53.04 | 3.47 | 2.95 | 6.73 |
| August..... | 91.93 | 8.07 | 3.39 | 53.24 | 43.37 | 6.94 | 938.88 | 52.45 | 3.18 | 2.92 | 6.70 |
| September..... | 91.69 | 8.31 | 3.30 | 53.07 | 43.63 | 6.86 | 938.09 | 52.76 | 3.20 | 3.02 | 6.86 |
| October..... | 92.06 | 7.94 | 3.12 | 60.75 | 36.13 | 6.36 | 939.78 | 51.70 | 3.15 | 3.01 | 6.77 |
| November..... | 88.86 | 11.14 | 3.15 | 62.95 | 33.90 | 6.18 | 938.03 | 51.00 | 3.11 | 3.02 | 6.88 |
| December..... | 91.35 | 8.65 | 2.99 | 58.14 | 38.87 | 6.80 | 953.77 | 51.94 | 3.46 | 2.98 | 6.89 |

TABLE 602.—Livestock slaughter statistics: Sources of supply, classification slaughter costs, weights and yields, 1922-1925—Continued

CALVES

| Year and month | Medium of obtaining supply | | Average live cost per 100 pounds | Average live weight | Dressed weight as percentage of live weight | By-product yields (on basis of live weight) | |
|----------------|----------------------------|----------------|----------------------------------|---------------------|---|---|---------------|
| | Stock-yards | Other sources | | | | Edible fat ¹ | Edible offal |
| 1922 | | | | | | | |
| July..... | Per cent 85.60 | Per cent 14.40 | Dollars 7.85 | Pounds 171.57 | Per cent 58.92 | Per cent 0.65 | Per cent 3.71 |
| August..... | 83.89 | 16.11 | 8.02 | 192.72 | 56.55 | .71 | 3.33 |
| September..... | 85.93 | 14.07 | 7.69 | 199.71 | 55.46 | .75 | 3.33 |
| October..... | 89.13 | 10.87 | 6.96 | 197.18 | 53.46 | .74 | 3.37 |
| November..... | 88.76 | 11.24 | 7.18 | 188.61 | 56.41 | .68 | 3.50 |
| December..... | 88.96 | 11.04 | 7.79 | 176.09 | 57.71 | .70 | 3.78 |
| 1923 | | | | | | | |
| January..... | 89.49 | 10.51 | 8.51 | 169.42 | 59.09 | .72 | 4.14 |
| February..... | 89.15 | 10.85 | 9.34 | 162.67 | 59.44 | .65 | 3.98 |
| March..... | 90.03 | 13.97 | 8.80 | 148.83 | 59.23 | .65 | 4.12 |
| April..... | 86.99 | 13.01 | 7.98 | 141.78 | 57.88 | .62 | 4.25 |
| May..... | 85.73 | 14.27 | 8.97 | 146.39 | 56.19 | .67 | 3.78 |
| June..... | 82.41 | 17.59 | 8.24 | 161.85 | 57.78 | .63 | 3.81 |
| July..... | 82.71 | 17.29 | 8.60 | 176.77 | 57.46 | .50 | 3.05 |
| August..... | 82.91 | 17.09 | 7.53 | 195.99 | 56.06 | .85 | 3.34 |
| September..... | 88.36 | 11.64 | 7.30 | 204.48 | 54.78 | 1.10 | 2.78 |
| October..... | 87.50 | 12.50 | 6.94 | 190.69 | 55.68 | .88 | 3.25 |
| November..... | 86.58 | 13.42 | 6.39 | 189.37 | 57.34 | .84 | 3.36 |
| December..... | 85.46 | 14.54 | 7.19 | 181.29 | 57.46 | .73 | 3.40 |
| 1924 | | | | | | | |
| January..... | 88.47 | 11.53 | 8.20 | 176.80 | 58.68 | .76 | 3.67 |
| February..... | 87.46 | 12.54 | 9.45 | 162.63 | 57.16 | .73 | 3.97 |
| March..... | 86.41 | 13.59 | 8.85 | 152.08 | 60.63 | .71 | 4.06 |
| April..... | 86.83 | 13.17 | 8.49 | 146.92 | 60.59 | .68 | 4.02 |
| May..... | 86.25 | 13.75 | 8.19 | 157.40 | 60.04 | .72 | 3.80 |
| June..... | 85.11 | 14.89 | 7.68 | 167.98 | 57.48 | .73 | 3.93 |
| July..... | 89.51 | 13.49 | 7.61 | 181.40 | 56.60 | .77 | 3.56 |
| August..... | 83.72 | 16.28 | 7.42 | 197.19 | 55.49 | .77 | 3.30 |
| September..... | 86.96 | 13.04 | 7.23 | 201.45 | 56.22 | .79 | 3.29 |
| October..... | 89.04 | 10.96 | 6.81 | 196.39 | 55.20 | .78 | 3.39 |
| November..... | 87.92 | 12.08 | 6.24 | 197.60 | 54.28 | .75 | 3.35 |
| December..... | 89.10 | 10.90 | 7.15 | 183.47 | 57.03 | .77 | 3.58 |
| 1925 | | | | | | | |
| January..... | 89.25 | 10.75 | 8.52 | 176.38 | 57.46 | .70 | 3.94 |
| February..... | 87.86 | 12.14 | 9.39 | 168.82 | 57.33 | .66 | 4.00 |
| March..... | 87.42 | 12.58 | 9.64 | 166.41 | 59.50 | .64 | 3.96 |
| April..... | 89.19 | 10.81 | 8.70 | 145.58 | 58.86 | .63 | 4.03 |
| May..... | 85.74 | 14.26 | 8.69 | 152.29 | 58.38 | .68 | 3.91 |
| June..... | 84.61 | 15.39 | 8.26 | 166.49 | 56.99 | .67 | 3.74 |
| July..... | 87.76 | 12.24 | 8.08 | 184.18 | 56.31 | .74 | 3.58 |
| August..... | 87.31 | 12.69 | 8.63 | 197.02 | 56.25 | .75 | 3.37 |
| September..... | 83.94 | 16.06 | 8.80 | 197.55 | 56.29 | .79 | 3.35 |
| October..... | 87.44 | 12.56 | 8.55 | 201.42 | 57.72 | .78 | 3.38 |
| November..... | 89.85 | 13.15 | 8.22 | 188.67 | 59.26 | .75 | 3.63 |
| December..... | 87.78 | 12.22 | 8.75 | 182.03 | 56.54 | .76 | 3.58 |

¹Unrendered.

TABLE 602.—Livestock slaughter statistics: Sources of supply, classification slaughter costs, weights and yields, 1922-1925—Continued

SWINE

| Year and month | Medium of obtaining supply | | Sex classification | | | Average live cost per 100 pounds | Average live weight | Dressed weight as percentage of live weight | By-product yields (on basis of live weight) | | | |
|----------------|----------------------------|---------------|--------------------|----------|-----------------|----------------------------------|---------------------|---|---|--------------|------------|-------------------------------|
| | Stock-yards | Other sources | Sows | Barrows | Stags and boars | | | | Lard (rendered) | Edible offal | Trim-mings | Inedible grease (un-rendered) |
| | Per cent | Per cent | Per cent | Per cent | Per cent | Dollars | Pounds | Per cent | Per cent | Per cent | Per cent | Per cent |
| 1922 | | | | | | | | | | | | |
| July..... | 77.50 | 22.50 | 58.40 | 40.90 | 0.70 | 10.00 | 239.89 | 76.58 | 16.04 | 2.13 | 4.07 | 1.36 |
| August..... | 78.32 | 21.68 | 62.99 | 36.31 | .70 | 8.85 | 241.50 | 75.41 | 15.45 | 2.22 | 4.35 | 1.25 |
| September..... | 77.18 | 22.82 | 60.74 | 38.62 | .64 | 8.85 | 234.25 | 75.86 | 16.56 | 2.42 | 4.96 | 1.36 |
| October..... | 76.79 | 23.21 | 54.99 | 44.36 | .65 | 8.99 | 219.47 | 75.81 | 15.26 | 2.61 | 5.33 | 1.33 |
| November..... | 75.87 | 24.13 | 53.58 | 45.33 | 1.09 | 8.54 | 214.83 | 75.65 | 14.99 | 2.38 | 4.92 | 1.27 |
| December..... | 72.47 | 27.53 | 50.02 | 49.43 | .65 | 8.17 | 220.07 | 77.03 | 15.81 | 2.24 | 4.44 | 1.34 |
| 1923 | | | | | | | | | | | | |
| January..... | 74.03 | 25.97 | 48.42 | 50.92 | .66 | 8.35 | 227.30 | 77.78 | 16.27 | 2.06 | 4.07 | 1.35 |
| February..... | 74.85 | 25.15 | 47.40 | 51.95 | .65 | 8.22 | 227.68 | 78.14 | 16.76 | 2.17 | 4.36 | 1.38 |
| March..... | 74.49 | 25.51 | 46.58 | 52.78 | .64 | 8.17 | 227.82 | 77.70 | 17.50 | 2.08 | 4.17 | 1.37 |
| April..... | 78.24 | 21.76 | 48.49 | 50.72 | .79 | 8.04 | 228.85 | 77.11 | 17.19 | 1.99 | 4.37 | 1.42 |
| May..... | 78.55 | 21.45 | 50.16 | 49.08 | .76 | 7.44 | 223.51 | 76.47 | 17.31 | 2.02 | 4.82 | 1.37 |
| June..... | 75.80 | 24.20 | 53.75 | 45.51 | .74 | 6.83 | 227.73 | 76.71 | 17.60 | 2.00 | 4.36 | 1.46 |
| July..... | 73.89 | 26.11 | 56.66 | 42.56 | .78 | 6.91 | 232.06 | 76.33 | 17.06 | 2.06 | 4.58 | 1.43 |
| August..... | 75.58 | 24.42 | 62.42 | 36.81 | .77 | 7.78 | 236.22 | 76.74 | 17.39 | 2.07 | 4.71 | 1.37 |
| September..... | 79.83 | 20.17 | 61.15 | 37.94 | .91 | 8.49 | 229.27 | 75.37 | 15.82 | 2.52 | 5.29 | 1.40 |
| October..... | 80.11 | 19.89 | 61.59 | 37.59 | .82 | 7.38 | 219.48 | 75.26 | 14.63 | 2.40 | 5.20 | 1.24 |
| November..... | 74.60 | 25.40 | 52.54 | 40.80 | .66 | 6.83 | 215.74 | 76.09 | 14.52 | 2.30 | 4.86 | 1.27 |
| December..... | 74.64 | 25.36 | 51.20 | 48.16 | .64 | 6.82 | 217.80 | 76.20 | 15.91 | 2.12 | 4.42 | 1.35 |
| 1924 | | | | | | | | | | | | |
| January..... | 76.51 | 23.49 | 48.55 | 50.79 | .66 | 7.09 | 217.13 | 76.42 | 17.07 | 2.04 | 4.31 | 1.28 |
| February..... | 77.94 | 22.06 | 46.13 | 53.29 | .58 | 7.07 | 220.80 | 76.65 | 17.21 | 2.04 | 4.20 | 1.40 |
| March..... | 75.63 | 24.37 | 47.71 | 51.50 | .79 | 7.19 | 222.65 | 76.11 | 18.03 | 2.09 | 3.99 | 1.43 |
| April..... | 78.90 | 21.10 | 49.31 | 49.73 | .96 | 7.24 | 223.67 | 76.10 | 17.82 | 2.02 | 4.32 | 1.48 |
| May..... | 76.50 | 23.50 | 50.94 | 48.26 | .80 | 7.26 | 224.34 | 75.45 | 17.49 | 2.00 | 4.50 | 1.39 |
| June..... | 83.55 | 16.45 | 54.41 | 44.99 | .60 | 6.98 | 228.87 | 75.41 | 17.53 | 1.83 | 4.53 | 1.35 |
| July..... | 75.93 | 24.07 | 58.84 | 40.38 | .78 | 7.60 | 237.22 | 75.32 | 17.31 | 1.86 | 4.18 | 1.36 |
| August..... | 78.33 | 21.67 | 61.30 | 37.90 | .71 | 9.47 | 239.29 | 75.03 | 16.29 | 2.23 | 4.91 | 1.42 |
| September..... | 79.44 | 20.56 | 60.44 | 38.83 | .73 | 9.63 | 232.27 | 74.69 | 15.28 | 2.43 | 5.37 | 1.34 |
| October..... | 81.48 | 18.52 | 59.42 | 39.89 | .69 | 10.03 | 219.79 | 73.11 | 13.69 | 2.62 | 6.82 | 1.25 |
| November..... | 75.75 | 24.25 | 53.22 | 46.14 | .64 | 9.01 | 211.67 | 73.87 | 13.68 | 2.75 | 6.34 | 1.23 |
| December..... | 78.16 | 21.84 | 51.34 | 48.11 | .55 | 9.17 | 208.96 | 74.72 | 15.00 | 2.42 | 4.61 | 1.19 |
| 1925 | | | | | | | | | | | | |
| January..... | 77.13 | 22.87 | 51.81 | 47.78 | .41 | 10.15 | 212.12 | 75.22 | 15.65 | 2.39 | 4.39 | 1.26 |
| February..... | 75.63 | 24.37 | 48.79 | 50.76 | .45 | 10.89 | 215.07 | 75.70 | 16.27 | 2.30 | 4.65 | 1.28 |
| March..... | 80.56 | 19.44 | 48.11 | 51.15 | .74 | 13.34 | 219.28 | 76.03 | 15.75 | 2.45 | 4.96 | 1.36 |
| April..... | 77.12 | 22.88 | 50.29 | 48.66 | 1.05 | 12.45 | 224.97 | 76.33 | 15.59 | 2.31 | 4.97 | 1.33 |
| May..... | 73.33 | 26.67 | 51.34 | 47.82 | .84 | 11.96 | 228.51 | 76.65 | 15.82 | 2.43 | 5.17 | 1.36 |
| June..... | 74.65 | 25.35 | 54.71 | 44.53 | .70 | 12.33 | 230.93 | 75.79 | 15.00 | 2.33 | 4.91 | 1.23 |
| July..... | 75.72 | 24.28 | 60.31 | 38.98 | .71 | 13.31 | 241.14 | 75.63 | 14.27 | 2.28 | 4.87 | 1.29 |
| August..... | 79.56 | 20.44 | 60.92 | 38.31 | .77 | 12.98 | 245.78 | 76.20 | 14.14 | 2.64 | 5.26 | 1.34 |
| September..... | 76.82 | 23.18 | 61.00 | 38.40 | .60 | 12.51 | 239.02 | 74.60 | 14.06 | 2.78 | 6.30 | 1.31 |
| October..... | 76.95 | 23.05 | 58.02 | 41.37 | .61 | 11.04 | 239.25 | 74.45 | 13.43 | 2.92 | 6.83 | 1.27 |
| November..... | 72.48 | 27.52 | 51.05 | 48.45 | .52 | 11.36 | 221.61 | 75.31 | 13.90 | 2.82 | 5.88 | 1.21 |
| December..... | 73.74 | 26.26 | 48.48 | 51.07 | .45 | 11.08 | 224.62 | 76.24 | 15.12 | 2.64 | 4.98 | 1.22 |

TABLE 602.—Livestock slaughter statistics: Sources of supply, classification slaughter costs, weights and yields, 1922-1925—Continued

SHEEP AND LAMBS

| Year and month | Medium of obtaining supply | | Age classification | | Average live cost per 100 pounds | Average live weight | Dressed weight as percentage of live weight | By-product yields (on basis of live weight) | |
|----------------|----------------------------|-----------------|--------------------|---------------------|----------------------------------|---------------------|---|---|-----------------|
| | Stock-yards | Other sources | Sheep | Lambs and yearlings | | | | Edible fat ¹ | Edible offal |
| 1922 | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Dollars</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| July..... | 84.80 | 18.20 | 8.80 | 91.20 | 11.58 | 72.70 | 48.56 | 2.35 | 2.35 |
| August..... | 87.47 | 12.53 | 11.20 | 88.80 | 12.37 | 78.05 | 48.07 | 2.37 | 2.20 |
| September..... | 85.22 | 14.78 | 13.41 | 86.59 | 11.55 | 77.68 | 48.17 | 2.54 | 2.21 |
| October..... | 84.93 | 15.07 | 20.54 | 79.46 | 12.14 | 80.15 | 48.03 | 2.56 | 2.17 |
| November..... | 88.01 | 11.99 | 16.50 | 83.41 | 12.21 | 83.36 | 47.80 | 2.90 | 2.21 |
| December..... | 89.13 | 10.87 | 14.65 | 85.35 | 12.64 | 85.81 | 47.70 | 3.22 | 2.14 |
| 1923 | | | | | | | | | |
| January..... | 87.59 | 12.41 | 17.10 | 82.90 | 12.67 | 87.61 | 47.50 | 3.44 | 2.13 |
| February..... | 87.46 | 12.54 | 16.84 | 83.16 | 12.50 | 88.19 | 47.22 | 3.38 | 1.90 |
| March..... | 86.03 | 13.97 | 10.18 | 89.82 | 12.85 | 85.13 | 47.36 | 3.30 | 1.86 |
| April..... | 85.98 | 14.02 | 11.17 | 88.83 | 12.41 | 81.95 | 47.97 | 3.50 | 2.28 |
| May..... | 81.04 | 18.96 | 18.92 | 81.08 | 12.21 | 78.09 | 49.37 | 3.00 | 2.06 |
| June..... | 79.57 | 20.43 | 12.51 | 87.49 | 11.14 | 76.05 | 48.43 | 2.06 | 1.91 |
| July..... | 78.45 | 21.55 | 10.69 | 89.31 | 11.99 | 75.37 | 48.51 | 2.23 | 2.10 |
| August..... | 83.88 | 16.12 | 11.21 | 88.79 | 11.52 | 76.88 | 47.85 | 2.19 | 1.85 |
| September..... | 94.09 | 5.91 | 10.47 | 89.53 | 11.81 | 78.04 | 48.04 | 2.40 | 1.45 |
| October..... | 86.59 | 13.41 | 11.26 | 88.74 | 11.37 | 79.65 | 47.76 | 2.44 | 1.66 |
| November..... | 85.70 | 14.30 | 16.26 | 83.74 | 11.96 | 76.75 | 50.61 | 2.62 | 2.07 |
| December..... | 87.55 | 12.45 | 11.73 | 88.27 | 11.54 | 83.09 | 47.13 | 2.73 | 1.68 |
| 1924 | | | | | | | | | |
| January..... | 86.82 | 13.18 | 10.22 | 89.78 | 11.56 | 83.92 | 46.82 | 3.01 | 1.95 |
| February..... | 76.71 | 23.29 | 12.21 | 87.79 | 13.59 | 85.40 | 46.48 | 2.89 | 1.96 |
| March..... | 80.86 | 19.14 | 7.92 | 92.08 | 14.78 | 86.24 | 46.30 | 3.20 | 1.95 |
| April..... | 82.13 | 17.87 | 12.25 | 87.75 | 14.09 | 83.19 | 47.37 | 3.45 | 1.74 |
| May..... | 72.28 | 27.72 | 14.48 | 85.52 | 13.28 | 80.10 | 48.44 | 2.95 | 1.84 |
| June..... | 80.60 | 19.34 | 10.01 | 89.99 | 12.49 | 73.04 | 48.90 | 2.44 | 2.10 |
| July..... | 86.55 | 13.45 | 7.59 | 92.41 | 11.94 | 73.84 | 48.42 | 2.38 | 1.90 |
| August..... | 88.45 | 11.55 | 11.44 | 88.56 | 11.76 | 76.27 | 47.90 | 2.36 | 1.76 |
| September..... | 87.26 | 12.74 | 15.78 | 84.22 | 11.70 | 76.96 | 48.14 | 2.46 | 1.92 |
| October..... | 86.76 | 13.24 | 8.96 | 91.04 | 12.09 | 79.67 | 47.71 | 2.60 | 2.03 |
| November..... | 83.36 | 16.64 | 8.64 | 91.36 | 12.49 | 81.76 | 47.19 | 2.75 | 2.13 |
| December..... | 85.13 | 14.87 | 8.41 | 91.59 | 14.34 | 83.22 | 46.89 | 2.76 | 2.13 |
| 1925 | | | | | | | | | |
| January..... | 84.17 | 15.83 | 12.69 | 87.31 | 15.98 | 85.90 | 46.66 | 2.86 | 2.05 |
| February..... | 79.25 | 20.75 | 10.30 | 89.70 | 16.16 | 87.51 | 46.74 | 2.79 | 2.00 |
| March..... | 76.65 | 23.35 | 8.72 | 91.28 | 15.34 | 87.79 | 47.01 | 3.22 | 2.03 |
| April..... | 77.18 | 22.82 | 8.24 | 91.76 | 13.36 | 94.64 | 47.45 | 3.23 | 2.06 |
| May..... | 78.91 | 21.09 | 11.85 | 88.15 | 13.37 | 80.90 | 48.90 | 3.00 | 2.26 |
| June..... | 78.27 | 21.73 | 8.08 | 91.92 | 13.63 | 73.79 | 49.42 | 3.32 | 2.47 |
| July..... | 79.56 | 20.44 | 7.31 | 92.69 | 13.50 | 75.20 | 42.92 | 2.29 | 2.25 |
| August..... | 87.43 | 12.57 | 11.35 | 88.65 | 13.41 | 78.00 | 48.41 | 2.35 | 2.31 |
| September..... | 84.62 | 15.38 | 8.81 | 91.19 | 13.45 | 78.59 | 48.11 | 2.43 | 2.18 |
| October..... | 85.54 | 14.46 | 11.41 | 88.59 | 13.79 | 79.91 | 48.25 | 2.63 | 2.35 |
| November..... | 87.76 | 12.24 | 9.37 | 90.63 | 13.71 | 82.35 | 47.12 | 2.70 | 2.51 |
| December..... | 88.93 | 11.07 | 14.98 | 85.02 | 14.72 | 85.33 | 47.20 | 2.75 | 2.54 |

Division of Statistical and Historical Research. Compiled from reports of the Cold Storage Report Section.

¹ Based on reports from about 750 packers and slaughterers, whose slaughterings equaled nearly 85 per cent of total slaughter under Federal inspection.

² Unrendered.

TABLE 603.—*Meats, fresh: Supply at eastern markets, by months, 1925*
RECEIPTS

| Market and month | Carcasses | | | | | | |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Steers | Cows | Bulls | Veal | Hogs | Lambs | Mutton |
| Boston: | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> |
| January..... | 8,778 | 9,362 | 242 | 4,331 | 96 | 51,295 | 2,212 |
| February..... | 8,728 | 8,023 | 200 | 4,468 | 325 | 46,890 | 2,707 |
| March..... | 9,094 | 6,391 | 189 | 7,119 | 33 | 53,916 | 2,082 |
| April..... | 12,410 | 5,973 | 275 | 8,526 | ----- | 73,404 | 1,906 |
| May..... | 10,515 | 3,876 | 161 | 6,460 | 8 | 55,276 | 1,797 |
| June..... | 9,182 | 4,030 | 166 | 7,092 | ----- | 42,681 | 1,508 |
| July..... | 11,594 | 6,009 | 96 | 8,173 | ----- | 54,096 | 2,115 |
| August..... | 8,543 | 8,023 | 137 | 8,058 | ----- | 45,551 | 2,484 |
| September..... | 11,537 | 9,680 | 169 | 8,044 | ----- | 75,738 | 2,633 |
| October..... | 9,544 | 10,991 | 247 | 6,687 | ----- | 62,888 | 2,793 |
| November..... | 8,204 | 9,708 | 150 | 6,653 | ----- | 49,060 | 2,342 |
| December..... | 9,558 | 12,254 | 215 | 7,372 | ----- | 61,762 | 2,484 |
| Total..... | 117,702 | 95,300 | 2,247 | 78,883 | 457 | 673,177 | 27,063 |
| New York: | | | | | | | |
| January..... | 33,439 | 6,223 | 755 | 45,030 | ----- | 99,555 | 23,477 |
| February..... | 31,031 | 5,363 | 747 | 41,640 | 62 | 98,088 | 23,655 |
| March..... | 29,226 | 4,333 | 637 | 54,432 | 130 | 99,192 | 21,836 |
| April..... | 38,291 | 4,576 | 689 | 69,692 | 750 | 130,663 | 21,696 |
| May..... | 32,103 | 2,978 | 728 | 49,541 | 91 | 109,893 | 18,747 |
| June..... | 30,532 | 2,163 | 748 | 47,267 | 20 | 82,944 | 16,933 |
| July..... | 40,567 | 3,652 | 1,056 | 54,320 | ----- | 110,812 | 20,020 |
| August..... | 34,436 | 4,525 | 684 | 39,350 | ----- | 80,146 | 17,947 |
| September..... | 41,060 | 4,465 | 753 | 50,695 | ----- | 131,479 | 21,546 |
| October..... | 39,294 | 4,939 | 440 | 60,739 | ----- | 103,380 | 22,609 |
| November..... | 31,169 | 4,430 | 438 | 49,723 | 75 | 78,724 | 19,179 |
| December..... | 40,822 | 6,212 | 689 | 55,738 | 350 | 117,420 | 24,504 |
| Total..... | 422,800 | 52,259 | 8,364 | 618,167 | 1,478 | 1,242,296 | 251,111 |
| Philadelphia: | | | | | | | |
| January..... | 11,904 | 4,482 | 567 | 7,372 | ----- | 34,248 | 7,010 |
| February..... | 10,097 | 3,430 | 653 | 7,616 | ----- | 33,137 | 6,129 |
| March..... | 9,311 | 3,309 | 709 | 8,818 | ----- | 37,297 | 5,844 |
| April..... | 11,453 | 3,478 | 779 | 12,735 | ----- | 48,503 | 5,780 |
| May..... | 9,658 | 2,228 | 598 | 9,995 | ----- | 41,962 | 4,632 |
| June..... | 9,738 | 1,746 | 621 | 8,118 | ----- | 28,149 | 5,789 |
| July..... | 12,844 | 2,038 | 1,009 | 10,024 | ----- | 36,102 | 5,935 |
| August..... | 10,599 | 2,415 | 1,151 | 6,187 | ----- | 30,553 | 5,248 |
| September..... | 12,869 | 3,389 | 1,388 | 8,335 | ----- | 39,827 | 5,098 |
| October..... | 10,589 | 4,132 | 1,069 | 8,288 | ----- | 35,074 | 4,810 |
| November..... | 10,074 | 3,561 | 996 | 8,468 | ----- | 29,382 | 4,941 |
| December..... | 13,380 | 4,861 | 1,120 | 10,088 | ----- | 39,811 | 6,051 |
| Total..... | 132,516 | 39,996 | 10,660 | 106,044 | ----- | 434,080 | 67,276 |

| Market and month | Cuts | | | |
|------------------|---------------|---------------|---------------|---------------|
| | Beef | Pork | Veal | Lamb |
| Boston: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| January..... | 12,625 | 2,782,017 | 18,000 | 16,910 |
| February..... | 11,665 | 2,845,324 | 31,741 | ----- |
| March..... | 8,728 | 1,608,190 | 8,000 | ----- |
| April..... | 19,104 | 2,522,722 | ----- | ----- |
| May..... | 46,229 | 2,094,224 | 500 | ----- |
| June..... | 4,863 | 1,977,222 | 44 | ----- |
| July..... | 3,448 | 1,942,651 | 58 | ----- |
| August..... | 11,699 | 1,421,386 | ----- | ----- |
| September..... | 4,450 | 1,587,701 | ----- | ----- |
| October..... | 27,011 | 1,798,835 | ----- | ----- |
| November..... | 3,784 | 1,716,472 | ----- | ----- |
| December..... | 2,310 | 2,882,866 | ----- | ----- |
| Total..... | 155,936 | 24,574,620 | 58,343 | 16,910 |
| New York: | | | | |
| January..... | 670,882 | 5,981,537 | ----- | 171 |
| February..... | 748,926 | 5,588,294 | 6,000 | 181 |
| March..... | 1,086,740 | 4,623,079 | 12,103 | 44,161 |
| April..... | 1,227,246 | 5,430,997 | 88,850 | ----- |
| May..... | 730,242 | 3,651,329 | 233,538 | ----- |
| June..... | 956,018 | 3,040,518 | 354,880 | 159 |
| July..... | 855,284 | 4,018,341 | 47,167 | 123,980 |
| August..... | 1,023,902 | 2,991,441 | 138,217 | 1,540 |
| September..... | 1,591,937 | 4,168,919 | 209,182 | 37,689 |

¹ Includes 20,880 pounds of mutton.

² Includes 2,000 pounds of mutton.

TABLE 603.—Meats, fresh: Supply at eastern markets, by months, 1925—Con.

RECEIPTS—Continued

| Market and month | Cuts | | | |
|----------------------------|-------------------|-------------------|------------------|----------------|
| | Beef | Pork | Veal | Lamb |
| New York—Continued. | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| October..... | 1,646,871 | 4,635,908 | 163,474 | 16,073 |
| November..... | 1,180,332 | 3,669,506 | 165,499 | ..... |
| December..... | 1,763,064 | 6,593,808 | 174,163 | ..... |
| Total..... | 13,481,444 | 54,413,736 | 1,593,073 | 123,723 |
| Philadelphia: | | | | |
| January..... | | 2,235,422 | ..... | ..... |
| February..... | | 2,178,327 | ..... | ..... |
| March..... | | 1,641,836 | ..... | ..... |
| April..... | | 2,108,328 | ..... | ..... |
| May..... | | 1,242,358 | ..... | ..... |
| June..... | | 1,080,082 | ..... | ..... |
| July..... | | 1,602,707 | ..... | ..... |
| August..... | | 1,305,773 | ..... | ..... |
| September..... | | 1,716,753 | ..... | ..... |
| October..... | | 1,491,409 | ..... | ..... |
| November..... | | 1,577,014 | ..... | ..... |
| December..... | | 2,139,328 | ..... | ..... |
| Total..... | | 20,319,337 | | |

SLAUGHTER

| Market and month | Under Federal inspection | | | | Under city inspection | | | |
|----------------------|--------------------------|----------------|------------------|------------------|-----------------------|----------------|---------------|----------------|
| | Cattle | Calves | Hogs | Sheep | Cattle | Calves | Hogs | Sheep |
| Boston: | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Number</i> |
| January..... | 8,913 | 5,303 | 138,523 | 18,141 | 68 | 1,034 | 4,587 | 20 |
| February..... | 6,364 | 5,648 | 78,014 | 14,976 | 95 | 1,083 | 4,165 | 7 |
| March..... | 6,301 | 7,165 | 40,349 | 14,149 | 58 | 4,799 | 4,189 | 1 |
| April..... | 7,689 | 11,572 | 42,508 | 25,767 | 22 | 6,961 | 4,262 | 6 |
| May..... | 5,880 | 9,151 | 37,516 | 21,006 | 19 | 2,897 | 3,643 | ..... |
| June..... | 5,004 | 7,638 | 65,849 | 25,587 | 16 | 1,574 | 3,028 | ..... |
| July..... | 6,347 | 7,435 | 69,008 | 36,852 | 40 | 1,021 | 3,248 | ..... |
| August..... | 5,794 | 6,585 | 28,937 | 26,926 | 84 | 805 | 2,768 | ..... |
| September..... | 7,649 | 6,836 | 42,401 | 27,464 | 170 | 1,227 | 3,967 | 21 |
| October..... | 10,026 | 6,478 | 35,144 | 27,248 | 955 | 1,046 | 3,923 | ..... |
| November..... | 9,441 | 5,833 | 50,488 | 26,857 | 470 | 1,381 | 4,904 | ..... |
| December..... | 10,031 | 6,226 | 81,938 | 20,708 | 470 | 1,577 | 5,060 | ..... |
| Total..... | 89,439 | 84,870 | 700,673 | 276,281 | 2,476 | 27,205 | 47,854 | 55 |
| New York: | | | | | | | | |
| January..... | 48,149 | 60,459 | 289,391 | 166,849 | 106 | 12,027 | 611 | 1,224 |
| February..... | 42,498 | 56,644 | 236,651 | 161,215 | 47 | 12,083 | 315 | 1,720 |
| March..... | 41,531 | 59,642 | 184,987 | 147,182 | 165 | 17,758 | 248 | 2,789 |
| April..... | 49,885 | 90,712 | 219,383 | 181,971 | 154 | 16,654 | 150 | 6,091 |
| May..... | 41,355 | 70,158 | 178,914 | 158,910 | 50 | 9,360 | 108 | 2,447 |
| June..... | 39,911 | 65,536 | 148,255 | 191,658 | 28 | 5,453 | 40 | 812 |
| July..... | 48,428 | 75,079 | 158,943 | 232,062 | ..... | 4,710 | 81 | 98 |
| August..... | 36,945 | 56,294 | 125,308 | 188,311 | 1 | 3,190 | 66 | 15 |
| September..... | 45,006 | 69,953 | 196,248 | 253,669 | ..... | 7,355 | 21 | 18 |
| October..... | 38,414 | 67,736 | 210,219 | 188,849 | ..... | 6,526 | 384 | 372 |
| November..... | 35,754 | 49,028 | 238,375 | 196,795 | 1 | 6,685 | 1,049 | 450 |
| December..... | 47,639 | 65,631 | 204,092 | 211,792 | ..... | 10,237 | 1,334 | 893 |
| Total..... | 515,515 | 776,877 | 2,499,766 | 2,256,533 | 552 | 112,808 | 4,465 | 16,947 |
| Philadelphia: | | | | | | | | |
| January..... | 6,819 | 6,286 | 92,527 | 12,766 | 1,411 | 3,885 | 1,899 | 8,067 |
| February..... | 5,563 | 6,154 | 75,912 | 11,404 | 1,174 | 3,867 | 1,452 | 8,230 |
| March..... | 6,530 | 5,711 | 59,041 | 11,745 | 1,580 | 3,978 | 1,166 | 6,743 |
| April..... | 8,438 | 8,560 | 79,258 | 14,111 | 1,812 | 5,219 | 959 | 10,410 |
| May..... | 6,699 | 8,189 | 61,103 | 11,831 | 1,582 | 4,899 | 504 | 9,595 |
| June..... | 6,036 | 6,643 | 53,826 | 12,910 | 2,119 | 4,670 | 374 | 8,699 |
| July..... | 8,799 | 9,280 | 54,820 | 22,249 | 1,500 | 5,801 | 514 | 10,213 |
| August..... | 6,480 | 6,121 | 41,760 | 16,490 | 1,132 | 4,458 | 571 | 9,620 |
| September..... | 9,132 | 7,334 | 71,942 | 21,247 | 1,803 | 5,266 | 978 | 8,910 |
| October..... | 6,689 | 5,374 | 73,755 | 13,317 | 1,809 | 4,687 | 370 | 8,508 |
| November..... | 5,877 | 4,837 | 83,104 | 13,519 | 1,786 | 3,802 | 1,050 | 8,773 |
| December..... | 7,244 | 6,794 | 90,142 | 15,995 | 2,468 | 4,175 | 1,330 | ..... |
| Total..... | 84,306 | 81,283 | 842,190 | 177,574 | 20,100 | 54,707 | 11,357 | 106,343 |

TABLE 603.—Meats, fresh: Supply at eastern markets, by months, 1925

SUMMARY

| Market and month | Beef | | Veal | | Pork | | Lamb and mutton | |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|---------------|
| | Carcasses | Cuts | Carcasses | Cuts | Carcasses | Cuts | Carcasses | Cuts |
| Boston: | <i>Number</i> | <i>Pounds</i> | <i>Number</i> | <i>Pounds</i> | <i>Number</i> | <i>Pounds</i> | <i>Number</i> | <i>Pounds</i> |
| January..... | 27,348 | 12,625 | 11,268 | 18,000 | 143,206 | 2,782,017 | 71,668 | 16,010 |
| February..... | 23,410 | 11,695 | 11,799 | 31,741 | 82,504 | 2,345,324 | 64,680 | ----- |
| March..... | 22,033 | 8,728 | 19,083 | 8,000 | 44,571 | 1,608,190 | 70,148 | ----- |
| April..... | 20,369 | 19,104 | 27,050 | ----- | 46,760 | 2,522,722 | 101,083 | ----- |
| May..... | 20,451 | 40,229 | 18,508 | 500 | 41,162 | 2,094,224 | 78,169 | ----- |
| June..... | 18,398 | 4,863 | 16,304 | 44 | 68,877 | 1,977,222 | 67,776 | ----- |
| July..... | 25,076 | 3,448 | 17,220 | 58 | 62,254 | 1,842,631 | 87,173 | ----- |
| August..... | 22,581 | 11,690 | 11,448 | ----- | 31,705 | 1,421,386 | 74,961 | ----- |
| September..... | 29,234 | 4,440 | 15,007 | ----- | 46,398 | 1,687,701 | 105,856 | ----- |
| October..... | 31,763 | 27,011 | 14,211 | ----- | 39,067 | 1,798,835 | 92,929 | ----- |
| November..... | 27,973 | 3,784 | 13,867 | ----- | 55,482 | 1,716,472 | 77,279 | ----- |
| December..... | 32,628 | 2,310 | 15,175 | ----- | 86,098 | 2,882,696 | 84,954 | ----- |
| Total..... | 307,104 | 155,936 | 190,958 | 58,343 | 748,984 | 24,574,620 | 976,570 | 16,010 |
| New York: | | | | | | | | |
| January..... | 88,672 | 670,882 | 117,516 | ----- | 290,002 | 5,981,537 | 291,105 | ----- |
| February..... | 80,586 | 748,926 | 111,267 | 6,000 | 237,028 | 5,588,294 | 284,687 | 171 |
| March..... | 75,892 | 1,086,740 | 131,832 | 12,103 | 185,365 | 4,623,079 | 270,999 | 44,161 |
| April..... | 63,695 | 1,227,246 | 177,058 | 88,850 | 220,283 | 5,430,997 | 340,381 | ----- |
| May..... | 77,214 | 730,242 | 128,949 | 233,538 | 179,111 | 3,651,329 | 289,997 | ----- |
| June..... | 73,382 | 956,018 | 118,256 | 354,880 | 148,315 | 3,040,518 | 291,340 | 159 |
| July..... | 93,993 | 855,284 | 134,109 | 47,167 | 159,024 | 4,018,341 | 362,992 | 23,980 |
| August..... | 74,691 | 1,023,902 | 98,834 | 138,217 | 125,374 | 2,901,441 | 286,419 | 1,340 |
| September..... | 91,284 | 1,591,937 | 128,008 | 209,182 | 195,269 | 4,188,919 | 386,982 | 37,839 |
| October..... | 83,087 | 1,646,871 | 125,001 | 163,474 | 210,603 | 4,635,908 | 315,210 | 16,073 |
| November..... | 71,792 | 1,180,332 | 105,416 | 165,499 | 259,469 | 3,669,505 | 292,157 | ----- |
| December..... | 95,362 | 1,763,064 | 131,606 | 174,163 | 295,776 | 6,593,808 | 354,600 | ----- |
| Total..... | 999,550 | 13,481,444 | 1,507,852 | 1,503,073 | 2,505,649 | 54,413,736 | 3,766,887 | 123,723 |
| Philadelphia: | | | | | | | | |
| January..... | 25,183 | ----- | 17,543 | ----- | 94,426 | 2,235,422 | 62,100 | ----- |
| February..... | 20,926 | ----- | 17,637 | ----- | 77,364 | 2,178,327 | 58,900 | ----- |
| March..... | 21,439 | ----- | 18,507 | ----- | 80,207 | 1,041,836 | 61,629 | ----- |
| April..... | 25,960 | ----- | 26,514 | ----- | 80,217 | 2,108,328 | 78,604 | ----- |
| May..... | 20,743 | ----- | 23,083 | ----- | 61,697 | 1,242,358 | 68,020 | ----- |
| June..... | 20,260 | ----- | 19,431 | ----- | 54,200 | 1,080,082 | 55,537 | ----- |
| July..... | 27,119 | ----- | 25,105 | ----- | 55,334 | 1,602,707 | 74,490 | ----- |
| August..... | 21,777 | ----- | 16,766 | ----- | 42,130 | 1,305,773 | 60,900 | ----- |
| September..... | 28,581 | ----- | 20,935 | ----- | 74,613 | 1,716,783 | 75,792 | ----- |
| October..... | 24,288 | ----- | 18,349 | ----- | 74,733 | 1,491,409 | 62,111 | ----- |
| November..... | 22,294 | ----- | 17,107 | ----- | 89,154 | 1,577,014 | 56,351 | ----- |
| December..... | 29,008 | ----- | 21,067 | ----- | 91,472 | 2,139,328 | 70,630 | ----- |
| Total..... | 287,578 | ----- | 242,034 | ----- | 853,547 | 20,319,337 | 785,273 | ----- |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Includes 20,880 pounds of mutton.

² Includes 2,000 pounds of mutton.

TABLE 604.—Meat and meat products: International trade, average 1911–1913, annual 1922–1924

[Thousand pounds—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--|--------------------|------------------|-----------|-----------|-----------|-----------|------------------|-----------|
| | Average 1911–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORT- ING COUNTRIES | | | | | | | | |
| Argentina..... | 3,487 | 1,173,461 | 295 | 1,440,264 | 542 | 1,961,053 | 529 | 2,400,404 |
| Australia..... | 1,967 | 507,143 | 14,278 | 1,468,724 | 11,222 | 1,212,406 | ..... | 1,342,186 |
| Brasil..... | 54,012 | 1,520 | 14,156 | 96,283 | 6,176 | 250,305 | ..... | 185,762 |
| Canada..... | 43,327 | 60,242 | 70,211 | 142,648 | 62,393 | 142,665 | 33,069 | 174,258 |
| Chile..... | 11,738 | 19,728 | 459 | 20,147 | 1,225 | 30,078 | ..... | 30,627 |
| China..... | 85 | 64,684 | 2,141 | 44,701 | 1,414 | 56,377 | 1,018 | 55,095 |
| Denmark..... | 32,184 | 368,188 | 20,619 | 335,776 | 19,239 | 492,220 | 18,522 | 528,423 |
| Hungary..... | ..... | ..... | 5,673 | 20,654 | 12,812 | 21,448 | ..... | 17,257 |
| Irish Free State..... | ..... | ..... | ..... | ..... | ..... | ..... | 72,510 | 113,445 |
| Netherlands..... | 350,864 | 497,402 | 201,659 | 321,986 | 262,927 | 368,808 | 281,613 | 515,244 |
| New Zealand..... | 960 | 326,539 | 834 | 460,904 | 832 | 405,712 | 1,182 | 425,445 |
| Sweden..... | 24,215 | 39,768 | 43,162 | 47,713 | 39,797 | 48,617 | 40,184 | 58,122 |
| United States..... | 18,719 | 1,277,524 | 114,558 | 1,863,547 | 69,960 | 2,342,809 | 62,223 | 2,003,522 |
| Uruguay..... | 1702 | 196,911 | 99 | 329,869 | ..... | 456,041 | ..... | ..... |
| Yugoslavia..... | ..... | ..... | ..... | 46,018 | 437 | 49,279 | 796 | 42,467 |
| PRINCIPAL IMPORT- ING COUNTRIES | | | | | | | | |
| Austria..... | ..... | ..... | 123,925 | 8,278 | 165,474 | 1,160 | 179,045 | 2,647 |
| Austria-Hungary..... | 49,268 | 12,420 | ..... | ..... | ..... | ..... | ..... | ..... |
| Belgium..... | 179,120 | 127,057 | 194,144 | 23,595 | 266,037 | 23,428 | 326,142 | 33,915 |
| Cuba..... | 128,362 | (¹) | 182,061 | ..... | 208,549 | ..... | 235,956 | ..... |
| Czechoslovakia..... | ..... | ..... | 116,919 | 2,870 | 161,040 | 2,654 | 167,635 | 2,722 |
| Finland..... | 14,973 | 2,081 | 15,862 | 9,139 | 21,866 | 3,543 | 19,360 | 4,198 |
| France..... | 111,496 | 98,281 | 240,294 | 94,352 | 376,947 | 90,709 | 499,615 | 60,363 |
| Germany..... | 559,752 | 19,525 | 495,035 | 19,961 | 698,880 | 15,988 | 828,201 | 28,424 |
| Italy..... | 104,619 | 15,708 | 132,419 | 25,208 | 146,178 | 17,361 | 379,494 | 11,315 |
| Japan..... | 11,727 | ..... | 66,350 | ..... | 70,228 | ..... | 73,518 | ..... |
| Norway..... | 42,416 | 3,365 | 79,033 | 2,732 | 69,349 | 2,797 | 55,385 | 1,070 |
| Philippine Islands..... | 21,902 | ..... | 17,071 | ..... | 13,424 | ..... | 16,421 | ..... |
| Poland..... | ..... | ..... | 23,222 | 4,061 | 34,908 | 4,591 | 50,783 | 18,278 |
| Russia..... | 130,897 | 53,175 | ..... | 8,053 | ..... | 22 | ..... | ..... |
| Spain..... | 37,974 | 3,200 | 21,045 | 6,155 | 23,085 | 9,533 | 13,737 | 5,117 |
| Switzerland..... | 60,174 | 3,169 | 32,028 | 3,728 | 38,432 | 2,880 | 34,062 | 2,647 |
| Union of South Africa..... | 31,103 | 404 | 10,554 | 2,767 | 16,753 | 2,092 | 18,464 | 18,810 |
| United Kingdom..... | 2,843,605 | 117,226 | 3,322,405 | 95,774 | 3,969,650 | 114,709 | 3,801,032 | 143,423 |
| Other countries..... | 111,722 | 35,935 | 129,520 | 37,765 | 130,710 | 51,805 | 98,395 | 32,870 |
| All countries: | | | | | | | | |
| Beef..... | 2,044,172 | 2,162,336 | 2,344,145 | 2,365,255 | 2,849,214 | 2,910,511 | 3,110,950 | 3,134,800 |
| Mutton..... | 611,744 | 560,284 | 702,576 | 724,284 | 701,088 | 523,071 | 616,779 | 535,225 |
| Pork..... | 1,632,382 | 1,638,145 | 2,133,531 | 2,103,750 | 2,725,779 | 2,796,382 | 2,739,455 | 2,741,282 |
| Other..... | 702,072 | 663,891 | 499,777 | 782,318 | 579,358 | 948,812 | 841,756 | 913,268 |
| Total..... | 4,990,370 | 5,024,656 | 5,680,029 | 5,975,607 | 6,855,439 | 7,180,776 | 7,308,940 | 7,324,665 |

Division of Statistical and Historical Research. Official sources.

¹ Year beginning July 1.

² One year only.

³ Less than 500 pounds.

⁴ Six months.

TABLE 605.—Meats: Total stocks in cold-storage warehouses and meat-packing establishments, United States, 1917-1925

[Thousand pounds—1 c., 000 omitted]

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|---------|---------|
| 1917 | 805,069 | 874,450 | 913,669 | 851,900 | 827,951 | 831,967 | 878,598 | 892,472 | 778,119 | 682,932 | 587,245 | 709,043 |
| 1918 | 961,373 | 1,117,965 | 1,265,554 | 1,354,961 | 1,319,228 | 1,299,779 | 1,149,377 | 1,136,601 | 1,035,961 | 905,326 | 832,250 | 938,066 |
| 1919 | 1,199,292 | 1,452,312 | 1,456,378 | 1,388,764 | 1,332,443 | 1,283,768 | 1,254,457 | 1,171,881 | 1,061,274 | 964,259 | 890,719 | 965,101 |
| 1920 | 1,015,558 | 1,186,580 | 1,273,729 | 1,304,142 | 1,262,508 | 1,208,728 | 1,194,464 | 1,115,062 | 977,225 | 783,777 | 670,295 | 665,636 |
| 1921 | 820,245 | 974,058 | 1,138,033 | 1,107,706 | 1,042,532 | 1,017,219 | 989,402 | 899,406 | 776,981 | 607,455 | 490,048 | 504,659 |
| 1922 | 569,003 | 624,278 | 690,533 | 717,417 | 712,887 | 745,022 | 816,689 | 788,524 | 727,111 | 569,138 | 512,396 | 569,165 |
| 1923 | 754,489 | 876,251 | 957,908 | 1,031,808 | 1,068,765 | 1,045,224 | 1,040,751 | 983,159 | 868,016 | 723,459 | 628,578 | 730,493 |
| 1924 | 900,242 | 987,778 | 1,062,816 | 1,107,831 | 1,053,635 | 1,028,288 | 1,006,002 | 930,589 | 826,651 | 672,437 | 533,760 | 598,345 |
| 1925 | 885,752 | 1,019,995 | 1,098,621 | 1,042,063 | 999,500 | 905,019 | 878,330 | 790,425 | 694,915 | 561,759 | 496,475 | 510,555 |
| Average 1921-1925 | 785,467 | 896,873 | 987,787 | 1,001,377 | 962,468 | 948,152 | 946,034 | 878,420 | 778,336 | 630,536 | 530,771 | 594,444 |

Cold Storage Report Section.

TABLE 606.—Meats, fresh and smoked: Average wholesale price per 100 pounds at Chicago and New York, by months, 1925¹

CHICAGO

| Class of meat | January | February | March | April | May | June | July | August | September | October | November | December | Average |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Beef: | | | | | | | | | | | | | |
| Steer— | | | | | | | | | | | | | |
| Choice | Dollars 18.40 | Dollars 17.40 | Dollars 17.70 | Dollars 17.94 | Dollars 17.75 | Dollars 17.50 | Dollars 19.49 | Dollars 20.78 | Dollars 21.46 | Dollars 21.46 | Dollars 21.46 | Dollars 21.46 | Dollars 21.46 |
| Good | 16.35 | 15.70 | 16.32 | 16.50 | 16.40 | 16.20 | 17.47 | 18.05 | 18.75 | 18.05 | 18.05 | 18.05 | 18.05 |
| Medium | 13.39 | 12.80 | 14.96 | 15.00 | 14.90 | 13.88 | 14.17 | 14.32 | 14.69 | 14.32 | 14.69 | 14.69 | 14.69 |
| Common | 10.56 | 9.50 | 11.35 | 12.00 | 11.95 | 10.86 | 10.81 | 10.65 | 11.27 | 10.86 | 10.86 | 10.86 | 10.86 |
| Cow— | | | | | | | | | | | | | |
| Good | 12.00 | 12.30 | 13.00 | 13.37 | 13.59 | 13.23 | 13.59 | 13.00 | 13.01 | 13.01 | 13.01 | 13.01 | 13.01 |
| Medium | 10.00 | 10.00 | 10.95 | 11.00 | 11.00 | 10.36 | 10.59 | 9.92 | 10.50 | 10.50 | 10.50 | 10.50 | 10.50 |
| Common | 7.50 | 7.50 | 8.69 | 8.69 | 8.35 | 7.68 | 7.50 | 7.50 | 8.50 | 8.50 | 8.50 | 8.50 | 8.50 |
| Bull: | | | | | | | | | | | | | |
| Choice | 8.12 | 7.82 | 8.12 | 7.97 | 8.25 | 8.30 | 7.98 | 7.45 | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 |
| Good | 17.73 | 18.55 | 18.88 | 16.62 | 16.75 | 16.78 | 18.66 | 20.32 | 21.14 | 21.14 | 21.14 | 21.14 | 21.14 |
| Medium | 13.65 | 17.55 | 16.45 | 14.18 | 15.02 | 14.70 | 16.36 | 17.85 | 18.50 | 18.50 | 18.50 | 18.50 | 18.50 |
| Common | 13.10 | 14.30 | 13.00 | 12.52 | 13.15 | 12.05 | 13.50 | 14.05 | 14.34 | 14.34 | 14.34 | 14.34 | 14.34 |
| Veal: | | | | | | | | | | | | | |
| Choice | 9.89 | 10.00 | 10.50 | 9.86 | 11.28 | 10.05 | 10.34 | 10.81 | 11.52 | 11.52 | 11.52 | 11.52 | 11.52 |

[illegible]

NEW YORK

[illegible]

! Descriptions of beef, veal, lamb and mutton changed Oct. 1. (See Table 607).

TABLE 606.—Meats, fresh and smoked: Average wholesale price per 100 pounds at Chicago and New York, by months, 1925—Continued

NEW YORK—Continued

| Class of meat | January | February | March | April | May | June | July | August | September | October | November | December | Average |
|----------------------------------|---------|----------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|---------|
| Lamb and mutton: | | | | | | | | | | | | | |
| Lamb— | | | | | | | | | | | | | |
| Choice | 28.90 | 28.98 | 27.52 | 28.12 | 28.23 | 28.15 | 28.26 | 27.96 | 29.00 | | | | Dollars |
| Good | 27.70 | 27.53 | 26.72 | 26.09 | 24.60 | 23.82 | 27.90 | 25.95 | 26.94 | | | | |
| Medium | 26.45 | 25.80 | 24.02 | 21.49 | 22.35 | 23.05 | 23.28 | 23.06 | 24.94 | | | | |
| Common | 25.43 | | 20.20 | | | 20.24 | 22.13 | | 21.47 | | | | |
| Mutton— | | | | | | | | | | | | | |
| Good | 15.62 | 15.20 | 17.18 | 16.70 | 17.35 | 13.72 | 15.42 | 13.82 | 14.48 | | | | |
| Medium | 14.54 | 14.04 | 13.70 | 13.20 | 13.75 | 11.80 | 13.28 | 12.02 | 12.58 | | | | |
| Common | 12.08 | | 13.71 | 13.20 | 13.88 | 10.25 | 11.10 | 10.11 | 10.21 | | | | |
| Fresh pork cut: | | | | | | | | | | | | | |
| Loin, 12-16 lbs. average | 20.75 | 19.88 | 25.00 | 25.00 | 24.50 | 24.12 | 26.60 | 26.00 | 26.40 | 26.25 | 25.50 | 24.10 | 24.51 |
| 8-10 lbs. average | 18.51 | 18.45 | 26.19 | 26.21 | 26.15 | 25.10 | 26.84 | 31.00 | 33.70 | 27.10 | 27.54 | 23.12 | 23.99 |
| 10-12 lbs. average | 17.92 | 17.55 | 25.28 | 25.01 | 24.85 | 23.05 | 27.44 | 28.35 | 31.50 | 25.82 | 26.44 | 22.15 | 24.69 |
| 12-15 lbs. average | 17.30 | 16.81 | 24.62 | 22.63 | 22.58 | 22.18 | 24.94 | 25.02 | 27.60 | 24.08 | 25.26 | 21.03 | 22.79 |
| 15-18 lbs. average | 16.60 | 16.20 | 22.88 | 21.02 | 20.38 | 20.42 | 22.44 | 22.15 | 24.68 | 22.35 | 23.06 | 20.20 | 21.12 |
| 19-22 lbs. | 15.59 | 15.45 | 21.16 | 19.23 | 18.52 | 18.72 | 20.80 | 20.15 | 22.72 | 20.32 | 22.57 | 19.5 | 19.67 |
| Shoulders— | | | | | | | | | | | | | |
| Skinned | 14.32 | 13.59 | 17.25 | 18.46 | 16.92 | 17.08 | 18.62 | 19.46 | 20.60 | 21.15 | 19.25 | 17.42 | 17.84 |
| Pieces, 4-6 lbs. | 13.06 | 12.86 | 14.80 | 16.29 | 15.50 | 15.62 | 15.25 | | 17.80 | 18.75 | 17.41 | 15.72 | 15.48 |
| Pieces, 6-8 lbs. | 12.58 | 12.32 | 14.18 | 15.13 | 14.50 | 14.62 | 15.52 | 23.85 | 25.04 | 25.10 | 23.76 | 21.91 | 21.64 |
| Butts, Boston style | 17.31 | 17.10 | 21.12 | 22.56 | 18.95 | 19.85 | 23.08 | 17.25 | 15.90 | 17.38 | 18.25 | 18.60 | 15.63 |
| Spencerba | 13.00 | 13.25 | 15.25 | 16.20 | 15.00 | 15.00 | 15.00 | 14.75 | | | | | |
| Cured pork cuts and lard: | | | | | | | | | | | | | |
| Hams, smoked, 10-12 lbs. average | 20.50 | 20.78 | 24.26 | 25.33 | 23.85 | 24.50 | 26.88 | 27.56 | 26.60 | 27.50 | 26.81 | 26.50 | 25.09 |
| Shoulders, picnic, smoked | 15.25 | 14.06 | 15.88 | 15.62 | 16.88 | 16.88 | 16.70 | 16.88 | 16.70 | 18.44 | 20.50 | 20.50 | 17.70 |
| Bacon, breakfast | 21.75 | 21.75 | 25.81 | 27.90 | 26.34 | 28.12 | 30.46 | 31.22 | 31.32 | 31.94 | 31.25 | 26.30 | 27.89 |
| Lard, tierces | 17.56 | 16.88 | 18.10 | 18.05 | 16.84 | 17.34 | 18.82 | 19.25 | 19.05 | 18.06 | 17.56 | 17.00 | 17.88 |
| Lard substitutes, tierces | 14.25 | 13.94 | 14.60 | 14.88 | 14.72 | 14.50 | 14.65 | 14.75 | 14.45 | 13.50 | 13.00 | 13.05 | 14.19 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats and Wool.

* New York style.

TABLE 607.—Meats (fresh beef, veal, lamb, and mutton): Average wholesale price per 100 pounds at Chicago and New York, October–December, 1925

| Class of meat | Chicago | | | New York | | |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| | October | November | December | October | November | December |
| Beef: | | | | | | |
| Steer— | | | | | | |
| Heavy weight (700 lbs. up)— | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Choice..... | 21.96 | 20.65 | 19.84 | 21.85 | 19.66 | 18.95 |
| Good..... | 19.06 | 17.65 | 16.99 | 18.45 | 16.72 | 17.18 |
| Light and medium weight (700 lbs. down)— | | | | | | |
| Choice..... | 21.44 | 20.32 | 19.84 | 22.32 | 19.99 | 19.24 |
| Good..... | 18.08 | 17.00 | 16.99 | 18.72 | 16.60 | 16.54 |
| All weights— | | | | | | |
| Medium..... | 13.52 | 12.68 | 13.23 | 14.08 | 13.15 | 14.74 |
| Common..... | 10.74 | 10.36 | 11.61 | 11.20 | 10.82 | 12.70 |
| Cow— | | | | | | |
| Good..... | 12.81 | 11.35 | 12.00 | 13.12 | 11.56 | 13.00 |
| Medium..... | 10.52 | 9.32 | 10.38 | 11.18 | 10.01 | 11.85 |
| Common..... | 8.61 | 7.88 | 9.27 | 9.36 | 8.70 | 10.58 |
| Veal: | | | | | | |
| Vealers— | | | | | | |
| Choice..... | 20.20 | 17.99 | 18.99 | 21.28 | 19.76 | 22.36 |
| Good..... | 18.10 | 16.44 | 17.09 | 18.85 | 17.14 | 19.92 |
| Medium..... | 15.50 | 14.39 | 14.44 | 16.30 | 14.37 | 16.86 |
| Common..... | 13.50 | 12.60 | 12.08 | 13.98 | 12.10 | 14.16 |
| Calf carcasses— | | | | | | |
| Choice..... | | | | 15.82 | 13.86 | 16.03 |
| Good..... | 14.52 | 13.00 | 13.00 | 14.00 | 12.36 | 14.27 |
| Medium..... | 12.48 | 11.00 | 11.00 | 11.95 | 10.95 | 13.04 |
| Common..... | 10.50 | 9.42 | 9.50 | 10.38 | 9.88 | 12.04 |
| Lamb and mutton: | | | | | | |
| Lamb— | | | | | | |
| Light and handy weight (30–42 lbs.)— | | | | | | |
| Choice..... | 27.48 | 20.20 | 29.41 | 28.00 | 28.90 | 29.82 |
| Good..... | 25.15 | 27.40 | 27.50 | 26.10 | 27.38 | 28.56 |
| Medium and heavy weight (42–55 lbs.)— | | | | | | |
| Choice..... | 24.87 | | | 25.85 | 26.95 | 27.68 |
| Good..... | 23.20 | | | 24.18 | 25.05 | 26.27 |
| All weights— | | | | | | |
| Medium..... | 22.98 | 25.28 | 25.61 | 23.22 | 23.85 | 24.95 |
| Common..... | 19.72 | 21.55 | 23.02 | 20.75 | 21.75 | 23.21 |
| Mutton (owes)— | | | | | | |
| Good..... | 14.68 | 14.19 | 15.00 | 15.65 | 16.38 | 16.61 |
| Medium..... | 12.10 | 12.19 | 13.00 | 14.58 | 15.19 | 15.09 |
| Common..... | 9.78 | 10.10 | 11.38 | 12.00 | 12.72 | 12.95 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

HIDES AND SKINS

TABLE 608.—*Hides and skins: Quarterly stocks of hides in United States, 1921-1925*

[Thousands—1. e., 000 omitted]

RAW PACKER

| Description and year | Mar. 31 | June 30 | Sept. 30 | Dec. 31 | Description and year | Mar. 31 | June 30 | Sept. 30 | Dec. 31 |
|----------------------|---------|---------|----------|---------|----------------------|---------|---------|----------|---------|
| Stoers: | | | | | Mixed cattle: | | | | |
| 1921..... | 1,564 | 1,522 | 1,451 | 1,090 | 1921..... | 265 | 378 | 273 | 305 |
| 1922..... | 1,265 | 1,492 | 1,342 | 1,370 | 1922..... | 292 | 202 | 208 | 241 |
| 1923..... | 1,448 | 1,532 | 1,590 | 1,166 | 1923..... | 239 | 188 | 164 | 210 |
| 1924..... | 1,111 | 1,270 | 1,108 | 1,051 | 1924..... | 186 | 140 | 154 | 210 |
| 1925..... | 1,128 | 1,125 | 990 | 1,051 | 1925..... | 213 | 118 | 119 | 166 |
| Cows: | | | | | Calfskins: | | | | |
| 1921..... | 2,261 | 1,537 | 1,169 | 1,173 | 1921..... | 913 | 1,073 | 775 | 531 |
| 1922..... | 1,145 | 1,054 | 1,180 | 1,684 | 1922..... | 703 | 713 | 670 | 596 |
| 1923..... | 1,368 | 1,182 | 1,270 | 1,492 | 1923..... | 731 | 683 | 584 | 509 |
| 1924..... | 1,302 | 946 | 1,038 | 1,659 | 1924..... | 487 | 613 | 472 | 476 |
| 1925..... | 1,246 | 974 | 1,174 | 1,616 | 1925..... | 634 | 901 | 754 | 652 |
| Bulls: | | | | | Kip skins: | | | | |
| 1921..... | 188 | 165 | 162 | 125 | 1921..... | 377 | 290 | 240 | 193 |
| 1922..... | 100 | 99 | 132 | 144 | 1922..... | 124 | 87 | 196 | 274 |
| 1923..... | 138 | 111 | 148 | 161 | 1923..... | 234 | 142 | 220 | 188 |
| 1924..... | 138 | 123 | 120 | 109 | 1924..... | 150 | 166 | 273 | 216 |
| 1925..... | 101 | 109 | 109 | 131 | 1925..... | 225 | 110 | 222 | 266 |

DOMESTIC AND FOREIGN CATTLE HIDES (OTHER THAN PACKER)

| | | | | | | | | | |
|-----------------------------------|-------|-------|-------|-------|------------------------------------|-------|-----|-------|-------|
| Calf, dry or dry salted: | | | | | Stoers, green salted: | | | | |
| 1921..... | 384 | 456 | 590 | 564 | 1921..... | 685 | 545 | 354 | 259 |
| 1922..... | 486 | 378 | 572 | 760 | 1922..... | 291 | 202 | 340 | 405 |
| 1923..... | 316 | 420 | 541 | 318 | 1923..... | 444 | 522 | 282 | 133 |
| 1924..... | 220 | 348 | 376 | 206 | 1924..... | 151 | 206 | 194 | 283 |
| 1925..... | 157 | 335 | 672 | 531 | 1925..... | 231 | 231 | 110 | 113 |
| Calf, green salted: | | | | | Mixed cattle, green salted: | | | | |
| 1921..... | 1,763 | 2,362 | 2,110 | 1,870 | 1921..... | 1,109 | 847 | 1,191 | 1,021 |
| 1922..... | 1,775 | 2,507 | 2,432 | 1,942 | 1922..... | 801 | 706 | 790 | 787 |
| 1923..... | 1,643 | 2,362 | 1,816 | 1,357 | 1923..... | 1,081 | 813 | 698 | 705 |
| 1924..... | 1,205 | 1,702 | 1,800 | 1,483 | 1924..... | 692 | 611 | 528 | 645 |
| 1925..... | 1,483 | 2,257 | 2,307 | 2,052 | 1925..... | 851 | 578 | 523 | 533 |
| Cattle, dry or dry salted: | | | | | Kip, dry or dry salted: | | | | |
| 1921..... | 984 | 885 | 937 | 1,012 | 1921..... | 377 | 422 | 357 | 396 |
| 1922..... | 1,064 | 908 | 1,020 | 1,143 | 1922..... | 461 | 455 | 447 | 319 |
| 1923..... | 1,217 | 1,144 | 872 | 595 | 1923..... | 258 | 356 | 206 | 111 |
| 1924..... | 344 | 276 | 255 | 212 | 1924..... | 124 | 73 | 89 | 50 |
| 1925..... | 175 | 107 | 103 | 106 | 1925..... | 54 | 47 | 37 | 20 |
| Bulls, green salted: | | | | | Kip, green salted: | | | | |
| 1921..... | 58 | 76 | 54 | 58 | 1921..... | 488 | 313 | 341 | 436 |
| 1922..... | 54 | 44 | 37 | 37 | 1922..... | 330 | 334 | 346 | 570 |
| 1923..... | 45 | 43 | 43 | 41 | 1923..... | 618 | 367 | 359 | 453 |
| 1924..... | 44 | 49 | 44 | 28 | 1924..... | 328 | 295 | 330 | 399 |
| 1925..... | 22 | 32 | 31 | 27 | 1925..... | 320 | 282 | 255 | 339 |
| Cows, green salted: | | | | | | | | | |
| 1921..... | 703 | 1,105 | 496 | 775 | | | | | |
| 1922..... | 660 | 579 | 462 | 636 | | | | | |
| 1923..... | 768 | 551 | 412 | 582 | | | | | |
| 1924..... | 520 | 343 | 334 | 448 | | | | | |
| 1925..... | 556 | 433 | 393 | 499 | | | | | |

MISCELLANEOUS HIDES AND SKINS

| | | | | | | | | | |
|-----------------------|-----|-----|-----|-----|------------------------|-------|-------|-----|-----|
| Buffalo hides: | | | | | Cabretta skins: | | | | |
| 1921..... | 211 | 188 | 170 | 141 | 1921..... | 1,579 | 1,219 | 791 | 547 |
| 1922..... | 138 | 139 | 156 | 109 | 1922..... | 261 | 878 | 810 | 930 |
| 1923..... | 117 | 180 | 117 | 88 | 1923..... | 966 | 1,128 | 914 | 736 |
| 1924..... | 59 | 54 | 14 | 11 | 1924..... | 608 | 559 | 509 | 458 |
| 1925..... | 45 | 80 | 48 | 7 | 1925..... | 569 | 787 | 771 | 672 |

TABLE 608.—Hides and skins: Quarterly stocks of hides in United States, 1921-1925—Continued

[Thousands—1. e., 000 omitted]

MISCELLANEOUS HIDES AND SKINS—Continued

| Description and year | Mar. 31 | June 30 | Sept. 30 | Dec. 31 | Description and year | Mar. 31 | June 30 | Sept. 30 | Dec. 31 |
|---|---------|---------|----------|---------|------------------------------------|---------|---------|----------|---------|
| Calf and kip skins | | | | | Horse, colt, ass, and mule fronts: | | | | |
| 1921..... | 4,302 | 4,918 | 4,413 | 3,990 | 1921..... | 43 | 57 | 57 | 62 |
| 1922..... | 3,881 | 4,474 | 4,664 | 4,462 | 1922..... | 44 | 62 | 94 | 115 |
| 1923..... | 3,700 | 4,360 | 3,429 | 2,935 | 1923..... | 145 | 139 | 97 | 101 |
| 1924..... | 2,616 | 3,197 | 3,340 | 2,831 | 1924..... | 59 | 98 | 31 | 86 |
| 1925..... | 2,873 | 3,932 | 4,247 | 3,860 | 1925..... | 75 | 51 | 57 | 69 |
| Cattle and kip hides and skins (foreign tanned) | | | | | Horse, colt, ass, and muleshanks: | | | | |
| 1921..... | 293 | 240 | 202 | 151 | 1921..... | 72 | 109 | 65 | 60 |
| 1922..... | 124 | 62 | 46 | 75 | 1922..... | 56 | 42 | 60 | 154 |
| 1923..... | 76 | 72 | 23 | 19 | 1923..... | 36 | 92 | 23 | 95 |
| 1924..... | 13 | 18 | 19 | 16 | 1924..... | 15 | — | 11 | 17 |
| 1925..... | 11 | 11 | 10 | 11 | 1925..... | 53 | 24 | 74 | 63 |
| Cattle hides: | | | | | Kangaroo and Wallaby skins: | | | | |
| 1921..... | 7,807 | 7,078 | 6,086 | 5,819 | 1921..... | 410 | 363 | 359 | 389 |
| 1922..... | 5,062 | 5,347 | 5,515 | 6,346 | 1922..... | 268 | 240 | 177 | 243 |
| 1923..... | 6,749 | 6,086 | 5,487 | 5,086 | 1923..... | 335 | 456 | 358 | 486 |
| 1924..... | 4,689 | 3,963 | 3,775 | 4,585 | 1924..... | 397 | 278 | 175 | 335 |
| 1925..... | 4,503 | 3,707 | 3,563 | 4,251 | 1925..... | 240 | 174 | 115 | 185 |
| Deer and elk skins: | | | | | Pig and hog skins: | | | | |
| 1921..... | 119 | 212 | 216 | 275 | 1921..... | 251 | 120 | 89 | 97 |
| 1922..... | 136 | 166 | 187 | 188 | 1922..... | 111 | 111 | 106 | 90 |
| 1923..... | 192 | 327 | 274 | 309 | 1923..... | 88 | 55 | 65 | 71 |
| 1924..... | 311 | 397 | 413 | 330 | 1924..... | 79 | 83 | 23 | 23 |
| 1925..... | 373 | 366 | 310 | 176 | 1925..... | 34 | 31 | 24 | 26 |
| Goat and kid skins: | | | | | Pig and hog strips (pounds): | | | | |
| 1921..... | 8,652 | 9,690 | 10,746 | 10,380 | 1921..... | 1,163 | 859 | 349 | 517 |
| 1922..... | 8,044 | 10,799 | 8,641 | 8,730 | 1922..... | 226 | 483 | 390 | 319 |
| 1923..... | 7,779 | 10,187 | 10,909 | 9,926 | 1923..... | 412 | 604 | 645 | 575 |
| 1924..... | 7,105 | 9,196 | 8,018 | 6,153 | 1924..... | 561 | 734 | 390 | 292 |
| 1925..... | 7,754 | 9,711 | 9,839 | 7,379 | 1925..... | 362 | 479 | 379 | 423 |
| Horse, colt, ass, and mule hides: | | | | | Sheep and lamb skins: | | | | |
| 1921..... | 655 | 386 | 306 | 260 | 1921..... | 12,971 | 13,755 | 12,006 | 12,661 |
| 1922..... | 254 | 140 | 109 | 128 | 1922..... | 11,941 | 10,971 | 10,475 | 9,151 |
| 1923..... | 166 | 128 | 100 | 111 | 1923..... | 8,995 | 9,916 | 9,203 | 7,400 |
| 1924..... | 156 | 98 | 62 | 98 | 1924..... | 6,193 | 6,770 | 7,282 | 5,515 |
| 1925..... | 138 | 103 | 70 | 80 | 1925..... | 5,008 | 7,551 | 8,100 | 6,072 |
| Horse, colt, ass, and mule butts: | | | | | Skivers and fleshers (pieces): | | | | |
| 1921..... | 222 | 193 | 191 | 207 | 1921..... | 1,611 | 1,778 | 1,784 | 1,770 |
| 1922..... | 220 | 224 | 310 | 456 | 1922..... | 1,732 | 1,858 | 2,031 | 2,141 |
| 1923..... | 491 | 448 | 186 | 166 | 1923..... | 1,540 | 1,638 | 1,584 | 1,408 |
| 1924..... | 114 | 119 | 87 | 121 | 1924..... | 1,345 | 1,516 | 1,780 | 1,327 |
| 1925..... | 188 | 177 | 181 | 201 | 1925..... | 934 | 1,119 | 1,452 | 1,632 |

TABLE 609.—Hides and skins: International trade, average 1909-1913, annual 1922-1924

(Thousand pounds—i. e., 000 omitted)

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|
| | Average 1909-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Algeria..... | 3, 103 | 9, 335 | 2, 225 | 10, 350 | 4, 793 | 11, 216 | 3, 369 | 9, 041 |
| Argentina..... | 207 | 293, 950 | | 405, 422 | | 388, 319 | | 502, 683 |
| Australia..... | 2, 623 | 15, 210 | 1, 8, 268 | 15, 711 | 1, 8, 807 | 19, 816 | | |
| Brazil..... | | 83, 262 | | 113, 195 | | 136, 411 | | 114, 745 |
| British India..... | 20, 376 | 109, 867 | 6, 171 | 101, 738 | 6, 533 | 105, 000 | 4, 544 | 96, 644 |
| Canada..... | 46, 820 | 45, 469 | 44, 131 | 50, 455 | 43, 884 | 54, 521 | 49, 902 | 53, 198 |
| Chile..... | 41 | 13, 235 | 85 | 8, 888 | 98 | 10, 181 | | 13, 078 |
| China..... | 2, 317 | 72, 751 | 6, 943 | 62, 552 | 5, 042 | 64, 926 | 4, 500 | 47, 954 |
| Cuba..... | 166 | 14, 293 | 357 | 14, 847 | 56 | 10, 829 | | |
| Denmark..... | 9, 842 | 21, 938 | 4, 927 | 26, 987 | 11, 290 | 20, 588 | 14, 887 | 19, 146 |
| Dutch East Indies..... | 135 | 16, 708 | 188 | 14, 159 | 213 | 15, 613 | | 12, 840 |
| Egypt..... | | 10, 754 | 595 | 4, 901 | 298 | 6, 720 | 455 | 6, 783 |
| Madagascar..... | | 14, 502 | | 16, 065 | | 23, 580 | | |
| Morocco..... | | 10, 347 | 262 | 7, 450 | 188 | 14, 589 | 338 | 16, 817 |
| Netherlands..... | 73, 691 | 67, 636 | 34, 046 | 47, 681 | 46, 374 | 47, 747 | 57, 320 | 49, 718 |
| New Zealand..... | 752 | 25, 577 | 373 | 31, 833 | 226 | 25, 742 | 215 | 31, 902 |
| Norway..... | 13, 979 | 13, 852 | 8, 011 | 10, 587 | 9, 507 | 11, 371 | 12, 178 | 11, 259 |
| Peru..... | | 6, 195 | | 4, 614 | | 3, 589 | | 4, 118 |
| Switzerland..... | 6, 659 | 22, 896 | 7, 547 | 11, 649 | 13, 094 | 13, 300 | 13, 219 | 14, 593 |
| Union of South Africa..... | 219 | 50, 737 | 152 | 63, 312 | 301 | 59, 466 | 362 | 68, 691 |
| Uruguay..... | | 71, 105 | 1 | 52, 444 | | 49, 643 | | |
| Venezuela..... | | 6, 764 | | 5, 449 | | 6, 836 | | 3, 196 |
| Yugoslavia..... | | | | 7, 178 | | 5, 624 | | 7, 167 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | | | 11, 223 | 1, 271 | 14, 142 | 299 | 19, 011 | 1, 023 |
| Austria-Hungary..... | 87, 596 | 79, 265 | | | | | | |
| Belgium..... | 180, 930 | 117, 213 | 60, 911 | 20, 289 | 83, 329 | 20, 609 | 90, 830 | 18, 927 |
| British Malaya..... | 4, 832 | 4, 436 | 7, 068 | 2, 702 | 7, 955 | 4, 802 | 8, 817 | 6, 385 |
| Bulgaria..... | 4, 607 | 3, 022 | 5, 634 | 3, 045 | 5, 665 | 2, 158 | 5, 049 | 3, 967 |
| Czechoslovakia..... | | | 6, 229 | 5, 361 | 15, 838 | 1, 920 | 53, 476 | 545 |
| Finland..... | 10, 717 | 7, 136 | 12, 138 | 3, 404 | 17, 506 | 5, 323 | 10, 713 | 12, 637 |
| France..... | 155, 508 | 131, 041 | 119, 595 | 88, 117 | 169, 564 | 83, 843 | 192, 564 | 72, 270 |
| Germany..... | 440, 200 | 152, 373 | 261, 628 | 5, 045 | 219, 305 | 4, 605 | 320, 159 | 4, 185 |
| Greece..... | 5, 770 | 2, 283 | 9, 122 | 4, 855 | 7, 318 | 4, 629 | 12, 094 | 6, 404 |
| Hungary..... | | | 1, 376 | 4, 993 | 4, 388 | 815 | | |
| Italy..... | 53, 524 | 48, 428 | 70, 547 | 51, 650 | 72, 252 | 61, 434 | 84, 060 | 59, 804 |
| Japan..... | 6, 321 | 710 | 16, 363 | | 22, 557 | | 28, 188 | |
| Russia..... | 110, 143 | 96, 351 | | | | | | |
| Spain..... | 19, 119 | 17, 467 | 22, 560 | 18, 111 | 16, 263 | 27, 541 | 6, 387 | 14, 642 |
| Sweden..... | 25, 662 | 24, 130 | 29, 258 | 24, 793 | 38, 697 | 21, 925 | 39, 625 | 29, 331 |
| Switzerland..... | 107, 350 | 38, 100 | 116, 611 | 27, 019 | 205, 486 | 42, 791 | 231, 487 | 38, 381 |
| United States..... | 514, 349 | 25, 432 | 551, 173 | 28, 700 | 531, 576 | 36, 012 | 356, 552 | 105, 080 |
| Other countries..... | 45, 593 | 182, 585 | 5, 979 | 39, 693 | 6, 668 | 41, 967 | 39, 764 | 57, 199 |
| Total..... | 1, 959, 521 | 1, 991, 355 | 1, 431, 695 | 1, 416, 611 | 1, 592, 273 | 1, 466, 350 | 1, 660, 065 | 1, 514, 431 |

Division of Statistical and Historical Research. Official sources.

1 Year beginning July 1.

2 Twelve months' sea-trade, three months' land-trade.

3 Java and Madura only.

4 Six months.

5 Singapore only.

6 Four-year average.

TABLE 610.—Hides, packer: Average price per pound at Chicago, 1893-1925

| Year | Steers | | | | | Cows | | | Bulls | |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Heavy native | Heavy Texas | Light Texas | Butt branded | Colorado | Heavy native | Light native | Branded | Native | Branded |
| Average: | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1894-1898 | 9.24 | 8.68 | 8.06 | 8.23 | 7.53 | 8.28 | 8.30 | 7.53 | 7.25 | 5.83 |
| 1899-1903 | 12.34 | 12.80 | 11.56 | 11.37 | 11.01 | 10.75 | 10.13 | 10.03 | 10.05 | 8.45 |
| 1904-1908 | 13.86 | 13.96 | 13.23 | 12.67 | 12.49 | 12.65 | 12.24 | 11.94 | 10.85 | 9.46 |
| 1909-1913 | 16.53 | 16.05 | 15.30 | 15.26 | 15.06 | 15.31 | 15.03 | 14.39 | 13.21 | 11.89 |
| 1914-1920 | 29.17 | 26.74 | 25.87 | 26.32 | 25.55 | 27.86 | 26.89 | 24.43 | 22.66 | 20.08 |
| 1921-1925 | 15.76 | 14.67 | 13.47 | 14.64 | 13.64 | 14.10 | 13.28 | 11.66 | 10.83 | 9.25 |
| 1893 | 7.31 | 6.45 | 5.49 | 6.20 | 5.59 | 5.21 | 4.74 | 4.71 | 5.20 | 4.07 |
| 1894 | 6.38 | 6.39 | 5.41 | 5.73 | 5.31 | 4.95 | 4.67 | 4.53 | 4.38 | 3.81 |
| 1895 | 10.20 | 9.48 | 8.60 | 8.97 | 8.39 | 8.76 | 8.52 | 8.00 | 7.41 | 6.42 |
| 1896 | 8.14 | 7.44 | 6.94 | 7.25 | 6.45 | 7.51 | 7.53 | 6.66 | 6.63 | 5.25 |
| 1897 | 9.96 | 9.33 | 8.94 | 9.14 | 8.28 | 9.35 | 9.74 | 8.74 | 8.27 | 6.36 |
| 1898 | 11.50 | 10.74 | 10.43 | 10.08 | 9.24 | 10.94 | 11.02 | 9.72 | 9.56 | 7.52 |
| 1899 | 12.34 | 12.07 | 11.55 | 11.44 | 10.70 | 11.27 | 10.40 | 10.90 | 10.04 | 8.50 |
| 1900 | 11.94 | 11.99 | 11.09 | 11.04 | 10.49 | 10.62 | 10.44 | 10.18 | 9.93 | 8.42 |
| 1901 | 12.37 | 12.88 | 11.53 | 11.46 | 11.21 | 10.66 | 10.07 | 9.87 | 10.19 | 8.54 |
| 1902 | 13.35 | 14.41 | 12.42 | 12.33 | 12.10 | 11.12 | 10.12 | 10.01 | 10.50 | 9.10 |
| 1903 | 11.69 | 12.64 | 11.19 | 10.57 | 10.64 | 10.07 | 9.64 | 9.19 | 9.61 | 7.99 |
| 1904 | 11.66 | 12.65 | 11.67 | 10.89 | 10.81 | 10.60 | 10.52 | 10.28 | 9.10 | 8.15 |
| 1905 | 14.30 | 14.44 | 13.91 | 13.21 | 13.08 | 13.16 | 13.10 | 12.74 | 10.77 | 9.76 |
| 1906 | 15.43 | 14.89 | 14.84 | 13.99 | 13.65 | 14.96 | 14.84 | 14.27 | 12.21 | 10.56 |
| 1907 | 14.55 | 13.96 | 13.26 | 12.99 | 12.70 | 13.10 | 11.71 | 11.98 | 12.13 | 10.98 |
| 1908 | 13.36 | 13.86 | 12.46 | 12.28 | 12.21 | 11.43 | 11.04 | 10.43 | 10.03 | 8.73 |
| 1909 | 16.47 | 16.41 | 15.35 | 15.49 | 15.29 | 15.21 | 14.83 | 14.11 | 13.10 | 12.04 |
| 1910 | 15.29 | 14.88 | 13.77 | 13.71 | 13.42 | 13.79 | 13.04 | 12.40 | 11.06 | 11.10 |
| 1911 | 14.81 | 14.32 | 13.54 | 13.50 | 13.47 | 13.87 | 13.50 | 12.56 | 12.11 | 10.50 |
| 1912 | 17.69 | 16.58 | 16.14 | 16.17 | 15.88 | 16.40 | 16.50 | 15.71 | 14.07 | 12.03 |
| 1913 | 18.38 | 18.06 | 17.72 | 17.42 | 17.26 | 17.28 | 17.27 | 17.19 | 14.82 | 13.80 |
| 1914 | 19.76 | 19.23 | 18.77 | 18.56 | 18.20 | 18.94 | 19.27 | 18.49 | 16.20 | 15.15 |
| 1915 | 24.26 | 21.48 | 21.12 | 21.37 | 20.39 | 23.55 | 22.97 | 20.90 | 19.24 | 16.39 |
| 1916 | 26.28 | 24.23 | 24.06 | 23.86 | 23.34 | 24.89 | 24.89 | 23.94 | 21.41 | 18.47 |
| 1917 | 32.70 | 30.94 | 29.58 | 30.23 | 29.73 | 31.69 | 29.59 | 27.35 | 25.03 | 21.72 |
| 1918 | 29.91 | 27.81 | 26.00 | 27.13 | 26.32 | 27.37 | 22.72 | 21.12 | 20.76 | 18.62 |
| 1919 | 39.60 | 35.96 | 35.17 | 35.85 | 34.84 | 37.63 | 39.56 | 34.25 | 31.00 | 27.90 |
| 1920 | 31.65 | 27.52 | 26.38 | 27.25 | 26.02 | 31.06 | 29.23 | 24.93 | 24.07 | 22.28 |
| 1921 | 13.88 | 13.10 | 11.43 | 12.83 | 11.85 | 12.41 | 11.37 | 10.00 | 8.40 | 7.13 |
| 1922 | 17.83 | 16.57 | 15.29 | 16.51 | 15.69 | 16.10 | 15.16 | 13.47 | 11.96 | 10.17 |
| 1923 | 16.46 | 14.79 | 13.77 | 14.89 | 13.86 | 14.21 | 12.94 | 11.11 | 11.09 | 9.85 |
| 1924 | 14.67 | 13.82 | 12.80 | 13.80 | 12.79 | 12.95 | 12.29 | 10.41 | 10.14 | 8.79 |
| 1925 | 15.96 | 15.08 | 14.06 | 15.16 | 14.12 | 14.82 | 14.62 | 13.30 | 11.98 | 10.29 |

Division of Statistical and Historical Research. Compiled from annual reports of the Chicago Board of Trade, 1909, page 97, and 1925, page 108.

TABLE 611.—Hides, country: Average price per pound at Chicago, 1893-1925

| Year | Ex- tremes | Heavy steers | Heavy cows | No. 1 buffs | No. 2 buffs | Bulls | Country packer brands | Country brands | No. 1 calf- skins | No. 1 kip- skins |
|-----------|---------------|-----------------|---------------|----------------|----------------|--------------|-----------------------------|-------------------|-------------------------|------------------------|
| Average: | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1894-1898 | 8.06 | 8.11 | 7.55 | 7.54 | 7.05 | 6.43 | 7.15 | 6.84 | 10.55 | 8.96 |
| 1899-1903 | 9.29 | 10.46 | 9.35 | 9.05 | 8.20 | 8.33 | 9.31 | 8.65 | 12.12 | 10.04 |
| 1904-1908 | 11.21 | 11.80 | 11.05 | 10.97 | 9.95 | 9.29 | 10.67 | 9.91 | 14.56 | 11.88 |
| 1909-1913 | 18.67 | 15.64 | 13.11 | 13.06 | 12.07 | 10.99 | 12.20 | 11.56 | 17.21 | 14.42 |
| 1914-1920 | 23.35 | 23.07 | 21.05 | 21.03 | 19.88 | 18.14 | 21.48 | 17.52 | 38.79 | 29.23 |
| 1921-1925 | 11.96 | 11.40 | 9.90 | 10.06 | 8.89 | 7.98 | 10.48 | 8.24 | 19.39 | 16.61 |
| 1893 | 4.49 | 6.09 | 4.57 | 4.26 | 3.65 | 4.37 | 4.82 | 3.91 | 8.35 | 6.21 |
| 1894 | 4.76 | 6.30 | 4.41 | 4.21 | 3.73 | 3.89 | 4.89 | 4.02 | 7.84 | 6.12 |
| 1895 | 8.07 | 8.79 | 7.97 | 7.86 | 7.34 | 6.51 | 8.07 | 7.26 | 11.23 | 8.93 |
| 1896 | 7.43 | 7.20 | 6.86 | 6.85 | 6.36 | 5.53 | 6.16 | 6.21 | 9.10 | 7.96 |
| 1897 | 9.55 | 9.00 | 8.65 | 8.86 | 8.35 | 7.45 | 7.77 | 7.88 | 12.08 | 10.50 |
| 1898 | 10.49 | 10.25 | 9.90 | 9.94 | 9.43 | 8.46 | 8.85 | 8.85 | 12.49 | 11.20 |

TABLE 611.—Hides, country: Average price per pound at Chicago, 1893-1925—Continued

| Year | Ex- tremes | Heavy steers | Heavy cows | No. 1 buffs | No. 2 buffs | Bulls | Country packer brands | Country brands | No. 1 calf- skins | No. 1 kip- skins |
|------|---------------|-----------------|---------------|----------------|----------------|--------------|-----------------------------|-------------------|-------------------------|------------------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1899 | 10.43 | 10.79 | 10.13 | 10.08 | 9.88 | 8.71 | 9.69 | 9.56 | 12.84 | 10.95 |
| 1900 | 9.52 | 10.29 | 9.30 | 9.11 | 8.26 | 8.05 | 8.75 | 8.73 | 11.91 | 10.16 |
| 1901 | 8.77 | 10.50 | 9.25 | 8.73 | 7.73 | 8.43 | 8.84 | 8.56 | 11.93 | 9.36 |
| 1902 | 8.83 | 10.99 | 9.41 | 8.74 | 7.78 | 8.73 | 9.45 | 8.55 | 11.89 | 9.67 |
| 1903 | 8.87 | 9.71 | 8.66 | 8.59 | 7.63 | 7.76 | 9.82 | 7.85 | 12.05 | 10.16 |
| 1904 | 9.75 | 10.03 | 9.47 | 9.45 | 8.49 | 7.87 | 9.42 | 8.42 | 13.37 | 11.08 |
| 1905 | 12.14 | 12.47 | 11.92 | 11.88 | 10.96 | 9.39 | 11.86 | 10.93 | 14.84 | 12.58 |
| 1906 | 13.43 | 13.83 | 13.49 | 13.43 | 12.47 | 11.29 | 12.48 | 12.61 | 15.54 | 14.05 |
| 1907 | 10.99 | 12.05 | 11.02 | 10.79 | 9.64 | 10.02 | 10.69 | 9.06 | 14.90 | 11.00 |
| 1908 | 9.75 | 10.61 | 9.35 | 9.29 | 8.21 | 7.86 | 8.90 | 8.04 | 14.17 | 10.00 |
| 1909 | 13.55 | 14.17 | 13.40 | 13.24 | 12.21 | 11.13 | 12.55 | 11.44 | 17.92 | 14.11 |
| 1910 | 11.51 | 12.16 | 11.25 | 11.13 | 10.02 | 9.79 | 10.20 | 9.49 | 16.02 | 12.08 |
| 1911 | 12.80 | 12.24 | 11.82 | 11.82 | 10.79 | 10.01 | 10.72 | 10.02 | 16.34 | 13.23 |
| 1912 | 14.91 | 14.25 | 14.09 | 14.05 | 13.02 | 11.22 | 13.12 | 12.33 | 18.90 | 16.01 |
| 1913 | 15.60 | 15.39 | 15.00 | 15.05 | 14.31 | 12.73 | 14.43 | 13.54 | 17.18 | 16.74 |
| 1914 | 17.70 | 16.56 | 16.42 | 16.63 | 15.64 | 13.98 | 16.34 | 14.53 | 21.90 | 19.26 |
| 1915 | 19.65 | 19.67 | 19.06 | 18.98 | 17.92 | 15.90 | 18.62 | 16.13 | 21.60 | 19.60 |
| 1916 | 22.68 | 20.75 | 20.17 | 20.37 | 19.35 | 17.28 | 21.86 | 17.84 | 34.55 | 24.84 |
| 1917 | 25.23 | 24.74 | 23.45 | 23.60 | 21.91 | 20.39 | 24.31 | 20.30 | 39.43 | 29.05 |
| 1918 | 19.80 | 21.89 | 18.96 | 18.73 | 17.48 | 15.12 | 19.62 | 15.02 | 40.92 | 26.52 |
| 1919 | 35.58 | 32.06 | 30.02 | 29.96 | 28.90 | 26.54 | 29.01 | 25.99 | 72.15 | 51.37 |
| 1920 | 22.79 | 24.20 | 19.27 | 18.93 | 17.93 | 18.76 | 20.60 | 14.94 | 40.98 | 33.97 |
| 1921 | 8.95 | 9.35 | 7.32 | 7.10 | 5.77 | 5.43 | 7.43 | 5.33 | 18.57 | 15.58 |
| 1922 | 12.93 | 12.03 | 10.85 | 10.86 | 9.52 | 8.23 | 12.53 | 8.42 | 18.95 | 17.29 |
| 1923 | 11.65 | 11.39 | 10.43 | 10.45 | 9.26 | 8.93 | 10.12 | 8.70 | 17.18 | 15.42 |
| 1924 | 11.86 | 11.31 | 9.24 | 9.63 | 8.63 | 7.86 | 9.81 | 8.23 | 20.39 | 16.62 |
| 1925 | 14.41 | 12.94 | 11.64 | 12.26 | 11.25 | 9.46 | 12.52 | 10.54 | 21.88 | 18.12 |

Division of Statistical and Historical Research. Compiled from annual reports of the Chicago Board of Trade, 1906, page 97, and 1926, page 108.

HORSES AND MULES

TABLE 612.—Horses and mules: Number and value on farms, United States, January 1, 1910-1926

| Jan. 1— | Horses | | | Mules | | |
|---------------|------------------|-----------------------|--------------------------|------------------|-----------------------|--------------------------|
| | Number | Price per head Jan. 1 | Farm value Jan. 1 | Number | Price per head Jan. 1 | Farm value Jan. 1 |
| | <i>Thousands</i> | <i>Dollars</i> | <i>Thousands dollars</i> | <i>Thousands</i> | <i>Dollars</i> | <i>Thousands dollars</i> |
| 1910, Apr. 15 | 19,833 | 106.03 | 2,142,524 | 4,810 | 120.20 | 506,049 |
| 1911 | 20,277 | 111.46 | 2,269,081 | 4,323 | 125.92 | 544,359 |
| 1912 | 20,509 | 105.94 | 2,172,894 | 4,362 | 120.51 | 525,657 |
| 1913 | 20,567 | 110.77 | 2,278,222 | 4,386 | 124.31 | 545,245 |
| 1914 | 20,902 | 109.32 | 2,291,638 | 4,449 | 123.85 | 551,071 |
| 1915 | 21,195 | 103.33 | 2,190,102 | 4,479 | 112.36 | 503,271 |
| 1916 | 21,159 | 101.60 | 2,149,786 | 4,593 | 113.59 | 522,534 |
| 1917 | 21,210 | 102.89 | 2,182,367 | 4,723 | 113.15 | 535,006 |
| 1918 | 21,555 | 104.24 | 2,246,970 | 4,873 | 128.81 | 627,679 |
| 1919 | 21,482 | 98.45 | 2,114,897 | 4,954 | 135.93 | 672,922 |
| 1920 | 19,946 | 96.52 | 1,915,063 | 5,475 | 148.46 | 813,828 |
| Av. 1914-1920 | 21,047 | 102.38 | 2,154,764 | 4,785 | 126.62 | 605,890 |
| 1921 | 19,134 | 84.57 | 1,613,120 | 5,896 | 117.52 | 686,455 |
| 1922 | 18,564 | 71.18 | 1,321,896 | 5,698 | 99.14 | 562,588 |
| 1923 | 17,948 | 70.85 | 1,267,624 | 5,702 | 87.17 | 497,044 |
| 1924 | 17,222 | 65.48 | 1,127,619 | 5,730 | 85.90 | 482,289 |
| 1925 | 16,564 | 64.18 | 1,063,811 | 5,788 | 82.51 | 475,085 |
| 1926 | 15,778 | 65.08 | 1,026,905 | 5,790 | 81.30 | 469,897 |

Division of Crop and Livestock Estimates; figures in italics are census returns.

* Preliminary.

TABLE 613.—Horses: Number and value on farms, by States, January 1, 1920-1926

| State | Number Jan. 1— | | | | Average value per head Jan. 1— | | | | Farm value Jan. 1— | | | |
|--------------------|----------------|----------------|----------------|----------------|--------------------------------|--------------|--------------|--------------|--------------------|------------------|------------------|------------------|
| | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 |
| | Thou- sands | Thou- sands | Thou- sands | Thou- sands | Dol- lars | Dol- lars | Dol- lars | Dol- lars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Maine..... | 94 | 92 | 90 | 88 | 157.00 | 148.00 | 126.00 | 124.00 | 14,720 | 13,590 | 11,329 | 10,871 |
| N. Hampshire..... | 38 | 37 | 36 | 35 | 144.00 | 131.00 | 113.00 | 116.00 | 5,468 | 4,850 | 4,080 | 4,044 |
| Vermont..... | 77 | 77 | 73 | 71 | 143.00 | 125.00 | 112.00 | 106.00 | 11,007 | 9,600 | 8,193 | 7,548 |
| Massachusetts..... | 51 | 49 | 48 | 47 | 156.00 | 151.00 | 134.00 | 138.00 | 7,947 | 7,388 | 6,444 | 6,490 |
| Rhode Island..... | 7 | 6 | 6 | 6 | 162.00 | 150.00 | 140.00 | 135.00 | 1,134 | 900 | 840 | 810 |
| Connecticut..... | 38 | 36 | 36 | 35 | 166.00 | 147.00 | 135.00 | 130.00 | 6,321 | 5,306 | 4,860 | 4,550 |
| New York..... | 536 | 513 | 496 | 480 | 144.00 | 130.00 | 118.00 | 116.00 | 77,391 | 66,627 | 58,294 | 55,564 |
| New Jersey..... | 73 | 70 | 67 | 64 | 153.00 | 143.00 | 132.00 | 130.00 | 11,159 | 10,010 | 8,840 | 8,320 |
| Pennsylvania..... | 506 | 486 | 473 | 463 | 128.00 | 122.00 | 112.00 | 111.00 | 63,996 | 59,216 | 53,201 | 51,243 |
| Ohio..... | 811 | 790 | 770 | 740 | 113.00 | 106.00 | 100.00 | 91.00 | 91,923 | 86,075 | 76,786 | 69,690 |
| Indiana..... | 717 | 650 | 620 | 590 | 105.00 | 95.00 | 82.00 | 75.00 | 75,301 | 61,571 | 50,636 | 43,998 |
| Illinois..... | 1,297 | 1,232 | 1,190 | 1,150 | 97.00 | 85.00 | 69.00 | 71.00 | 126,252 | 104,786 | 82,669 | 81,621 |
| Michigan..... | 606 | 576 | 559 | 542 | 99.00 | 97.00 | 94.00 | 92.00 | 60,784 | 55,840 | 52,557 | 50,074 |
| Wisconsin..... | 683 | 669 | 655 | 641 | 114.00 | 103.00 | 93.00 | 105.00 | 77,588 | 72,184 | 61,233 | 67,016 |
| Minnesota..... | 933 | 914 | 906 | 887 | 94.00 | 86.00 | 77.00 | 70.00 | 87,986 | 78,742 | 69,772 | 69,654 |
| Iowa..... | 1,387 | 1,338 | 1,300 | 1,266 | 93.00 | 85.00 | 74.00 | 80.00 | 129,124 | 114,136 | 96,564 | 101,715 |
| Missouri..... | 906 | 876 | 841 | 801 | 86.00 | 74.00 | 62.00 | 53.00 | 77,574 | 64,458 | 43,991 | 42,157 |
| North Dakota..... | 856 | 830 | 815 | 790 | 83.00 | 64.00 | 57.00 | 58.00 | 70,909 | 53,264 | 46,193 | 45,985 |
| South Dakota..... | 817 | 784 | 773 | 760 | 72.00 | 63.00 | 50.00 | 53.00 | 58,539 | 49,364 | 38,891 | 40,338 |
| Nebraska..... | 961 | 924 | 892 | 882 | 77.00 | 71.00 | 57.00 | 59.00 | 74,296 | 65,767 | 50,854 | 52,472 |
| Kansas..... | 1,083 | 1,040 | 1,019 | 978 | 80.00 | 67.00 | 49.00 | 46.00 | 86,853 | 69,501 | 50,331 | 44,996 |
| Delaware..... | 28 | 27 | 25 | 24 | 85.00 | 80.00 | 64.00 | 78.00 | 2,387 | 2,162 | 1,638 | 1,568 |
| Maryland..... | 141 | 134 | 127 | 121 | 106.00 | 98.00 | 87.00 | 87.00 | 14,866 | 13,153 | 11,007 | 10,494 |
| Virginia..... | 312 | 306 | 286 | 284 | 113.00 | 101.00 | 85.00 | 82.00 | 35,231 | 30,840 | 25,016 | 23,370 |
| West Virginia..... | 169 | 166 | 164 | 158 | 110.00 | 104.00 | 90.00 | 92.00 | 18,531 | 17,203 | 14,805 | 14,469 |
| N. Carolina..... | 171 | 163 | 155 | 147 | 156.00 | 125.00 | 108.00 | 108.00 | 26,730 | 20,344 | 16,775 | 15,905 |
| S. Carolina..... | 78 | 72 | 66 | 60 | 180.00 | 134.00 | 88.00 | 93.00 | 14,068 | 9,644 | 5,786 | 5,560 |
| Georgia..... | 101 | 92 | 83 | 74 | 160.00 | 112.00 | 76.00 | 82.00 | 16,178 | 10,317 | 6,338 | 6,081 |
| Florida..... | 41 | 40 | 39 | 38 | 140.00 | 123.00 | 115.00 | 103.00 | 5,737 | 4,905 | 4,474 | 3,928 |
| Kentucky..... | 382 | 370 | 360 | 343 | 108.00 | 87.00 | 69.00 | 66.00 | 39,958 | 32,064 | 24,682 | 22,542 |
| Tennessee..... | 318 | 306 | 294 | 282 | 117.00 | 94.00 | 75.00 | 73.00 | 37,224 | 28,652 | 21,984 | 20,543 |
| Alabama..... | 130 | 124 | 118 | 108 | 130.00 | 91.00 | 77.00 | 79.00 | 16,960 | 11,295 | 9,028 | 8,520 |
| Mississippi..... | 215 | 195 | 183 | 171 | 114.00 | 88.00 | 70.00 | 72.00 | 24,542 | 17,115 | 12,774 | 12,240 |
| Arkansas..... | 252 | 240 | 225 | 214 | 98.00 | 77.00 | 58.00 | 54.00 | 24,809 | 18,392 | 12,984 | 11,555 |
| Louisiana..... | 182 | 174 | 167 | 150 | 108.00 | 86.00 | 78.00 | 72.00 | 19,690 | 14,867 | 12,244 | 10,742 |
| Oklahoma..... | 738 | 720 | 705 | 680 | 84.00 | 64.00 | 46.00 | 41.00 | 61,904 | 46,131 | 32,340 | 28,183 |
| Texas..... | 1,050 | 1,015 | 980 | 940 | 100.00 | 78.00 | 58.00 | 54.00 | 105,036 | 78,719 | 57,302 | 50,626 |
| Montana..... | 669 | 660 | 650 | 643 | 61.00 | 50.00 | 42.00 | 39.00 | 40,949 | 33,760 | 27,490 | 24,985 |
| Idaho..... | 293 | 284 | 274 | 261 | 80.00 | 71.00 | 65.00 | 60.00 | 23,338 | 20,223 | 17,606 | 15,617 |
| Wyoming..... | 198 | 206 | 206 | 202 | 53.00 | 47.00 | 40.00 | 35.00 | 10,518 | 9,652 | 8,256 | 6,993 |
| Colorado..... | 421 | 421 | 415 | 400 | 79.00 | 63.00 | 56.00 | 48.00 | 33,375 | 26,612 | 23,183 | 19,229 |
| New Mexico..... | 183 | 180 | 180 | 184 | 69.00 | 60.00 | 51.00 | 46.00 | 12,650 | 10,724 | 9,122 | 8,456 |
| Arizona..... | 136 | 126 | 124 | 123 | 72.00 | 89.00 | 69.00 | 64.00 | 9,850 | 11,450 | 8,520 | 7,827 |
| Utah..... | 132 | 132 | 128 | 123 | 81.00 | 79.00 | 71.00 | 71.00 | 10,671 | 10,417 | 9,146 | 8,745 |
| Nevada..... | 61 | 60 | 58 | 57 | 62.00 | 69.00 | 48.00 | 57.00 | 3,796 | 3,553 | 2,800 | 3,231 |
| Washington..... | 296 | 262 | 270 | 267 | 96.00 | 83.00 | 71.00 | 71.00 | 28,310 | 23,388 | 19,048 | 18,243 |
| Oregon..... | 272 | 265 | 260 | 248 | 87.00 | 84.00 | 78.00 | 83.00 | 23,618 | 22,383 | 20,308 | 20,680 |
| California..... | 402 | 378 | 360 | 335 | 98.00 | 98.00 | 84.00 | 83.00 | 39,434 | 36,912 | 30,072 | 27,797 |
| U. S..... | 10,848 | 10,124 | 9,864 | 9,743 | 96.52 | 84.57 | 71.18 | 70.65 | 1,915,653 | 1,618,120 | 1,321,398 | 1,267,624 |

Division of Crop and Livestock Estimates.

TABLE 613.—*Horses: Number and value on farms, by States, January 1, 1920–1925—Continued*

| State | Number Jan. 1— | | | Average value per head Jan. 1— | | | Farm value, Jan. 1— | | |
|---------------------|------------------------------|------------------------------|------------------------------|--------------------------------|----------------|----------------|--------------------------------|--------------------------------|--------------------------------|
| | 1924 | 1925 | 1926 ¹ | 1924 | 1925 | 1926 | 1924 | 1925 | 1926 ¹ |
| | <i>Thou-</i> <i>sands</i> | <i>Thou-</i> <i>sands</i> | <i>Thou-</i> <i>sands</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>1,000</i> <i>dollars</i> | <i>1,000</i> <i>dollars</i> | <i>1,000</i> <i>dollars</i> |
| Maine..... | 85 | 82 | 77 | 124.00 | 119.00 | 130.00 | 10,576 | 9,795 | 10,010 |
| New Hampshire..... | 34 | 31 | 27 | 113.00 | 105.00 | 100.00 | 3,842 | 3,255 | 2,700 |
| Vermont..... | 67 | 63 | 59 | 107.00 | 104.00 | 109.00 | 7,165 | 6,550 | 6,431 |
| Massachusetts..... | 46 | 44 | 41 | 136.00 | 123.00 | 117.00 | 6,260 | 5,427 | 4,797 |
| Rhode Island..... | 6 | 5 | 5 | 125.00 | 124.00 | 120.00 | 750 | 620 | 600 |
| Connecticut..... | 35 | 34 | 32 | 130.00 | 127.00 | 120.00 | 4,550 | 4,318 | 3,840 |
| New York..... | 465 | 447 | 426 | 111.00 | 107.00 | 110.00 | 51,587 | 47,915 | 46,860 |
| New Jersey..... | 60 | 57 | 53 | 116.00 | 109.00 | 107.00 | 6,960 | 6,210 | 5,671 |
| Pennsylvania..... | 433 | 416 | 393 | 100.00 | 95.00 | 101.00 | 43,354 | 39,721 | 39,693 |
| Ohio..... | 690 | 636 | 601 | 81.00 | 85.00 | 91.00 | 55,907 | 54,027 | 54,661 |
| Indiana..... | 570 | 557 | 527 | 67.00 | 69.00 | 78.00 | 38,298 | 38,258 | 41,106 |
| Illinois..... | 1,090 | 1,032 | 985 | 68.00 | 69.00 | 73.00 | 74,613 | 71,025 | 71,905 |
| Michigan..... | 520 | 496 | 474 | 81.00 | 83.00 | 87.00 | 42,046 | 41,136 | 41,238 |
| Wisconsin..... | 626 | 618 | 591 | 97.00 | 88.00 | 92.00 | 60,716 | 54,164 | 54,372 |
| Minnesota..... | 852 | 837 | 800 | 72.00 | 77.00 | 80.00 | 61,559 | 64,094 | 64,000 |
| Iowa..... | 1,240 | 1,192 | 1,140 | 75.00 | 72.00 | 73.00 | 93,353 | 85,501 | 83,220 |
| Missouri..... | 765 | 714 | 675 | 49.00 | 48.00 | 48.00 | 37,545 | 33,684 | 32,400 |
| North Dakota..... | 760 | 732 | 699 | 51.00 | 56.00 | 58.00 | 38,975 | 40,807 | 40,542 |
| South Dakota..... | 742 | 720 | 688 | 50.00 | 48.00 | 49.00 | 36,816 | 34,760 | 33,712 |
| Nebraska..... | 852 | 863 | 833 | 57.00 | 58.00 | 61.00 | 48,754 | 49,913 | 50,813 |
| Kansas..... | 958 | 938 | 896 | 43.00 | 46.00 | 48.00 | 41,112 | 43,304 | 43,008 |
| Delaware..... | 22 | 20 | 18 | 64.00 | 74.00 | 79.00 | 1,405 | 1,475 | 1,422 |
| Maryland..... | 119 | 117 | 112 | 77.00 | 74.00 | 77.00 | 9,208 | 8,695 | 8,624 |
| Virginia..... | 272 | 261 | 249 | 77.00 | 71.00 | 66.00 | 21,058 | 18,552 | 16,434 |
| West Virginia..... | 145 | 143 | 136 | 80.00 | 76.00 | 74.00 | 11,586 | 10,904 | 10,064 |
| North Carolina..... | 138 | 130 | 120 | 103.00 | 99.00 | 86.00 | 14,236 | 12,812 | 10,320 |
| South Carolina..... | 58 | 55 | 50 | 103.00 | 97.00 | 89.00 | 5,997 | 5,309 | 4,450 |
| Georgia..... | 64 | 56 | 51 | 82.00 | 85.00 | 80.00 | 5,267 | 4,751 | 4,080 |
| Florida..... | 36 | 31 | 30 | 98.00 | 94.00 | 91.00 | 3,545 | 2,910 | 2,730 |
| Kentucky..... | 330 | 314 | 296 | 56.00 | 50.00 | 49.00 | 18,516 | 15,820 | 14,504 |
| Tennessee..... | 270 | 255 | 238 | 66.00 | 60.00 | 53.00 | 17,816 | 15,361 | 12,614 |
| Alabama..... | 99 | 87 | 81 | 78.00 | 70.00 | 68.00 | 7,711 | 6,074 | 5,568 |
| Mississippi..... | 155 | 142 | 129 | 66.00 | 61.00 | 59.00 | 10,643 | 8,688 | 7,911 |
| Arkansas..... | 200 | 188 | 180 | 43.00 | 42.00 | 43.00 | 8,540 | 7,831 | 7,740 |
| Louisiana..... | 140 | 132 | 126 | 67.00 | 62.00 | 55.00 | 9,435 | 8,149 | 6,930 |
| Oklahoma..... | 640 | 614 | 593 | 35.00 | 40.00 | 36.00 | 22,516 | 24,782 | 21,348 |
| Texas..... | 900 | 857 | 827 | 56.00 | 54.00 | 48.00 | 50,296 | 46,342 | 39,696 |
| Montana..... | 611 | 596 | 576 | 33.00 | 32.00 | 28.00 | 19,859 | 19,123 | 16,128 |
| Idaho..... | 250 | 236 | 221 | 53.00 | 45.00 | 52.00 | 13,249 | 10,682 | 11,492 |
| Wyoming..... | 198 | 197 | 190 | 31.00 | 29.00 | 29.00 | 6,223 | 5,756 | 5,510 |
| Colorado..... | 385 | 367 | 352 | 45.00 | 43.00 | 47.00 | 17,248 | 15,666 | 16,544 |
| New Mexico..... | 184 | 187 | 173 | 40.00 | 38.00 | 37.00 | 7,330 | 7,111 | 6,475 |
| Arizona..... | 118 | 112 | 104 | 64.00 | 59.00 | 49.00 | 7,540 | 6,650 | 5,096 |
| Utah..... | 118 | 110 | 106 | 64.00 | 60.00 | 61.00 | 7,575 | 6,640 | 6,466 |
| Nevada..... | 63 | 50 | 47 | 56.00 | 56.00 | 51.00 | 2,970 | 2,792 | 2,397 |
| Washington..... | 251 | 242 | 233 | 72.00 | 63.00 | 63.00 | 17,982 | 15,180 | 14,679 |
| Oregon..... | 235 | 225 | 214 | 71.00 | 66.00 | 63.00 | 16,634 | 14,912 | 13,482 |
| California..... | 335 | 317 | 302 | 85.00 | 78.00 | 76.00 | 28,592 | 24,760 | 22,962 |
| United States..... | 17,222 | 16,554 | 15,778 | 65.48 | 64.18 | 65.08 | 1,127,619 | 1,062,511 | 1,020,906 |

Division of Crop and Livestock Estimates.

¹ Preliminary.

TABLE 614.—Mules: Number and value on farms, by States, January 1, 1920-1926

| State | Number, Jan. 1— | | | | Average farm value per head, Jan. 1— | | | | Farm value, Jan. 1— | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|--------------------------------------|--------------|--------------|--------------|---------------------|------------------|------------------|------------------|
| | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 | 1920 | 1921 | 1922 | 1923 |
| | Thous- sands | Thous- sands | Thous- sands | Thous- sands | Dol- lars | Dol- lars | Dol- lars | Dol- lars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| New York..... | 7 | 7 | 8 | 8 | 158.00 | 144.00 | 140.00 | 129.00 | 1,106 | 1,008 | 1,120 | 1,034 |
| New Jersey..... | 6 | 6 | 6 | 5 | 176.00 | 165.00 | 155.00 | 135.00 | 1,056 | 990 | 930 | 675 |
| Pennsylvania..... | 55 | 55 | 55 | 55 | 141.00 | 141.00 | 126.00 | 126.00 | 7,754 | 7,728 | 6,930 | 6,930 |
| Ohio..... | 32 | 32 | 32 | 33 | 119.00 | 112.00 | 100.00 | 100.00 | 3,814 | 3,591 | 3,196 | 3,298 |
| Indiana..... | 100 | 101 | 101 | 102 | 123.00 | 111.00 | 87.00 | 81.00 | 12,315 | 11,162 | 8,831 | 8,274 |
| Illinois..... | 168 | 168 | 168 | 170 | 120.00 | 100.00 | 79.00 | 83.00 | 20,091 | 16,729 | 13,221 | 14,144 |
| Michigan..... | 6 | 6 | 6 | 6 | 110.00 | 107.00 | 104.00 | 98.00 | 660 | 642 | 624 | 585 |
| Wisconsin..... | 4 | 5 | 5 | 6 | 125.00 | 110.00 | 105.00 | 86.00 | 500 | 550 | 525 | 514 |
| Minnesota..... | 10 | 11 | 11 | 12 | 99.00 | 94.00 | 80.00 | 80.00 | 988 | 1,031 | 876 | 966 |
| Iowa..... | 82 | 84 | 96 | 97 | 113.00 | 104.00 | 84.00 | 88.00 | 9,302 | 8,725 | 8,040 | 8,492 |
| Missouri..... | 389 | 430 | 440 | 410 | 119.00 | 98.00 | 69.00 | 68.00 | 46,285 | 41,944 | 30,244 | 27,874 |
| North Dakota..... | 8 | 8 | 8 | 9 | 92.00 | 79.00 | 69.00 | 62.00 | 733 | 635 | 554 | 561 |
| South Dakota..... | 15 | 16 | 17 | 19 | 93.00 | 82.00 | 69.00 | 68.00 | 1,399 | 1,310 | 1,177 | 1,301 |
| Nebraska..... | 100 | 107 | 120 | 120 | 106.00 | 91.00 | 74.00 | 75.00 | 10,628 | 9,779 | 8,858 | 8,968 |
| Kansas..... | 243 | 279 | 284 | 305 | 114.00 | 92.00 | 63.00 | 64.00 | 27,731 | 25,614 | 17,966 | 19,465 |
| Delaware..... | 9 | 9 | 9 | 9 | 115.00 | 115.00 | 90.00 | 90.00 | 1,035 | 1,035 | 810 | 810 |
| Maryland..... | 33 | 32 | 32 | 32 | 134.00 | 124.00 | 114.00 | 114.00 | 4,437 | 3,983 | 3,644 | 3,634 |
| Virginia..... | 97 | 98 | 100 | 101 | 141.00 | 130.00 | 106.00 | 103.00 | 13,632 | 12,725 | 10,636 | 10,407 |
| West Virginia..... | 16 | 15 | 15 | 15 | 122.00 | 115.00 | 96.00 | 103.00 | 1,826 | 1,720 | 1,437 | 1,646 |
| North Carolina..... | 257 | 260 | 264 | 268 | 192.00 | 157.00 | 130.00 | 129.00 | 49,236 | 40,724 | 34,209 | 34,512 |
| South Carolina..... | 220 | 220 | 210 | 200 | 233.00 | 188.00 | 129.00 | 124.00 | 51,297 | 41,410 | 27,040 | 24,760 |
| Georgia..... | 406 | 400 | 380 | 365 | 217.00 | 154.00 | 99.00 | 105.00 | 88,250 | 61,542 | 37,767 | 38,416 |
| Florida..... | 45 | 45 | 45 | 45 | 198.00 | 168.00 | 149.00 | 139.00 | 8,912 | 7,575 | 6,685 | 6,237 |
| Kentucky..... | 293 | 285 | 280 | 287 | 130.00 | 111.00 | 82.00 | 77.00 | 38,026 | 31,689 | 22,932 | 22,041 |
| Tennessee..... | 353 | 363 | 370 | 370 | 142.00 | 111.00 | 87.00 | 87.00 | 50,009 | 40,413 | 32,301 | 32,165 |
| Alabama..... | 296 | 302 | 297 | 297 | 174.00 | 114.00 | 95.00 | 100.00 | 51,450 | 34,340 | 28,152 | 29,718 |
| Mississippi..... | 306 | 299 | 299 | 310 | 155.00 | 121.00 | 93.00 | 94.00 | 47,745 | 36,320 | 27,753 | 29,144 |
| Arkansas..... | 323 | 325 | 328 | 335 | 134.00 | 107.00 | 80.00 | 74.00 | 43,210 | 34,926 | 26,247 | 24,680 |
| Louisiana..... | 185 | 187 | 177 | 176 | 168.00 | 143.00 | 118.00 | 113.00 | 31,046 | 26,731 | 20,871 | 19,556 |
| Oklahoma..... | 337 | 337 | 350 | 360 | 120.00 | 90.00 | 67.00 | 60.00 | 40,521 | 30,356 | 23,434 | 21,730 |
| Texas..... | 885 | 905 | 925 | 965 | 144.00 | 111.00 | 85.00 | 80.00 | 127,582 | 100,160 | 78,706 | 77,002 |
| Montana..... | 9 | 9 | 10 | 10 | 88.00 | 84.00 | 67.00 | 56.00 | 794 | 755 | 670 | 592 |
| Idaho..... | 8 | 8 | 8 | 8 | 96.00 | 80.00 | 72.00 | 64.00 | 762 | 640 | 578 | 516 |
| Wyoming..... | 3 | 3 | 4 | 4 | 104.00 | 90.00 | 71.00 | 49.00 | 312 | 270 | 264 | 195 |
| Colorado..... | 31 | 32 | 34 | 36 | 102.00 | 91.00 | 70.00 | 62.00 | 3,170 | 2,912 | 2,380 | 2,228 |
| New Mexico..... | 20 | 24 | 27 | 29 | 104.00 | 90.00 | 73.00 | 67.00 | 2,086 | 2,160 | 1,968 | 1,920 |
| Arizona..... | 12 | 11 | 10 | 12 | 108.00 | 125.00 | 86.00 | 74.00 | 1,300 | 1,380 | 855 | 885 |
| Utah..... | 3 | 3 | 4 | 4 | 80.00 | 78.00 | 74.00 | 70.00 | 241 | 234 | 294 | 278 |
| Nevada..... | 2 | 3 | 3 | 4 | 80.00 | 80.00 | 65.00 | 60.00 | 160 | 240 | 195 | 203 |
| Washington..... | 23 | 22 | 24 | 25 | 113.00 | 95.00 | 90.00 | 84.00 | 2,589 | 2,096 | 2,154 | 2,091 |
| Oregon..... | 14 | 14 | 15 | 16 | 91.00 | 92.00 | 79.00 | 77.00 | 1,278 | 1,282 | 1,182 | 1,230 |
| California..... | 63 | 60 | 61 | 62 | 120.00 | 123.00 | 103.00 | 105.00 | 7,500 | 7,400 | 6,267 | 6,513 |
| United States | 5,475 | 5,586 | 5,638 | 5,702 | 148.46 | 117.52 | 89.14 | 87.17 | 812,828 | 666,455 | 502,563 | 497,044 |

Division of Crop and Livestock Estimates.

TABLE 614.—*Mules: Number and value on farms, by States, January 1, 1920-1926—Continued*

| State | Number, Jan. 1— | | | Average farm value per head, Jan. 1— | | | Farm value, Jan. 1— | | |
|---------------------|-----------------|-----------|-------------------|--------------------------------------|---------|---------|---------------------|---------------|-------------------|
| | 1924 | 1925 | 1926 ¹ | 1924 | 1925 | 1926 | 1924 | 1925 | 1926 ¹ |
| | Thousands | Thousands | Thousands | Dollars | Dollars | Dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| New York..... | 8 | 8 | 8 | 109.00 | 107.00 | 104.00 | 871 | 854 | 831 |
| New Jersey..... | 5 | 5 | 5 | 124.00 | 125.00 | 114.00 | 620 | 625 | 570 |
| Pennsylvania..... | 55 | 55 | 55 | 113.00 | 106.00 | 113.00 | 6,216 | 5,787 | 6,226 |
| Ohio..... | 33 | 34 | 34 | 92.00 | 92.00 | 95.00 | 3,062 | 3,116 | 3,224 |
| Indiana..... | 102 | 103 | 101 | 75.00 | 76.00 | 86.00 | 7,606 | 7,812 | 8,736 |
| Illinois..... | 169 | 169 | 169 | 80.00 | 80.00 | 85.00 | 13,569 | 13,485 | 14,380 |
| Michigan..... | 7 | 7 | 7 | 84.00 | 83.00 | 90.00 | 588 | 582 | 630 |
| Wisconsin..... | 7 | 8 | 8 | 73.00 | 75.00 | 81.00 | 508 | 600 | 649 |
| Minnesota..... | 13 | 14 | 14 | 77.00 | 80.00 | 82.00 | 1,005 | 1,124 | 1,155 |
| Iowa..... | 99 | 99 | 100 | 86.00 | 82.00 | 85.00 | 8,512 | 8,162 | 8,531 |
| Missouri..... | 400 | 390 | 382 | 69.00 | 67.00 | 71.00 | 27,532 | 25,942 | 27,284 |
| North Dakota..... | 10 | 10 | 10 | 57.00 | 59.00 | 55.00 | 569 | 587 | 554 |
| South Dakota..... | 20 | 21 | 22 | 61.00 | 61.00 | 67.00 | 1,218 | 1,281 | 1,474 |
| Nebraska..... | 121 | 121 | 115 | 73.00 | 74.00 | 78.00 | 8,882 | 8,931 | 8,937 |
| Kansas..... | 282 | 260 | 244 | 61.00 | 63.00 | 66.00 | 17,099 | 16,372 | 16,089 |
| Delaware..... | 9 | 9 | 9 | 85.00 | 90.00 | 100.00 | 765 | 810 | 900 |
| Maryland..... | 31 | 31 | 31 | 104.00 | 94.00 | 104.00 | 3,214 | 2,911 | 3,219 |
| Virginia..... | 102 | 104 | 104 | 100.00 | 91.00 | 87.00 | 10,247 | 9,458 | 9,016 |
| West Virginia..... | 15 | 15 | 15 | 88.00 | 85.00 | 84.00 | 1,313 | 1,272 | 1,256 |
| North Carolina..... | 273 | 279 | 285 | 120.00 | 119.00 | 117.00 | 35,217 | 33,291 | 33,442 |
| South Carolina..... | 203 | 199 | 203 | 134.00 | 121.00 | 120.00 | 27,186 | 24,176 | 24,260 |
| Georgia..... | 350 | 338 | 341 | 109.00 | 114.00 | 111.00 | 38,280 | 38,685 | 38,002 |
| Florida..... | 45 | 45 | 45 | 142.00 | 139.00 | 134.00 | 6,377 | 6,240 | 6,020 |
| Kentucky..... | 293 | 301 | 304 | 67.00 | 61.00 | 61.00 | 19,545 | 18,439 | 18,455 |
| Tennessee..... | 360 | 352 | 355 | 81.00 | 74.00 | 71.00 | 29,091 | 25,946 | 25,375 |
| Alabama..... | 299 | 301 | 304 | 100.00 | 90.00 | 95.00 | 29,950 | 27,219 | 28,996 |
| Mississippi..... | 320 | 330 | 336 | 96.00 | 89.00 | 86.00 | 30,814 | 29,250 | 29,034 |
| Arkansas..... | 339 | 339 | 346 | 62.00 | 64.00 | 62.00 | 21,116 | 21,844 | 21,597 |
| Louisiana..... | 190 | 180 | 182 | 94.00 | 90.00 | 89.00 | 16,836 | 16,116 | 16,246 |
| Oklahoma..... | 300 | 369 | 373 | 56.00 | 61.00 | 57.00 | 20,104 | 22,607 | 21,160 |
| Texas..... | 1,005 | 1,042 | 1,032 | 87.00 | 83.00 | 75.00 | 87,701 | 86,177 | 78,444 |
| Montana..... | 11 | 11 | 11 | 51.00 | 47.00 | 52.00 | 566 | 514 | 576 |
| Idaho..... | 8 | 8 | 8 | 62.00 | 52.00 | 61.00 | 498 | 417 | 487 |
| Wyoming..... | 5 | 6 | 6 | 50.00 | 49.00 | 49.00 | 249 | 293 | 296 |
| Colorado..... | 38 | 39 | 39 | 61.00 | 57.00 | 59.00 | 2,314 | 2,213 | 2,293 |
| New Mexico..... | 31 | 33 | 34 | 59.00 | 58.00 | 54.00 | 1,843 | 1,911 | 1,845 |
| Arizona..... | 12 | 13 | 13 | 90.00 | 82.00 | 82.00 | 1,083 | 1,070 | 1,070 |
| Utah..... | 4 | 4 | 4 | 66.00 | 62.00 | 72.00 | 262 | 248 | 288 |
| Nevada..... | 4 | 5 | 5 | 60.00 | 64.00 | 72.00 | 238 | 320 | 360 |
| Washington..... | 26 | 27 | 27 | 80.00 | 68.00 | 68.00 | 2,089 | 1,840 | 1,848 |
| Oregon..... | 17 | 18 | 19 | 73.00 | 72.00 | 72.00 | 1,234 | 1,305 | 1,362 |
| California..... | 59 | 56 | 55 | 106.00 | 93.00 | 87.00 | 6,234 | 5,230 | 4,770 |
| United States..... | 5,730 | 5,758 | 5,780 | 85.90 | 82.51 | 81.30 | 492,209 | 475,068 | 469,887 |

Division of Crop and Livestock Estimates.

¹ Preliminary.TABLE 615.—*Horses and mules:¹ Estimated yearly losses per 1,000 from disease, 1909-1925*

| Year ended Apr. 30— | Losses per 1,000 | Year ended Apr. 30— | Losses per 1,000 | Year ended Apr. 30— | Losses per 1,000 |
|---------------------|------------------|---------------------|------------------|---------------------|------------------|
| 1909..... | 18.2 | 1915..... | 17.6 | 1921..... | 14.7 |
| 1910..... | 19.0 | 1916..... | 16.9 | 1922..... | 15.7 |
| 1911..... | 19.0 | 1917..... | 16.5 | 1923..... | 15.0 |
| 1912..... | 21.9 | 1918..... | 15.7 | 1924..... | 15.2 |
| 1913..... | 22.6 | 1919..... | 17.8 | 1925..... | 12.6 |
| 1914..... | 20.6 | 1920..... | | | |

Division of Crop and Livestock Estimates. As reported by crop reporters on May 1 for year ending April 30.

¹ Including mules since 1912.

TABLE 616.—Horses and mules: Receipts at principal markets and at all markets reported, 1900–1925

(Thousands—1. e., 000 omitted)

| Year | Chi- cago | Den- ver | East St. Louis | Fort Worth | Kan- sas City | Oma- ha | South St. Jo- seph | South St. Paul | Sioux City | Total | All other mar- kets report- ing ¹ | Total all mar- kets report- ing ¹ |
|-----------|--------------|-------------|-------------------|------------------|---------------------|------------------|--------------------------|-------------------|------------------|-------|---|---|
| 1900 | 99 | 23 | 145 | (²) | 103 | 80 | 13 | 27 | 31 | 501 | — | — |
| 1901 | 109 | 17 | 129 | (²) | 97 | 36 | 23 | 15 | 18 | 444 | — | — |
| 1902 | 102 | 24 | 109 | 5 | 77 | 42 | 20 | 8 | 19 | 406 | — | — |
| 1903 | 101 | 19 | 129 | 10 | 67 | 53 | 20 | 8 | 12 | 419 | — | — |
| 1904 | 106 | 13 | 181 | 18 | 68 | 47 | 29 | 6 | 4 | 472 | — | — |
| 1905 | 127 | 16 | 178 | 18 | 66 | 45 | 32 | 6 | 15 | 503 | — | — |
| 1906 | 127 | 17 | 166 | 21 | 70 | 42 | 28 | 9 | 19 | 499 | — | — |
| 1907 | 102 | 11 | 117 | 19 | 62 | 44 | 27 | 15 | 16 | 413 | — | — |
| 1908 | 92 | 11 | 109 | 12 | 56 | 40 | 23 | 7 | 13 | 363 | — | — |
| 1909 | 91 | 15 | 122 | 21 | 68 | 32 | 22 | 6 | 15 | 393 | — | — |
| 1910 | 83 | 16 | 130 | 34 | 70 | 30 | 28 | 5 | 16 | 412 | — | — |
| 1911 | 105 | 18 | 171 | 37 | 85 | 32 | 42 | 8 | 17 | 515 | — | — |
| 1912 | 93 | 15 | 164 | 49 | 73 | 33 | 39 | 5 | 10 | 481 | — | — |
| 1913 | 91 | 16 | 157 | 67 | 82 | 32 | 32 | 6 | 10 | 482 | — | — |
| 1914 | 106 | 17 | 148 | 43 | 87 | 31 | 25 | 6 | 10 | 478 | — | — |
| 1915 | 166 | 72 | 271 | 55 | 102 | 42 | 41 | 10 | 22 | 780 | 327 | 1,107 |
| 1916 | 205 | 53 | 267 | 79 | 123 | 27 | 27 | 12 | 17 | 810 | 608 | 1,418 |
| 1917 | 107 | 20 | 280 | 115 | 128 | 33 | 34 | 10 | 29 | 756 | 720 | 1,476 |
| 1918 | 88 | 15 | 242 | 79 | 85 | 22 | 39 | 7 | 23 | 600 | 616 | 1,216 |
| 1919 | 46 | 23 | 250 | 60 | 83 | 25 | 43 | 11 | 16 | 557 | 511 | 1,033 |
| 1920 | 43 | 18 | 141 | 45 | 72 | 19 | 30 | 10 | 23 | 401 | 324 | 25 |
| 1921 | 34 | 10 | 68 | 13 | 30 | 7 | 12 | 5 | 7 | 186 | 131 | 317 |
| 1922 | 32 | 13 | 95 | 29 | 38 | 9 | 16 | 2 | 8 | 212 | 291 | 433 |
| 1923 | 26 | 23 | 102 | 58 | 43 | 17 | 15 | 3 | 15 | 302 | 249 | 551 |
| 1924 | 21 | 37 | 64 | 46 | 36 | 12 | 11 | 4 | 14 | 245 | 223 | 468 |
| 1925 | 18 | 44 | 65 | 34 | 34 | 15 | 9 | 5 | 18 | 242 | 226 | 468 |
| 1925 | | | | | | | | | | | | |
| January | 1 | 4 | 11 | 5 | 6 | 1 | 1 | (³) | 1 | 30 | 38 | 68 |
| February | 2 | 5 | 11 | 2 | 4 | 2 | 1 | 1 | 2 | 30 | 31 | 61 |
| March | 3 | 3 | 7 | 1 | 3 | 2 | 1 | 1 | 2 | 23 | 29 | 52 |
| April | 2 | 1 | 1 | (²) | 1 | 1 | (²) | (²) | 1 | 7 | 9 | 16 |
| May | 1 | 1 | 1 | 1 | 1 | (²) | (²) | (²) | (²) | 5 | 8 | 13 |
| June | 1 | 3 | 1 | (²) | 1 | (²) | (²) | (²) | (²) | 6 | 6 | 12 |
| July | 1 | 3 | 2 | 1 | 1 | 1 | (²) | (²) | 1 | 11 | 6 | 17 |
| August | 2 | 4 | 4 | 3 | 3 | 2 | 1 | 1 | 2 | 21 | 12 | 33 |
| September | 1 | 6 | 7 | 6 | 3 | 2 | 1 | 1 | 2 | 29 | 21 | 50 |
| October | 1 | 7 | 9 | 7 | 5 | 2 | 1 | 1 | 3 | 36 | 26 | 64 |
| November | 1 | 4 | 5 | 4 | 3 | 1 | 1 | 1 | 2 | 22 | 23 | 45 |
| December | 2 | 3 | 6 | 4 | 3 | 1 | 1 | (²) | 2 | 22 | 15 | 37 |

Division of Statistical and Historical Research. Prior to 1915 receipts compiled from yearbooks of stock yard companies; subsequent figures compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹ Figures prior to 1915 not available.

² Not in operation.

³ Not over 500.

TABLE 617.—Horses and mules: Receipts at all public stockyards, 1915–1925

(Thousands—1. e., 000 omitted)

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| 1915 | 97 | 95 | 95 | 88 | 98 | 103 | 94 | 74 | 85 | 111 | 97 | 70 | 1,107 |
| 1916 | 118 | 105 | 111 | 84 | 120 | 104 | 162 | 138 | 139 | 153 | 129 | 118 | 1,478 |
| 1917 | 148 | 96 | 117 | 93 | 68 | 63 | 32 | 68 | 129 | 226 | 223 | 163 | 1,476 |
| 1918 | 161 | 149 | 133 | 44 | 36 | 45 | 58 | 84 | 128 | 162 | 145 | 76 | 1,216 |
| 1919 | 115 | 87 | 71 | 53 | 37 | 43 | 53 | 92 | 148 | 130 | 146 | 93 | 1,088 |
| 1920 | 146 | 113 | 87 | 49 | 43 | 34 | 38 | 75 | 62 | 40 | 23 | 17 | 725 |
| 1921 | 35 | 41 | 44 | 23 | 18 | 14 | 11 | 17 | 22 | 36 | 29 | 25 | 317 |
| 1922 | 48 | 37 | 47 | 29 | 21 | 16 | 17 | 24 | 41 | 61 | 55 | 47 | 443 |
| 1923 | 86 | 64 | 61 | 36 | 26 | 14 | 17 | 32 | 50 | 75 | 59 | 47 | 551 |
| 1924 | 77 | 58 | 39 | 25 | 15 | 14 | 16 | 31 | 50 | 83 | 48 | 43 | 498 |
| 1925 | 68 | 61 | 52 | 16 | 13 | 13 | 17 | 33 | 50 | 64 | 45 | 37 | 468 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

TABLE 618.—Horses and mules: Receipts at public stockyards in the United States, 1916-1925

| Market | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|-----------------------|-------------|-------------|-------------|-------------|----------|----------|----------|----------|----------|----------|
| | Number | Number | Number | Number | Number | Number | Number | Number | Number | Number |
| Albany, N. Y. | 6, 014 | 3, 303 | | | | 40 | | | 33 | 20 |
| Amarillo, Tex. | 14, 390 | 13, 367 | 14, 655 | 15, 014 | 12, 804 | 2, 050 | 3, 331 | 6, 230 | 6, 904 | 11, 616 |
| Atlanta, Ga. | | | 78, 160 | 60, 327 | 25, 931 | 3, 119 | 7, 955 | 33, 865 | 35, 195 | 40, 914 |
| Augusta, Ga. | | 23, 125 | 33, 219 | 22, 089 | 7, 055 | 905 | 269 | 471 | 182 | 85 |
| Baltimore, Md. | 13, 901 | 7, 442 | 8, 670 | 4, 961 | 4, 313 | 2, 284 | 2, 453 | 2, 714 | 1, 416 | 1, 656 |
| Boston, Mass. | 8, 106 | 627 | 253 | 276 | | | | | | |
| Buffalo, N. Y. | 56, 482 | 10, 515 | 10, 034 | 18, 594 | 22, 526 | 23, 687 | 21, 169 | 18, 365 | 12, 312 | 10, 608 |
| Cheyenne, Wyo. | | 5, 539 | 3, 824 | 2, 076 | 1, 732 | 965 | 3, 264 | 1, 365 | 1, 406 | 1, 975 |
| Chicago, Ill. | 205, 449 | 107, 311 | 87, 820 | 45, 762 | 43, 020 | 33, 723 | 31, 689 | 26, 065 | 21, 030 | 17, 683 |
| Cincinnati, Ohio. | 19, 677 | 27, 279 | 18, 521 | 18, 880 | 14, 181 | 5, 699 | 4, 248 | 4, 244 | 3, 486 | 3, 039 |
| Cleveland, Ohio. | | 9, 060 | 4, 320 | 5, 260 | 5, 580 | 2, 300 | 2, 020 | 1, 100 | 440 | 240 |
| Dayton, Ohio. | 221 | 58 | 74 | 47 | | | | 52 | 117 | 118 |
| Denver, Colo. | 52, 800 | 19, 768 | 14, 599 | 22, 936 | 17, 591 | 9, 639 | 13, 485 | 22, 591 | 36, 844 | 43, 922 |
| Detroit, Mich. | | 13, 765 | 3, 844 | 1, 835 | 2, 584 | 667 | 821 | 1, 847 | 2, 572 | 1, 114 |
| East St. Louis, Ill. | 266, 818 | 279, 837 | 241, 751 | 250, 311 | 141, 230 | 67, 756 | 95, 048 | 101, 536 | 64, 012 | 65, 433 |
| El Paso, Tex. | 23, 385 | 15, 052 | 9, 126 | 16, 295 | 13, 931 | 9, 574 | 6, 106 | 6, 758 | 5, 879 | 18, 531 |
| Evansville, Ind. | 658 | 993 | 1, 080 | 1, 136 | 962 | 43 | 192 | 412 | 761 | 579 |
| Fort Wayne, Ind. | 79, 209 | 115, 235 | 78, 881 | 60, 363 | 45, 362 | 13, 086 | 28, 610 | 58, 437 | 46, 071 | 34, 233 |
| Fort Worth, Tex. | 29, 444 | 61, 692 | 16, 608 | 9, 080 | 8, 814 | 2, 710 | | 1, 409 | 1, 209 | 1, 240 |
| Indianapolis, Ind. | | | | | | | | | | |
| Jacksonville, Fla. | 520 | 131 | | 18 | 6 | | 14 | 154 | 286 | 1, 339 |
| Jersey City, N. J. | 154, 721 | 70, 268 | 42, 185 | 10, 574 | 2, 624 | 1, 602 | 1, 267 | 678 | 1, 771 | 1, 874 |
| Kansas City, Mo. | 123, 141 | 127, 823 | 84, 628 | 82, 852 | 71, 797 | 30, 453 | 38, 310 | 42, 987 | 36, 288 | 34, 059 |
| Knoxville, Tenn. | 7, 378 | 8, 254 | 6, 430 | 7, 214 | 4, 160 | 2, 276 | 4, 057 | 9, 122 | 5, 999 | 6, 030 |
| Lancaster, Pa. | 1, 417 | 8, 342 | 11, 228 | 2, 068 | 3, 432 | 1, 360 | 1, 790 | 2, 603 | 1, 474 | 893 |
| Laredo, Tex. | | | | | | | | 801 | 625 | 2, 137 |
| Los Angeles, Calif. | | | | | | | | 130 | 24 | 81 |
| Louisville, Ky. | 5, 200 | 14, 127 | 16, 967 | 11, 274 | 9, 031 | 1, 568 | 2, 718 | 2, 487 | 1, 344 | 1, 241 |
| Marion, Ohio. | | | 141 | 977 | 2, 444 | 836 | 914 | 480 | 336 | 218 |
| Memphis, Tenn. | 39, 816 | 60, 848 | 33, 116 | 32, 598 | 8, 006 | 14, 770 | 46, 249 | 60, 216 | 47, 233 | 43, 343 |
| Milwaukee, Wis. | 1, 714 | 1, 849 | 2, 185 | 1, 879 | 2, 246 | 1, 243 | 1, 878 | 1, 602 | 1, 573 | 1, 336 |
| Montgomery, Ala. | | 7, 169 | 24, 102 | 22, 291 | 11, 909 | 4, 002 | 14, 133 | 4, 801 | 9, 430 | 12, 369 |
| Nashville, Tenn. | 15, 855 | 74, 280 | 103, 818 | 97, 425 | 29, 572 | 101 | | | 436 | 409 |
| New Orleans, La. | 852 | 2, 614 | 556 | 368 | 1, 254 | 51 | 224 | 268 | 657 | 1, 206 |
| New York, N. Y. | 8, 529 | 7, 574 | 307 | 1, 952 | 1, 723 | 568 | 1, 007 | 2, 340 | 2, 280 | 1, 977 |
| North Salt Lake, Utah | 1, 785 | 1, 981 | 1, 673 | 1, 484 | 1, 641 | 627 | 1, 715 | 2, 567 | 2, 303 | 1, 874 |
| Ogden, Utah. | | 25, 425 | 18, 809 | 6, 467 | 5, 630 | 1, 460 | 1, 387 | 2, 359 | 1, 970 | 2, 139 |
| Oklahoma City, Okla. | 47, 381 | 62, 306 | 12, 687 | 9, 951 | 5, 847 | 1, 824 | 4, 798 | 8, 321 | 10, 155 | 8, 706 |
| Omaha, Nebr. | 27, 486 | 32, 781 | 22, 212 | 25, 201 | 18, 751 | 6, 779 | 8, 871 | 16, 809 | 12, 435 | 15, 332 |
| Pasco, Wash. | | | 169 | 380 | 303 | 126 | 320 | 226 | 235 | 308 |
| Peoria, Ill. | 764 | 637 | 125 | 171 | 535 | 501 | 475 | 351 | 591 | 541 |
| Philadelphia, Pa. | 11, 002 | 9, 892 | 7, 800 | 7, 222 | 5, 792 | 2, 731 | 2, 836 | 2, 902 | 2, 065 | 2, 417 |
| Pittsburgh, Pa. | 53, 065 | 39, 073 | 35, 265 | 17, 992 | 20, 472 | 10, 742 | 14, 131 | 12, 442 | 8, 354 | 8, 989 |
| Portland, Oreg. | 2, 904 | 6, 933 | 2, 483 | 2, 308 | 1, 887 | 1, 042 | 1, 076 | 1, 388 | 2, 039 | 1, 302 |
| Pueblo, Colo. | 8, 250 | 6, 665 | 3, 798 | 3, 812 | 3, 563 | 857 | 1, 314 | 1, 429 | 2, 671 | 2, 718 |
| Richmond, Va. | 17, 514 | 25, 004 | 23, 970 | 25, 100 | 16, 167 | 10, 286 | 13, 161 | 16, 185 | 8, 616 | 40 |
| South St. Joseph, Mo. | 27, 206 | 33, 594 | 39, 260 | 43, 380 | 29, 768 | 11, 580 | 15, 961 | 15, 199 | 11, 066 | 8, 961 |
| South St. Paul, Minn. | 11, 777 | 9, 956 | 6, 541 | 11, 228 | 10, 458 | 4, 848 | 2, 063 | 3, 309 | 3, 578 | 5, 478 |
| San Antonio, Tex. | 41, 105 | 31, 896 | 29, 955 | 29, 881 | 24, 573 | 6, 714 | 9, 212 | 10, 531 | 14, 405 | 7, 920 |
| Seattle, Wash. | 20 | | 420 | 923 | 671 | 292 | 443 | 413 | 607 | 411 |
| Sioux City, Iowa. | 16, 717 | 29, 391 | 23, 306 | 16, 272 | 23, 288 | 7, 262 | 7, 954 | 14, 921 | 13, 935 | 17, 739 |
| Sioux Falls, S. Dak. | | 49 | 243 | 253 | 176 | 69 | 375 | 370 | 189 | 573 |
| Spokane, Wash. | 6, 493 | 7, 125 | 4, 733 | 2, 926 | 2, 535 | 761 | 1, 106 | 828 | 991 | 1, 057 |
| Toledo, Ohio. | 1, 336 | 1, 969 | 1, 789 | 2, 788 | 4, 558 | 960 | 922 | 442 | 297 | 351 |
| Washington, D. C. | 178 | 1, 556 | 396 | 30 | 60 | 43 | 220 | 64 | 18 | 16 |
| Wichita, Kans. | 17, 146 | 19, 312 | 11, 150 | 15, 750 | 24, 714 | 10, 885 | 17, 936 | 22, 663 | 21, 358 | 19, 250 |
| Discontinued | 49, 717 | 27, 069 | 15, 300 | 15, 347 | 7, 512 | 369 | 691 | 453 | | |
| Total. | 1, 477, 983 | 1, 475, 854 | 1, 215, 776 | 1, 087, 597 | 724, 811 | 317, 445 | 442, 646 | 550, 703 | 467, 703 | 467, 585 |

Division of Statistical and Historical Research. Compiled from data of the reporting service of the Division of Livestock, Meats, and Wool.

¹Includes only those markets which have been totally discontinued.

TABLE 619.—Colts foaled per 1,000 horses and mules on farms and ranges, 1910 and 1920-1926

| State and division | Census | | | Farms of crop reporters ¹ | | | | | | |
|---------------------|-------------------|-------------------|-------------------|--------------------------------------|-------|------|------|------|------|------|
| | 1910 ² | 1920 ³ | 1925 ⁴ | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 |
| Maine..... | 34 | 18 | 8 | 40 | 23 | 18 | 14 | 26 | 17 | 11 |
| New Hampshire..... | 24 | 22 | 7 | 35 | 12 | 12 | 10 | 2 | 0 | 11 |
| Vermont..... | 44 | 29 | 12 | 44 | 47 | 22 | 12 | 15 | 6 | 22 |
| Massachusetts..... | 15 | 22 | 7 | 23 | 13 | 12 | 5 | 10 | 5 | 14 |
| Rhode Island..... | 10 | 20 | 5 | 24 | 44 | 22 | 30 | 8 | 12 | 10 |
| Connecticut..... | 14 | 16 | 6 | 6 | 19 | 33 | 10 | 0 | 14 | 10 |
| New York..... | 43 | 24 | 17 | 41 | 35 | 21 | 18 | 15 | 11 | 12 |
| New Jersey..... | 25 | 13 | 9 | 20 | 7 | 15 | 8 | 4 | 6 | 7 |
| Pennsylvania..... | 55 | 28 | 16 | 42 | 44 | 30 | 24 | 30 | 24 | 31 |
| North Atlantic..... | 42.9 | 24.6 | 14.6 | 39.3 | 34.5 | 23.2 | 17.8 | 20.9 | 15.9 | 20.2 |
| Ohio..... | 82 | 38 | 26 | 64 | 64 | 70 | 57 | 34 | 38 | 37 |
| Indiana..... | 94 | 57 | 27 | 85 | 68 | 64 | 44 | 39 | 27 | 34 |
| Illinois..... | 102 | 68 | 35 | 91 | 85 | 70 | 50 | 48 | 49 | 44 |
| Michigan..... | 69 | 29 | 25 | 49 | 36 | 33 | 40 | 29 | 20 | 22 |
| Wisconsin..... | 76 | 35 | 29 | 56 | 53 | 45 | 25 | 18 | 25 | 26 |
| Minnesota..... | 85 | 50 | 30 | 76 | 63 | 49 | 36 | 36 | 32 | 36 |
| Iowa..... | 111 | 66 | 46 | 92 | 120 | 72 | 66 | 54 | 52 | 54 |
| Missouri..... | 119 | 96 | 48 | 121 | 110 | 79 | 56 | 53 | 54 | 46 |
| North Dakota..... | 98 | 81 | 37 | 116 | 74 | 66 | 86 | 52 | 47 | 40 |
| South Dakota..... | 109 | 90 | 50 | 112 | 68 | 97 | 85 | 70 | 57 | 60 |
| Nebraska..... | 108 | 81 | 42 | 108 | 110 | 73 | 78 | 54 | 46 | 53 |
| Kansas..... | 109 | 96 | 50 | 115 | 104 | 97 | 74 | 57 | 54 | 63 |
| North Central..... | 100.4 | 69.3 | 39.1 | 94.2 | 85.8 | 70.9 | 59.8 | 47.5 | 44.1 | 45.4 |
| Delaware..... | 66 | 22 | 16 | 40 | 67 | 24 | 39 | 15 | 11 | 25 |
| Maryland..... | 76 | 34 | 30 | 58 | 51 | 57 | 46 | 50 | 37 | 34 |
| Virginia..... | 88 | 40 | 29 | 82 | 71 | 68 | 47 | 47 | 42 | 42 |
| West Virginia..... | 94 | 38 | 27 | 78 | 67 | 43 | 50 | 39 | 24 | 40 |
| North Carolina..... | 28 | 16 | 8 | 43 | 40 | 27 | 26 | 13 | 9 | 15 |
| South Carolina..... | 11 | 10 | 7 | 32 | 20 | 16 | 9 | 7 | 6 | 19 |
| Georgia..... | 14 | 9 | 9 | 26 | 26 | 24 | 20 | 13 | 2 | 9 |
| Florida..... | 32 | 23 | 31 | 32 | 68 | 27 | 64 | 15 | 0 | 11 |
| South Atlantic..... | 47.4 | 21.9 | 16.8 | 49.1 | 44.7 | 35.7 | 32.6 | 24.6 | 18.3 | 22.6 |
| Kentucky..... | 92 | 62 | 37 | 100 | 78 | 70 | 46 | 43 | 40 | 35 |
| Tennessee..... | 99 | 74 | 48 | 95 | 102 | 82 | 64 | 51 | 33 | 33 |
| Alabama..... | 29 | 26 | 12 | 68 | 56 | 56 | 39 | 34 | 35 | 16 |
| Mississippi..... | 47 | 43 | 28 | 107 | 104 | 93 | 45 | 33 | 38 | 36 |
| Arkansas..... | 62 | 48 | 23 | 94 | 57 | 61 | 47 | 40 | 35 | 25 |
| Louisiana..... | 44 | 38 | 22 | 68 | 39 | 53 | 34 | 30 | 40 | 28 |
| Oklahoma..... | 95 | 86 | 43 | 130 | 121 | 90 | 75 | 59 | 49 | 45 |
| Texas..... | 79 | 48 | 29 | 83 | 95 | 92 | 76 | 60 | 47 | 36 |
| South Central..... | 76.0 | 56.4 | 32.2 | 95.3 | 89.7 | 81.1 | 61.4 | 49.6 | 42.0 | 34.4 |
| Montana..... | 138 | 127 | 74 | 157 | 97 | 122 | 96 | 106 | 91 | 70 |
| Idaho..... | 120 | 96 | 52 | 126 | 109 | 88 | 48 | 84 | 81 | 22 |
| Wyoming..... | 137 | 139 | 84 | 144 | 102 | 144 | 117 | 102 | 100 | 126 |
| Colorado..... | 107 | 101 | 50 | 137 | 100 | 78 | 86 | 56 | 46 | 53 |
| New Mexico..... | 100 | 84 | 74 | 117 | 280 | 137 | 166 | 124 | 153 | 106 |
| Arizona..... | 119 | 107 | 70 | 138 | 147 | 84 | 172 | 94 | 38 | 83 |
| Utah..... | 129 | 106 | 64 | 134 | 115 | 94 | 126 | 80 | 89 | 26 |
| Nevada..... | 138 | 114 | 88 | 159 | 108 | 144 | 116 | 116 | 135 | 32 |
| Washington..... | 103 | 67 | 36 | 76 | 85 | 81 | 70 | 56 | 48 | 15 |
| Oregon..... | 118 | 88 | 52 | 194 | 94 | 64 | 98 | 59 | 58 | 44 |
| California..... | 91 | 50 | 28 | 71 | 45 | 69 | 47 | 32 | 26 | 38 |
| Far Western..... | 113.0 | 96.1 | 58.0 | 121.5 | 105.4 | 97.7 | 91.3 | 77.5 | 72.5 | 56.2 |
| United States..... | 87.7 | 63.0 | 36.5 | 91.0 | 82.9 | 71.3 | 59.5 | 48.6 | 43.8 | 40.6 |

Division of Crop and Livestock Estimates.

¹ Number of horses and mules on Jan. 1 and number of colts born during preceding year on farms of about 30,000 crop reporters.

² 1910 census of all horses and mules adjusted to Jan. 1, basis with colts born during 1909.

³ 1920 census of all horses and mules Jan. 1 with colts under 1 year Jan. 1.

⁴ 1926 census of all horses and mules Jan. 1 with colts under 2 years Jan. 1, divided by 2 to approximate number under 1 year.

TABLE 620.—Horses and mules: Farm value per head, by age groups, United States, January 1, 1910-1926

| Jan. 1— | Horses | | | Mules | | |
|-----------|------------------|---------------------|------------------|------------------|---------------------|------------------|
| | Under 1 year old | 1 and under 2 years | 2 years and over | Under 1 year old | 1 and under 2 years | 2 years and over |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| 1910..... | 46.05 | 72.63 | 116.57 | 56.76 | 84.53 | 128.96 |
| 1911..... | 48.09 | 75.68 | 120.04 | 59.89 | 88.13 | 135.11 |
| 1912..... | 45.75 | 71.96 | 114.24 | 56.12 | 83.00 | 129.46 |
| 1913..... | 48.75 | 76.54 | 121.06 | 59.31 | 86.56 | 134.05 |
| 1914..... | 47.95 | 74.87 | 119.77 | 57.45 | 83.87 | 133.76 |
| 1915..... | 45.36 | 70.62 | 113.10 | 51.80 | 76.46 | 121.46 |
| 1916..... | 44.50 | 69.08 | 111.34 | 51.59 | 76.82 | 123.55 |
| 1917..... | 45.17 | 70.21 | 112.64 | 53.88 | 80.28 | 128.17 |
| 1918..... | 46.26 | 70.21 | 114.30 | 57.61 | 86.32 | 139.88 |
| 1919..... | 42.62 | 65.94 | 106.17 | 59.14 | 89.14 | 147.65 |
| 1920..... | 37.22 | 58.81 | 103.52 | 60.16 | 90.14 | 160.55 |
| 1921..... | 31.69 | 49.66 | 90.35 | 47.55 | 71.77 | 125.85 |
| 1922..... | 26.50 | 41.07 | 75.61 | 35.55 | 52.82 | 94.81 |
| 1923..... | 26.51 | 40.48 | 74.53 | 34.35 | 50.94 | 92.14 |
| 1924..... | 24.68 | 37.36 | 68.64 | 31.83 | 47.06 | 90.42 |
| 1925..... | 24.75 | 36.73 | 66.84 | 31.05 | 45.87 | 86.24 |
| 1926..... | 25.90 | 39.00 | 68.11 | 31.66 | 46.74 | 84.94 |

Division of Crop and Livestock Estimates.

TABLE 621.—Horses: Price per head received by producers, United States, 1910-1925

| Year | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Weighted average |
|--------------------|---------|---------|---------|---------|--------|---------|---------|---------|----------|---------|---------|---------|------------------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| 1910..... | 140 | 147 | 150 | 154 | 148 | 151 | 148 | 148 | 145 | 144 | 143 | 141 | 146 |
| 1911..... | 143 | 144 | 145 | 147 | 146 | 145 | 139 | 141 | 139 | 137 | 136 | 134 | 141 |
| 1912..... | 134 | 137 | 140 | 142 | 144 | 145 | 142 | 142 | 141 | 140 | 139 | 139 | 140 |
| 1913..... | 140 | 146 | 146 | 148 | 145 | 146 | 143 | 141 | 141 | 138 | 136 | 135 | 142 |
| Av. 1910-1913..... | 139 | 144 | 145 | 148 | 146 | 147 | 143 | 143 | 142 | 140 | 138 | 137 | 142 |
| 1914..... | 137 | 139 | 138 | 138 | 139 | 136 | 137 | 135 | 132 | 131 | 130 | 130 | 135 |
| 1915..... | 180 | 182 | 182 | 182 | 183 | 182 | 184 | 181 | 181 | 129 | 127 | 126 | 180 |
| 1916..... | 128 | 129 | 131 | 133 | 134 | 132 | 133 | 131 | 131 | 130 | 129 | 129 | 130 |
| 1917..... | 129 | 131 | 133 | 136 | 138 | 137 | 135 | 132 | 132 | 130 | 129 | 129 | 132 |
| 1918..... | 130 | 133 | 137 | 137 | 136 | 135 | 133 | 131 | 128 | 126 | 122 | 121 | 130 |
| 1919..... | 120 | 121 | 124 | 127 | 129 | 127 | 127 | 125 | 119 | 114 | 113 | 113 | 121 |
| 1920..... | 118 | 123 | 127 | 131 | 132 | 130 | 127 | 124 | 119 | 112 | 103 | 97 | 119 |
| Av. 1914-1920..... | 127 | 130 | 132 | 133 | 134 | 133 | 132 | 130 | 127 | 125 | 122 | 121 | 128 |
| 1921..... | 96 | 96 | 101 | 100 | 98 | 98 | 94 | 93 | 89 | 85 | 82 | 81 | 92 |
| 1922..... | 82 | 84 | 86 | 87 | 89 | 86 | 86 | 86 | 84 | 81 | 79 | 79 | 84 |
| 1923..... | 81 | 85 | 85 | 89 | 88 | 87 | 85 | 78 | 82 | 80 | 78 | 76 | 82 |
| 1924..... | 73 | 74 | 75 | 76 | 78 | 77 | 77 | 79 | 78 | 77 | 76 | 73 | 76 |
| 1925..... | 73 | 78 | 81 | 83 | 83 | 81 | 81 | 80 | 77 | 76 | 75 | 74 | 78 |

Division of Crop and Livestock Estimates as reported by country dealers.

TABLE 622.—Horses: Estimated price per head received by producers, by States, 1925

| State | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Average |
|---------------------|------------|------------|------------|------------|-----------|------------|------------|------------|-------------|------------|------------|------------|---------|
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | |
| Maine..... | 146 | 147 | 140 | 135 | 140 | 123 | 132 | 147 | 132 | 135 | 127 | 126 | 130 |
| New Hampshire..... | 105 | 120 | 118 | 125 | 130 | 133 | 118 | 133 | 150 | 121 | 125 | 111 | 124 |
| Vermont..... | 95 | 110 | 116 | 150 | 155 | 133 | 162 | 125 | 133 | 113 | 116 | 138 | 129 |
| Massachusetts..... | 125 | 125 | 150 | 150 | 162 | 125 | 125 | 150 | 150 | 150 | 150 | 150 | 145 |
| Rhode Island..... | 125 | 140 | 155 | 160 | 125 | 125 | 150 | 150 | 150 | 150 | 150 | 150 | 142 |
| Connecticut..... | 130 | 140 | 146 | 150 | 160 | 141 | 150 | 133 | 150 | 150 | 162 | 142 | 148 |
| New York..... | 110 | 115 | 114 | 118 | 124 | 133 | 128 | 123 | 122 | 123 | 116 | 115 | 120 |
| New Jersey..... | 140 | 130 | 140 | 138 | 138 | 125 | 130 | 120 | 140 | 153 | 133 | 160 | 137 |
| Pennsylvania..... | 104 | 101 | 110 | 115 | 124 | 115 | 114 | 113 | 123 | 126 | 96 | 104 | 112 |
| Ohio..... | 91 | 91 | 96 | 92 | 90 | 99 | 99 | 99 | 99 | 93 | 93 | 91 | 94 |
| Indiana..... | 72 | 81 | 89 | 85 | 81 | 82 | 80 | 79 | 79 | 82 | 77 | 75 | 80 |
| Illinois..... | 78 | 87 | 94 | 90 | 91 | 85 | 76 | 91 | 79 | 81 | 83 | 80 | 85 |
| Michigan..... | 95 | 99 | 105 | 110 | 114 | 105 | 98 | 97 | 99 | 97 | 97 | 87 | 100 |
| Wisconsin..... | 98 | 110 | 111 | 112 | 111 | 108 | 109 | 110 | 111 | 115 | 101 | 102 | 108 |
| Minnesota..... | 91 | 95 | 100 | 105 | 107 | 105 | 103 | 98 | 93 | 96 | 93 | 89 | 98 |
| Iowa..... | 90 | 88 | 93 | 96 | 98 | 100 | 98 | 94 | 90 | 91 | 92 | 89 | 93 |
| Missouri..... | 50 | 55 | 57 | 54 | 58 | 58 | 56 | 56 | 54 | 59 | 52 | 55 | 55 |
| North Dakota..... | 67 | 69 | 75 | 85 | 89 | 87 | 90 | 85 | 74 | 74 | 70 | 69 | 78 |
| South Dakota..... | 58 | 70 | 73 | 70 | 71 | 63 | 71 | 61 | 66 | 63 | 67 | 58 | 66 |
| Nebraska..... | 72 | 82 | 85 | 87 | 85 | 84 | 86 | 82 | 74 | 76 | 77 | 77 | 81 |
| Kansas..... | 53 | 57 | 65 | 70 | 67 | 69 | 69 | 69 | 61 | 63 | 60 | 59 | 64 |
| Delaware..... | 70 | 65 | 68 | 68 | 87 | 87 | 75 | 80 | 58 | 65 | 67 | 55 | 67 |
| Maryland..... | 76 | 77 | 90 | 91 | 85 | 86 | 100 | 87 | 90 | 82 | 89 | 89 | 86 |
| Virginia..... | 75 | 76 | 82 | 80 | 81 | 74 | 78 | 72 | 63 | 65 | 67 | 58 | 73 |
| West Virginia..... | 80 | 79 | 84 | 80 | 97 | 82 | 81 | 98 | 82 | 75 | 77 | 76 | 81 |
| North Carolina..... | 92 | 90 | 96 | 97 | 89 | 80 | 95 | 90 | 84 | 88 | 81 | 90 | 89 |
| South Carolina..... | 97 | 98 | 110 | 100 | 96 | 99 | 85 | 87 | 81 | 77 | 79 | 79 | 91 |
| Georgia..... | 80 | 90 | 91 | 88 | 85 | 90 | 83 | 74 | 79 | 78 | 76 | 77 | 83 |
| Florida..... | 90 | 95 | 108 | 108 | 100 | 90 | 100 | 87 | 93 | 98 | 75 | 87 | 94 |
| Kentucky..... | 53 | 53 | 60 | 62 | 64 | 60 | 61 | 54 | 54 | 55 | 49 | 51 | 56 |
| Tennessee..... | 60 | 65 | 63 | 68 | 66 | 66 | 63 | 63 | 58 | 58 | 56 | 58 | 62 |
| Alabama..... | 67 | 68 | 74 | 78 | 67 | 70 | 73 | 69 | 69 | 67 | 65 | 69 | 70 |
| Mississippi..... | 65 | 63 | 66 | 68 | 59 | 68 | 66 | 67 | 61 | 66 | 60 | 60 | 65 |
| Arkansas..... | 48 | 55 | 54 | 58 | 53 | 60 | 61 | 54 | 52 | 52 | 53 | 51 | 54 |
| Louisiana..... | 52 | 52 | 60 | 57 | 53 | 55 | 63 | 55 | 50 | 60 | 61 | 59 | 56 |
| Oklahoma..... | 43 | 50 | 53 | 58 | 56 | 52 | 51 | 53 | 54 | 46 | 44 | 42 | 50 |
| Texas..... | 57 | 59 | 57 | 56 | 56 | 56 | 50 | 53 | 48 | 52 | 51 | 50 | 54 |
| Montana..... | 42 | 47 | 51 | 48 | 46 | 49 | 49 | 53 | 45 | 40 | 47 | 41 | 47 |
| Idaho..... | 60 | 66 | 63 | 57 | 54 | 65 | 72 | 62 | 73 | 52 | 64 | 69 | 63 |
| Wyoming..... | 42 | 40 | 35 | 40 | 40 | 32 | 40 | 41 | 49 | 40 | 37 | 34 | 39 |
| Colorado..... | 56 | 63 | 70 | 75 | 64 | 62 | 62 | 69 | 66 | 53 | 61 | 58 | 63 |
| New Mexico..... | 55 | 67 | 69 | 60 | 36 | 40 | 50 | 40 | 40 | 50 | 46 | 56 | 47 |
| Arizona..... | 53 | 60 | 60 | 60 | 41 | 74 | 74 | 48 | 40 | 41 | 43 | 50 | 50 |
| Utah..... | 78 | 70 | 74 | 78 | 82 | 85 | 84 | 83 | 82 | 78 | 78 | 77 | 79 |
| Nevada..... | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Washington..... | 75 | 90 | 75 | 74 | 66 | 80 | 86 | 70 | 87 | 107 | 95 | 80 | 83 |
| Oregon..... | 70 | 90 | 85 | 92 | 88 | 80 | 81 | 86 | 80 | 68 | 73 | 84 | 81 |
| California..... | 88 | 101 | 102 | 105 | 105 | 97 | 92 | 102 | 95 | 78 | 93 | 95 | 96 |
| United States..... | 72.94 | 77.63 | 81.49 | 82.64 | 82.15 | 80.90 | 80.77 | 80.06 | 76.86 | 76.42 | 74.84 | 73.50 | 78.35 |

Division of Crop and Livestock Estimates as reported by country dealers.

POULTRY

TABLE 623.—Poultry, dressed: Receipts, gross weight, at four markets, 1920-1925

[Thousand pounds—i. e., 000 omitted]

BOSTON

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 1920..... | 3,934 | 1,749 | 1,597 | 1,037 | 1,464 | 2,221 | 1,858 | 1,696 | 2,096 | 2,628 | 5,911 | 7,895 | 34,066 |
| 1921..... | 3,377 | 2,229 | 1,465 | 1,707 | 1,795 | 2,086 | 1,499 | 2,437 | 2,482 | 3,581 | 7,472 | 9,791 | 39,921 |
| 1922..... | 4,175 | 2,765 | 2,478 | 1,705 | 2,551 | 2,883 | 2,091 | 2,198 | 2,479 | 3,306 | 7,488 | 10,444 | 44,563 |
| 1923..... | 7,690 | 3,785 | 2,917 | 1,948 | 2,439 | 2,778 | 2,427 | 2,661 | 2,674 | 4,418 | 10,752 | 11,526 | 56,013 |
| 1924..... | 6,210 | 4,607 | 3,072 | 2,235 | 2,602 | 2,952 | 3,492 | 2,856 | 3,270 | 4,402 | 11,842 | 13,724 | 61,264 |
| 1925..... | 4,200 | 3,252 | 2,697 | 2,181 | 2,582 | 2,893 | 2,893 | 2,786 | 2,554 | 4,336 | 7,907 | 8,439 | 46,720 |
| Av. 1921-1925..... | 5,130 | 3,328 | 2,526 | 1,955 | 2,394 | 2,718 | 2,480 | 2,588 | 2,692 | 4,009 | 9,092 | 10,785 | 49,696 |

NEW YORK

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|--------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1920..... | 11,217 | 7,557 | 3,928 | 1,367 | 5,480 | 5,292 | 6,129 | 4,428 | 6,273 | 8,053 | 17,651 | 23,718 | 101,093 |
| 1921..... | 11,441 | 7,006 | 5,190 | 5,021 | 4,883 | 6,150 | 5,314 | 8,992 | 10,277 | 11,887 | 21,182 | 27,208 | 124,551 |
| 1922..... | 10,783 | 6,909 | 6,371 | 6,399 | 7,868 | 8,822 | 6,785 | 7,768 | 9,115 | 12,594 | 22,232 | 32,538 | 138,212 |
| 1923..... | 21,730 | 12,335 | 8,390 | 6,916 | 6,304 | 8,589 | 9,414 | 9,497 | 9,653 | 16,509 | 28,822 | 27,299 | 163,945 |
| 1924..... | 15,063 | 11,927 | 9,893 | 7,368 | 10,172 | 10,167 | 10,502 | 10,504 | 12,981 | 15,916 | 28,875 | 35,464 | 179,362 |
| 1925..... | 14,400 | 10,871 | 7,949 | 8,119 | 10,246 | 10,717 | 11,068 | 11,110 | 12,409 | 10,696 | 28,837 | 27,216 | 170,257 |
| Av. 1921-1925..... | 14,791 | 9,810 | 7,559 | 6,785 | 8,000 | 8,887 | 8,737 | 9,574 | 10,887 | 14,720 | 25,594 | 29,943 | 155,296 |

PHILADELPHIA

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1920..... | 1,553 | 1,881 | 1,906 | 918 | 1,466 | 1,286 | 1,019 | 1,215 | 1,044 | 1,588 | 2,348 | 5,382 | 21,606 |
| 1921..... | 1,498 | 1,071 | 1,411 | 1,005 | 1,303 | 1,665 | 1,226 | 1,419 | 1,587 | 2,020 | 2,882 | 5,905 | 22,892 |
| 1922..... | 1,947 | 1,790 | 1,077 | 664 | 1,182 | 1,304 | 1,237 | 1,217 | 1,237 | 1,356 | 2,653 | 5,655 | 21,319 |
| 1923..... | 2,206 | 1,530 | 1,888 | 1,042 | 1,055 | 1,509 | 1,343 | 1,618 | 1,348 | 1,749 | 3,281 | 6,542 | 24,611 |
| 1924..... | 2,614 | 1,818 | 1,704 | 1,194 | 1,234 | 1,458 | 1,536 | 1,660 | 1,421 | 1,873 | 4,053 | 7,075 | 27,640 |
| 1925..... | 2,818 | 2,030 | 2,183 | 1,450 | 1,343 | 1,638 | 1,739 | 1,810 | 1,552 | 1,924 | 4,702 | 6,106 | 29,295 |
| Av. 1921-1925..... | 2,217 | 1,648 | 1,553 | 1,071 | 1,223 | 1,495 | 1,416 | 1,545 | 1,429 | 1,784 | 3,514 | 6,257 | 25,151 |

CHICAGO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 1920..... | 6,040 | 2,687 | 980 | 816 | 1,512 | 2,369 | 2,379 | 2,659 | 3,370 | 4,001 | 10,782 | 10,153 | 57,324 |
| 1921..... | 6,343 | 3,328 | 2,794 | 2,104 | 2,421 | 2,624 | 2,097 | 2,615 | 3,804 | 4,157 | 15,723 | 17,082 | 64,902 |
| 1922..... | 5,345 | 3,042 | 3,394 | 2,744 | 2,744 | 3,697 | 3,500 | 4,250 | 4,290 | 4,178 | 13,167 | 23,320 | 73,661 |
| 1923..... | 11,497 | 6,208 | 4,057 | 2,532 | 2,912 | 3,329 | 3,679 | 4,018 | 4,724 | 5,411 | 15,163 | 27,743 | 90,273 |
| 1924..... | 12,723 | 8,043 | 5,675 | 4,385 | 3,311 | 3,295 | 4,042 | 2,523 | 2,196 | 4,791 | 15,675 | 21,805 | 88,464 |
| 1925..... | 6,167 | 3,230 | 2,219 | 1,573 | 1,995 | 2,239 | 1,376 | 1,760 | 2,168 | 4,303 | 20,022 | 25,033 | 72,086 |
| Av. 1921-1925..... | 8,415 | 4,570 | 3,628 | 2,668 | 2,677 | 2,997 | 2,957 | 3,033 | 3,436 | 4,568 | 15,960 | 22,997 | 77,895 |

TOTAL

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1920..... | 23,350 | 13,874 | 8,411 | 4,138 | 9,922 | 11,168 | 11,385 | 9,908 | 12,783 | 16,270 | 36,062 | 56,148 | 214,109 |
| 1921..... | 22,659 | 13,634 | 10,860 | 9,837 | 10,402 | 12,325 | 10,136 | 15,463 | 18,150 | 21,645 | 47,259 | 59,986 | 252,356 |
| 1922..... | 22,250 | 14,506 | 13,320 | 11,512 | 14,373 | 16,606 | 13,703 | 15,433 | 17,121 | 21,424 | 45,540 | 71,957 | 277,765 |
| 1923..... | 43,123 | 22,858 | 16,752 | 12,436 | 13,210 | 16,205 | 16,863 | 17,794 | 18,399 | 28,087 | 56,018 | 73,100 | 334,845 |
| 1924..... | 37,150 | 26,395 | 20,344 | 15,182 | 17,319 | 17,862 | 19,572 | 17,543 | 19,868 | 26,962 | 60,445 | 78,068 | 356,730 |
| 1925..... | 27,585 | 19,383 | 15,048 | 13,323 | 16,166 | 17,487 | 17,676 | 17,466 | 18,683 | 27,259 | 61,488 | 66,794 | 318,358 |
| Av. 1921-1925..... | 30,553 | 19,355 | 15,265 | 12,488 | 14,294 | 16,097 | 15,590 | 16,740 | 18,444 | 25,061 | 54,150 | 69,981 | 306,009 |

Division of Statistical and Historical Research. Compiled from reports of the Division of Dairy and Poultry Products.

TABLE 624.—Poultry, dressed: Receipts, gross weight, at six markets by State of origin, 1922-1925

[Thousand pounds—i. e., 100 omitted]

BOSTON

| State | 1922 | 1923 | 1924 | 1925 | | | | | | | | | | | | Nov. | Dec. |
|---------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | | | Total | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | | | |
| Illinois | 19,618 | 23,308 | 20,155 | 12,392 | 1,353 | 782 | 828 | 718 | 724 | 619 | 674 | 705 | 791 | 1,185 | 1,858 | 2,055 | |
| Indiana | 5,939 | 6,558 | 7,382 | 6,524 | 564 | 572 | 494 | 447 | 588 | 497 | 472 | 480 | 489 | 668 | 686 | 686 | |
| Iowa | 4,422 | 7,131 | 6,834 | 6,957 | 764 | 380 | 338 | 270 | 356 | 561 | 663 | 476 | 419 | 964 | 875 | 891 | |
| Ohio | 1,708 | 1,141 | 1,216 | 255 | 36 | 31 | 7 | 3 | 4 | 37 | 22 | 15 | 5 | 53 | 53 | 41 | |
| Kansas | 1,464 | 2,114 | 2,864 | 3,566 | 257 | 367 | 207 | 162 | 179 | 277 | 266 | 412 | 237 | 298 | 670 | 272 | |
| New York | 1,454 | 1,850 | 1,111 | 1,045 | 13 | 9 | 207 | 70 | 74 | 85 | 87 | 14 | 16 | 75 | 472 | 123 | |
| Oklahoma | 1,253 | 1,043 | 1,737 | 1,669 | 108 | 191 | 191 | 105 | 140 | 173 | 85 | 123 | 101 | 68 | 448 | 157 | |
| Minnesota | 1,076 | 2,222 | 3,878 | 3,929 | 286 | 245 | 74 | 130 | 89 | 246 | 256 | 329 | 274 | 469 | 594 | 937 | |
| Michigan | 1,015 | 527 | 911 | 622 | 51 | 11 | 27 | 1 | 52 | 9 | 1 | — | 3 | 54 | 205 | 208 | |
| Kentucky | 1,005 | 1,330 | 854 | 822 | 43 | 1 | 1 | 28 | 2 | 179 | 182 | 82 | (1) | (1) | 490 | 257 | |
| Missouri | 1,089 | 2,540 | 2,540 | 1,822 | 267 | 250 | 274 | 78 | 128 | 17 | 15 | — | 73 | 124 | 138 | 224 | |
| Wisconsin | 680 | 291 | 612 | 375 | 62 | 18 | 18 | 10 | 17 | 15 | 19 | 28 | 73 | 176 | 188 | 86 | |
| Maine | 647 | 791 | 706 | 709 | 44 | 33 | 76 | 88 | 143 | 116 | 136 | 114 | 98 | 153 | 118 | 333 | |
| Nevada | 471 | 682 | 1,336 | 1,707 | 122 | 220 | 76 | 10 | 9 | 9 | 14 | 9 | 14 | 27 | 29 | 52 | |
| Massachusetts | 413 | 357 | 344 | 265 | 13 | 8 | 11 | 4 | (1) | 1 | (1) | 1 | 2 | 10 | 36 | 13 | |
| Vermont | 200 | 149 | 105 | 74 | 4 | (1) | (1) | 3 | 1 | 4 | 3 | 3 | 12 | 6 | 53 | 53 | |
| Tennessee | 83 | 49 | 118 | 118 | (1) | 3 | 1 | 1 | 1 | 4 | 3 | 3 | 4 | (1) | 51 | (1) | |
| New Hampshire | 53 | 47 | 50 | 41 | 2 | — | — | — | — | — | — | — | — | — | — | — | |
| Pennsylvania | 49 | 72 | 114 | 180 | (1) | — | — | — | — | — | — | — | — | — | — | — | |
| Maryland | 39 | 59 | 92 | 111 | (1) | — | — | — | — | — | 11 | 22 | — | — | 12 | 148 | |
| North Dakota | 14 | 294 | 314 | 237 | 30 | 16 | 6 | (1) | — | — | — | — | — | — | — | — | |
| South Dakota | 3 | 121 | 101 | 92 | 1 | 1 | 1 | 1 | 24 | 44 | — | — | 21 | 21 | 970 | 1,573 | |
| Texas | (1) | (1) | 6,185 | 2,797 | 125 | 89 | 22 | 18 | — | — | — | — | — | — | — | — | |
| Other States | 2,189 | 4,681 | 1,730 | 467 | 52 | 21 | 3 | 3 | 17 | 47 | 21 | 3 | 1 | 6 | 66 | 228 | |
| Canada | 22 | 120 | — | 174 | — | — | — | 21 | — | — | — | — | — | (1) | (1) | 133 | |
| Total | 44,563 | 56,013 | 61,264 | 46,720 | 4,200 | 3,252 | 2,697 | 2,181 | 2,582 | 2,893 | 2,893 | 2,786 | 2,554 | 4,336 | 7,907 | 8,439 | |

CHICAGO

| | | | | | | | | | | | | | | | | | |
|-----------|--------|--------|--------|--------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|
| Iowa | 19,001 | 18,664 | 21,023 | 21,338 | 1,585 | 903 | 790 | 523 | 619 | 964 | 484 | 283 | 246 | 1,490 | 6,084 | 8,377 | 8,377 |
| Illinois | 5,230 | 5,230 | 12,184 | 4,517 | 561 | 293 | 29 | 45 | 62 | 112 | 121 | 204 | 111 | 186 | 1,801 | 1,711 | 1,711 |
| Wisconsin | 2,421 | 1,457 | 1,771 | 3,364 | 223 | 223 | 202 | 83 | 47 | 86 | 79 | 123 | 170 | 359 | 1,912 | 1,766 | 1,766 |
| Minnesota | 7,310 | 10,764 | 11,425 | 10,267 | 1,382 | 663 | 304 | 171 | 38 | 92 | 121 | 64 | 163 | 333 | 2,941 | 2,941 | 2,941 |

1 Not over 500 pounds.

2 Included in other States.

TABLE 624.—*Poultry, dressed: Receipts, gross weight, at six markets by State of origin, 1922-1925*—Continued

[Thousand pounds—l. e., 000 omitted]

CHICAGO—Continued

| State | 1922 | 1923 | 1924 | 1925 | | | | | | | | | | | | |
|--------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| | | | | Total | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| Missouri | 3,952 | 6,231 | 5,990 | 4,621 | 211 | 222 | 405 | 180 | 325 | 63 | 31 | 245 | 455 | 459 | 1,068 | 947 |
| North Dakota | 2,345 | 4,559 | 6,396 | 5,954 | 617 | 253 | 237 | 98 | 94 | 135 | 118 | 79 | 265 | 612 | 1,405 | 1,736 |
| South Dakota | 3,252 | 7,594 | 5,964 | 5,714 | 471 | 321 | 268 | 66 | 43 | 12 | 6 | 104 | 27 | 172 | 1,851 | 2,397 |
| Kansas | 2,496 | 3,252 | 3,411 | 3,230 | 76 | 68 | 21 | 203 | 203 | 243 | 171 | 194 | 235 | 359 | 932 | 642 |
| Nebraska | 1,959 | 1,813 | 1,660 | 2,149 | 316 | 224 | 186 | 175 | 111 | 127 | 49 | 61 | 78 | 77 | 190 | 945 |
| Indiana | 1,347 | 818 | 849 | 731 | 57 | 45 | 45 | 5 | 58 | 45 | 8 | 233 | 58 | 6 | 69 | 112 |
| Kentucky | 849 | 937 | 508 | 80 | 1 | 11 | 23 | 2 | 11 | 2 | 11 | 2 | 3 | (1) | 14 | 9 |
| Oklahoma | 801 | 2,217 | 2,164 | 2,476 | 81 | 86 | 32 | 133 | 109 | 186 | 45 | 92 | 226 | 180 | 862 | 435 |
| Oklahoma | 709 | 4,507 | 4,077 | 1,802 | 232 | 41 | 24 | (1) | 76 | 69 | 27 | 21 | 77 | 20 | 341 | 574 |
| Texas | 694 | 810 | 564 | 186 | 2 | 3 | 4 | 2 | 5 | (1) | 47 | 76 | 1 | 2 | 28 | 10 |
| Tennessee | 332 | 276 | 186 | 82 | 9 | 5 | 23 | 6 | 5 | (1) | (1) | (1) | (1) | 1 | 18 | 14 |
| Michigan | 271 | 508 | 1,335 | 135 | 8 | 68 | 35 | 13 | 10 | 4 | 12 | 7 | 3 | 36 | 546 | 882 |
| Montana | 256 | 372 | 815 | 308 | 8 | 8 | 20 | 6 | 9 | 4 | (1) | 61 | 65 | 2 | 16 | 23 |
| Arkansas | 247 | 335 | 339 | 385 | 9 | 20 | 2 | 41 | 51 | 27 | 37 | 1 | 1 | 66 | 12 | 4 |
| New York | 169 | 94 | 49 | 12 | 1 | 2 | 2 | 2 | 1 | (1) | (1) | 1 | 1 | (1) | 1 | 1 |
| Mississippi | 131 | 99 | 131 | (1) | 99 | 11 | 5 | 3 | (1) | (1) | 4 | 1 | 1 | (1) | 131 | 131 |
| Idaho | 69 | 40 | 75 | 131 | 69 | 2 | 2 | (1) | 44 | 46 | 5 | 2 | 2 | (1) | 176 | 90 |
| Colorado | 63 | 80 | 169 | 390 | 81 | 4 | 4 | 2 | 44 | 46 | 5 | 2 | 2 | (1) | 28 | 45 |
| Wyoming | 17 | 39 | 109 | 179 | 4 | 2 | 2 | 4 | 44 | 46 | 5 | 2 | 2 | (1) | 28 | 23 |
| Other States | 173 | 182 | 260 | 179 | 4 | 2 | 2 | 4 | 44 | 46 | 5 | 2 | 2 | (1) | 28 | 23 |
| Canada | 28 | 30 | | 141 | | | | | | | | | | 3 | 141 | 141 |
| Total | 73,661 | 90,273 | 88,454 | 72,065 | 6,167 | 3,220 | 2,219 | 1,373 | 1,966 | 2,239 | 1,376 | 1,760 | 2,198 | 4,303 | 20,022 | 25,083 |

NEW YORK

[illegible]

| | | | | | | | | | | | | | | | | |
|---------------|---------|---------|---------|---------|--------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| New York | 3,572 | 3,062 | 3,119 | 11,459 | 238 | 211 | 324 | 909 | 1,796 | 2,111 | 2,167 | 1,457 | 928 | 371 | 541 | 196 |
| Nebraska | 2,515 | 3,006 | 4,610 | 4,288 | 352 | 563 | 344 | 531 | 349 | 319 | 319 | 229 | 225 | 422 | 541 | 670 |
| Oklahoma | 2,254 | 2,704 | 2,553 | 2,105 | 110 | 32 | (1) | 131 | (1) | 129 | 138 | 261 | 365 | 119 | 441 | 441 |
| Virginia | 1,901 | 1,936 | 2,388 | 1,899 | 62 | 26 | 8 | 4 | 62 | 75 | 37 | 95 | 177 | 182 | 1,566 | 231 |
| Michigan | 1,904 | 1,963 | 1,399 | 702 | 80 | 10 | 1 | 78 | 152 | 143 | 156 | 328 | 368 | 37 | 848 | 607 |
| Wisconsin | 1,503 | 2,364 | 2,852 | 3,003 | 173 | 102 | 34 | 22 | 41 | 35 | 39 | 29 | 39 | 88 | 168 | 303 |
| New Jersey | 1,365 | 1,691 | 1,352 | 1,503 | 104 | 238 | 17 | 18 | 17 | 45 | 59 | 56 | 74 | 109 | 260 | 266 |
| Maryland | 1,226 | 890 | 1,339 | 1,021 | 45 | 32 | 31 | 63 | 129 | 14 | 86 | 70 | 53 | 94 | 173 | 119 |
| Pennsylvania | 1,220 | 1,483 | 1,429 | 1,622 | 186 | 85 | 31 | 105 | 86 | 107 | 133 | 100 | 135 | 252 | 324 | 652 |
| South Dakota | 1,100 | 1,200 | 1,200 | 1,745 | 118 | 105 | 1 | 86 | 107 | 70 | 133 | 100 | 135 | 40 | 135 | 9 |
| Massachusetts | 648 | 1,632 | 1,408 | 1,408 | 118 | 107 | 84 | 35 | 102 | 11 | 10 | 9 | 35 | 9 | 93 | 63 |
| California | 1,091 | 528 | 1,091 | 1,459 | 35 | 107 | 11 | 11 | 84 | 107 | 10 | 9 | 35 | 9 | 93 | 63 |
| North Dakota | 153 | 769 | 513 | 668 | 43 | 35 | 22 | 22 | 20 | 54 | 38 | 99 | 99 | 6 | 188 | 389 |
| Dakota | 129 | 326 | 313 | 760 | 20 | 77 | 4 | 4 | 4 | 8 | 7 | 7 | 7 | 6 | 130 | 19 |
| Colorado | 109 | 64 | (1) | 84 | 91 | 7 | 6 | 24 | 23 | 12 | 63 | 31 | 25 | --- | 119 | 209 |
| Washington | (1) | 238 | 173 | 203 | 22 | 21 | 24 | 15 | 37 | 4 | 54 | 6 | 5 | --- | 79 | 42 |
| Idaho | (1) | 203 | 242 | 176 | --- | 1 | 1 | 37 | 33 | --- | --- | --- | --- | --- | 100 | 103 |
| Montana | (1) | 203 | 123 | --- | --- | --- | --- | 38 | (1) | --- | --- | --- | --- | --- | --- | 241 |
| Other States | 563 | 514 | 601 | 462 | 16 | 7 | 15 | 38 | --- | --- | --- | --- | --- | --- | --- | --- |
| Canada | 203 | 532 | 175 | 276 | (1) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| • Total | 138,212 | 163,948 | 179,362 | 170,257 | 14,400 | 10,871 | 7,949 | 8,119 | 10,245 | 10,717 | 11,668 | 11,110 | 12,409 | 16,066 | 28,857 | 27,216 |

PHILADELPHIA

| | | | | | | | | | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|
| Illinois | 7,165 | 9,497 | 9,456 | 8,728 | 1,024 | 716 | 938 | 538 | 381 | 506 | 690 | 594 | 303 | 421 | 1,278 | 1,339 |
| Virginia | 2,241 | 2,588 | 2,448 | 2,331 | 143 | 110 | 117 | 115 | 113 | 166 | 101 | 70 | 69 | 110 | 522 | 527 |
| Indiana | 1,907 | 1,762 | 1,231 | 1,750 | 66 | 68 | 245 | 52 | 59 | 59 | 68 | 87 | 66 | 138 | 324 | 322 |
| Pennsylvania | 1,274 | 1,260 | 919 | 901 | 46 | 44 | 53 | 52 | 59 | 59 | 68 | 210 | 60 | 202 | 324 | 368 |
| Minnesota | 1,371 | 2,389 | 2,262 | 2,732 | 324 | 115 | 102 | 20 | 200 | 132 | 197 | 18 | 18 | 18 | 324 | 368 |
| Ohio | 1,153 | 930 | 1,206 | 741 | 185 | 101 | 39 | 5 | 59 | 78 | 14 | 231 | 2 | 20 | 92 | 231 |
| Missouri | 1,068 | 522 | 1,002 | 1,002 | 146 | 152 | 145 | 120 | 120 | 158 | 223 | 251 | 160 | 200 | 324 | 463 |
| Iowa | 1,017 | 1,124 | 1,083 | 2,315 | 314 | 223 | 143 | 77 | 168 | 113 | 178 | 178 | 248 | 248 | 324 | 340 |
| West Virginia | 985 | 967 | 962 | 1,034 | 64 | 51 | 55 | 60 | 60 | 53 | 11 | 28 | 28 | 39 | 196 | 81 |
| Kansas | 690 | 655 | 652 | 910 | 217 | 111 | 95 | 56 | 45 | 74 | 22 | 23 | 23 | 77 | 49 | 62 |
| New York | 424 | 368 | 1,047 | 676 | 1 | 122 | 111 | 86 | 57 | 16 | 22 | 84 | 46 | 59 | 190 | 315 |
| Wisconsin | 396 | 406 | 288 | 697 | 40 | 78 | 110 | 110 | 177 | 105 | 66 | 105 | 45 | 59 | 190 | 315 |
| Oklahoma | 321 | 446 | 580 | 362 | 64 | 110 | 110 | 110 | 177 | 105 | 66 | 105 | 45 | 59 | 190 | 315 |
| Delaware | 262 | 138 | 77 | 77 | 5 | 1 | 10 | 5 | 3 | 21 | 6 | 2 | 1 | 3 | 11 | 183 |
| Texas | 213 | 798 | 77 | 303 | 19 | 4 | 8 | 22 | 10 | 15 | 12 | 15 | 6 | 25 | 68 | 20 |
| Maryland | 201 | 256 | 453 | 233 | 55 | 9 | 3 | (1) | 10 | 22 | 22 | 12 | 20 | 20 | 129 | 119 |
| Michigan | 127 | 285 | 433 | 317 | 8 | 6 | 3 | 22 | 37 | 12 | 22 | 12 | 29 | 48 | 81 | 69 |
| Kentucky | 63 | 48 | 439 | 111 | 24 | (1) | 62 | 22 | 57 | 12 | (1) | (1) | --- | 12 | 12 | 4 |
| New Jersey | 63 | 71 | 277 | 11 | 4 | 1 | 1 | 22 | 18 | 10 | 49 | 46 | 104 | 27 | 26 | 32 |
| South Dakota | 45 | 10 | 17 | 321 | 4 | 4 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- |

1 Not over 500 pounds.

* Included in other States.

TABLE 624.—Poultry, dressed: Receipts, gross weight, at six markets by State of origin, 1922-1925—Continued

[Thousand pounds—1. c., 000 omitted]

PHILADELPHIA—Continued

| State | 1922 | 1923 | 1924 | 1925 | | | | | | | | | | | |
|-------------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | Total | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. |
| North Dakota..... | 4 | 650 | 595 | 436 | 46 | 37 | 17 | 1 | | | 22 | | | 7 | |
| Other States..... | 138 | 154 | 307 | 280 | 22 | 3 | 3 | 3 | 30 | 2 | 1 | 3 | 3 | 36 | 103 |
| Total..... | 21,319 | 24,611 | 27,640 | 29,295 | 2,818 | 2,090 | 2,183 | 1,450 | 1,343 | 1,638 | 1,739 | 1,810 | 1,552 | 1,924 | 4,702 |
| | | | | | | | | | | | | | | | 6,106 |

SAN FRANCISCO

| | | | | | | | | | | | | | | | |
|-------------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| California..... | 3,397 | 4,178 | 4,178 | 2,708 | 501 | 311 | 36 | 48 | 55 | 251 | 169 | 116 | 85 | 82 | 374 |
| Kansas..... | 486 | 349 | 439 | 645 | 125 | | 26 | 87 | 55 | | | 27 | | 48 | 188 |
| Oregon..... | 280 | 278 | 414 | 464 | 53 | 37 | 29 | | 1 | 69 | 20 | 16 | 16 | 11 | 16 |
| Washington..... | 149 | 339 | 339 | 268 | 14 | 6 | 87 | 6 | 27 | 7 | 1 | 4 | 13 | 45 | 30 |
| Illinois..... | 102 | 255 | 164 | 147 | | | | 26 | 24 | 67 | 30 | | | | 28 |
| Nevada..... | 57 | 175 | 250 | 53 | | | | | | | | | | | 21 |
| Idaho..... | (1) | 218 | 396 | 633 | 29 | 23 | 30 | 21 | | 15 | 36 | 12 | 6 | 58 | 169 |
| Other States..... | 485 | 121 | 313 | 689 | 65 | 133 | 62 | 28 | 25 | 23 | | 2 | 1 | 3 | 84 |
| Total..... | 4,906 | 5,913 | 6,453 | 5,615 | 817 | 518 | 270 | 216 | 187 | 431 | 256 | 177 | 121 | 247 | 784 |
| | | | | | | | | | | | | | | | 1,591 |

1 Not over 500 pounds.

TABLE 624.—Poultry, dressed: Receipts, gross weight, at six markets, by State of origin, 1922-1925—Continued

[Thousand pounds—i. e., 000 omitted]

LOS ANGELES

| State | 1925 | | | | | | | | | | | | |
|-------------------|-------|------|------|------|------|-----|------|------|------|-------|------|-------|-------|
| | Total | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| California..... | 623 | 129 | 57 | 39 | 58 | 28 | 5 | 15 | 35 | 21 | 82 | 79 | 75 |
| Arizona..... | 170 | 12 | 5 | 1 | | (1) | 1 | | | | (1) | 133 | 18 |
| Colorado..... | 104 | 1 | 1 | 1 | (1) | (1) | 1 | | 2 | 30 | | 29 | 39 |
| Idaho..... | 515 | 167 | 37 | 31 | 1 | 4 | 13 | 8 | 9 | 3 | 21 | 20 | 192 |
| Illinois..... | 69 | (1) | | | 23 | 4 | 39 | 6 | | | | | 1 |
| Iowa..... | 44 | 24 | 1 | | | | | | 20 | | | | |
| Kansas..... | 1,033 | 145 | 78 | 89 | 35 | 35 | 30 | 36 | 28 | 58 | 71 | 330 | 103 |
| Montana..... | 86 | 43 | 2 | 7 | | | 20 | 4 | | | | 5 | 5 |
| Nebraska..... | 192 | 1 | 34 | | | | | (1) | | | | 53 | 104 |
| Nevada..... | 60 | 1 | 1 | 22 | | | | | | | | 28 | 8 |
| New Mexico..... | 155 | 12 | 10 | 1 | 3 | 4 | 4 | 4 | 2 | 3 | 8 | 38 | 66 |
| New York..... | 90 | | 8 | | 7 | | | | 7 | 1 | 4 | 18 | 45 |
| Oklahoma..... | 526 | 8 | 3 | 1 | 75 | 28 | 1 | 9 | 7 | 5 | 89 | 127 | 173 |
| Oregon..... | 161 | 4 | 14 | 32 | 1 | | 9 | | | 11 | 3 | 1 | 86 |
| Texas..... | 465 | 3 | 4 | 29 | | 1 | 1 | 28 | 29 | | | 66 | 306 |
| Utah..... | 261 | 2 | (1) | | | | | 2 | 29 | | | 72 | 156 |
| Washington..... | 36 | | 2 | 4 | | | | | | 29 | | 1 | |
| Wisconsin..... | 73 | (1) | | | | 35 | | | | | 38 | | |
| Wyoming..... | 113 | | | | | | | | | | | | 113 |
| Other States..... | 26 | | | | | | 25 | | | | | | |
| Total..... | 4,801 | 552 | 251 | 257 | 203 | 135 | 149 | 110 | 168 | 161 | 316 | 1,009 | 1,490 |

Division of Statistical and Historical Research. Compiled from monthly reports of the Division of Dairy and Poultry Products.

1 Not over 500 pounds.

TABLE 625.—Frozen poultry: Cold-storage holdings, United States, 1916-1925

[Thousand pounds—i. e., 000 omitted]

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|------------------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| 1916..... | | | | | 17,847 | 6,556 | 6,216 | 7,032 | 8,882 | 20,041 | 31,176 | 27,139 |
| 1917..... | 32,184 | 35,601 | 27,796 | 25,988 | 67,242 | 64,286 | 60,194 | 54,132 | 56,063 | 46,737 | 51,743 | 49,561 |
| 1918..... | 64,557 | 68,238 | 56,950 | 44,115 | 26,523 | 18,926 | 17,652 | 18,756 | 23,034 | 29,708 | 44,433 | 71,238 |
| 1919..... | 108,722 | 119,676 | 109,627 | 92,897 | 71,162 | 55,616 | 49,212 | 40,573 | 52,916 | 30,492 | 33,136 | 54,749 |
| 1920..... | 57,512 | 92,253 | 78,421 | 61,436 | 40,526 | 30,535 | 24,790 | 22,364 | 21,331 | 22,953 | 31,070 | 49,046 |
| 1921..... | 79,025 | 81,096 | 79,001 | 62,315 | 47,651 | 35,408 | 27,268 | 21,188 | 20,064 | 25,602 | 34,876 | 65,167 |
| 1922..... | 103,697 | 103,350 | 88,709 | 68,471 | 50,840 | 38,602 | 34,837 | 30,659 | 27,671 | 25,984 | 30,238 | 51,781 |
| 1923..... | 100,170 | 121,632 | 113,503 | 94,872 | 74,662 | 57,274 | 49,100 | 41,250 | 34,131 | 33,142 | 40,363 | 63,274 |
| 1924..... | 93,434 | 99,486 | 93,497 | 76,067 | 52,068 | 39,299 | 34,886 | 33,604 | 33,837 | 40,070 | 55,139 | 87,939 |
| 1925..... | 133,990 | 138,189 | 130,513 | 108,608 | 82,732 | 68,126 | 58,562 | 53,558 | 47,946 | 44,345 | 53,787 | 86,733 |
| Average 1921-1925..... | 102,063 | 108,750 | 101,045 | 82,066 | 61,570 | 47,742 | 40,930 | 36,061 | 32,730 | 33,829 | 42,881 | 70,979 |

Cold Storage Report Section.

TABLE 626.—*Poultry (live): International trade, average 1909–1913, annual 1922–1924*

[Thousands—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--|--------------------|------------------|---------|------------------|---------|------------------|------------------|---------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Canada..... | 15 | (¹) | 418 | 609 | 473 | 579 | 604 | 820 |
| China..... | 15 | 2,462 | 31 | 3,743 | 27 | 3,639 | 52 | 4,989 |
| Italy ¹ | 2,010 | 9,606 | 3,967 | 2,575 | 5,552 | 2,742 | 3,674 | 4,009 |
| Netherlands..... | (²) | (²) | 63 | 339 | 83 | 247 | 83 | 1,426 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Belgium ¹ | 1,797 | 685 | 1,299 | 1,442 | 1,024 | 2,176 | 940 | 2,646 |
| Denmark..... | 26 | 2 | 2 | (³) | 1 | (³) | (³) | 1 |
| France ¹ | 8,967 | 795 | 17,500 | 299 | 21,253 | 1,041 | 24,441 | 666 |
| Germany: | | | | | | | | |
| Geese..... | 8,111 | 32 | 64 | 1 | 25 | (⁴) | 594 | 1 |
| Other poultry ¹ | 29,829 | 278 | 339 | 76 | 116 | 36 | 5,736 | 13 |
| Switzerland ¹ | 1,382 | 28 | 879 | 4 | 967 | 5 | 954 | 8 |
| United Kingdom..... | 877 | 50 | 239 | 14 | 1,170 | 18 | 1,404 | 26 |
| United States ¹ | (¹) | (¹) | 878 | 455 | 1,249 | 543 | 1,779 | 806 |
| Total of those reported in number..... | 9,044 | 2,546 | 807 | 4,706 | 1,779 | 4,483 | 2,737 | 7,263 |
| Total of those reported in pounds..... | 43,985 | 11,392 | 24,862 | 4,851 | 30,180 | 6,543 | 37,525 | 8,148 |

Division of Statistical and Historical Research. Official sources.

¹ Expressed only in value. ² Reported in thousands of pounds instead of thousands of poultry.³ Not separately stated.⁴ Less than 500.TABLE 627.—*Poultry (dead): International trade, average 1909–1913, annual 1922–1924*

[Thousand pounds—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|------------------|------------------|------------------|------------------|---------|------------------|---------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | (¹) | (¹) | ----- | 1,119 | ----- | 1,036 | ----- | 1,148 |
| Austria-Hungary..... | 371 | 9,854 | ----- | ----- | ----- | ----- | ----- | ----- |
| Belgium..... | 232 | 1,649 | 159 | 290 | 138 | 901 | 19 | 1,233 |
| China..... | (²) | 1,211 | (²) | 1,989 | (²) | 2,837 | (²) | 3,281 |
| Finland..... | 373 | 1,162 | 1 | 797 | 3 | 914 | ----- | 1,170 |
| France..... | 2,920 | 12,296 | 3,699 | 6,627 | 3,666 | 10,546 | 2,466 | 14,960 |
| Italy..... | 288 | 6,019 | 1,029 | 3,786 | 792 | 4,075 | 921 | 4,065 |
| Netherlands..... | (³) | (³) | 44 | 933 | 68 | 1,653 | 95 | 3,523 |
| United States..... | (³) | (³) | 1,661 | 6,107 | 2,183 | 5,846 | 2,160 | 4,062 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | ----- | ----- | 3,747 | 1,052 | 7,560 | 491 | 12,878 | 615 |
| Cuba..... | 76 | ----- | 147 | ----- | 203 | ----- | ----- | ----- |
| Denmark..... | 1,765 | 10 | 866 | 39 | 522 | 17 | 827 | 31 |
| Germany..... | 18,875 | 535 | 65 | 69 | 166 | 44 | 8,775 | 20 |
| Norway..... | 63 | ----- | 75 | (⁴) | 60 | 16 | ----- | ----- |
| Sweden..... | 349 | 12 | 234 | 2 | 270 | 1 | 297 | 3 |
| Switzerland..... | 8,319 | 13 | 4,245 | 4 | 4,854 | 12 | 5,783 | 3 |
| United Kingdom..... | 10,904 | 127 | 18,644 | 272 | 34,684 | 321 | 30,638 | 590 |
| Total 17 countries..... | 44,625 | 22,888 | 34,666 | 23,086 | 55,199 | 28,710 | 64,369 | 34,694 |

Division of Statistical and Historical Research. Official sources.

¹ Expressed only in value.² Not separately stated.³ Includes some game.⁴ Less than 500 pounds.

TABLE 628.—*Chickens: Estimated price per pound, received by producers, United States, 1910-1925*

| Year beginning July— | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Apr. 15 | May 15 | June 15 | Weighted average |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1910..... | 12.2 | 12.0 | 11.8 | 11.4 | 11.0 | 10.6 | 10.6 | 10.6 | 10.7 | 10.9 | 11.0 | 11.1 | 11.0 |
| 1911..... | 11.2 | 11.2 | 11.0 | 10.6 | 10.0 | 9.7 | 10.0 | 10.4 | 10.6 | 11.0 | 11.1 | 11.0 | 10.4 |
| 1912..... | 11.2 | 11.3 | 11.4 | 11.4 | 11.0 | 10.8 | 10.8 | 11.0 | 11.4 | 11.7 | 11.9 | 12.0 | 11.2 |
| 1913..... | 13.0 | 12.8 | 12.7 | 13.0 | 11.4 | 11.3 | 11.5 | 12.0 | 12.4 | 13.0 | 12.7 | 13.1 | 12.0 |
| Av. 1910-1913.. | 11.9 | 11.8 | 11.7 | 11.6 | 10.8 | 10.6 | 10.7 | 11.0 | 11.3 | 11.6 | 11.7 | 11.8 | 11.2 |
| 1914..... | 13.4 | 13.1 | 12.8 | 12.0 | 11.1 | 10.7 | 10.9 | 11.3 | 11.7 | 11.9 | 12.0 | 12.2 | 11.5 |
| 1915..... | 12.2 | 12.2 | 12.0 | 11.8 | 11.5 | 11.2 | 11.5 | 12.1 | 12.5 | 13.1 | 13.6 | 14.0 | 12.0 |
| 1916..... | 14.1 | 14.1 | 14.2 | 14.4 | 13.9 | 13.6 | 14.1 | 15.1 | 15.7 | 17.3 | 17.5 | 17.7 | 14.6 |
| 1917..... | 17.4 | 16.7 | 18.4 | 18.5 | 17.0 | 17.5 | 18.4 | 20.3 | 20.2 | 20.7 | 20.6 | 21.3 | 18.4 |
| 1918..... | 23.2 | 23.4 | 23.6 | 22.2 | 21.7 | 22.4 | 22.1 | 21.8 | 24.3 | 25.7 | 26.7 | 26.4 | 23.0 |
| 1919..... | 26.8 | 26.1 | 25.0 | 23.3 | 22.0 | 22.0 | 23.3 | 25.7 | 26.9 | 28.4 | 28.0 | 27.4 | 24.2 |
| 1920..... | 28.4 | 26.6 | 26.9 | 24.6 | 22.9 | 20.6 | 21.7 | 22.3 | 22.8 | 22.2 | 21.8 | 21.5 | 22.8 |
| Av. 1914-1920.. | 19.4 | 18.9 | 19.0 | 18.1 | 17.2 | 16.9 | 17.4 | 18.4 | 19.0 | 19.9 | 20.0 | 20.1 | 18.1 |
| 1921..... | 21.7 | 21.4 | 20.2 | 19.1 | 18.6 | 18.2 | 18.9 | 19.0 | 19.4 | 20.0 | 20.2 | 20.6 | 19.3 |
| 1922..... | 20.7 | 18.9 | 18.6 | 18.1 | 17.2 | 17.2 | 17.3 | 18.6 | 18.8 | 19.4 | 20.1 | 20.3 | 18.2 |
| 1923..... | 20.6 | 19.8 | 19.7 | 19.0 | 17.7 | 16.6 | 17.5 | 18.2 | 18.9 | 19.4 | 20.3 | 20.5 | 18.3 |
| 1924..... | 20.2 | 20.0 | 19.8 | 19.4 | 18.5 | 17.9 | 18.5 | 19.1 | 20.0 | 21.1 | 22.0 | 21.6 | 19.2 |
| 1925..... | 21.4 | 20.8 | 20.4 | 20.0 | 19.2 | 19.5 | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 629.—*Turkeys: Estimated price per pound, received by producers, United States, 1912-1925*

| Year beginning October— | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Year beginning October— | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 |
|-------------------------|--------------|--------------|--------------|--------------|-------------------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1912..... | 13.6 | 14.4 | 14.8 | 14.9 | 1919..... | 26.6 | 28.3 | 31.1 | 32.0 |
| 1913..... | 14.6 | 15.2 | 15.5 | 15.5 | 1920..... | 30.0 | 31.8 | 33.1 | 33.0 |
| 1914..... | 14.1 | 14.1 | 14.5 | 14.5 | 1921..... | 25.7 | 28.2 | 32.5 | 30.7 |
| 1915..... | 13.7 | 14.8 | 15.5 | 15.6 | 1922..... | 25.1 | 29.5 | 32.3 | 29.7 |
| 1916..... | 17.0 | 18.6 | 19.6 | 19.5 | 1923..... | 26.6 | 27.9 | 24.5 | 23.1 |
| 1917..... | 20.0 | 21.0 | 23.0 | 22.9 | 1924..... | 23.3 | 24.2 | 25.8 | 26.2 |
| 1918..... | 23.9 | 25.7 | 27.0 | 27.3 | 1925..... | 24.0 | 28.3 | 31.1 | 31.7 |

Division of Crop and Livestock Estimates

EGGS

TABLE 630.—*Eggs: Receipts, at five markets, 1917-1925*

[Thousand cases—1. e., 900 omitted]

BOSTON

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| 1917..... | 56 | 75 | 171 | 252 | 318 | 193 | 113 | 87 | 84 | 80 | 43 | 30 | 1,502 |
| 1918..... | 31 | 59 | 192 | 309 | 305 | 171 | 133 | 119 | * 91 | 96 | 46 | 52 | 1,604 |
| 1919..... | 67 | 116 | 184 | 327 | 235 | 189 | 148 | 128 | 80 | 97 | 48 | 40 | 1,659 |
| 1920..... | 72 | 113 | 149 | 253 | 384 | 204 | 119 | 110 | 95 | 66 | 49 | 34 | 1,648 |
| 1921..... | 84 | 138 | 206 | 359 | 294 | 183 | 137 | 130 | 100 | 88 | 52 | 52 | 1,823 |
| 1922..... | 101 | 133 | 214 | 403 | 312 | 224 | 143 | 105 | 85 | 106 | 74 | 70 | 1,970 |
| 1923..... | 99 | 106 | 244 | 285 | 381 | 219 | 128 | 131 | 101 | 108 | 73 | 69 | 1,944 |
| 1924..... | 91 | 97 | 185 | 282 | 367 | 212 | 163 | 121 | 85 | 90 | 64 | 72 | 1,829 |
| 1925..... | 61 | 129 | 222 | 303 | 282 | 206 | 169 | 126 | 102 | 112 | 58 | 63 | 1,833 |
| Av. 1921-1925..... | 87 | 121 | 214 | 326 | 327 | 209 | 148 | 123 | 98 | 101 | 64 | 65 | 1,880 |

TABLE 630.—*Eggs: Receipts, at five markets, 1917-1925—Continued*

[Thousand cases—1. e., 000 omitted]

NEW YORK

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|------|------|------|-------|-------|------|------|------|-------|------|------|------|-------|
| 1917..... | 143 | 139 | 405 | 747 | 738 | 565 | 308 | 337 | 333 | 284 | 169 | 102 | 4,357 |
| 1918..... | 106 | 155 | 712 | 908 | 681 | 551 | 483 | 450 | 333 | 288 | 183 | 177 | 5,027 |
| 1919..... | 214 | 486 | 667 | 1,026 | 911 | 669 | 532 | 435 | 377 | 318 | 192 | 178 | 6,008 |
| 1920..... | 207 | 315 | 618 | 563 | 697 | 725 | 470 | 370 | 334 | 272 | 209 | 211 | 4,991 |
| 1921..... | 314 | 476 | 909 | 1,012 | 742 | 681 | 525 | 517 | 440 | 362 | 251 | 260 | 6,579 |
| 1922..... | 335 | 424 | 919 | 1,178 | 994 | 784 | 574 | 427 | 381 | 337 | 226 | 242 | 6,821 |
| 1923..... | 386 | 447 | 981 | 924 | 1,163 | 796 | 596 | 528 | 410 | 377 | 270 | 272 | 7,156 |
| 1924..... | 301 | 410 | 717 | 1,082 | 970 | 789 | 599 | 429 | 405 | 361 | 221 | 259 | 6,543 |
| 1925..... | 325 | 550 | 872 | 1,115 | 871 | 538 | 550 | 490 | 427 | 328 | 208 | 320 | 6,894 |
| Av. 1921-1925..... | 332 | 461 | 898 | 1,062 | 948 | 778 | 569 | 478 | 414 | 353 | 235 | 271 | 6,799 |

PHILADELPHIA

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| 1918..... | 64 | 100 | 174 | 301 | 271 | 185 | 129 | 115 | 107 | 119 | 76 | 63 | 1,217 |
| 1919..... | 76 | 81 | 120 | 164 | 242 | 180 | 107 | 116 | 118 | 81 | 57 | 64 | 1,306 |
| 1920..... | 64 | 120 | 202 | 237 | 235 | 158 | 121 | 145 | 124 | 100 | 66 | 70 | 1,642 |
| 1921..... | 109 | 113 | 192 | 316 | 273 | 142 | 126 | 124 | 108 | 76 | 60 | 64 | 1,703 |
| 1922..... | 104 | 111 | 179 | 187 | 278 | 196 | 131 | 128 | 141 | 110 | 74 | 88 | 1,727 |
| 1923..... | 88 | 96 | 152 | 270 | 249 | 158 | 139 | 117 | 108 | 90 | 50 | 78 | 1,595 |
| 1924..... | 77 | 121 | 161 | 279 | 196 | 188 | 117 | 99 | 121 | 79 | 65 | 69 | 1,572 |
| Av. 1921-1925..... | 88 | 112 | 177 | 258 | 246 | 168 | 127 | 123 | 120 | 91 | 63 | 74 | 1,648 |

CHICAGO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|------|------|------|-------|-------|------|------|------|-------|------|------|------|-------|
| 1917..... | 118 | 80 | 376 | 927 | 1,200 | 897 | 626 | 450 | 361 | 295 | 193 | 150 | 5,679 |
| 1918..... | 108 | 29 | 415 | 1,027 | 926 | 733 | 564 | 480 | 338 | 240 | 124 | 86 | 5,050 |
| 1919..... | 101 | 253 | 458 | 1,024 | 915 | 767 | 401 | 275 | 220 | 125 | 51 | 27 | 4,617 |
| 1920..... | 109 | 251 | 458 | 840 | 800 | 620 | 380 | 260 | 217 | 132 | 47 | 40 | 4,154 |
| 1921..... | 133 | 350 | 679 | 750 | 684 | 690 | 297 | 258 | 201 | 137 | 86 | 114 | 4,155 |
| 1922..... | 210 | 296 | 525 | 887 | 898 | 695 | 389 | 300 | 191 | 140 | 82 | 71 | 4,684 |
| 1923..... | 198 | 308 | 619 | 775 | 943 | 763 | 424 | 332 | 270 | 191 | 84 | 96 | 5,009 |
| 1924..... | 176 | 347 | 519 | 823 | 879 | 637 | 458 | 318 | 228 | 156 | 76 | 62 | 4,679 |
| 1925..... | 102 | 329 | 514 | 781 | 775 | 715 | 406 | 327 | 226 | 143 | 58 | 122 | 4,498 |
| Av. 1921-1925..... | 164 | 327 | 571 | 803 | 836 | 654 | 395 | 307 | 224 | 153 | 77 | 93 | 4,605 |

SAN FRANCISCO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|-------|
| 1917..... | 50 | 76 | 94 | 91 | 92 | 79 | 52 | 45 | 35 | 37 | 28 | 37 | 716 |
| 1918..... | 53 | 81 | 80 | 93 | 83 | 71 | 51 | 39 | 34 | 27 | 20 | 29 | 667 |
| 1919..... | 48 | 59 | 73 | 83 | 93 | 80 | 66 | 62 | 42 | 32 | 27 | 33 | 698 |
| 1920..... | 44 | 55 | 102 | 114 | 80 | 76 | 67 | 55 | 42 | 43 | 36 | 43 | 757 |
| 1921..... | 58 | 71 | 123 | 109 | 100 | 79 | 62 | 57 | 44 | 40 | 38 | 36 | 811 |
| 1922..... | 54 | 59 | 102 | 118 | 106 | 81 | 72 | 63 | 51 | 45 | 42 | 45 | 838 |
| 1923..... | 65 | 60 | 95 | 97 | 87 | 92 | 70 | 61 | 54 | 58 | 54 | 62 | 855 |
| 1924..... | 56 | 56 | 81 | 82 | 76 | 78 | 72 | 57 | 50 | 51 | 46 | 53 | 760 |
| 1925..... | 53 | 47 | 77 | 85 | 69 | 78 | 73 | 64 | 54 | 47 | 44 | 52 | 743 |
| Av. 1921-1925..... | 58 | 59 | 96 | 98 | 88 | 81 | 70 | 60 | 51 | 48 | 44 | 49 | 801 |

TOTAL

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|--------|
| 1919..... | 494 | 1,014 | 1,556 | 2,761 | 2,425 | 1,890 | 1,276 | 1,018 | 826 | 691 | 394 | 341 | 14,686 |
| 1920..... | 508 | 815 | 1,447 | 1,934 | 2,203 | 1,805 | 1,143 | 911 | 806 | 594 | 398 | 382 | 12,946 |
| 1921..... | 653 | 1,161 | 2,209 | 2,467 | 2,056 | 1,561 | 1,142 | 1,107 | 909 | 727 | 488 | 631 | 15,010 |
| 1922..... | 809 | 1,025 | 1,952 | 2,902 | 2,583 | 1,926 | 1,304 | 1,019 | 816 | 704 | 484 | 492 | 16,016 |
| 1923..... | 852 | 1,032 | 2,118 | 2,268 | 2,852 | 2,066 | 1,349 | 1,180 | 988 | 844 | 555 | 587 | 16,691 |
| 1924..... | 714 | 1,006 | 1,654 | 2,539 | 2,544 | 1,871 | 1,431 | 1,042 | 876 | 748 | 457 | 524 | 15,406 |
| 1925..... | 618 | 1,176 | 1,846 | 2,583 | 2,193 | 2,025 | 1,315 | 1,106 | 980 | 709 | 433 | 626 | 15,540 |
| Av. 1921-1925..... | 729 | 1,060 | 1,966 | 2,548 | 2,445 | 1,890 | 1,308 | 1,091 | 904 | 746 | 483 | 552 | 15,733 |

Division of Statistical and Historical Research. Compiled from reports of the Division of Dairy and Poultry Products.

TABLE 631.—Eggs: Receipts at six markets, by State of origin, 1922-1925

[Thousand cases—i. e., 100 omitted]

BOSTON

| State | 1922 | 1923 | 1924 | 1925 | | | | | | | | | | | | |
|--------------------|-------|-------|-------|-------|------|------|------|------|-----|------|------|------|-------|------|------|------|
| | | | | Total | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| Illinois..... | 710 | 845 | 691 | 300 | 18 | 19 | 46 | 89 | 72 | 50 | 32 | 21 | 15 | 14 | 9 | 5 |
| Indiana..... | 320 | 233 | 186 | 156 | 3 | 9 | 19 | 35 | 21 | 15 | 13 | 15 | 8 | 11 | 4 | 3 |
| Iowa..... | 142 | 146 | 186 | 259 | 4 | 7 | 18 | 50 | 41 | 30 | 33 | 26 | 20 | 21 | 5 | 4 |
| Minnesota..... | 108 | 109 | 171 | 250 | 2 | 3 | 20 | 39 | 45 | 39 | 33 | 23 | 15 | 10 | 12 | 8 |
| Ohio..... | 108 | 77 | 53 | 39 | 2 | 3 | 4 | 3 | 5 | 4 | 3 | 4 | 3 | 6 | 1 | 1 |
| Missouri..... | 100 | 78 | 60 | 138 | 7 | 25 | 33 | 22 | 19 | 10 | 10 | 7 | 4 | 2 | 8 | 8 |
| Nebraska..... | 89 | 122 | 89 | 170 | 9 | 32 | 10 | 14 | 13 | 12 | 9 | 6 | 5 | 4 | 3 | 7 |
| Maine..... | 40 | 43 | 57 | 14 | 4 | 3 | 31 | 8 | 21 | 16 | 7 | 6 | 6 | 21 | 6 | 10 |
| Kansas..... | 43 | 61 | 48 | 44 | (1) | 1 | 3 | 5 | 7 | 4 | 6 | 4 | 4 | 3 | 3 | 1 |
| Michigan..... | 42 | 46 | 40 | 28 | 2 | 1 | 1 | 1 | 3 | 2 | 5 | 1 | 1 | 3 | 2 | 3 |
| New York..... | 40 | 36 | 37 | 32 | 2 | 4 | 5 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 3 |
| New Hampshire..... | 38 | 36 | 32 | 28 | 3 | 2 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | 1 | 1 | 1 |
| Vermont..... | 37 | 27 | 24 | 22 | 2 | 2 | 3 | 1 | 3 | (1) | (1) | 1 | 1 | (1) | (1) | 1 |
| Massachusetts..... | 24 | 19 | 16 | 12 | 2 | 11 | 13 | 1 | 3 | (1) | (1) | 3 | 2 | 3 | 3 | 4 |
| Nebraska..... | 19 | 31 | 31 | 61 | (1) | 3 | 10 | 10 | 4 | 4 | 4 | 3 | 3 | 6 | 2 | 4 |
| Other States..... | 100 | 64 | 80 | 107 | 3 | 2 | 15 | 18 | 20 | 14 | 10 | 6 | 7 | 102 | 58 | 63 |
| Total..... | 1,970 | 1,944 | 1,829 | 1,833 | 61 | 129 | 222 | 303 | 282 | 206 | 169 | 126 | 102 | 112 | 58 | 63 |

CHICAGO

| | | | | | | | | | | | | | |
|-------------------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Missouri..... | 604 | 15 | 34 | 74 | 108 | 123 | 96 | 50 | 33 | 24 | 24 | 9 | 14 |
| Iowa..... | 880 | 20 | 70 | 95 | 165 | 152 | 148 | 75 | 58 | 40 | 36 | 12 | 17 |
| Kansas..... | 433 | 16 | 57 | 61 | 45 | 72 | 72 | 35 | 35 | 26 | 19 | 3 | 21 |
| Wisconsin..... | 592 | 15 | 30 | 41 | 88 | 91 | 67 | 38 | 41 | 29 | 15 | 5 | 13 |
| Minnesota..... | 644 | 11 | 27 | 57 | 107 | 100 | 90 | 53 | 53 | 36 | 18 | 7 | 12 |
| South Dakota..... | 564 | 4 | 4 | 52 | 114 | 85 | 98 | 65 | 56 | 43 | 17 | 6 | 9 |
| Nebraska..... | 511 | 4 | 31 | 62 | 84 | 90 | 96 | 60 | 35 | 21 | 14 | 2 | 8 |
| Illinois..... | 170 | 7 | 4 | 18 | 32 | 29 | 28 | 11 | 10 | 6 | 4 | 2 | 8 |
| Oklahoma..... | 194 | 15 | 24 | 29 | 10 | 8 | 3 | 5 | 7 | 5 | (1) | (1) | (1) |
| North Dakota..... | 72 | 4 | 2 | 3 | 8 | 6 | 4 | 2 | 1 | 1 | (1) | (1) | (1) |
| Texas..... | 42 | 1 | 8 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | (1) | (1) | (1) |
| Michigan..... | 14 | (1) | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | (1) | (1) | (1) |
| Total..... | 1,045 | 1,043 | 996 | 880 | 961 | 882 | 888 | 880 | 880 | 880 | 880 | 880 | 880 |

¹ Not over 500 cases.

TABLE 631.—Eggs: Receipts at six markets, by State of origin, 1922-1925—Continued

[Thousand cases—i. e., 100 omitted]

CHICAGO—Continued

| State | 1922 | 1923 | 1924 | 1925 | | | | | | | | | | | | | | |
|-------------------|--------|--------|--------|--------|------|------|------|------|-----|------|------|------|-------|------|------|------|--|--|
| | | | | Total | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | | |
| Arkansas..... | 14 | 20 | 3 | 15 | (1) | 4 | 3 | 3 | 4 | (1) | 1 | (1) | ----- | (1) | (1) | (1) | | |
| Other States..... | 81 | 51 | 37 | 104 | 3 | 6 | 14 | 15 | 9 | 10 | 8 | 6 | 2 | 5 | 9 | 17 | | |
| Total..... | 4, 684 | 5, 009 | 4, 679 | 4, 498 | 102 | 329 | 514 | 781 | 775 | 715 | 406 | 327 | 226 | 143 | 68 | 122 | | |

NEW YORK

| State | 1922 | | 1923 | | 1924 | | 1925 | | | | | | | | | | | |
|-------------------|--------|--------|--------|------|--------|--------|------|------|------|--------|-----|------|------|------|-------|------|------|------|
| | 1922 | 1923 | 1922 | 1923 | 1924 | Total | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| Illinois..... | 1, 379 | 1, 342 | 1, 223 | | 1, 223 | 1, 238 | 56 | 79 | 170 | 250 | 182 | 150 | 101 | 89 | 72 | 90 | 94 | 25 |
| Iowa..... | 921 | 924 | 942 | | 942 | 924 | 9 | 31 | 73 | 172 | 130 | 152 | 91 | 100 | 96 | 44 | 13 | 13 |
| Indiana..... | 726 | 575 | 526 | | 526 | 568 | 15 | 30 | 66 | 117 | 85 | 79 | 49 | 42 | 31 | 26 | 8 | 16 |
| Ohio..... | 514 | 436 | 327 | | 327 | 324 | 6 | 11 | 26 | 62 | 55 | 50 | 30 | 29 | 23 | 17 | 5 | 10 |
| New York..... | 491 | 645 | 615 | | 615 | 688 | 45 | 44 | 73 | 103 | 100 | 96 | 65 | 47 | 38 | 26 | 19 | 32 |
| Missouri..... | 438 | 453 | 415 | | 415 | 364 | 18 | 43 | 54 | 77 | 16 | 29 | 35 | 21 | 19 | 10 | 13 | 56 |
| California..... | 354 | 430 | 331 | | 331 | 456 | 48 | 77 | 62 | 17 | 33 | 34 | 26 | 28 | 23 | 37 | 44 | 10 |
| Pennsylvania..... | 295 | 238 | 274 | | 274 | 244 | 11 | 14 | 26 | 33 | 30 | 32 | 27 | 22 | 20 | 10 | 2 | 4 |
| Tennessee..... | 251 | 249 | 141 | | 141 | 189 | 10 | 41 | 60 | 30 | 25 | 11 | 4 | 12 | 1 | 6 | 11 | 4 |
| Kansas..... | 222 | 242 | 181 | | 181 | 197 | 9 | 23 | 36 | 30 | 17 | 22 | 14 | 25 | 10 | 10 | 3 | 14 |
| Minnesota..... | 217 | 264 | 261 | | 261 | 246 | 6 | 19 | 41 | 40 | 40 | 43 | 27 | 25 | 23 | 26 | 2 | 58 |
| Washington..... | 143 | 271 | 254 | | 254 | 375 | 35 | 39 | 32 | 17 | 30 | 30 | 26 | 32 | 2 | 3 | 10 | 16 |
| Kentucky..... | 134 | 199 | 222 | | 222 | 216 | 15 | 20 | 30 | 29 | 28 | 22 | 13 | 12 | 11 | 8 | 1 | 6 |
| New Jersey..... | 100 | 107 | 174 | | 174 | 185 | 4 | 10 | 17 | 13 | 13 | 12 | 11 | 9 | 6 | 4 | 3 | 1 |
| Michigan..... | 84 | 154 | 164 | | 164 | 168 | 6 | 9 | 19 | 18 | 14 | 8 | 6 | 4 | 3 | 2 | 1 | 3 |
| Maryland..... | 55 | 68 | 66 | | 66 | 82 | 1 | 2 | 11 | 16 | 18 | 20 | 9 | 3 | 5 | 3 | 1 | 1 |
| Virginia..... | 54 | 63 | 57 | | 57 | 56 | 4 | 7 | 10 | 12 | 11 | 10 | 8 | 5 | 4 | 5 | 2 | 4 |
| Wisconsin..... | 38 | 55 | 57 | | 57 | 56 | 2 | 5 | 10 | 15 | 2 | 8 | 2 | 3 | 1 | 3 | 1 | 2 |
| Nebraska..... | 32 | 36 | 35 | | 35 | 36 | 2 | 5 | 10 | 15 | 2 | 8 | 2 | 3 | 1 | 3 | 1 | 2 |
| Other States..... | 280 | 273 | 238 | | 238 | 265 | 20 | 46 | 53 | 26 | 24 | 16 | 13 | 11 | 9 | 12 | 10 | 25 |
| Total..... | 6, 821 | 7, 156 | 6, 543 | | 6, 543 | 6, 894 | 325 | 550 | 872 | 1, 115 | 871 | 838 | 550 | 490 | 427 | 328 | 208 | 320 |

PHILADELPHIA

| | | | | | | | | | | | | | | | | | |
|--------------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|----|-----|----|----|----|-----|
| Illinois..... | 274 | 312 | 304 | 254 | 28 | 21 | 29 | 42 | 25 | 29 | 21 | 15 | 15 | 16 | 9 | 16 | 14 |
| Missouri..... | 152 | 147 | 134 | 131 | 6 | 16 | 9 | 21 | 10 | 22 | 10 | 16 | 16 | 7 | 17 | 8 | 11 |
| Indiana..... | 149 | 125 | 103 | 98 | 2 | 5 | 4 | 21 | 20 | 11 | 10 | 9 | 9 | 7 | 4 | 3 | 3 |
| Ohio..... | 149 | 100 | 103 | 129 | 3 | 4 | 11 | 23 | 19 | 27 | 9 | 6 | 6 | 5 | 5 | 3 | 9 |
| Pennsylvania..... | 147 | 174 | 155 | 133 | 10 | 12 | 20 | 23 | 17 | 12 | 12 | 11 | 6 | 4 | 4 | 3 | (1) |
| Michigan..... | 145 | 163 | 148 | 123 | (1) | 1 | 5 | 26 | 32 | 21 | 12 | 4 | 3 | 3 | 4 | 3 | 3 |
| Virginia..... | 144 | 149 | 153 | 120 | 7 | 10 | 27 | 20 | 17 | 12 | 10 | 4 | 2 | 1 | 1 | 1 | 3 |
| Iowa..... | 71 | 80 | 106 | 109 | 2 | 2 | 5 | 23 | 16 | 16 | 10 | 3 | 2 | 1 | 1 | 1 | 3 |
| Maryland..... | 68 | 66 | 58 | 55 | 4 | 6 | 11 | 11 | 8 | 4 | 3 | 1 | 1 | 1 | 1 | 6 | 6 |
| Minnesota..... | 63 | 75 | 84 | 113 | 1 | 5 | 8 | 16 | 6 | 10 | 11 | 1 | 1 | 25 | 14 | 2 | 1 |
| Tennessee..... | 61 | 25 | 12 | 27 | 1 | 5 | 4 | 7 | 1 | 8 | 2 | 2 | 2 | 3 | 1 | 1 | 1 |
| Wisconsin..... | 48 | 70 | 45 | 43 | 1 | 9 | 4 | 8 | 3 | 4 | 2 | 1 | 1 | 2 | 2 | 2 | 2 |
| Delaware..... | 46 | 53 | 46 | 35 | 3 | 5 | 6 | 5 | 5 | 4 | 4 | 1 | 1 | 1 | 1 | 4 | 2 |
| West Virginia..... | 29 | 34 | 34 | 37 | (1) | 2 | 2 | 8 | 7 | 3 | 1 | 1 | 1 | 8 | 3 | 1 | 1 |
| New York..... | 27 | 26 | 31 | 17 | 2 | 4 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| New Jersey..... | 17 | 35 | 26 | 29 | 2 | 4 | 1 | 6 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| Nebraska..... | 15 | 36 | 15 | 17 | 1 | 3 | 5 | 3 | (1) | 2 | (1) | 1 | 1 | 1 | 1 | 6 | 3 |
| Other States..... | 98 | 57 | 48 | 92 | 4 | 11 | 10 | 30 | 7 | 4 | 13 | 2 | 2 | 4 | 2 | 1 | 4 |
| Total..... | 1,703 | 1,727 | 1,595 | 1,572 | 77 | 121 | 161 | 279 | 106 | 188 | 117 | 99 | 121 | 70 | 65 | 69 | 69 |

SAN FRANCISCO

| | | | | | | | | | | | | | | | | |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|-----|-----|-----|
| California..... | 824 | 825 | 737 | 686 | 52 | 47 | 73 | 79 | 64 | 72 | 62 | 55 | 50 | 44 | 41 | 47 |
| Oregon..... | 7 | 13 | 10 | 37 | (1) | (1) | 3 | 5 | 3 | 4 | 6 | 6 | 3 | 3 | 1 | 2 |
| Washington..... | 6 | 10 | 6 | 11 | 1 | 1 | 1 | (1) | 1 | 1 | 3 | 2 | 1 | 1 | 1 | 2 |
| Idaho..... | 1 | 6 | 3 | 3 | (1) | (1) | 1 | 1 | 1 | 1 | 1 | (1) | 1 | (1) | (1) | 1 |
| Other States..... | 1 | 1 | 4 | 3 | (1) | (1) | (1) | 1 | (1) | (1) | 1 | 1 | 1 | 1 | (1) | (1) |
| Total..... | 838 | 855 | 760 | 743 | 53 | 47 | 77 | 85 | 69 | 78 | 73 | 64 | 64 | 47 | 44 | 62 |

1 Not over 500 cases.

TABLE 631.—*Eggs: Receipts at six markets, by State of origin, 1922-1925—Con.*
(Thousand cases—l. e., omitted)

LOS ANGELES

| State | 1925 | | | | | | | | | | | | |
|-------------------|-------|------|------------------|------------------|------|------------------|------|------|------------------|-------|------------------|------------------|------|
| | Total | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| California..... | 456 | 34 | 37 | 57 | 63 | 65 | 47 | 36 | 27 | 18 | 24 | 22 | 26 |
| Idaho..... | 62 | | (¹) | 4 | 8 | 10 | 15 | 9 | 9 | 6 | (¹) | 1 | 1 |
| Oregon..... | 24 | 1 | (¹) | | 3 | 6 | 5 | 6 | (¹) | 1 | 1 | 1 | 1 |
| Utah..... | 16 | | (¹) | 1 | 1 | (¹) | 3 | 4 | 1 | 1 | 1 | 1 | 3 |
| Other States..... | 17 | 1 | | (¹) | | 3 | 4 | 5 | 2 | 1 | (¹) | (¹) | 1 |
| Total..... | 576 | 36 | 37 | 62 | 76 | 84 | 74 | 60 | 39 | 26 | 26 | 25 | 31 |

Division of Statistical and Historical Research. Compiled from monthly reports of the Division of Dairy and Poultry Products.

¹ Not over 500 cases.

TABLE 632.—*Case eggs¹: Cold-storage holdings, United States, 1915-1925*

(Thousand cases—l. e., 000 omitted)

| Year | Jan. 1 | Feb. 1 | Mar. 1 | Apr. 1 | May 1 | June 1 | July 1 | Aug. 1 | Sept. 1 | Oct. 1 | Nov. 1 | Dec. 1 |
|--------------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| 1915..... | | | | | | | | 5,029 | 5,683 | 5,019 | 3,687 | 2,788 |
| 1916..... | 1,508 | 458 | 35 | 264 | 2,327 | 4,563 | 5,574 | 6,060 | 5,600 | 4,868 | 3,985 | 2,146 |
| 1917..... | 920 | 149 | 7 | 190 | 2,105 | 4,922 | 6,617 | 6,895 | 6,436 | 5,837 | 4,638 | 2,948 |
| 1918..... | 1,300 | 200 | 20 | 344 | 2,967 | 5,499 | 6,554 | 6,568 | 6,265 | 5,369 | 3,812 | 2,071 |
| 1919..... | 1,740 | 130 | 26 | 320 | 3,278 | 6,098 | 7,650 | 7,850 | 7,685 | 6,858 | 5,067 | 3,341 |
| 1920..... | 1,542 | 342 | 29 | 122 | 2,135 | 5,143 | 6,747 | 6,872 | 6,372 | 5,205 | 3,638 | 1,824 |
| 1921..... | 408 | 43 | 43 | 1,926 | 4,909 | 6,844 | 7,534 | 7,605 | 7,210 | 6,289 | 4,880 | 2,403 |
| 1922..... | 889 | 179 | 13 | 950 | 4,648 | 8,056 | 9,811 | 10,161 | 9,608 | 7,924 | 5,726 | 3,257 |
| 1923..... | 1,311 | 213 | 13 | 453 | 3,737 | 7,890 | 10,222 | 10,509 | 9,883 | 8,737 | 6,645 | 4,028 |
| 1924..... | 1,927 | 500 | 44 | 579 | 3,563 | 6,875 | 8,685 | 9,267 | 8,778 | 7,409 | 5,267 | 3,102 |
| 1925..... | 1,050 | 81 | 21 | 1,240 | 4,872 | 7,712 | 9,482 | 10,024 | 9,873 | 8,612 | 6,322 | 3,796 |
| Av. 1921-1925..... | 1,117 | 203 | 27 | 1,030 | 4,346 | 7,475 | 9,147 | 9,513 | 9,070 | 7,790 | 5,668 | 3,315 |

Cold Storage Report Section.

¹ 30-dozen cases.

TABLE 633.—*Eggs: Estimated price per dozen, received by producers, United States, 1910-1925*

| Year beginning April | Apr. 15 | May 15 | June 15 | July 15 | Aug. 15 | Sept. 15 | Oct. 15 | Nov. 15 | Dec. 15 | Jan. 15 | Feb. 15 | Mar. 15 | Weighted av. |
|----------------------|------------|-----------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|------------|-----------------|
| | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1910..... | 18.6 | 18.4 | 18.2 | 17.9 | 18.5 | 20.9 | 23.8 | 27.2 | 26.7 | 26.2 | 19.3 | 15.7 | 19.3 |
| 1911..... | 14.8 | 14.6 | 14.4 | 14.8 | 16.4 | 18.7 | 21.8 | 26.1 | 29.1 | 29.3 | 26.8 | 21.2 | 18.2 |
| 1912..... | 17.4 | 16.9 | 16.7 | 17.0 | 18.2 | 20.6 | 24.0 | 27.8 | 28.2 | 24.8 | 21.1 | 17.9 | 18.9 |
| 1913..... | 15.9 | 16.5 | 16.8 | 16.4 | 17.7 | 21.3 | 26.0 | 31.3 | 32.9 | 29.8 | 25.3 | 22.2 | 19.8 |
| Av. 1910-1913..... | 16.7 | 16.6 | 16.5 | 16.5 | 17.7 | 20.4 | 23.9 | 28.1 | 30.0 | 27.5 | 23.1 | 19.2 | 19.0 |
| 1914..... | 16.4 | 16.9 | 17.2 | 17.5 | 19.1 | 22.5 | 23.7 | 28.2 | 31.9 | 31.7 | 23.7 | 16.5 | 19.3 |
| 1915..... | 16.6 | 16.5 | 16.1 | 16.3 | 17.3 | 20.6 | 24.6 | 29.4 | 31.1 | 28.8 | 24.2 | 18.2 | 19.0 |
| 1916..... | 17.7 | 18.5 | 18.9 | 19.9 | 21.6 | 25.3 | 30.4 | 34.9 | 38.3 | 38.1 | 35.7 | 25.3 | 23.3 |
| 1917..... | 28.5 | 30.2 | 29.9 | 29.0 | 30.5 | 35.8 | 38.5 | 41.2 | 45.9 | 48.9 | 45.8 | 30.9 | 33.0 |
| 1918..... | 30.4 | 30.6 | 29.5 | 33.0 | 35.2 | 39.1 | 44.9 | 51.7 | 59.3 | 55.3 | 34.8 | 33.9 | 34.9 |
| 1919..... | 36.0 | 38.9 | 36.1 | 37.9 | 40.6 | 43.1 | 51.0 | 59.1 | 66.6 | 60.9 | 48.5 | 40.5 | 41.8 |
| 1920..... | 36.6 | 37.5 | 35.9 | 37.8 | 42.5 | 48.6 | 54.6 | 62.9 | 67.1 | 54.5 | 31.0 | 26.8 | 39.3 |
| Av. 1914-1920..... | 26.0 | 27.0 | 26.2 | 27.3 | 29.5 | 33.6 | 38.2 | 43.9 | 49.0 | 45.5 | 34.8 | 27.4 | 30.1 |
| 1921..... | 20.5 | 19.4 | 20.1 | 24.3 | 28.9 | 30.9 | 39.4 | 50.0 | 51.1 | 31.7 | 31.4 | 19.5 | 25.2 |
| 1922..... | 20.0 | 20.9 | 20.2 | 20.3 | 20.5 | 27.3 | 34.6 | 43.6 | 47.2 | 37.8 | 29.9 | 25.4 | 24.7 |
| 1923..... | 21.6 | 21.8 | 20.9 | 21.3 | 23.6 | 29.8 | 34.6 | 45.6 | 46.5 | 35.4 | 33.6 | 20.4 | 25.2 |
| 1924..... | 19.1 | 19.8 | 21.1 | 22.8 | 26.1 | 31.8 | 38.2 | 45.8 | 49.9 | 48.6 | 35.7 | 23.9 | 26.1 |
| 1925..... | 24.2 | 24.8 | 26.1 | 27.9 | 30.0 | 31.1 | 37.7 | 46.8 | 48.1 | | | | |

Division of Crop and Livestock Estimates.

TABLE 634.—Eggs in the shell: International trade, average 1909–1913, annual 1922–1924

[Thousand dozens—1. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|---------|---------|------------------|---------|---------|------------------|---------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 2,351 | ----- | 317 | 3,557 | 1,903 | 3,336 | 3,003 | 4,555 |
| Austria..... | ----- | ----- | 1,661 | 41 | 9,564 | 26 | 17,203 | ----- |
| Austria-Hungary..... | 91,561 | 177,163 | ----- | ----- | ----- | ----- | ----- | ----- |
| China..... | 270 | 25,542 | 234 | 98,498 | 788 | 91,754 | 847 | 78,688 |
| Denmark..... | 2,243 | 34,340 | 414 | 61,258 | 578 | 66,003 | 1,215 | 60,374 |
| Finland..... | 2,899 | 3 | 11 | 324 | 228 | 35 | ----- | 58 |
| Italy..... | 4,104 | 33,482 | 2,534 | 13,363 | 3,621 | 13,173 | 4,005 | 38,345 |
| Netherlands..... | 19,542 | 29,360 | 1,392 | 13,087 | 964 | 19,874 | 6,839 | 49,386 |
| United States..... | 1,701 | 12,108 | 1,019 | 34,620 | 412 | 30,659 | 383 | 28,117 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Belgium..... | 19,148 | 11,521 | 9,506 | 1,181 | 5,458 | 5,365 | 2,675 | 13,819 |
| Canada..... | 6,341 | 148 | 5,141 | 3,619 | 6,623 | 2,900 | 4,981 | 2,717 |
| Cuba..... | 4,732 | ----- | 11,006 | 5,139 | 11,075 | ----- | 12,245 | 5,762 |
| France..... | 37,215 | 8,920 | 20,892 | ----- | 22,610 | 23,904 | 104,471 | 705 |
| Germany..... | 228,270 | 675 | 194 | 1,069 | 1,150 | 93 | 38,157 | ----- |
| Japan..... | 6,867 | 47,617 | ----- | ----- | 46,168 | ----- | 92 | 1,090 |
| Norway..... | 387 | 4 | 4,522 | 3 | 1,828 | 6 | 2,601 | 1,057 |
| Sweden..... | 4,207 | 3,781 | 2,519 | 814 | 3,101 | 1,135 | 16,874 | 12 |
| Switzerland..... | 19,747 | 48 | 14,633 | (¹) | 17,023 | 2 | 200,079 | 628 |
| United Kingdom..... | 190,015 | ----- | 135,670 | 38 | 200,003 | 349 | ----- | ----- |
| Total 10 countries..... | 641,609 | 337,095 | 262,282 | 236,611 | 333,697 | 250,304 | 415,030 | 294,313 |

Division of Statistical and Historical Research. Official sources.

¹ One year only.

² Less than 500 dozens.

TABLE 635.—Eggs, not in the shell: International trade, average 1909–1913, annual 1922–1924

[Thousand pounds—1. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|------------------|---------|---------|---------|------------------|------------------|---------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Austria-Hungary..... | 1,100 | 188 | ----- | ----- | ----- | ----- | ----- | ----- |
| China..... | ----- | 17,217 | ----- | 94,455 | ----- | 100,387 | ----- | 94,712 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Denmark..... | 526 | 16 | 557 | 2 | 674 | 3 | 782 | 20 |
| France..... | 1,967 | 426 | 3,283 | 12 | 4,853 | 43 | 5,657 | 99 |
| Germany..... | 11,214 | 3,225 | 9,717 | 1,362 | 6,417 | 1,350 | 10,254 | 1,006 |
| Italy..... | 381 | 4 | 1,056 | 6 | 949 | 1 | 1,348 | 12 |
| Netherlands..... | ----- | ----- | 2,247 | 796 | 2,833 | 3,582 | 5,485 | 5,593 |
| Sweden..... | 255 | (¹) | 318 | 12 | 527 | (¹) | 560 | 7 |
| United Kingdom..... | (¹) | (¹) | 41,875 | 452 | 51,060 | 619 | 48,461 | 653 |
| United States..... | ----- | ----- | 24,809 | 718 | 28,300 | 328 | 19,722 | 505 |
| Total 10 countries..... | 15,443 | 21,066 | 84,862 | 97,815 | 90,643 | 106,313 | 92,269 | 103,207 |

Division of Statistical and Historical Research. Official sources.

¹ Three-year average.

² Two-year average.

³ Less than 500 pounds.

⁴ Not separately stated.

TABLE 636.—Eggs: Average price per dozen at certain cities, 1910–1925

WESTERN FIRSTS AT BOSTON

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | \$0.32 | \$0.27 | \$0.23 | \$0.22 | \$0.21 | \$0.20 | \$0.19 | \$0.21 | \$0.24 | \$0.26 | \$0.30 | \$0.32 | \$0.25 |
| 1911..... | .27 | .19 | .17 | .17 | .17 | .16 | .18 | .18 | .20 | .25 | .29 | .33 | .21 |
| 1912..... | .33 | .36 | .22 | .21 | .20 | .19 | .20 | .21 | .25 | .28 | .31 | .30 | .26 |
| 1913..... | .26 | .24 | .20 | .20 | .21 | .20 | .18 | .23 | .28 | .30 | .40 | .36 | .26 |
| 1914..... | .33 | .30 | .25 | .20 | .21 | .20 | .21 | .23 | .25 | .26 | .34 | .38 | .26 |
| 1915..... | .36 | .27 | .20 | .21 | .20 | .19 | .19 | .20 | .25 | .28 | .32 | .34 | .25 |
| 1916..... | .31 | .27 | .23 | .22 | .23 | .23 | .24 | .27 | .31 | .34 | .40 | .46 | .29 |
| 1917..... | .45 | .43 | .31 | .34 | .36 | .33 | .34 | .37 | .41 | .41 | .49 | .56 | .40 |
| 1918..... | .63 | .67 | .38 | .36 | .36 | .35 | .41 | .42 | .46 | .54 | .65 | .68 | .48 |
| 1919..... | .63 | .45 | .42 | .44 | .47 | .43 | .45 | .48 | .47 | .61 | .67 | .80 | .52 |
| 1920..... | .71 | .60 | .48 | .45 | .45 | .43 | .45 | .50 | .55 | .62 | .76 | .80 | .57 |
| Av. 1914–1920..... | .49 | .41 | .32 | .32 | .32 | .31 | .33 | .35 | .39 | .44 | .52 | .57 | .40 |
| 1921..... | .68 | .43 | .31 | .27 | .25 | .26 | .32 | .34 | .38 | .49 | .60 | .54 | .41 |
| 1922..... | .42 | .40 | .26 | .26 | .27 | .25 | .24 | .25 | .38 | .44 | .53 | .55 | .35 |
| 1923..... | .43 | .38 | .31 | .28 | .27 | .25 | .25 | .28 | .33 | .40 | .55 | .58 | .35 |
| 1924..... | .44 | .38 | .25 | .24 | .26 | .27 | .28 | .32 | .37 | .44 | .62 | .58 | .36 |
| 1925..... | .60 | .42 | .31 | .30 | .32 | .32 | .33 | .33 | .37 | .44 | .66 | .51 | .40 |
| Av. 1921–1925..... | .51 | .40 | .29 | .27 | .27 | .27 | .28 | .30 | .37 | .44 | .55 | .53 | .37 |

FRESH FIRSTS AT NEW YORK

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | \$0.38 | \$0.27 | \$0.23 | \$0.22 | \$0.21 | \$0.20 | \$0.18 | \$0.21 | \$0.24 | \$0.26 | \$0.31 | \$0.34 | \$0.25 |
| 1911..... | .28 | .19 | .17 | .17 | .17 | .15 | .17 | .18 | .21 | .24 | .32 | .35 | .22 |
| 1912..... | .34 | .36 | .22 | .20 | .19 | .19 | .20 | .21 | .24 | .26 | .31 | .29 | .25 |
| 1913..... | .24 | .22 | .19 | .19 | .20 | .19 | .19 | .23 | .27 | .29 | .39 | .36 | .25 |
| 1914..... | .33 | .29 | .26 | .20 | .20 | .21 | .21 | .24 | .26 | .27 | .35 | .38 | .27 |
| 1915..... | .38 | .26 | .20 | .21 | .20 | .20 | .20 | .22 | .26 | .30 | .35 | .34 | .26 |
| 1916..... | .31 | .26 | .22 | .22 | .22 | .23 | .25 | .29 | .33 | .34 | .41 | .46 | .30 |
| 1917..... | .46 | .45 | .31 | .34 | .35 | .33 | .34 | .38 | .41 | .41 | .49 | .57 | .40 |
| 1918..... | .65 | .58 | .38 | .35 | .35 | .36 | .41 | .43 | .47 | .53 | .65 | .67 | .40 |
| 1919..... | .62 | .44 | .44 | .43 | .46 | .44 | .46 | .48 | .51 | .62 | .69 | .79 | .53 |
| 1920..... | .71 | .59 | .48 | .44 | .44 | .43 | .47 | .51 | .57 | .64 | .77 | .78 | .57 |
| Av. 1914–1920..... | .49 | .41 | .33 | .31 | .32 | .31 | .33 | .36 | .40 | .44 | .53 | .57 | .40 |
| 1921..... | .67 | .42 | .31 | .27 | .25 | .27 | .33 | .35 | .39 | .49 | .68 | .54 | .41 |
| 1922..... | .41 | .38 | .25 | .26 | .27 | .25 | .24 | .26 | .39 | .43 | .53 | .53 | .35 |
| 1923..... | .42 | .37 | .31 | .27 | .27 | .24 | .25 | .29 | .35 | .39 | .53 | .47 | .35 |
| 1924..... | .42 | .39 | .25 | .24 | .25 | .27 | .29 | .33 | .39 | .44 | .62 | .57 | .36 |
| 1925..... | .59 | .44 | .30 | .29 | .32 | .33 | .33 | .33 | .37 | .43 | .66 | .51 | .40 |
| Av. 1921–1925..... | .50 | .40 | .28 | .27 | .27 | .27 | .29 | .31 | .38 | .44 | .54 | .52 | .37 |

WESTERN EXTRA FIRSTS AT PHILADELPHIA

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | \$0.36 | \$0.29 | \$0.23 | \$0.22 | \$0.22 | \$0.21 | \$0.22 | \$0.24 | \$0.26 | \$0.29 | \$0.33 | \$0.37 | \$0.27 |
| 1911..... | .28 | .21 | .18 | .18 | .18 | .17 | .18 | .20 | .23 | .27 | .34 | .33 | .23 |
| 1912..... | .34 | .36 | .23 | .21 | .20 | .21 | .22 | .23 | .26 | .30 | .34 | .31 | .27 |
| 1913..... | .26 | .23 | .19 | .19 | .21 | .21 | .22 | .27 | .30 | .33 | .39 | .37 | .26 |
| 1914..... | .34 | .28 | .27 | .20 | .21 | .22 | .22 | .26 | .28 | .30 | .35 | .40 | .28 |
| 1915..... | .39 | .27 | .20 | .21 | .20 | .20 | .20 | .23 | .27 | .32 | .39 | .36 | .27 |
| 1916..... | .31 | .26 | .23 | .22 | .23 | .24 | .26 | .29 | .33 | .36 | .41 | .45 | .30 |
| 1917..... | .47 | .45 | .31 | .35 | .36 | .35 | .36 | .39 | .42 | .42 | .48 | .56 | .41 |
| 1918..... | .62 | .61 | .37 | .37 | .36 | .39 | .43 | .46 | .50 | .56 | .67 | .69 | .50 |
| 1919..... | .63 | .44 | .41 | .44 | .47 | .45 | .61 | .62 | .64 | .65 | .73 | .80 | .55 |
| 1920..... | .73 | .62 | .49 | .44 | .45 | .47 | .60 | .64 | .60 | .67 | .81 | .80 | .59 |
| Av. 1914–1920..... | .60 | .42 | .32 | .32 | .33 | .33 | .35 | .38 | .42 | .47 | .55 | .58 | .41 |
| 1921..... | .66 | .43 | .33 | .28 | .25 | .28 | .35 | .39 | .41 | .53 | .64 | .57 | .43 |
| 1922..... | .42 | .40 | .29 | .27 | .27 | .27 | .26 | .27 | .39 | .48 | .59 | .56 | .37 |
| 1923..... | .43 | .38 | .31 | .28 | .29 | .27 | .29 | .33 | .42 | .43 | .62 | .52 | .38 |
| 1924..... | .43 | .40 | .24 | .25 | .27 | .29 | .31 | .37 | .46 | .52 | .61 | .63 | .40 |
| 1925..... | .60 | .42 | .32 | .31 | .33 | .35 | .37 | .36 | .42 | .51 | .63 | .51 | .43 |
| Av. 1921–1925..... | .51 | .41 | .29 | .26 | .28 | .29 | .32 | .34 | .42 | .49 | .62 | .56 | .40 |

TABLE 636.—Eggs: Average price per dozen at certain cities, 1910-1925—
Continued

FRESH FIRSTS AT CHICAGO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | \$0.34 | \$0.20 | \$0.21 | \$0.20 | \$0.19 | \$0.18 | \$0.16 | \$0.18 | \$0.22 | \$0.24 | \$0.28 | \$0.30 | \$0.23 |
| 1911..... | .26 | .18 | .16 | .15 | .15 | .13 | .14 | .16 | .18 | .21 | .28 | .29 | .19 |
| 1912..... | .33 | .32 | .21 | .19 | .18 | .17 | .18 | .19 | .22 | .24 | .26 | .25 | .23 |
| 1913..... | .24 | .21 | .18 | .18 | .18 | .18 | .17 | .21 | .24 | .26 | .33 | .33 | .23 |
| 1914..... | .32 | .27 | .22 | .18 | .19 | .18 | .19 | .21 | .22 | .23 | .28 | .32 | .23 |
| 1915..... | .34 | .25 | .18 | .19 | .18 | .17 | .17 | .19 | .23 | .26 | .29 | .29 | .23 |
| 1916..... | .29 | .24 | .19 | .20 | .21 | .21 | .22 | .24 | .28 | .31 | .36 | .39 | .26 |
| 1917..... | .41 | .42 | .28 | .32 | .34 | .31 | .32 | .34 | .37 | .37 | .43 | .48 | .37 |
| 1918..... | .58 | .51 | .35 | .33 | .32 | .32 | .37 | .38 | .43 | .50 | .61 | .62 | .44 |
| 1919..... | .58 | .38 | .39 | .40 | .43 | .46 | .42 | .42 | .46 | .57 | .63 | .73 | .48 |
| 1920..... | .65 | .52 | .45 | .41 | .41 | .39 | .42 | .47 | .53 | .57 | .68 | .71 | .52 |
| Av. 1914-1920..... | .45 | .37 | .29 | .29 | .30 | .28 | .30 | .32 | .36 | .40 | .47 | .51 | .36 |
| 1921..... | .60 | .35 | .27 | .24 | .22 | .24 | .28 | .30 | .33 | .44 | .52 | .51 | .36 |
| 1922..... | .37 | .32 | .23 | .23 | .24 | .22 | .21 | .22 | .29 | .35 | .48 | .48 | .30 |
| 1923..... | .38 | .33 | .26 | .25 | .24 | .23 | .23 | .26 | .31 | .35 | .48 | .42 | .31 |
| 1924..... | .41 | .35 | .22 | .22 | .24 | .25 | .26 | .30 | .36 | .41 | .48 | .52 | .34 |
| 1925..... | .56 | .39 | .29 | .27 | .30 | .30 | .31 | .34 | .34 | .42 | .53 | .44 | .37 |
| Av. 1921-1925..... | .40 | .35 | .25 | .24 | .25 | .25 | .26 | .28 | .33 | .39 | .50 | .47 | .34 |

FRESH EXTRAS AT SAN FRANCISCO

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1910..... | \$0.34 | \$0.26 | \$0.21 | \$0.24 | \$0.25 | \$0.27 | \$0.30 | \$0.35 | \$0.41 | \$0.47 | \$0.54 | \$0.40 | \$0.34 |
| 1911..... | .31 | .25 | .19 | .19 | .21 | .21 | .26 | .31 | .38 | .46 | .51 | .40 | .31 |
| 1912..... | .33 | .24 | .20 | .21 | .21 | .22 | .25 | .29 | .38 | .44 | .48 | .34 | .30 |
| 1913..... | .28 | .21 | .18 | .19 | .20 | .24 | .27 | .32 | .39 | .50 | .57 | .47 | .32 |
| 1914..... | .40 | .27 | .20 | .22 | .23 | .24 | .28 | .33 | .40 | .47 | .48 | .46 | .33 |
| 1915..... | .31 | .23 | .21 | .22 | .23 | .23 | .25 | .31 | .36 | .46 | .51 | .41 | .31 |
| 1916..... | .53 | .26 | .20 | .22 | .23 | .25 | .27 | .33 | .39 | .47 | .50 | .40 | .32 |
| 1917..... | .38 | .32 | .26 | .31 | .34 | .31 | .35 | .43 | .46 | .53 | .57 | .52 | .40 |
| 1918..... | .63 | .46 | .39 | .40 | .40 | .43 | .48 | .55 | .62 | .75 | .82 | .80 | .56 |
| 1919..... | .61 | .41 | .42 | .48 | .52 | .52 | .54 | .59 | .69 | .78 | .87 | .78 | .60 |
| 1920..... | .64 | .49 | .44 | .44 | .46 | .47 | .57 | .60 | .72 | .83 | .87 | .78 | .61 |
| Av. 1914-1920..... | .47 | .35 | .30 | .33 | .34 | .35 | .39 | .45 | .52 | .61 | .66 | .59 | .45 |
| 1921..... | .60 | .37 | .33 | .29 | .26 | .29 | .41 | .45 | .52 | .65 | .68 | .57 | .45 |
| 1922..... | .39 | .30 | .26 | .28 | .27 | .28 | .29 | .33 | .38 | .64 | .61 | .52 | .39 |
| 1923..... | .38 | .28 | .24 | .27 | .27 | .28 | .27 | .34 | .38 | .44 | .43 | .43 | .33 |
| 1924..... | .34 | .26 | .23 | .23 | .23 | .29 | .31 | .35 | .41 | .45 | .47 | .45 | .34 |
| 1925..... | .48 | .28 | .31 | .29 | .32 | .35 | .36 | .38 | .41 | .47 | .45 | .41 | .38 |
| Av. 1921-1925..... | .44 | .30 | .27 | .27 | .27 | .30 | .33 | .37 | .44 | .53 | .63 | .48 | .38 |

Division of Statistical and Historical Research. Average of daily prices from New York Journal of Commerce, Philadelphia Commercial List, and Price Current and Chicago Dairy Produce; average of weekly prices in reports of the Boston Chamber of Commerce and Pacific Dairy Review.

SILK

TABLE 637.—*Raw silk: Production in specified countries, average 1909–1913, annual 1917–1924*

[Thousand pounds—i. e., 000 omitted]

| Country | Average 1909–1913 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 |
|---|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| WESTERN EUROPE | | | | | | | | | |
| Italy..... | 8,524 | 6,217 | 5,942 | 4,079 | 7,330 | 7,154 | 8,234 | 10,903 | 11,585 |
| France..... | 992 | 432 | 829 | 408 | 551 | 430 | 437 | 562 | 739 |
| Spain..... | 182 | 154 | 165 | 154 | 176 | 132 | 170 | 154 | 200 |
| Total..... | 9,698 | 6,823 | 6,936 | 4,641 | 8,057 | 7,716 | 8,841 | 11,519 | 12,533 |
| Eastern Europe, Levant and Central Asia..... | 6,611 | 2,624 | 2,624 | 2,039 | 1,653 | 1,213 | 1,543 | 1,675 | 2,414 |
| FAR EAST | | | | | | | | | |
| China: | | | | | | | | | |
| Exports from Shanghai..... | 12,576 | 10,097 | 10,251 | 8,598 | 7,859 | 8,840 | 10,648 | 9,689 | 10,505 |
| Exports from Canton..... | 5,146 | 5,170 | 4,134 | 5,071 | 4,167 | 5,688 | 7,000 | 5,974 | 6,504 |
| Japan—Exports from Yokohama..... | 21,898 | 34,050 | 31,416 | 32,188 | 24,008 | 40,984 | 41,546 | 58,107 | 54,068 |
| British India—Exports from Bengal and Cashmere..... | 428 | 232 | 242 | 220 | 176 | 187 | 165 | 110 | 77 |
| Indo-China—Exports from Saigon, Haiphong, etc..... | 32 | 11 | 11 | 11 | 33 | 44 | 55 | 88 | 99 |
| Total..... | 40,080 | 49,560 | 46,054 | 46,088 | 36,243 | 55,743 | 59,414 | 53,968 | 71,253 |
| Grand total..... | 56,389 | 59,007 | 55,314 | 52,768 | 45,953 | 64,672 | 69,796 | 67,162 | 86,200 |

Division of Statistical and Historical Research. Compiled from *Statistique de la Production de la Soie*, Silk Merchants Union, Lyon, France.¹ Includes Hungary, Czechoslovakia, Yugoslavia, Rumania, Bulgaria, Greece, Salonika, Adrianople, Crete, the Caucasus, Anatolia, Turkistan, Central Asia, Syria, Cyprus, and Persia.² For years 1911–1913.TABLE 638.—*Silk, Japanese, filatures, Kansai No. 1: Average wholesale price per pound, New York, 1909–1925*

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average ¹ |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|----------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1909..... | 4.098 | 4.195 | 4.244 | 4.195 | 3.807 | 3.759 | 3.856 | 3.602 | 3.662 | 3.662 | 3.516 | 3.419 | 3.840 |
| 1910..... | 3.516 | 3.468 | 3.322 | 3.419 | 3.516 | 3.419 | 3.419 | 3.371 | 3.419 | 3.613 | 3.856 | 3.953 | 3.524 |
| 1911..... | 3.795 | 3.795 | 3.659 | 3.480 | 3.407 | 3.407 | 3.359 | 3.310 | 3.419 | 3.274 | 3.274 | (²) | ..... |
| 1912..... | 3.322 | 3.346 | 3.444 | 3.444 | 3.444 | 3.395 | 3.322 | 3.444 | 3.589 | 3.696 | 3.492 | 3.414 | 3.445 |
| 1913..... | 3.468 | 3.492 | 3.393 | 3.492 | 3.444 | 3.613 | 3.613 | 4.050 | 4.026 | 3.759 | 3.686 | 3.638 | 3.640 |
| A. v. 1909–1913..... | 3.640 | 3.659 | 3.613 | 3.606 | 3.524 | 3.519 | 3.514 | 3.567 | 3.623 | 3.599 | 3.565 | 3.606 | ..... |
| 1914..... | 3.832 | 3.977 | 4.026 | 3.977 | 4.074 | 4.074 | 3.977 | 3.953 | 3.468 | 3.201 | 2.910 | 2.862 | 3.694 |
| 1915..... | 2.910 | 3.177 | 3.031 | 3.201 | 3.201 | 3.201 | 3.007 | 3.080 | 3.322 | 3.322 | 3.783 | 4.583 | 3.318 |
| 1916..... | 4.462 | 4.996 | 5.432 | 4.777 | 4.462 | 4.363 | 4.527 | 4.874 | 4.704 | 4.996 | 5.432 | 5.384 | 4.887 |
| 1917..... | 5.335 | 5.141 | 4.947 | 5.384 | 5.287 | 5.675 | 5.675 | 6.645 | 6.063 | 5.432 | 5.432 | 5.063 | 5.494 |
| 1918..... | 5.384 | 5.481 | 5.481 | 5.772 | 6.160 | 6.160 | 6.887 | 6.790 | 6.887 | 6.742 | 6.984 | 6.548 | 6.273 |
| 1919..... | 5.675 | 5.772 | 6.063 | 6.645 | 7.663 | 9.603 | 9.749 | 8.827 | 9.506 | 11.058 | 12.368 | 13.629 | 8.880 |
| 1920..... | 16.975 | 14.065 | 12.908 | 9.506 | 6.305 | 6.451 | 4.008 | 4.705 | 6.321 | 5.978 | 5.782 | 5.685 | 8.277 |
| A. v. 1914–1920..... | 6.368 | 6.087 | 5.907 | 5.609 | 5.307 | 5.647 | 5.490 | 5.553 | 5.758 | 5.818 | 6.099 | 6.248 | 5.829 |
| 1921..... | 5.782 | 5.738 | 5.880 | 5.782 | 5.635 | 5.733 | 5.733 | 5.390 | 5.978 | 6.027 | 7.154 | 7.596 | 6.035 |
| 1922..... | 6.762 | 6.566 | 6.027 | 6.517 | 7.203 | 7.801 | 7.056 | 7.105 | 7.644 | 8.330 | 7.889 | 8.232 | 7.219 |
| 1923..... | 6.183 | 6.771 | 6.624 | 6.319 | 6.428 | 7.083 | 7.154 | 7.850 | 9.800 | 7.840 | 7.840 | 7.742 | 8.228 |
| 1924..... | 7.350 | 6.860 | 6.223 | 6.335 | 4.802 | 4.988 | 5.390 | 6.076 | 5.439 | 5.733 | 6.174 | 6.821 | 6.917 |
| 1925..... | 6.076 | 6.223 | 5.831 | 5.978 | 6.174 | 6.370 | 6.321 | 6.498 | 6.616 | 6.664 | 6.566 | 6.511 | 6.341 |
| A. v. 1921–1925..... | 6.581 | 6.581 | 6.517 | 6.644 | 6.445 | 6.419 | 6.331 | 6.475 | 7.095 | 6.919 | 7.125 | 7.240 | 6.745 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

¹ Derived from the figures upon which the monthly averages are based.² No quotations.

HONEY

TABLE 639.—Honey: Monthly average prices in producing sections and at consuming markets, 1920-1925

EXTRACTED HONEY, PER POUND

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CALIFORNIA WHITE ORANGE | | | | | | | | | | | | |
| F. o. b. Southern California shipping points: ¹ | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents | Cents |
| 1920 | 18½ | 18½ | 17¾ | 17¼ | 21 | 10¾ | 10¾ | 10¾ | 18½ | 18½ | 17¾ | 16¾ |
| 1921 | 16¼ | 13¾ | 13 | 12 | 11¼ | 11¼ | 9¼ | 10½ | 11 | 11¼ | 12¼ | 11¼ |
| 1922 | 11¾ | 11½ | 11 | | 8¼ | 9 | 9¼ | 9½ | 9½ | 10¼ | 10¾ | 10¾ |
| 1923 | 10¼ | 10½ | 10¼ | 10¼ | 11¼ | | 12 | | | | | 13¼ |
| 1924 | 13 | 14 | 14½ | 14½ | 11½ | 13¼ | 12 | 12½ | 13 | 13¼ | 14½ | 14¼ |
| 1925 | 14¼ | | 15 | | 13½ | 13 | 11¾ | 11¾ | | 14½ | 15½ | |
| New York City: ¹ | | | | | | | | | | | | |
| 1920 | 20¾ | 18¾ | 17½ | 19¼ | 20 | 21¼ | 18 | 17¼ | 18¾ | 17 | 17 | 16¾ |
| 1921 | 17½ | 14¾ | 12¼ | 11 | 11½ | 12 | 11½ | 11 | 12¼ | 12¾ | 12¾ | 12¾ |
| 1922 | 13½ | 13 | 13¼ | 12½ | 13 | 12 | 11¼ | 11¼ | 11¼ | 12 | 12½ | 12¾ |
| 1923 | 12¾ | 12¾ | 12¾ | 12¾ | 13 | 13½ | 13¾ | 13¾ | 14½ | 14 | 15 | 16 |
| 1924 | 15½ | 16 | 15 | 16½ | 16½ | 13½ | 14½ | | | 13¾ | 13¾ | |
| 1925 | | | | | | 14¼ | | 14¼ | 14¼ | 13¾ | 14 | 14½ |
| INTERMOUNTAIN WHITE SWEET CLOVER AND ALFALFA | | | | | | | | | | | | |
| F. o. b. Intermountain points: ² | | | | | | | | | | | | |
| 1921 | | | | 8¼ | 7¾ | 7¼ | 7¼ | 7¼ | 7¾ | 7¾ | 8 | 8¼ |
| 1922 | 8½ | 8½ | 8¼ | 8½ | 8½ | 8½ | 9¼ | | 8 | 8 | 8 | 8 |
| 1923 | 7¾ | 8 | 7¾ | 7¼ | 7¼ | 7¾ | 8½ | 8½ | 8 | 9 | 9 | 9 |
| 1924 | 9 | 9¼ | 9¼ | 9¼ | 9¼ | 9 | 8¾ | 9 | 9 | 9 | 9 | 9¼ |
| 1925 | 9½ | 9¼ | 9¼ | 9¼ | 9 | | 8½ | 8½ | 8½ | 8½ | 8½ | 8½ |
| Chicago: ³ | | | | | | | | | | | | |
| 1921 | 14¾ | 13¾ | 12 | 12¼ | 11¼ | 9¾ | 9¾ | 10¼ | 10 | 11 | 11 | 11¼ |
| 1922 | 11¼ | 11 | 10¾ | 10¾ | 10¾ | 10¾ | 10¼ | 10 | 10 | 10¼ | 10¼ | 9¼ |
| 1923 | 9½ | 9 | 10 | 10 | 10 | 10¾ | 10¾ | 10¾ | 10¾ | 11¼ | 11¼ | 11¼ |
| 1924 | 11¼ | 11¼ | 11¼ | 11¼ | 11 | | | 10¾ | 11 | 11¼ | 11¼ | 11 |
| 1925 | 11 | 11 | 11 | 11¼ | | | | | | 11 | 11 | 11 |
| NORTHEASTERN AND CENTRAL WHITE CLOVER | | | | | | | | | | | | |
| F. o. b. Clover Belt points: ⁴ | | | | | | | | | 9¾ | 9¾ | 9¾ | 10¾ |
| 1921 | | | | | | | | | | | | |
| 1922 | 10½ | 10 | 10¾ | 10¾ | 10½ | 11½ | 11½ | 11 | 11 | 11 | 10¾ | 11 |
| 1923 | 11 | 10¾ | 10 | 10 | 10¾ | 11 | 11 | 11½ | 11½ | 10¾ | 10¾ | 10¾ |
| 1924 | 10¾ | 10¾ | 10¾ | 11 | 11 | 10¾ | 10¾ | 11 | 10¾ | 10¾ | 11¼ | 11 |
| 1925 | 11¼ | 11¼ | 11¼ | 11¼ | 11½ | 11½ | 11½ | 10¾ | 11 | 11 | 10¾ | 10¾ |
| Chicago: ³ | | | | | | | | | | | | |
| 1921 | | | | | | | | | 11¾ | 12¼ | 12¼ | 12¼ |
| 1922 | 11¾ | 11¾ | 11¼ | 11 | 11¼ | 12 | | 10¾ | 10¾ | 11¼ | 11¼ | 10¾ |
| 1923 | 10 | 9½ | 9½ | 9¾ | 10½ | | 10½ | 10¾ | 11½ | 11½ | 12 | 11¾ |
| 1924 | 12¼ | 10¾ | 10¾ | 11 | 11¼ | 10¾ | 10¾ | 11¼ | 11½ | 12 | 12 | 12 |
| 1925 | 11½ | 11½ | 11½ | 11¼ | 11½ | 11¼ | 11¼ | 11 | 11 | 10¾ | 11½ | 11¼ |
| NORTHEASTERN BUCKWHEAT | | | | | | | | | | | | |
| F. o. b. New York and Pennsylvania points: ⁴ | | | | | | | | | 9 | 8¼ | 7½ | 8 |
| 1921 | | | | | | | | | | | | |
| 1922 | 7 | 8 | 7½ | 7½ | | 8 | 8¼ | 6½ | 7¾ | 8 | 8 | 8 |
| 1923 | 7¾ | 8 | 8½ | | | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| 1924 | 9 | 9 | 8½ | 8¼ | 8½ | 8½ | 8¼ | | 9 | 9¼ | 9 | 9 |
| 1925 | 8¼ | 9 | 10 | 9 | | | | 9¼ | 9 | 8½ | 8½ | 8¼ |

¹ Price to beekeepers or other shippers in car lots to July, 1923; thereafter, price in large lots, mostly less than car lots.

² Sales by original receivers to bottlers, confectioners, bakers, and jobbers.

³ Price to beekeepers and other shippers, in car lots.

⁴ Price to beekeepers in large lots, mostly less than car lots.

TABLE 639.—Honey: Monthly average prices in producing sections and at consuming markets, 1920-1925—Continued.

COMB HONEY, 24-SECTION CASES

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| NORTHEASTERN AND CENTRAL WHITE CLOVER COMB, NO. 1 AND FANCY | | | | | | | | | | | | |
| F. o. b. Clover Belt points: ¹ | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1921..... | | | | | | | | | | | | |
| 1922..... | 5.00 | 5.10 | 5.00 | 4.50 | | | 4.45 | 5.00 | 5.10 | 5.00 | 5.10 | 4.65 |
| 1923..... | 4.75 | 4.75 | | | 4.00 | | 5.00 | 5.00 | 5.25 | 5.10 | 4.75 | 5.15 |
| 1924..... | 4.75 | 4.75 | 5.05 | 4.80 | 5.50 | | 4.80 | 4.85 | 4.95 | 4.80 | 5.10 | 4.95 |
| 1925..... | 4.95 | 4.95 | 4.75 | 4.90 | 5.25 | 4.50 | 5.10 | 5.20 | 5.00 | 5.00 | 4.65 | 4.45 |
| Chicago:² | | | | | | | | | | | | |
| 1921..... | 6.75 | 6.50 | 6.75 | 7.00 | 6.60 | 6.40 | 6.25 | 6.60 | 6.00 | 6.10 | 6.00 | 5.50 |
| 1922..... | 6.25 | 5.25 | | 4.75 | | 5.10 | | | 4.10 | 4.50 | 4.25 | 4.50 |
| 1923..... | 4.10 | 4.00 | 4.00 | 4.00 | 4.25 | 4.25 | 4.25 | 4.40 | 4.75 | 4.75 | 4.80 | 4.90 |
| 1924..... | 4.90 | 4.75 | 4.60 | 5.00 | 4.75 | 4.60 | 4.75 | 5.00 | 5.10 | 5.00 | 4.90 | 4.75 |
| 1925..... | 4.50 | 4.25 | 4.40 | 4.60 | 4.50 | 4.50 | 4.60 | 4.40 | 4.40 | 4.50 | 4.25 | 4.10 |

Fruit and Vegetable Division.

¹ Price to beekeepers in large lots, mostly less than car lots.² Sales by original receivers to retailers.

BEESWAX

TABLE 640.—Beeswax: Monthly average price per pound in producing sections and at Chicago, 1920-1925

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| F. O. B. PRODUCING SECTIONS¹ | | | | | | | | | | | | |
| Southern California (average yellow to light): | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1921..... | 35 | 34 | 30 | | 27 | 28 | 25 | 23½ | 21 | 21 | 23 | 22½ |
| 1922..... | | 22 | 22 | | 22 | 22 | 22½ | 20 | 20 | 21 | 23½ | 23½ |
| 1923..... | 26 | 27½ | 27 | 28 | 28 | 27 | | | | | 21 | 22 |
| 1924..... | 23 | 23½ | 23½ | 22 | 22½ | 22½ | 21 | 22½ | 23 | 24 | 23 | 24½ |
| 1925..... | 26 | 27 | 28½ | 29½ | 29½ | 28 | 29 | 28 | 28 | 28½ | 30½ | 34½ |
| Intermountain region (average yellow to light): | | | | | | | | | | | | |
| 1921..... | 35½ | | 32 | | 30 | | 28 | | 23 | 23 | 22 | 23½ |
| 1922..... | 22 | 23 | 23 | | 22 | | 22½ | 20 | 20 | 22 | 22½ | 24 |
| 1923..... | 25 | 26 | 26 | 25½ | 26 | 24½ | 24 | 25 | 24½ | 24½ | 24 | 24 |
| 1924..... | 23½ | 23½ | 23½ | 23 | 22½ | 22½ | 22½ | 21½ | 20½ | 22½ | 22½ | 24 |
| 1925..... | 25 | 25½ | 27 | 30 | 30 | 29½ | 30 | 28 | 28 | 30 | 32 | 34 |
| Chicago:² | | | | | | | | | | | | |
| Light— | | | | | | | | | | | | |
| 1920..... | 44 | 41½ | 42½ | 43½ | 45½ | 44 | 43½ | 41 | 40 | 40½ | 37 | 34½ |
| 1921..... | 31½ | 31½ | 30½ | 31 | 32½ | 31½ | 31½ | 29 | 29 | 30½ | 30½ | 31 |
| 1922..... | 31 | 31 | 29½ | 28½ | 33 | 31½ | 31½ | 30½ | 31 | 31½ | 31½ | 30½ |
| 1923..... | 30½ | 31½ | 32 | 32½ | 32 | 32 | 31 | 29 | 30 | 30 | 29 | 29½ |
| 1924..... | 29½ | 28½ | 29 | 31½ | 28½ | 27½ | 27 | 27 | 29 | 32½ | 32½ | 33½ |
| 1925..... | 35 | 35 | 38 | 41½ | 38 | 35 | 33½ | 33½ | 34 | 37½ | 38 | 38 |
| Dark— | | | | | | | | | | | | |
| 1920..... | 38½ | 36½ | 39 | 40½ | 42 | 40½ | 39½ | 37 | 35½ | 36½ | 34½ | 32½ |
| 1921..... | 29½ | 28½ | 27½ | 25½ | 25½ | 27½ | 26½ | 25½ | 26½ | 27 | 27½ | 27½ |
| 1922..... | 28½ | 28 | 24½ | 25½ | 29 | 28 | 29 | 28 | 27½ | 28 | 27½ | 27½ |
| 1923..... | 28 | 28½ | 28½ | 28½ | 29 | 29½ | 28½ | 25½ | 26½ | 26 | 26 | 24 |
| 1924..... | 26 | 26½ | 26 | 27 | 25½ | 25½ | 25½ | 24½ | 26 | 29 | 28 | 27½ |
| 1925..... | 31 | 31 | 33½ | 36½ | 34 | 29½ | 29½ | 29½ | 29½ | 34½ | 34 | 34 |

Fruit and Vegetable Division.

¹ Price to beekeepers.² Sales by original receivers to wholesalers, polish and laundry-supply manufacturers, etc.

FOREIGN TRADE OF THE UNITED STATES IN AGRICULTURAL PRODUCTS

TABLE 641.—Agricultural products: Exports (domestic) of the United States, 1923-1925

| Article exported | Year ended June 30 | | | | | | |
|--|--------------------|------------------|------------------|-----------------------|------------------|------------------|-----------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 pre- liminary | 1923 | 1924 | 1925 pre- liminary |
| ANIMALS AND ANIMAL PRODUCTS | | | | | | | |
| Animals, live: | | Thou- sands | Thou- sands | Thou- sands | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Cattle— | | | | | | | |
| Bulls for breeding..... | No..... | 2 | 1 | 2 | 274 | 125 | 200 |
| Cows for breeding..... | No..... | 20 | 9 | 21 | 384 | 495 | 634 |
| Other cattle..... | No..... | 40 | 23 | 83 | 1,796 | 676 | 1,597 |
| Horses— | | | | | | | |
| For breeding..... | No..... | (¹) | (¹) | (¹) | 137 | 112 | 163 |
| Other horses..... | No..... | 8 | 11 | 10 | 912 | 842 | 1,092 |
| Mules, asses, and burros..... | No..... | 13 | 16 | 18 | 1,324 | 1,712 | 1,967 |
| Sheep..... | No..... | 16 | 9 | 19 | 165 | 89 | 205 |
| Swine..... | No..... | 76 | 95 | 63 | 990 | 1,217 | 1,054 |
| Poultry..... | Lb..... | 491 | 695 | 777 | 208 | 323 | 372 |
| Other live animals..... | Lb..... | 429 | 520 | 999 | 168 | 196 | 263 |
| Total animals, live..... | | | | | 6,918 | 5,787 | 7,547 |
| Dairy products: | | | | | | | |
| Butter..... | Lb..... | 9,410 | 5,425 | 8,384 | 3,706 | 2,472 | 3,428 |
| Cheese..... | Lb..... | 8,446 | 3,938 | 9,432 | 2,170 | 1,068 | 2,414 |
| Milk and cream— | | | | | | | |
| Fresh and sterilized..... | Gal..... | 89 | 89 | 95 | 80 | 86 | 68 |
| Condensed, sweetened..... | Lb..... | 47,966 | 67,112 | 49,297 | 6,760 | 9,812 | 7,334 |
| Evaporated, unsweetened..... | Lb..... | 109,072 | 146,500 | 124,250 | 10,107 | 14,108 | 11,550 |
| Powdered, dried..... | Lb..... | 2,918 | 2,706 | 5,623 | 504 | 609 | 839 |
| Total dairy products..... | | | | | 23,327 | 28,175 | 25,633 |
| Eggs and egg products: | | | | | | | |
| Eggs in shell..... | Doz..... | 34,284 | 32,832 | 25,107 | 9,311 | 8,659 | 7,300 |
| Eggs and yolks, frozen, dried, or canned..... | Lb..... | 555 | 488 | 270 | 89 | 75 | 57 |
| Total eggs and egg products..... | | | | | 9,400 | 8,734 | 7,337 |
| Hides and skins, raw (except fur): | | | | | | | |
| Calf..... | Lb..... | 3,158 | 7,120 | 11,909 | 764 | 1,537 | 2,702 |
| Cattle..... | Lb..... | 11,200 | 73,116 | 64,381 | 1,796 | 7,639 | 7,031 |
| Sheep and goat..... | Lb..... | 974 | 1,807 | 3,003 | 227 | 388 | 869 |
| Other hides and skins, including fresh and pickled splits..... | Lb..... | 5,656 | 9,865 | 9,899 | 709 | 1,098 | 1,142 |
| Total hides and skins..... | Lb..... | 20,988 | 91,008 | 79,282 | 3,406 | 10,662 | 11,744 |
| Meats and meat products: | | | | | | | |
| Meats— | | | | | | | |
| Beef and veal— | | | | | | | |
| Beef, canned..... | Lb..... | 2,312 | 1,545 | 1,835 | 630 | 367 | 538 |
| Beef, fresh..... | Lb..... | 3,656 | 2,476 | 3,036 | 555 | 423 | 480 |
| Beef, pickled or cured..... | Lb..... | 24,185 | 21,851 | 22,407 | 2,308 | 2,170 | 2,303 |
| Veal, fresh..... | Lb..... | 361 | 341 | 108 | 55 | 60 | 20 |
| Total beef and veal..... | Lb..... | 30,514 | 26,213 | 27,386 | 3,548 | 3,020 | 3,341 |
| Mutton and lamb..... | Lb..... | 1,769 | 1,633 | 1,460 | 331 | 307 | 287 |
| Pork— | | | | | | | |
| Bacon..... | Lb..... | 408,334 | 408,099 | 211,706 | 59,052 | 50,951 | 33,985 |
| Canned..... | Lb..... | 2,699 | 2,691 | 4,185 | 942 | 690 | 1,317 |
| Carcasses, fresh..... | Lb..... | 9,462 | 12,555 | 6,841 | 1,338 | 1,485 | 904 |
| Hams and shoulders..... | Lb..... | 319,299 | 369,459 | 277,567 | 55,206 | 56,282 | 49,910 |

¹ Less than 500.

TABLE 641.—*Agricultural products: Exports (domestic) of the United States, 1923-1925—Continued*

| Article exported | Year ended June 30* | | | | | | |
|--|---------------------|------------------|------------------|------------------|----------------------|----------------------|----------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| ANIMALS AND ANIMAL PRODUCTS—continued | | | | | | | |
| Meats and meat products—Continued. | | | | | | | |
| Meats—Continued. | | <i>Thousands</i> | <i>Thousands</i> | <i>Thousands</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Pork—Continued. | | | | | | | |
| Loins and other fresh | Lb..... | 34, 810 | 36, 558 | 20, 763 | 5, 437 | 5, 392 | 3, 604 |
| Pickled | Lb..... | 40, 934 | 37, 469 | 26, 726 | 4, 953 | 4, 293 | 3, 666 |
| Sides— | | | | | | | |
| Cumberland | Lb..... | (¹) | 15, 401 | 24, 557 | (¹) | 2, 009 | 4, 322 |
| Wiltshire | Lb..... | (¹) | 12, 105 | 14, 647 | (¹) | 1, 544 | 2, 584 |
| Total pork | Lb..... | 815, 008 | 894, 337 | 586, 992 | 126, 927 | 122, 616 | 100, 142 |
| Poultry and game— | | | | | | | |
| Canned | Lb..... | 125 | 69 | (¹) | 46 | 33 | (¹) |
| Fresh | Lb..... | 5, 906 | 4, 042 | 4, 922 | 1, 744 | 1, 185 | 1, 498 |
| Sausage— | | | | | | | |
| Canned | Lb..... | 2, 694 | 3, 213 | 3, 818 | 712 | 901 | 1, 006 |
| Not canned | Lb..... | 7, 719 | 8, 707 | 8, 798 | 2, 059 | 2, 114 | 2, 271 |
| Miscellaneous meats | | | | | | | |
| Meats, canned, n. e. s. | Lb..... | 7, 522 | 9, 493 | 6, 659 | 2, 898 | 2, 933 | 1, 989 |
| Meat extracts and bouillon cubes | Lb. s..... | 482 | 289 | 171 | 546 | 443 | 346 |
| Other meats, n. e. s., including edible oil. | Lb..... | 47, 292 | 50, 899 | 42, 386 | 4, 493 | 4, 973 | 3, 784 |
| Total meats | Lb..... | 919, 031 | 1, 004, 865 | 682, 592 | 143, 304 | 138, 525 | 114, 664 |
| Oils and fats, animal— | | | | | | | |
| Lard | Lb..... | 952, 642 | 1, 014, 898 | 792, 735 | 116, 594 | 129, 091 | 123, 223 |
| Lard compounds | Lb..... | 11, 140 | 6, 907 | 8, 923 | 1, 397 | 935 | 1, 296 |
| Lard, neutral | Lb..... | 26, 494 | 24, 239 | 20, 421 | 3, 424 | 3, 242 | 5, 621 |
| Lard oil | Lb..... | 737 | 715 | (¹) | 89 | 81 | (¹) |
| Neat's foot oil | Lb..... | 1, 233 | 1, 349 | 1, 695 | 188 | 235 | 257 |
| Oleomargarine | Lb..... | 2, 028 | 1, 125 | 732 | 328 | 180 | 122 |
| Oleo oil | Lb..... | 104, 956 | 92, 965 | 105, 146 | 12, 068 | 11, 368 | 14, 659 |
| Oleo stock | Lb..... | 12, 521 | 11, 345 | 15, 129 | 1, 359 | 1, 277 | 1, 891 |
| Stearins and fatty acids— | | | | | | | |
| Grease stearin | Lb..... | 2, 962 | 4, 097 | 2, 412 | 278 | 382 | 257 |
| Oleic acid or red oil | Lb..... | 2, 379 | 2, 693 | 1, 432 | 202 | 220 | 127 |
| Oleo and lard stearin | Lb..... | 10, 135 | 7, 081 | 7, 139 | 1, 051 | 761 | 868 |
| Stearic acid | Lb..... | 3, 686 | 2, 191 | 2, 059 | 404 | 281 | 278 |
| Other fatty acids | Lb..... | 166 | 291 | (¹) | 7 | 25 | (¹) |
| Tallow | Lb..... | (¹) | (¹) | 28, 776 | (¹) | (¹) | 2, 619 |
| Edible | Lb..... | 1, 914 | 1, 175 | (¹) | 161 | 92 | (¹) |
| Inedible | Lb..... | 23, 761 | 36, 197 | (¹) | 1, 939 | 2, 855 | (¹) |
| Miscellaneous, n. e. s., including other animal oils | Lb..... | 52, 993 | 81, 837 | 87, 554 | 4, 375 | 7, 044 | 9, 365 |
| Total oils and fats | Lb..... | 1, 209, 637 | 1, 289, 105 | 1, 074, 153 | 143, 864 | 158, 059 | 158, 483 |
| Total meats and meat products | Lb..... | 2, 128, 668 | 2, 293, 970 | 1, 756, 745 | 287, 168 | 296, 584 | 273, 147 |
| Wool and mohair, unmanufactured | Lb..... | 451 | 465 | 315 | 121 | 134 | 138 |

* Included with "Bacon."

* Jan. 1-June 30.

* Included with "Hams and shoulders."

* Included with "Meats canned, n. e. s."

* Included with Animal oils and fats. "Miscellaneous, n. e. s., including other animal oils."

* Classified as "Edible" and "Inedible."

* Classified as "Tallow."

TABLE 641.—Agricultural products: Exports (domestic) of the United States, 1923-1925—Continued

| Article exported | Year ended June 30 | | | | | | |
|--|--------------------|---------|------------------|------------------|---------|---------|------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| ANIMALS AND ANIMAL PRODUCTS—continued | | | | | | | |
| Miscellaneous animal products: | | Thou- | Thou- | Thou- | 1,000 | 1,000 | 1,000 |
| | | sands | sands | sands | dollars | dollars | dollars |
| Beeswax..... | Lb..... | 79 | 136 | (¹) | 25 | 42 | (¹) |
| Bones, hoofs, and horns, unmanufactured..... | Lb..... | 6,301 | 5,457 | 4,189 | 310 | 286 | 152 |
| Feathers, crude..... | Lb..... | 4,370 | 3,093 | 4,872 | 310 | 232 | 439 |
| Gelatin..... | Lb..... | 310 | 418 | 377 | 201 | 279 | 270 |
| Glue..... | Lb..... | 2,905 | 2,205 | 2,431 | 131 | 360 | 372 |
| Hair, unmanufactured— | | | | | | | |
| Cattle..... | Lb..... | 7,369 | 5,087 | 6,081 | 424 | 441 | 849 |
| Other hair..... | Lb..... | 8,068 | 9,809 | 13,056 | 824 | 1,075 | 1,540 |
| Honey..... | Lb..... | 2,891 | 1,921 | 6,214 | 260 | 228 | 650 |
| Sausage casings..... | Lb..... | 20,043 | 27,427 | 39,972 | 4,935 | 5,454 | 8,608 |
| Miscellaneous animal products, n. e. s..... | Lb..... | 2,177 | 2,404 | 4,324 | 223 | 245 | 440 |
| Total animals and animal products..... | | | | | 338,403 | 358,727 | 338,957 |
| VEGETABLE PRODUCTS | | | | | | | |
| Chocolate and cocoa: | | | | | | | |
| Chocolate, including sweetened..... | Lb..... | 974 | 1,504 | 1,478 | 224 | 372 | 306 |
| Cocoa, powdered..... | Lb..... | 8,047 | 4,683 | 3,032 | 389 | 337 | 301 |
| Coffee: | | | | | | | |
| Green..... | Lb..... | 26,272 | 23,845 | 25,282 | 4,949 | 4,097 | 7,146 |
| Roasted..... | Lb..... | 1,319 | 2,028 | 1,983 | 361 | 538 | 625 |
| Extracts and substitutes..... | Lb..... | 713 | 696 | 826 | 380 | 422 | 514 |
| Cotton, unmanufactured: | | | | | | | |
| Long staple (1½ inches or over)— | | | | | | | |
| Sea-island (500 lbs.)..... | Bale..... | 1 | (¹) | 1 | 148 | 61 | 179 |
| Other long staple (500 lbs.)..... | Bale..... | 886 | 937 | 1,594 | 114,285 | 145,832 | 210,519 |
| Short staple (under 1½ inches) (500 lbs.)..... | Bale..... | 4,318 | 4,847 | 6,644 | 542,871 | 753,289 | 842,902 |
| Linters (500 lbs.)..... | Bale..... | 48 | 115 | 200 | 1,679 | 4,793 | 7,226 |
| Total cotton, unmanufactured (500 lbs.)..... | Bale..... | 5,253 | 5,809 | 8,439 | 658,083 | 903,975 | 1,060,886 |
| Fruits: | | | | | | | |
| Dried and evaporated— | | | | | | | |
| Apples..... | Lb..... | 12,817 | 30,323 | 19,225 | 1,447 | 3,332 | 2,315 |
| Apricots..... | Lb..... | 11,193 | 38,777 | 13,292 | 2,617 | 4,428 | 2,013 |
| Peaches..... | Lb..... | 5,586 | 12,975 | 4,668 | 711 | 996 | 461 |
| Prunes..... | Lb..... | 79,229 | 136,448 | 171,771 | 7,583 | 8,572 | 11,458 |
| Raisins..... | Lb..... | 93,962 | 88,152 | 90,783 | 10,294 | 7,803 | 6,788 |
| Other dried and evaporated fruit..... | Lb..... | 10,632 | 13,933 | 11,242 | 1,352 | 1,848 | 1,342 |
| Total dried and evaporated..... | Lb..... | 213,419 | 320,608 | 310,981 | 23,904 | 26,569 | 24,367 |
| Fresh— | | | | | | | |
| Apples..... | Bbl..... | 593 | 2,032 | 1,505 | 2,674 | 9,506 | 6,811 |
| Apples..... | Box..... | 3,491 | 6,198 | 5,148 | 6,525 | 13,655 | 12,571 |
| Berries..... | Lb..... | 8,180 | 11,149 | 8,453 | 881 | 1,064 | 971 |
| Citrus— | | | | | | | |
| Grapefruit..... | Box..... | 252 | 305 | 427 | 830 | 827 | 1,301 |
| Lemons..... | Box..... | 159 | 228 | 173 | 909 | 952 | 848 |
| Oranges..... | Box..... | 1,799 | 2,592 | 2,197 | 7,561 | 8,506 | 9,319 |
| Grapes..... | Lb..... | 14,022 | 20,257 | 20,302 | 1,051 | 1,229 | 1,296 |
| Pears..... | Lb..... | 36,785 | 80,237 | 41,452 | 1,617 | 2,499 | 2,283 |
| Peaches..... | Lb..... | 13,170 | 15,065 | 16,172 | 583 | 574 | 680 |
| Pineapples..... | Box..... | 37 | 41 | 32 | 157 | 139 | 121 |
| Other fresh fruits ¹⁰ | Lb..... | 36,655 | 32,374 | 33,538 | 1,489 | 1,417 | 1,263 |
| Total fresh fruits..... | | | | | 24,277 | 40,448 | 37,494 |

¹ Less than 500.⁹ Included with Animal products, "Miscellaneous, n. e. s."¹⁰ Includes "Other subtropical fruits."

TABLE 641.—*Agricultural products: Exports (domestic) of the United States, 1923-1925—Continued*

| Article exported | Year ended June 30 | | | | | | |
|-------------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—CON. | | | | | | | |
| Fruits—Continued. | | | | | | | |
| Prepared or preserved— | | | | | | | |
| Canned— | | | | | | | |
| Apples and apple | Lb. | | | | | | |
| sauce. | | Thou- | Thou- | Thou- | 1,000 | 1,000 | 1,000 |
| | | sands | sands | sands | dollars | dollars | dollars |
| | | (¹¹) | (¹¹) | (¹¹) | (¹¹) | (¹¹) | (¹¹) |
| Apricots..... | Lb. | 13,809 | 26,576 | 31,360 | 1,187 | 2,070 | 2,839 |
| Cherries..... | Lb. | 2,251 | 1,675 | 1,612 | 369 | 267 | 256 |
| Peaches..... | Lb. | 54,624 | 50,374 | 57,890 | 5,888 | 4,436 | 5,778 |
| Pears..... | Lb. | 49,358 | 38,431 | 53,851 | 6,105 | 4,144 | 6,447 |
| Pineapples..... | Lb. | 21,848 | 25,238 | 26,252 | 2,346 | 3,058 | 2,951 |
| Plums..... | Lb. | 1,942 | 1,918 | 877 | 174 | 148 | 74 |
| Prunes..... | Lb. | (¹¹) | 1,834 | 2,701 | (¹¹) | 1,103 | 320 |
| Miscellaneous | Lb. | 63,388 | 16,280 | 13,703 | 6,910 | 1,765 | 1,608 |
| fruits. | | | | | | | |
| Total prepared | Lb. | 207,220 | 165,912 | 201,233 | 22,479 | 16,266 | 21,043 |
| or preserved. | | | | | | | |
| Preserved jellies and jams. | Lb. | 2,217 | 2,246 | 1,514 | 456 | 437 | 317 |
| Fruit preparations, n. e. s., | Lb. | 1,565 | 10,163 | 15,397 | 47 | 799 | 2,124 |
| including fruit pulp | | | | | | | |
| (canuery waste). | | | | | | | |
| Total fruits..... | | | | | 71,253 | 84,519 | 85,315 |
| Grains and grain products: | | | | | | | |
| Grains— | | | | | | | |
| Barley..... | Bu. | 18,193 | 11,209 | 23,653 | 13,591 | 8,897 | 23,945 |
| Buckwheat..... | Bu. | 140 | 82 | 180 | 152 | 83 | 208 |
| Corn..... | Bu. | 94,064 | 21,186 | 8,460 | 75,031 | 19,553 | 10,629 |
| Oats..... | Bu. | 18,574 | 1,149 | 10,874 | 9,282 | 606 | 6,242 |
| Rice..... | Lb. | 318,941 | 190,616 | 74,602 | 12,379 | 8,361 | 4,189 |
| Rye..... | Bu. | 51,412 | 17,705 | 49,909 | 47,513 | 14,343 | 62,811 |
| Wheat..... | Bu. | 154,951 | 78,793 | 195,490 | 192,015 | 87,712 | 306,606 |
| Meal and flours— | | | | | | | |
| Buckwheat..... | Lb. | 892 | 201 | 310 | 41 | 16 | 18 |
| Corn..... | Bbl. | 633 | 487 | 333 | 2,470 | 2,223 | 1,971 |
| Oatmeal..... | Lb. | 123,115 | 137,616 | 106,256 | 4,406 | 4,922 | 4,596 |
| Rice flour, meal, and | Lb. | 51,729 | 37,141 | 37,435 | 1,142 | 915 | 1,248 |
| broken rice. | | | | | | | |
| Rye..... | Bbl. | 42 | 366 | 55 | 213 | 1,519 | 346 |
| Wheat..... | Bbl. | 14,883 | 17,253 | 13,896 | 83,991 | 88,202 | 97,766 |
| Total grains and | | | | | 442,226 | 237,352 | 522,575 |
| flours. | | | | | | | |
| Miscellaneous grain products— | | | | | | | |
| Bran and middlings.. | Ton. | 3 | 2 | 4 | 97 | 75 | 136 |
| Bread and biscuit.. | Lb. | 9,480 | 12,452 | 14,166 | 1,303 | 1,730 | 2,066 |
| Cereal breakfast foods, | Lb. | 11,051 | 11,903 | 8,343 | 1,006 | 1,138 | 848 |
| n. e. s. | | | | | | | |
| Corn feeds..... | Ton. | 1 | 2 | (¹¹) | 23 | 55 | (¹¹) |
| Corn products for | Lb. | 5,061 | 5,924 | 7,529 | 304 | 394 | 552 |
| table use, misc. n. e. s. | | | | | | | |
| Hominy and grits..... | Lb. | 79,979 | 32,160 | 10,556 | 1,335 | 643 | 448 |
| Macaroni, spaghetti, | Lb. | 6,292 | 7,260 | 8,447 | 502 | 581 | 686 |
| etc. | | | | | | | |
| Malt..... | Bu. | 4,068 | 2,975 | 5,370 | 3,970 | 3,023 | 6,351 |
| Mill feeds, misc. n. e. s. | Ton. | 33 | 8 | 22 | 698 | 318 | 702 |
| Prepared feeds, not | Lb. | 19,664 | 17,364 | 31,888 | 401 | 393 | 691 |
| medicinal. | | | | | | | |
| Screenings..... | Lb. | 10,037 | 12,664 | 8,437 | 167 | 339 | 106 |
| Sorgho, kafir, and milo. | Bu. | 58 | 60 | (¹¹) | 59 | 46 | (¹¹) |
| Wheat products for | Lb. | 4,229 | 5,138 | 8,016 | 321 | 399 | 665 |
| table use. | | | | | | | |
| Other grain products.. | Lb. | 6,467 | 5,791 | 12,633 | 375 | 376 | 601 |
| Total grains and | | | | | 452,786 | 246,862 | 536,427 |
| grain products. | | | | | | | |

¹¹ Jan. 1-June 30.¹² Included with "Canned fruit, "Miscellaneous."¹³ Included with "Mill feeds, miscellaneous, n. e. s."¹⁴ Included with "Other grain products."

TABLE 641.—Agricultural products: Exports (domestic) of the United States, 1923-1925—Continued

| Article exported | Year ended June 30 | | | | | | |
|---------------------------------------|--------------------|------------------|------------------|------------------|----------------------|----------------------|----------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—CON. | | | | | | | |
| Nuts: | | <i>Thousands</i> | <i>Thousands</i> | <i>Thousands</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Peanuts..... | Lb..... | 8,716 | 3,994 | 2,863 | 681 | 381 | 307 |
| Other nuts..... | Lb..... | 4,818 | 6,263 | 4,382 | 724 | 793 | 793 |
| Oilseeds and oilseed products: | | | | | | | |
| Oil cake and oil-cake meal— | | | | | | | |
| Cake— | | | | | | | |
| Coconut..... | Lb..... | 3,860 | 58 | (14) | 66 | 1 | (14) |
| Corn..... | Lb..... | 686 | (14) | (14) | 12 | (14) | (14) |
| Cottonseed..... | Lb..... | 342,544 | 200,927 | 593,664 | 7,789 | 4,261 | 12,553 |
| Linseed..... | Lb..... | 536,555 | 546,848 | 671,460 | 11,577 | 11,221 | 14,982 |
| Peanut..... | Lb..... | 692 | (14) | (14) | 12 | (14) | (14) |
| Other oil cake..... | Lb..... | 3,092 | 1,233 | 15,250 | 66 | 21 | 241 |
| Meal— | | | | | | | |
| Cottonseed..... | Lb..... | 111,806 | 49,439 | 291,711 | 2,302 | 1,033 | 6,208 |
| Linseed..... | Lb..... | 38,057 | 13,267 | 19,666 | 841 | 276 | 440 |
| Other oil-cake meal..... | Lb..... | 2,732 | 5,322 | 25,582 | 54 | 104 | 496 |
| Total oil cake and oil-cake meal..... | Lb..... | 1,040,024 | 817,094 | 1,617,333 | 22,719 | 16,917 | 34,920 |
| Oilseeds..... | Lb..... | 2,722 | 4,083 | 3,170 | 95 | 246 | 212 |
| Oils— | | | | | | | |
| Fixed or expressed— | | | | | | | |
| Cocoa butter..... | Lb..... | 957 | 887 | 1,577 | 287 | 232 | 427 |
| Coconut oil..... | Lb..... | 12,993 | 19,423 | 17,890 | 1,088 | 1,676 | 1,679 |
| Corn oil..... | Lb..... | 5,224 | 4,196 | 3,586 | 652 | 540 | 491 |
| Cottonseed oil— | | | | | | | |
| Crude..... | Lb..... | 25,933 | 23,534 | 24,062 | 2,258 | 2,215 | 2,243 |
| Refined..... | Lb..... | 38,350 | 15,884 | 29,198 | 4,239 | 1,806 | 3,508 |
| Total cottonseed oil..... | Lb..... | 64,282 | 39,418 | 53,260 | 6,497 | 4,081 | 5,751 |
| Lard compounds, vegetable..... | Lb..... | 17,984 | 7,029 | 6,578 | 2,221 | 903 | 976 |
| Linseed oil..... | Lb..... | 3,105 | 2,628 | 2,405 | 410 | 347 | 338 |
| Oleomargarine, vegetable..... | Lb..... | 1,730 | 271 | 155 | 236 | 44 | 25 |
| Peanut oil..... | Lb..... | 188 | 168 | (14) | 21 | 14 | (14) |
| Soy-bean oil..... | Lb..... | 2,495 | 2,892 | 579 | 219 | 311 | 65 |
| Soap stock, vegetable..... | Lb..... | 3,611 | 3,996 | 6,167 | 239 | 231 | 335 |
| Stearin, vegetable..... | Lb..... | 564 | 176 | (14) | 56 | 25 | (14) |
| Other vegetable oils and fats..... | Lb..... | 8,063 | 6,951 | 6,780 | 863 | 851 | 771 |
| Total fixed or expressed..... | Lb..... | 121,212 | 88,035 | 98,977 | 12,789 | 9,845 | 10,858 |
| Volatile or essential— | | | | | | | |
| Peppermint..... | Lb..... | 102 | 159 | 127 | 291 | 537 | 823 |
| Other volatile or essential..... | Lb..... | 584 | 1,099 | 1,176 | 611 | 745 | 923 |
| Total volatile or essential..... | Lb..... | 686 | 1,258 | 1,303 | 902 | 1,282 | 1,746 |
| Total vegetable oils..... | Lb..... | 121,898 | 89,293 | 100,280 | 13,691 | 10,627 | 12,604 |

14 Included with "Other oil cake."

15 Included with "Other vegetable oils and fats."

16 Included with Vegetable products, "Other, n. e. s."

TABLE 641.—Agricultural products: Exports (domestic) of the United States, 1923-1925—Continued

| Article exported | Year ended June 30 | | | | | | |
|--|--------------------|-----------------------|---------------------|------------------|----------------------|-------------------|------------------|
| | Quantity | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—con. | | | | | | | |
| Seeds, except oilseeds: | | | | | | | |
| Alfalfa..... | Lb..... | 400 | 312 | 404 | 76 | 59 | 77 |
| Clover, except red..... | Lb..... | 2,492 | 484 | 1,185 | 524 | 93 | 281 |
| Clover, red..... | Lb..... | 1,839 | 301 | 678 | 365 | 52 | 176 |
| Field and forage plant seeds, n. e. s..... | Lb..... | 4,151 | 5,162 | 2,184 | 221 | 212 | 136 |
| Grass seeds, n. e. s..... | Lb..... | 4,091 | 3,405 | 5,552 | 648 | 497 | 917 |
| Timothy..... | Lb..... | 20,132 | 15,502 | 16,458 | 1,401 | 1,287 | 1,214 |
| Vegetable and flower seeds..... | Lb..... | 4,409 | 3,190 | 3,619 | 822 | 686 | 801 |
| Total seeds, except oilseeds..... | Lb..... | 37,514 | 28,347 | 30,080 | 4,057 | 2,886 | 3,602 |
| Spices..... | Lb..... | 1,645 | 1,668 | 1,532 | 201 | 199 | 236 |
| Sugar, molasses, and sirup: | | | | | | | |
| Molasses..... | Gal..... | 4,773 | 2,065 | 3,102 | 528 | 394 | 443 |
| Sirup, including maple..... | Gal..... | 5,905 | 3,806 | 4,691 | 1,584 | 1,364 | 1,375 |
| Sugar, including maple (2,000 lbs.)..... | Ton..... | 375 | 135 | 250 | 41,012 | 16,588 | 21,798 |
| Total sugar, molasses, and sirup..... | | | | | 43,124 | 18,346 | 23,616 |
| Tobacco, unmanufactured: | | | | | | | |
| Tobacco leaf..... | Lb..... | ¹⁷ 229,472 | ⁽¹⁹⁾ | ⁽¹⁹⁾ | ¹⁷ 77,846 | ⁽¹⁹⁾ | ⁽¹⁹⁾ |
| Bright flue-cured..... | Lb..... | ¹ 57,092 | 265,966 | 207,457 | ¹ 22,715 | 106,879 | 86,113 |
| Burley..... | Lb..... | ¹ 3,464 | 6,946 | 5,802 | ¹ 874 | 1,580 | 2,180 |
| Cigar leaf..... | Lb..... | ¹ 242 | 1,389 | 540 | ¹ 208 | 392 | 436 |
| Dark-fired Kentucky and Tennessee..... | Lb..... | ¹ 73,451 | 169,315 | 126,530 | ¹ 13,870 | 28,327 | 21,369 |
| Dark Virginia..... | Lb..... | ¹ 34,719 | 30,596 | 24,939 | ¹ 17,967 | 11,373 | 8,252 |
| Green River (Fryor)..... | Lb..... | ¹ 10,010 | 15,865 | 15,533 | ¹ 2,843 | 3,118 | 3,429 |
| Maryland and Ohio export..... | Lb..... | ¹ 5,335 | 17,608 | 11,848 | ¹ 563 | 3,504 | 2,368 |
| Other leaf tobacco..... | Lb..... | ¹ 31,357 | 49,603 | 27,574 | ¹ 8,739 | 11,278 | 6,900 |
| Total leaf tobacco..... | Lb..... | 445,142 | 557,288 | 420,223 | 145,625 | 106,451 | 131,137 |
| Stems, trimmings and scrap tobacco..... | Lb..... | 9,222 | 40,342 | 10,479 | 607 | 1,625 | 398 |
| Total tobacco, unmanufactured..... | Lb..... | 454,364 | 597,630 | 430,702 | 146,232 | 108,076 | 131,535 |
| Vegetables: | | | | | | | |
| Dried and fresh— | | | | | | | |
| Beans, dried..... | Bu..... | 672 | 603 | 540 | 2,483 | 2,501 | 2,361 |
| Dried or dehydrated vegetables, miscellaneous..... | Lb..... | 444 | 1,648 | 632 | 57 | 93 | 76 |
| Onions..... | Bu..... | 703 | 674 | 487 | 994 | 997 | 789 |
| Peas, dried..... | Bu..... | 95 | 112 | 61 | 411 | 512 | 299 |
| Potatoes..... | Bu..... | 2,960 | 3,075 | 3,653 | 3,190 | 4,327 | 3,674 |
| Other fresh vegetables..... | Lb..... | 80,277 | 90,677 | 97,532 | 3,130 | 3,324 | 3,468 |
| Prepared or preserved— | | | | | | | |
| Asparagus..... | Lb..... | 8,500 | 9,934 | 9,153 | 1,493 | 1,899 | 1,633 |
| Beans..... | Lb..... | 5,643 | 6,704 | 6,220 | 471 | 605 | 549 |
| Corn..... | Lb..... | 2,882 | 5,354 | 5,064 | 235 | 373 | 457 |
| Peas..... | Lb..... | 3,073 | 3,867 | 5,005 | 280 | 372 | 529 |
| Pickles and sauces..... | Lb..... | 11,829 | ¹⁷ 5,885 | ⁽¹⁹⁾ | 1,590 | ¹⁷ 889 | ⁽¹⁹⁾ |
| Pickles..... | Lb..... | ⁽²⁰⁾ | ¹ 1,340 | 1,951 | ⁽²⁰⁾ | ¹ 118 | 224 |
| Ketchup and other tomato sauces..... | Lb..... | ⁽²⁰⁾ | ¹ 3,560 | 5,520 | ⁽²⁰⁾ | ¹ 501 | 880 |
| Other sauces and relishes..... | Lb..... | ⁽²⁰⁾ | ¹ 1,358 | 2,498 | ⁽²⁰⁾ | ¹ 256 | 535 |
| Soups..... | Lb..... | 12,786 | 13,025 | 13,948 | 1,382 | 1,506 | 1,646 |
| Tomatoes..... | Lb..... | 8,917 | 9,152 | 5,208 | 565 | 568 | 341 |
| Other canned vegetables..... | Lb..... | 3,203 | 2,819 | 2,710 | 311 | 269 | 253 |
| Other vegetable preparations, n. e. s..... | Lb..... | 900 | 993 | 1,005 | 97 | 112 | 96 |
| Total vegetables..... | Lb..... | | | | 16,689 | 19,222 | 17,810 |

¹ Jan. 1-June 30.¹⁷ July 1-Dec. 31.¹⁹ Classified as "Bright flue-cured," "Burley," "Cigar leaf," "Dark-fired Kentucky and Tennessee," "Dark Virginia," "Green River (Fryor)," "Maryland and Ohio export," and "Other leaf."²⁰ Classified as "Pickles," "Ketchup and other tomato sauces," and "Other sauces and relishes."²¹ Included with "Pickles and sauces."

TABLE 641.—Agricultural products: Exports (domestic) of the United States, 1923-1925—Continued

| Article exported | Year ended June 30 | | | | | | |
|--|------------------------|------------------|------------------|------------------|----------------------|----------------------|----------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—CON. | | | | | | | |
| Miscellaneous vegetable products: | | | | | | | |
| Beverages— | | <i>Thousands</i> | <i>Thousands</i> | <i>Thousands</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Malt beverages..... | Gal..... | 184 | 351 | 420 | 137 | 199 | 286 |
| Spirits, distilled..... | Pt. gal..... | 370 | 272 | 126 | 1,116 | 581 | 122 |
| Wines..... | Gal..... | 38 | 19 | 8 | 29 | 21 | 7 |
| Miscellaneous beverages, n. e. s., and fruit juices ¹ | Gal..... | 161 | 262 | 355 | 176 | 290 | 493 |
| Broomcorn..... | Ton..... | 4 | 5 | 5 | 882 | 833 | 630 |
| Drugs, herbs, leaves, roots, crude— | | | | | | | |
| Ginseng..... | Lb..... | 175 | 177 | 141 | 2,417 | 2,607 | 1,080 |
| Other crude vegetable drugs..... | Lb..... | 4,235 | 6,086 | 7,945 | 970 | 1,394 | 1,681 |
| Flavoring extracts ² | Lb..... | 1,733 | 1,550 | 492 | 643 | 569 | 387 |
| Flowers, cut..... | Lb..... | 116 | 161 | 155 | 88 | 99 | 95 |
| Glucose (corn sirup)..... | Lb..... | 156,315 | 141,141 | 136,823 | 4,788 | 4,869 | 5,290 |
| Grape, vegetable..... | Lb..... | 715 | 961 | 1,016 | 82 | 91 | 79 |
| Grape sugar (corn sugar)..... | Lb..... | 6,379 | 6,910 | 2,754 | 225 | 296 | 120 |
| Hay..... | Ton..... | 47 | 21 | 23 | 940 | 428 | 479 |
| Hops..... | Lb..... | 13,497 | 20,461 | 16,122 | 2,690 | 6,501 | 3,257 |
| Nursery and greenhouse stock— | | | | | | | |
| Fruit stock, cuttings and seedlings..... | No..... | 1,877 | 1,581 | 1,754 | 148 | 127 | 99 |
| Other nursery or greenhouse stock..... | No..... | 4,558 | 5,928 | 5,718 | 200 | 204 | 208 |
| Starch, corn..... | Lb..... | 254,060 | 255,135 | 209,865 | 6,741 | 8,148 | 7,223 |
| Starch, except corn..... | Lb..... | 6,736 | 7,707 | 4,382 | 239 | 278 | 123 |
| Vinegar..... | Gal..... | 193 | 218 | 222 | 62 | 104 | 113 |
| Yeast..... | Lb..... | 2,751 | 2,515 | 3,119 | 694 | 667 | 804 |
| Other miscellaneous vegetable products, n. e. s. | Lb..... | 2,678 | 6,082 | 7,369 | 61 | 359 | 497 |
| Total vegetable products..... | | | | | 1,460,766 | 1,808,371 | 1,941,208 |
| Total animal and vegetable products..... | | | | | 1,719,169 | 1,867,008 | 2,280,163 |
| FOREST PRODUCTS | | | | | | | |
| Dyeing and tanning materials, crude..... | Ton..... | 1 | 2 | 6 | 74 | 107 | 137 |
| Dye extracts— | | | | | | | |
| Logwood..... | Lb..... | 2,437 | 1,336 | 2,089 | 365 | 181 | 244 |
| Other dye extracts..... | Lb..... | 2,776 | 1,650 | 1,342 | 394 | 235 | 162 |
| Tanning extracts— | | | | | | | |
| Chestnut..... | Lb..... | 7,387 | 9,309 | 7,815 | 268 | 301 | 242 |
| Other tanning extracts, (vegetable and chemical)..... | Lb..... | 24,943 | 23,400 | 21,063 | 1,174 | 1,148 | 1,152 |
| Naval stores, gums, and resins: | | | | | | | |
| Roasin..... | Bbl ³ | 1,040 | 1,205 | 1,412 | 10,157 | 10,660 | 16,047 |
| Spirits of turpentine..... | Gal..... | 9,012 | 11,194 | 12,306 | 11,481 | 10,607 | 10,062 |
| Tar and pitch, wood..... | Bbl ⁴ | 34 | 90 | 28 | 205 | 427 | 180 |
| Turpentine substitutes..... | Gal..... | 1,344 | 1,064 | 941 | 1145 | 425 | 275 |
| Wood turpentine..... | Gal..... | 398 | 494 | 523 | 331 | 425 | 404 |
| Other gums and resins..... | Lb..... | 2,160 | 1,843 | 2,563 | 590 | 635 | 836 |
| Total naval stores, gums, and resins..... | | | | | 22,909 | 23,179 | 28,783 |

¹ Jan. 1-June 30.² Excludes fruit juices prior to Jan. 1, 1924.³ Includes fruit juices prior to Jan. 1, 1924.⁴ Of 500 pounds.⁵ Of 280 pounds.

TABLE 641.—*Agricultural products: Exports (domestic) of the United States, 1923-1925—Continued*

| Articles exported | Year ended June 30 | | | | | | |
|---------------------------------------|--------------------|----------------------|--------------------|------------------|----------------------|----------------------|----------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| FOREST PRODUCTS—contd | | | | | | | |
| Wood: | | | | | | | |
| Boards, deals, planks, etc.— | | | | | | | |
| Hardwoods— | | <i>Thousands</i> | <i>Thousands</i> | <i>Thousands</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Ash..... | M ft..... | ¹⁹ | 19 | 23 | ¹ 682 | 1,883 | 1,692 |
| Chestnut..... | M ft..... | 10 | 8 | 6 | 808 | 628 | 419 |
| Gum..... | M ft..... | 54 | 49 | 52 | 2,963 | 2,430 | 2,574 |
| Hickory..... | M ft..... | 3 | 3 | 4 | 237 | 343 | 467 |
| Mahogany..... | M ft..... | (^M) | ¹⁸ | 17 | (^M) | ¹ 1,291 | 2,307 |
| Oak..... | M ft..... | 138 | 182 | 174 | 9,645 | 10,904 | 11,845 |
| Poplar..... | M ft..... | 20 | 28 | 29 | 1,849 | 2,241 | 2,090 |
| Walnut..... | M ft..... | 6 | 7 | 11 | 878 | 997 | 1,531 |
| Other hardwoods..... | M ft..... | 56 | 31 | 26 | 5,065 | 2,938 | 1,880 |
| Total hardwoods..... | M ft..... | 296 | 315 | 342 | 22,122 | 23,055 | 24,805 |
| Softwoods— | | | | | | | |
| Cypress..... | M ft..... | 10 | 8 | 10 | 674 | 552 | 590 |
| Douglas fir..... | M ft..... | ¹⁷ 228 | (^M) | (^M) | ¹⁷ 5,235 | (^M) | (^M) |
| Dressed..... | M ft..... | ¹ 11 | 28 | 17 | ¹ 486 | 1,317 | 609 |
| Rough..... | M ft..... | ¹ 229 | 601 | 560 | ¹ 6,325 | 17,113 | 12,593 |
| Hemlock..... | M ft..... | ¹ 30 | 136 | 132 | ¹ 739 | 3,939 | 2,947 |
| Redwood..... | M ft..... | 45 | 52 | 36 | 2,813 | 3,655 | 2,511 |
| Southern yellow pine..... | M ft..... | ¹⁷ 241 | (^M) | (^M) | ¹⁷ 9,581 | (^M) | (^M) |
| Dressed..... | M ft..... | ¹ 104 | 105 | 99 | ¹ 4,566 | 4,497 | 4,110 |
| Rough..... | M ft..... | ¹ 242 | 513 | 640 | ¹ 10,615 | 21,627 | 26,803 |
| Spruce..... | M ft..... | 25 | 38 | 31 | 1,224 | 2,298 | 1,829 |
| Western yellow pine..... | M ft..... | 14 | 20 | 25 | 569 | 947 | 1,007 |
| White pine..... | M ft..... | 27 | 21 | 15 | 1,898 | 1,496 | 1,028 |
| Other softwoods..... | M ft..... | 47 | 30 | 22 | 1,800 | 1,866 | 1,144 |
| Total softwoods..... | M ft..... | 1,253 | 1,552 | 1,587 | 46,526 | 59,307 | 55,150 |
| Cooperage and box material— | | | | | | | |
| Box shooks..... | Ft. b. m..... | ¹⁷ 30,497 | (^M) | (^M) | ¹⁷ 1,017 | (^M) | (^M) |
| Hemlock..... | Ft. b. m..... | ¹ 3,249 | ¹ 3,249 | 30,941 | (^M) | ¹ 132 | 955 |
| Southern yellow pine..... | Ft. b. m..... | ¹ 16,177 | 16,241 | 13,029 | ¹ 690 | 833 | 624 |
| Spruce..... | Ft. b. m..... | (^M) | ¹ 1,051 | (^M) | (^M) | (^M) | ¹ 41 |
| Other box shooks..... | Ft. b. m..... | ¹ 31,356 | 74,722 | 57,966 | ¹ 1,036 | 3,140 | 2,293 |
| Cooperage— | | | | | | | |
| Heading..... | Set..... | 2,774 | 3,045 | 3,808 | 380 | 484 | 626 |
| Shooks— | | | | | | | |
| Slack..... | Set..... | 199 | 575 | 1,028 | 90 | 311 | 656 |
| Tight..... | Set..... | 1,386 | 1,045 | 1,101 | 4,007 | 3,166 | 3,983 |
| Staves— | | | | | | | |
| Slack..... | No..... | 36,057 | 40,068 | 50,868 | 771 | 725 | 791 |
| Tight..... | No..... | 21,409 | 20,780 | 29,009 | 3,042 | 3,090 | 3,873 |
| Total cooperage and box material..... | | | | | 11,033 | 11,881 | 13,842 |
| Laths..... | M..... | 42 | 39 | 21 | 267 | 240 | 100 |
| Logs and hewn timber— | | | | | | | |
| Hardwoods..... | M ft..... | 12 | 20 | 25 | 594 | 1,371 | 1,654 |
| Softwoods— | | | | | | | |
| Cedar..... | M ft..... | 87 | 112 | 102 | 2,284 | 3,740 | 3,049 |
| Douglas fir..... | M ft..... | 41 | 16 | 7 | 728 | 315 | 140 |
| Yellow pine (southern)..... | M ft..... | 4 | 7 | 8 | 140 | 228 | 324 |
| Other softwoods..... | M ft..... | 6 | 4 | 9 | 129 | 95 | 161 |
| Total logs and hewn timber..... | M ft..... | 120 | 159 | 151 | 3,875 | 5,749 | 5,337 |

¹ Jan. 1-June 30.¹⁷ July 1-Dec. 31.^M Included with Boards, deals and planks, "Other hardwoods."^M Classified as Boards, deals and planks, Softwoods, Douglas fir, "Dressed" and "Rough."^M Classified as Boards, deals and planks, Softwoods, Southern yellow pine, "Dressed" and "Rough."^M Classified as "Hemlock," "Southern yellow pine," and "Other."^M Classified as "Hemlock," "Southern yellow pine," "Spruce," and "Other."^M Included with "Other box shooks."

TABLE 641.—Agricultural products: Exports (domestic) of the United States; 1923-1925—Continued

| Articles exported | Year ended June 30 | | | | | | |
|--|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| FOREST PRODUCTS—contd. | | | | | | | |
| Wood—Continued. | | | | | | | |
| Piling..... | Lin. ft. | | | | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Pulpwood..... | Cu. ft. | 1,303 | 2,684 | 847 | 319 | 591 | 485 |
| Railroad ties..... | | | | | 92 | 180 | 54 |
| Hardwood..... | No. | 643 | 536 | 577 | 880 | 830 | 761 |
| Softwood..... | No. | 1,817 | 2,223 | 17 707 | 1,006 | 2,256 | 17 006 |
| Treated..... | No. | (¹¹) | (¹¹) | 3 544 | (¹¹) | (¹¹) | 3 573 |
| Untreated..... | No. | (¹¹) | (¹¹) | 3 870 | (¹¹) | (¹¹) | 3 737 |
| Total railroad ties..... | No. | 2,460 | 2,759 | 2,098 | 2,435 | 3,086 | 2,076 |
| Shingles..... | M. | 26 | 30 | 35 | 164 | 171 | 181 |
| Telegraph, trolley, and electric light poles. | No. | 30 | 54 | 83 | 214 | 341 | 359 |
| Timber, sawed— | | | | | | | |
| Hardwoods— | | | | | | | |
| Oak..... | M ft. | 3 | 4 | 2 | 166 | 216 | 141 |
| Other hardwoods..... | M ft. | 1 | 5 | 2 | 110 | 287 | 134 |
| Softwoods— | | | | | | | |
| Cedar..... | M ft. | 19 | 40 | 34 | 1,013 | 2,134 | 1,546 |
| Douglas fir..... | M ft. | 179 | 17 274 | (¹¹) | 4,514 | 17 8,376 | (¹¹) |
| Treated..... | M ft. | (¹¹) | 3 12 | 13 | (¹¹) | 3 376 | 419 |
| Untreated..... | M ft. | (¹¹) | 3 282 | 337 | (¹¹) | 3 8,323 | 7,220 |
| Southern yellow pine..... | M ft. | 172 | 17 73 | (¹¹) | 6,794 | 17 3,058 | (¹¹) |
| Treated..... | M ft. | (¹¹) | 3 1 | 6 | (¹¹) | 3 61 | 243 |
| Untreated..... | M ft. | (¹¹) | 3 98 | 165 | (¹¹) | 3 624 | 6,511 |
| Other softwoods..... | M ft. | 9 | 31 | 22 | 286 | 1,006 | 645 |
| Total timber sawed..... | M ft. | 383 | 815 | 586 | 12,883 | 27,511 | 10,859 |
| Miscellaneous forest products: | | | | | | | |
| Firewood and other unmanufactured wood. | Cu. ft. | 2,566 | 2,467 | 2,150 | 211 | 187 | 132 |
| Hardwood flooring..... | M ft. b. m. | 3 2 | 7 | 7 | 3 158 | 544 | 494 |
| Moss..... | Lb. | 906 | 653 | (¹¹) | 83 | 60 | (¹¹) |
| Veneers and plywood..... | Sq. ft. | 50,300 | 52,540 | 17 25,220 | 1,452 | 1,681 | 17 751 |
| Plywood..... | Sq. ft. | (¹¹) | (¹¹) | 3 8,571 | (¹¹) | (¹¹) | 3 334 |
| Veneers..... | Sq. ft. | (¹¹) | (¹¹) | 3 26,224 | (¹¹) | (¹¹) | 3 714 |
| Wood alcohol..... | Gal. | 1,528 | 11 1,089 | 33 908 | 1,333 | 11 1,080 | 33 820 |
| Wood pulp— | | | | | | | |
| Soda..... | Ton. | 3 | 2 | 2 | 301 | 192 | 197 |
| Sulphite..... | Ton. | 14 | 17 | 22 | 801 | 986 | 1,309 |
| Other wood pulp..... | Ton. | 2 | 5 | 8 | 82 | 357 | 925 |
| Miscellaneous lumber..... | Ft. b. m. | 9,512 | 5,823 | 5,499 | 406 | 440 | 387 |
| Total forest products..... | | | | | 129,981 | 162,799 | 150,640 |
| Total vegetable products, including forest products. | | | | | 1,590,747 | 1,671,170 | 2,097,848 |
| Total vegetable products, excluding forest products. | | | | | 1,460,766 | 1,508,371 | 1,941,208 |
| Total agricultural exports, including forest products. | | | | | 1,929,150 | 2,029,897 | 2,436,805 |
| Total agricultural exports, excluding forest products. | | | | | 1,799,109 | 1,867,008 | 2,280,165 |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States, June, 1925.

¹ Jan. 1-June 30.

¹² Included with Vegetable products, "Other, n. e. s."

¹³ July 1-Dec. 31.

¹⁴ Reported in value only.

¹⁵ Classified as Railroad ties, "Softwood."

¹⁶ Classified as Timber, sawed, Douglas fir, "Treated," and "Untreated."

¹⁷ Classified as Timber, sawed, "Douglas fir."

¹⁸ Classified as Timber, sawed, Southern yellow pine, "Treated," and "Untreated."

¹⁹ Classified as Timber, sawed, "Southern yellow pine."

²⁰ Classified as Miscellaneous forest products, "Veneers" and "Plywood."

²¹ Includes "Alcohols" or "Other alcohols, pure and denatured," and "Methanol, pure and denatured."

TABLE 642.—*Agricultural products: Shipments from the United States to Alaska, Hawaii and Porto Rico, 1923-1925*

ALASKA

| Article shipped | Year ended June 30 | | | | | | |
|--|--------------------|------------------|------------------|------------------|----------------------|----------------------|----------------------|
| | Quantity | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS | | | | | | | |
| Animals, live, total..... | | <i>Thousands</i> | <i>Thousands</i> | <i>Thousands</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> | <i>1,000 dollars</i> |
| Dairy products: | | | | | 70 | 115 | 77 |
| Butter..... | Lb..... | 1,487 | 1,523 | 1,529 | 686 | 689 | 676 |
| Cheese..... | Lb..... | 279 | 294 | 298 | 81 | 89 | 85 |
| Milk, condensed or preserved..... | Lb..... | 4,902 | 5,040 | 5,557 | 456 | 481 | 483 |
| Total dairy products..... | Lb..... | 6,668 | 6,857 | 7,384 | 1,223 | 1,259 | 1,244 |
| Eggs..... | Doz..... | 1,506 | 1,510 | 1,543 | 519 | 546 | 624 |
| Meats and meat products: | | | | | | | |
| Beef and veal, total..... | Lb..... | 3,989 | 4,191 | 4,186 | 591 | 623 | 621 |
| Mutton and lamb..... | Lb..... | 463 | 493 | 461 | 87 | 98 | 95 |
| Pork, total..... | Lb..... | 2,102 | 2,842 | 3,006 | 584 | 655 | 805 |
| Lard..... | Lb..... | 436 | 482 | 420 | 71 | 76 | 77 |
| Lard compounds..... | Lb..... | 400 | 310 | 271 | 62 | 48 | 45 |
| Miscellaneous meats and meat products..... | Lb..... | 268 | 1,286 | 1,255 | 341 | 270 | 284 |
| Total meats and meat products..... | | | | | 1,736 | 1,770 | 1,927 |
| Miscellaneous animal products, n. e. s..... | Lb..... | 149 | 150 | 137 | 15 | 13 | 14 |
| Total animals and animal products..... | | | | | 3,553 | 3,712 | 3,886 |
| VEGETABLE PRODUCTS | | | | | | | |
| Cocoa and chocolate..... | Lb..... | (¹) | 64 | 84 | 24 | 18 | 22 |
| Coffee..... | Lb..... | 824 | 933 | 905 | 271 | 302 | 375 |
| Fruits, total..... | | | | | 711 | 847 | 905 |
| Grains and grain products: | | | | | | | |
| Grains and flours— | | | | | | | |
| Oats..... | Bu..... | 152 | 121 | 102 | 105 | 76 | 71 |
| Rice..... | Lb..... | 1,404 | 1,326 | 1,200 | 90 | 85 | 93 |
| Oatmeal and rolled oats..... | Lb..... | 625 | 543 | 693 | 33 | 28 | 40 |
| Wheat flour..... | Bbl..... | 48 | 49 | 53 | 362 | 332 | 445 |
| Other grains and flours..... | | | | | 91 | 38 | 73 |
| Total grains and flours..... | | | | | 681 | 559 | 722 |
| Miscellaneous grain products..... | | | | | 248 | 301 | 327 |
| Total grains and grain products..... | | | | | 929 | 860 | 1,049 |
| Nuts..... | Lb..... | (²) | 147 | 102 | 37 | 35 | 27 |
| Oilseeds and oilseed products: | | | | | | | |
| Oil cake and meal..... | Lb..... | 194 | 68 | 106 | 4 | 1 | 2 |
| Linseed oil..... | Lb..... | 122 | 129 | 112 | 18 | 17 | 16 |
| Other vegetable oils and fats..... | Lb..... | 14 | 241 | 360 | 36 | 46 | 78 |
| Total oilseeds and oilseed products..... | | | | | 58 | 66 | 96 |
| Seeds, field and vegetable..... | Lb..... | 1,155 | 30 | 75 | 19 | 7 | 11 |
| Sugar, molasses, and sirups, total..... | | | | | 555 | 599 | 533 |
| Tea..... | Lb..... | 176 | 152 | 174 | 85 | 84 | 95 |
| Tobacco, leaf, unmanufactured..... | Lb..... | 15 | 4 | 2 | 13 | 2 | 1 |
| Vegetables: | | | | | | | |
| Dried and fresh— | | | | | | | |
| Potatoes..... | Bu..... | 134 | 126 | 145 | 131 | 159 | 209 |
| Other dried and fresh vegetables..... | Bu..... | 28 | 27 | 36 | 75 | 72 | 105 |
| Canned vegetables..... | Lb..... | (¹) | 3,229 | 3,377 | 313 | 345 | 380 |
| Other vegetables and preparations of..... | Lb..... | (¹) | 3,127 | 2,949 | 180 | 221 | 233 |
| Total vegetables..... | | | | | 699 | 797 | 927 |
| Miscellaneous vegetable products: | | | | | | | |
| Beverages and fruit juices..... | Gal..... | 140 | 71 | 91 | 142 | 90 | 109 |
| Hay..... | Ton..... | 4 | 4 | 4 | 110 | 94 | 101 |
| Starch..... | Lb..... | 76 | 59 | 88 | 8 | 6 | 8 |
| Vegetable food products, n. e. s..... | Lb..... | 122 | 49 | 101 | 14 | 14 | 27 |
| Miscellaneous vegetable products, n. e. s..... | Lb..... | 166 | 35 | 49 | 14 | 4 | 3 |
| Total vegetable products..... | | | | | 3,549 | 3,825 | 4,289 |

¹ Jan. 1-June 30.² Reported in value only.

TABLE 642.—Agricultural products: Shipments from the United States to Alaska, Hawaii and Porto Rico, 1923-1925—Continued

ALASKA—Continued

| Article shipped | Year ended June 30 | | | | | | |
|--|--------------------|-----------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|
| | Quantity | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| FOREST PRODUCTS | | | | | | | |
| Naval stores: Rosin, tar, turpentine, and pitch. | Lb.----- | Thou- sands (?) | Thou- sands 1,183 | Thou- sands 1,123 | 1,000 dollars 29 | 1,000 dollars 51 | 1,000 dollars 52 |
| Wood: | | | | | | | |
| Boards, planks, etc., total..... | M. ft.----- | 12 | 15 | 18 | 404 | 426 | 483 |
| Box shooks..... | Set.----- | (?) | 2,624 | 2,837 | 483 | 556 | 586 |
| Cooperage shooks..... | Set.----- | 142 | 419 | 132 | 117 | 312 | 249 |
| Other wood..... | | | | | 162 | 134 | 229 |
| Total wood..... | | | | | 1,166 | 1,428 | 1,547 |
| Total forest products..... | | | | | 1,195 | 1,479 | 1,599 |
| Total value of shipments, including forest products..... | | | | | 8,297 | 9,016 | 9,774 |
| Total value of shipments, excluding forest products..... | | | | | 7,102 | 7,537 | 8,175 |

HAWAII

| | | | | | | | |
|---|-----------|--------|--------|--------|-------|-------|-------|
| ANIMALS AND ANIMAL PRODUCTS | | | | | | | |
| Animals, live, total..... | | | | | 383 | 308 | 240 |
| Dairy products: | | | | | | | |
| Butter..... | Lb.----- | 1,024 | 1,007 | 1,058 | 531 | 486 | 463 |
| Cheese..... | Lb.----- | 435 | 459 | 474 | 121 | 130 | 123 |
| Milk, condensed..... | Lb.----- | 4,768 | 5,501 | 5,017 | 624 | 723 | 724 |
| Total dairy products..... | Lb.----- | 6,217 | 6,967 | 7,449 | 1,276 | 1,339 | 1,310 |
| Eggs..... | Doz.----- | 1,473 | 1,605 | 1,614 | 467 | 488 | 547 |
| Meats and meat products: | | | | | | | |
| Beef and veal, total..... | Lb.----- | 1,133 | 693 | 630 | 190 | 153 | 158 |
| Mutton and lamb..... | Lb.----- | 17 | 24 | 14 | 4 | 6 | 4 |
| Pork, total..... | Lb.----- | 1,641 | 2,456 | 2,605 | 532 | 586 | 692 |
| Lard..... | Lb.----- | 302 | 279 | 151 | 43 | 38 | 24 |
| Lard compounds..... | Lb.----- | 1,787 | 1,512 | 1,030 | 268 | 225 | 153 |
| Miscellaneous meats and meat products..... | Lb.----- | 566 | 2,241 | 2,598 | 520 | 550 | 729 |
| Total meats and meat products..... | | | | | 1,557 | 1,564 | 1,760 |
| Miscellaneous animal products, n. c. s..... | Lb.----- | 19 | 1,041 | 49 | 4 | 42 | 18 |
| Total animals and animal products..... | | | | | 3,687 | 3,711 | 3,884 |
| VEGETABLE PRODUCTS | | | | | | | |
| Cocoa and chocolate..... | Lb.----- | (?) | 405 | 517 | 134 | 165 | 134 |
| Coffee..... | Lb.----- | 92 | 374 | 137 | 23 | 66 | 47 |
| Fruits, total..... | | | | | 969 | 947 | 1,109 |
| Grains and grain products: | | | | | | | |
| Grains and flours— | | | | | | | |
| Barley..... | Bu.----- | 308 | 652 | 511 | 250 | 559 | 572 |
| Corn..... | Bu.----- | 129 | 174 | 159 | 140 | 195 | 231 |
| Oats..... | Bu.----- | 70 | 129 | 81 | 45 | 77 | 55 |
| Rice..... | Lb.----- | 54,293 | 60,797 | 55,804 | 2,550 | 3,072 | 3,437 |
| Wheat..... | Bu.----- | 77 | 100 | 62 | 105 | 117 | 154 |
| Oatmeal and rolled oats..... | Lb.----- | 419 | 448 | 1,952 | 20 | 20 | 52 |
| Wheat flour..... | Bbl.----- | 129 | 130 | 129 | 877 | 774 | 1,063 |
| Other grains and flours..... | | | | | 339 | 51 | 54 |
| Total grains and flours..... | | | | | 4,307 | 4,865 | 5,618 |
| Miscellaneous grain products..... | | | | | 1,082 | 1,306 | 1,404 |
| Total grains and grain products..... | | | | | 5,389 | 6,171 | 7,022 |
| Nuts..... | Lb.----- | (?) | 431 | 474 | 93 | 95 | 106 |
| Oilseeds and oilseed products: | | | | | | | |
| Oil cake and meal..... | Lb.----- | 12,248 | 4,327 | 7,183 | 143 | 84 | 130 |
| Cottonseed oil..... | Lb.----- | 388 | 557 | 436 | 73 | 93 | 67 |
| Linseed oil..... | Lb.----- | 488 | 518 | 443 | 72 | 79 | 73 |
| Other vegetable oils and fats..... | Lb.----- | (?) | 321 | 905 | 54 | 58 | 160 |
| Total oilseeds and oilseed products..... | | | | | 242 | 314 | 430 |

Jan. 1-June 30.

Reported in value only.

TABLE 642.—*Agricultural products: Shipments from the United States to Alaska, Hawaii and Porto Rico, 1923-1925—Continued*

HAWAII—Continued

| Article shipped | Year ended June 30 | | | | | | |
|--|--------------------|-----------------------|-----------------------|-----------------------|--------------------------|------------------------|------------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | | |
| Seeds, field and vegetable..... | Lb..... | Thous- ands 183 | Thous- ands 183 | Thous- ands 126 | 1,000 dollars 1 21 | 1,000 dollars 31 | 1,000 dollars 29 |
| Sugar, molasses, and sirups, total..... | Lb..... | | | | 825 | 619 | 256 |
| Tea..... | Lb..... | 49 | 45 | 59 | 20 | 22 | 27 |
| Tobacco, leaf, unmanufactured..... | Lb..... | 13 | 1 | 1 | 13 | 1 | (?) |
| Vegetables: | | | | | | | |
| Dried and fresh— | | | | | | | |
| Potatoes..... | Bu..... | 296 | 270 | 293 | 210 | 324 | 336 |
| Other dried and fresh vegetables..... | Bu..... | 82 | 88 | 81 | 128 | 148 | 174 |
| Canned vegetables..... | Lb..... | (?) | 4,774 | 4,096 | 509 | 458 | 433 |
| Other vegetables and preparations of..... | Lb..... | (?) | 2,220 | 3,045 | 152 | 200 | 263 |
| Total vegetables..... | | | | | 999 | 1,130 | 1,206 |
| Miscellaneous vegetable products: | | | | | | | |
| Beverages and fruit juices..... | Gal..... | 1 51 | 114 | 120 | 1 45 | 107 | 121 |
| Hay..... | Ton..... | 6 | 6 | 4 | 138 | 140 | 117 |
| Starch..... | Lb..... | 240 | 135 | 196 | 12 | 11 | 14 |
| Vegetable food products, n. e. s..... | Lb..... | 1 169 | 178 | 85 | 1 22 | 39 | 41 |
| Miscellaneous vegetable products, n. e. s..... | Lb..... | 1 212 | 177 | 170 | 1 10 | 19 | 33 |
| Total vegetable products..... | | | | | 8,945 | 9,817 | 10,692 |
| FOREST PRODUCTS | | | | | | | |
| Naval stores: Rosin, tar, turpentine, and pitch..... | Lb..... | (?) | 901 | 705 | 51 | 57 | 41 |
| Wood: | | | | | | | |
| Boards, planks, etc., total..... | M ft..... | 69 | 74 | 79 | 2,277 | 2,599 | 2,190 |
| Box shooks..... | Set..... | (?) | 5,163 | 4,552 | 722 | 1,000 | 929 |
| Cooperage shooks..... | Set..... | 1 2 | 10 | 3 | 1 2 | 13 | 5 |
| Other wood..... | | | | | 392 | 312 | 223 |
| Total wood..... | | | | | 3,293 | 3,924 | 3,337 |
| Total forest products..... | | | | | 3,344 | 3,981 | 3,378 |
| Total value of shipments, including forest products..... | | | | | 15,976 | 17,539 | 17,054 |
| Total value of shipments, excluding forest products..... | | | | | 12,632 | 12,558 | 14,576 |

PORTO RICO

| | | | | | | | |
|---|----------|--------|--------|--------|-------|-------|-------|
| ANIMALS AND ANIMAL PRODUCTS | | | | | | | |
| Animals, live, total..... | | | | | 99 | 111 | 187 |
| Dairy products: | | | | | | | |
| Butter..... | Lb..... | 1,114 | 1,311 | 743 | 372 | 427 | 334 |
| Cheese..... | Lb..... | 2,302 | 2,588 | 3,115 | 571 | 715 | 610 |
| Milk, condensed or preserved..... | Lb..... | 3,012 | 3,717 | 3,918 | 435 | 477 | 481 |
| Total dairy products..... | Lb..... | 6,428 | 7,916 | 7,776 | 1,378 | 1,619 | 1,425 |
| Eggs..... | Doz..... | 61 | 86 | 77 | 29 | 39 | 20 |
| Meats and meat products: | | | | | | | |
| Beef and veal, total..... | Lb..... | 4,235 | 3,833 | 3,216 | 353 | 351 | 358 |
| Mutton and lamb..... | Lb..... | 1 24 | 41 | 40 | 1 7 | 12 | 11 |
| Pork, total..... | Lb..... | 19,827 | 21,389 | 21,186 | 2,538 | 2,556 | 2,969 |
| Lard..... | Lb..... | 11,579 | 14,364 | 11,684 | 1,618 | 1,962 | 1,976 |
| Lard compounds..... | Lb..... | 3,757 | 1,476 | 3,319 | 507 | 185 | 438 |
| Miscellaneous meats and meat products..... | Lb..... | 1,743 | 6,903 | 5,523 | 680 | 811 | 878 |
| Total meats and meat products..... | | | | | 5,708 | 5,997 | 6,680 |
| Miscellaneous animal products, n. e. s..... | Lb..... | 1 20 | 83 | 50 | 1 6 | 26 | 24 |
| Total animals and animal products..... | | | | | 7,206 | 7,683 | 8,296 |

1 Jan. 1-June 30.

2 Reported in value only.

3 Less than 500.

TABLE 642.—Agricultural products: Shipments from the United States to Alaska, Hawaii and Porto Rico, 1923-1925—Continued

PORTO RICO—Continued

| Year ended June 30 | | | | | | | | |
|---|----------|------|------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|
| Article shipped | Quantity | | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 | |
| VEGETABLE PRODUCTS | | | | | | | | |
| Cocoa and chocolate | Lb. | | Thous- sands (?) | Thous- sands 575 | Thous- sands 525 | 1,000 dollars 164 | 1,000 dollars 193 | 1,000 dollars 175 |
| Coffee | Lb. | | 10 | 4 | 3 | 2 | 1 | 1 |
| Fruits, total | | | | | | 350 | 455 | 414 |
| Grains and grain products: | | | | | | | | |
| Grains and flours— | | | | | | | | |
| Oats | Bu. | | 260 | 310 | 273 | 149 | 180 | 180 |
| Rice | Lb. | | 174,587 | 100,476 | 106,433 | 6,475 | 8,318 | 8,771 |
| Oatmeal and rolled oats | Lb. | | 518 | 677 | 695 | 47 | 63 | 67 |
| Wheat flour | Bbl. | | 424 | 431 | 409 | 2,506 | 2,350 | 2,892 |
| Other grains and flours | | | | | | 604 | 494 | 510 |
| Total grains and flours | | | | | | 9,781 | 11,395 | 12,360 |
| Miscellaneous grain products | | | | | | 860 | 1,367 | 1,333 |
| Total grains and grain products | | | | | | 10,641 | 12,762 | 13,693 |
| Nuts | Lb. | | (?) | 162 | 111 | 19 | 28 | 21 |
| Oilseeds and oilseed products: | | | | | | | | |
| Oil cake and meal | Lb. | | 2,890 | 1,574 | 616 | 77 | 40 | 15 |
| Cottonseed oil | Lb. | | 238 | 81 | 131 | 33 | 11 | 17 |
| Linseed oil | Lb. | | 815 | 886 | 834 | 100 | 115 | 117 |
| Other vegetable oils and fats | Lb. | | (?) | 1,556 | 1,479 | 54 | 206 | 211 |
| Total oilseeds and oilseed products | | | | | | 273 | 372 | 360 |
| Seeds, field and vegetable | Lb. | | 151 | 48 | 36 | 8 | 8 | 8 |
| Sugar, molasses, and sirups, total | | | | | | 510 | 620 | 347 |
| Tea | Lb. | | 9 | 5 | 7 | 4 | 2 | 3 |
| Tobacco, leaf, unmanufactured | Lb. | | 3,054 | 2,794 | 2,947 | 770 | 706 | 645 |
| Vegetables: | | | | | | | | |
| Dried and fresh— | | | | | | | | |
| Beans and peas, dried | Bu. | | 360 | 463 | 485 | 1,285 | 1,669 | 2,110 |
| Onions | Bu. | | 82 | 94 | 113 | 136 | 166 | 197 |
| Potatoes | Bu. | | 470 | 457 | 550 | 456 | 551 | 524 |
| Canned vegetables | Lb. | | (?) | 1,559 | 1,516 | 173 | 153 | 148 |
| Other vegetables and preparations of | Lb. | | (?) | 972 | 2,267 | 41 | 84 | 178 |
| Total vegetables | | | | | | 2,093 | 2,627 | 3,157 |
| Miscellaneous vegetable products: | | | | | | | | |
| Beverages and fruit juices | Gal. | | 1,130 | 322 | 332 | 1,139 | 319 | 365 |
| Hay | Ton | | 1 | 1 | 1 | 18 | 17 | 32 |
| Starch | Lb. | | 645 | 1,267 | 1,267 | 22 | 41 | 50 |
| Vegetable food products, n. e. s. | Lb. | | 1,354 | 422 | 318 | 129 | 51 | 47 |
| Miscellaneous vegetable products, n. e. s. | Lb. | | 172 | 253 | 266 | 113 | 24 | 20 |
| Total vegetable products | | | | | | 15,055 | 18,246 | 19,331 |
| FOREST PRODUCTS | | | | | | | | |
| Naval stores: Rosin, tar, turpentine, and pitch | Lb. | | (?) | 672 | 374 | 18 | 19 | 18 |
| Wood: | | | | | | | | |
| Boards, planks, etc., total | M ft. | | 47 | 63 | 50 | 1,314 | 2,283 | 1,673 |
| Box shooks | Set. | | (?) | 2,062 | 1,683 | 356 | 461 | 276 |
| Cooperage shooks | Set. | | 139 | 105 | 26 | 131 | 118 | 36 |
| Other wood | | | | | | 98 | 69 | 80 |
| Total wood | | | | | | 1,801 | 2,871 | 2,065 |
| Total forest products | | | | | | 1,819 | 2,890 | 2,083 |
| Total value of shipments, including forest products | | | | | | 24,060 | 28,519 | 29,710 |
| Total value of shipments, excluding forest products | | | | | | 22,261 | 25,928 | 27,627 |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States, June, 1925, Part II.

1 Jan. 1-June 30.

2 Reported in value only.

TABLE 643.—Agricultural products: Imports of the United States, 1923-1925—Continued

| Article Imported | Year ended June 30 | | | | | | |
|---|--------------------|-----------------------|-----------------------|------------------------|---------------|----------------------|------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| ANIMALS AND ANIMAL PRODUCTS—CON. | | | | | | | |
| Meats and meat products—Continued. | | | | | | | |
| Miscellaneous meats— | | Thousands | Thousands | Thousands | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Meats, prepared or preserved..... | Lb..... | 8,961 ⁽¹⁾ | 5,583 ⁽²⁾ | (3) | 1,118 | 691 ⁽⁴⁾ | (5) |
| Canned meats..... | Lb..... | (2) | 3,529 | 12,423 ⁽³⁾ | (2) | 356 ⁽⁴⁾ | 1,318 |
| Meat extracts..... | Lb..... | (2) | 118 | 267 ⁽³⁾ | (2) | 106 ⁽⁴⁾ | 223 |
| Other prepared meats..... | Lb..... | (2) | 1,968 | 2,868 ⁽³⁾ | (2) | 268 ⁽⁴⁾ | 650 |
| Miscellaneous meats, n. e. s..... | Lb..... | 2,340 | 1,468 | 1,126 | 559 | 316 | 200 |
| Total meats..... | | | | | 7,661 | 6,060 | 6,115 |
| Oils and fats, animal— | | | | | | | |
| Beef and hog fats..... | Lb..... | 11,016 | 2,783 | 4,212 | 838 | 224 | 425 |
| Grease and oils, n. e. s..... | Lb..... | 14,146 ⁽¹⁾ | (2) | (3) | 619 | 308 | 320 |
| Wool grease..... | Lb..... | (2) | 8,581 | 9,154 ⁽³⁾ | (2) | 240 | 299 |
| Miscellaneous oils, n. e. s..... | Gal..... | (1) | (2) | (3) | 154 | (4) | (5) |
| Total oils and fats..... | | | | | 1,611 | 862 | 1,044 |
| Total meats and meat products..... | | | | | 9,272 | 6,922 | 7,159 |
| Silk, unmanufactured: | | | | | | | |
| Cocoons..... | Lb..... | 380 | 155 | 107 | 383 | 132 | 102 |
| Raw silk..... | Lb..... | 52,684 | 46,172 | 50,138 | 405,796 | 350,060 | 353,119 |
| Waste..... | Lb..... | 16,124 | 10,268 | 11,025 | 7,388 | 8,571 | 8,693 |
| Total silk, unmanufactured..... | Lb..... | 63,188 | 56,595 | 70,270 | 413,567 | 358,792 | 361,944 |
| Wool and mohair, unmanufactured: | | | | | | | |
| Carpet wool..... | Lb..... | 171,879 | 33,376 ⁽¹⁾ | (2) | 34,946 | 7,154 ⁽⁴⁾ | (5) |
| On the skin or in the grease..... | Lb..... | (3) | 69,445 | 109,238 ⁽³⁾ | (3) | 15,734 | 30,925 |
| Washed or scoured..... | Lb..... | (3) | 14,554 | 20,223 ⁽³⁾ | (3) | 3,604 | 9,055 |
| Total carpet wool..... | Lb..... | 171,879 | 118,375 | 138,461 | 34,946 | 26,492 | 39,980 |
| Clothing wool..... | Lb..... | 43,703 | 4,331 ⁽¹⁾ | (2) | 14,555 | 1,615 ⁽⁴⁾ | (5) |
| In the grease and washed..... | Lb..... | (3) | 6,675 | 18,942 ⁽³⁾ | (3) | 2,453 | 8,735 |
| Scoured..... | Lb..... | (3) | 1,614 | 5,504 ⁽³⁾ | (3) | 909 | 3,521 |
| Total clothing wool..... | Lb..... | 43,703 | 12,520 | 24,446 | 14,555 | 4,977 | 12,256 |
| Combing wool..... | Lb..... | 298,496 | 23,218 ⁽¹⁾ | (2) | 108,117 | 7,883 ⁽⁴⁾ | (5) |
| In the grease and washed..... | Lb..... | (3) | 70,900 | 113,003 ⁽³⁾ | (3) | 34,528 | 66,309 |
| Scoured..... | Lb..... | (3) | 2,885 | 4,968 ⁽³⁾ | (3) | 1,446 | 3,761 |
| Total combing wool..... | Lb..... | 298,496 | 103,003 | 117,991 | 108,117 | 43,951 | 79,070 |
| Hair of the Angora goat (mohair), alpaca, and other like animals..... | Lb..... | 2,851 ⁽¹⁾ | (2) | (3) | 1,060 | (4) | (5) |
| Angora (mohair)..... | Lb..... | 7,221 | 1,126 ⁽¹⁾ | (2) | 2,857 | 758 ⁽⁴⁾ | (5) |
| In the grease and washed..... | Lb..... | (3) | 2,405 | 2,403 ⁽³⁾ | (3) | 1,027 | 1,235 |
| Scoured..... | Lb..... | (3) | 53 | 1 ⁽³⁾ | (3) | 20 | 1 |
| Cashmere, alpaca, etc..... | Lb..... | 1,322 | 1,341 | 1,405 | 581 | 504 | 622 |
| Total mohair, cashmere, alpaca, etc..... | Lb..... | 11,394 | 4,925 | 3,806 | 4,477 | 2,306 | 1,858 |
| Total wool and mohair, unmanufactured..... | Lb..... | 535,472 | 229,123 | 284,707 | 162,096 | 77,729 | 124,164 |

¹ Beginning Sept. 23, 1922.² Reported in value only.³ July 1-Dec. 31.⁴ Jan. 1-June 30.⁵ July 1-Sept. 23, 1922.⁶ Classified as "Canned meats," "Meat extracts" and "Other prepared meats."⁷ Classified as "Meats, prepared or preserved."⁸ Excludes "Grease and oils, n. e. s.," dutiable.⁹ Included with "Grease and oils, n. e. s."¹⁰ Included with Whale oil, which is not considered an agricultural product.¹¹ Classified as Carpet wool, "On the skin or in the grease" and "Washed or scoured."¹² Classified as "Carpet wool."¹³ Classified as Clothing wool, "In the grease and washed" and "Scoured."¹⁴ Classified as "Clothing wool."¹⁵ Classified as Combing wool, "In the grease and washed" and "Scoured."¹⁶ Classified as "Combing wool."¹⁷ Classified as "Angora (mohair)," "In the grease and washed," and "Scoured."¹⁸ Classified as Angora (mohair), "In the grease and washed" and "Scoured."¹⁹ Classified as "Hair of the Angora goat (mohair), alpaca and other like animals," and "Angora (mohair)" and "Cashmere, alpaca, etc."

TABLE 643.—Agricultural products: Imports of the United States, 1923-1925—Continued

| Article imported | Year ended June 30 | | | | | | |
|--|--------------------|-----------|-----------|------------------|---------|---------|------------------|
| | Quantity | | | Value | | | |
| | Unit | 1922 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| ANIMALS AND ANIMAL PRODUCTS—CON. | | | | | | | |
| Miscellaneous animal products: | | | | | | | |
| Beeswax..... | Lb..... | 3,921 | 3,271 | 2,956 | 814 | 709 | 875 |
| Blood, dried..... | Lb..... | (*) | 13 | 8 | (*) | 181 | 415 |
| Bones, hoofs, and horns, unmanufactured..... | Lb..... | 101,269 | 101,152 | 120,948 | 1,484 | 1,322 | 1,425 |
| Bristles— | | | | | | | |
| Crude, not sorted, etc..... | Lb..... | 61 | 6 | 5 | 21 | 17 | 13 |
| Sorted, bunched or prepared..... | Lb..... | 5,623 | 5,733 | 4,255 | 7,773 | 9,748 | 8,128 |
| Feathers, crude, not advanced— | | | | | | | |
| Ostrich..... | Lb..... | 179 | 159 | 125 | 1,140 | 787 | 553 |
| Other feathers..... | Lb..... | 4,821 | 4,236 | 3,563 | 2,075 | 2,275 | 2,162 |
| Gelatin..... | Lb..... | 4,379 | 5,274 | 4,822 | 1,570 | 1,842 | 1,804 |
| Glue and glue size..... | Lb..... | 6,930 | 8,062 | 6,706 | 702 | 668 | 577 |
| Glue stock and hide cuttings..... | Lb..... | 29,759 | 28,412 | 20,369 | 1,167 | 1,099 | 1,170 |
| Hair, unmanufactured— | | | | | | | |
| Horse..... | Lb..... | 7,493 | 4,990 | 4,402 | 3,300 | 2,561 | 2,400 |
| Other animal hair..... | Lb..... | 9,609 | 8,807 | 12,550 | 1,194 | 1,242 | 1,539 |
| Honey..... | Lb..... | 602 | 343 | 319 | 60 | 36 | 39 |
| Sausage casings..... | Lb..... | 18,503 | 20,386 | 17,755 | 11,891 | 13,955 | 15,063 |
| Miscellaneous animal products, n. e. s..... | Lb..... | (*) | 1,446 | 2,200 | 1,079 | 2,542 | 2,619 |
| Total animals and animal products. | | | | | 806,529 | 620,768 | 671,966 |
| VEGETABLE PRODUCTS | | | | | | | |
| Chocolate and cocoa: | | | | | | | |
| Chocolate and cocoa, prepared..... | Lb..... | 2,421 | 1,456 | (*) | 540 | 357 | (*) |
| Chocolate, prepared..... | Lb..... | (*) | 383 | 1,580 | (*) | 105 | 501 |
| Cocoa, prepared..... | Lb..... | (*) | 1,417 | 2,530 | (*) | 196 | 386 |
| Cocoa or cacao beans..... | Lb..... | 331,508 | 382,971 | 382,570 | 34,547 | 28,346 | 34,833 |
| Coffee..... | Lb..... | 1,305,188 | 1,429,617 | 1,279,570 | 181,639 | 206,810 | 267,153 |
| Cotton, unmanufactured: | | | | | | | |
| Long staple (478 lbs.)..... | Bale..... | 159 | 129 | 111 | 22,032 | 21,142 | 20,409 |
| Short staple (478 lbs.)..... | Bale..... | 335 | 176 | 213 | 36,908 | 22,619 | 30,231 |
| Total cotton, unmanufactured (478 lbs.)..... | Bale..... | 494 | 305 | 324 | 60,640 | 43,761 | 50,640 |
| Fruits: | | | | | | | |
| Dried— | | | | | | | |
| Currents..... | Lb..... | 18,924 | 17,155 | 15,964 | 1,682 | 1,352 | 1,091 |
| Dates..... | Lb..... | 52,037 | 44,143 | 63,444 | 2,665 | 1,817 | 2,844 |
| Figs..... | Lb..... | 36,585 | 31,668 | 45,250 | 1,969 | 2,064 | 2,614 |
| Raisins and other dried grapes..... | Lb..... | 12,336 | 5,744 | 10,004 | 1,177 | 501 | 854 |
| Total dried fruits ¹ | Lb..... | 119,881 | 98,710 | 133,771 | 7,467 | 5,704 | 7,403 |
| Fresh— | | | | | | | |
| Apples..... | Bu..... | 1,153 | 131 | 106 | 1,299 | 244 | 239 |
| Bananas..... | Bunch..... | 44,504 | 44,934 | 50,513 | 18,969 | 20,451 | 25,702 |
| Berries..... | Lb..... | 1,246 | 3,639 | 5,295 | 1,111 | 372 | 415 |
| Cherries, natural state..... | Lb..... | (*) | 2,979 | 4,997 | (*) | 249 | 405 |
| Citrus— | | | | | | | |
| Grapefruit..... | Lb..... | (*) | 11,755 | 15,287 | 648 | 348 | 478 |
| Lemons..... | Lb..... | 122,818 | 75,297 | 93,580 | 2,690 | 1,729 | 1,975 |
| Limes and oranges..... | Lb..... | (*) | 2,331 | (*) | 224 | 104 | (*) |
| Limes..... | Lb..... | (*) | 2,144 | 3,881 | (*) | 70 | 102 |
| Oranges..... | Lb..... | (*) | 245 | 1,049 | (*) | 8 | 51 |
| Grapes..... | Cu. ft..... | 1,355 | 831 | 138 | 1,926 | 1,584 | 559 |
| Pineapples..... | Lb..... | (*) | (*) | (*) | 2,539 | 2,022 | 3,405 |
| Total fresh fruits ² | | | | | 27,886 | 27,702 | 33,331 |

¹ Beginning Sept. 23, 1923.² Reported in value only.³ July 1-Dec. 31.⁴ Jan. 1-June 30.⁵ Included with Nitrogenous fertilizers, "Other."⁶ Excludes "Miscellaneous animal products, n. e. s., free of duty."⁷ Classified as "Chocolate, prepared" and "Cocoa, prepared."⁸ Classified as "Chocolate and cocoa, prepared."⁹ Excludes "Miscellaneous fruits n. e. s."¹⁰ Included with "Miscellaneous fruits, n. e. s."¹¹ Classified as "Limes" and "Oranges."¹² Classified as "Limes and oranges."

TABLE 643.—Agricultural products: Imports of the United States, 1923-1925—Continued

| Article imported | Year ended June 30 | | | | | | |
|---|--------------------|------------------|------------------|--------------------------|------------------|------------------|--------------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 prelim- inary | 1923 | 1924 | 1925 prelim- inary |
| VEGETABLE PRODUCTS—continued | | | | | | | |
| Fruits—Continued | | | | | | | |
| Prepared or preserved— | | | | | | | |
| Cherries..... | Lb..... | (⁴) | \$ 1,380 | 9,175 | (⁴) | \$ 150 | 777 |
| Fruits, canned or preserved..... | Lb..... | (⁴) | (⁴) | (⁴) | (⁴) | (⁴) | (⁴) |
| Citron or citron peel..... | Lb..... | (⁴) | \$ 2,611 | 2,842 | (⁴) | \$ 396 | 644 |
| Ginger root, preserved..... | Lb..... | (⁴) | \$ 387 | 715 | (⁴) | \$ 58 | 106 |
| In their own juices, or in sugar or spirits..... | Lb..... | 1 772 | 1,372 | 1,020 | 1 102 | 170 | 128 |
| Jellies, jams, marmalades, and fruit butter..... | Lb..... | (⁴) | \$ 1,392 | 2,445 | (⁴) | \$ 221 | 394 |
| Other prepared or preserved fruits..... | Lb..... | 1 8,171 | 6,013 | 1,722 | 1 1,026 | 746 | 95 |
| Olives..... | Lb..... | (²) | 6,848 | 5,901 | 4,870 | 4,384 | 4,369 |
| Pineapples..... | Lb..... | (⁴) | \$ 2,975 | 3,081 | (⁴) | \$ 214 | 268 |
| Miscellaneous fruits, n. e. s..... | Lb..... | (²) | 32,502 | 16,978 | 3,325 | 2,194 | 866 |
| Total fruits..... | | | | | 44,650 | 42,059 | 48,383 |
| Grains and grain products: | | | | | | | |
| Grains— | | | | | | | |
| Buckwheat..... | Lb..... | (⁴) | \$ 7,394 | 26,029 | (⁴) | \$ 130 | 503 |
| Corn..... | Bu..... | 138 | 228 | 4,617 | 158 | 227 | 4,150 |
| Oats..... | Bu..... | 293 | 4,244 | 3,041 | 178 | 2,017 | 1,456 |
| Rice— | | | | | | | |
| Cleaned, except patna..... | Lb..... | 56,947 | 32,193 | 41,639 | 1,772 | 1,252 | 1,759 |
| Uncleaned..... | Lb..... | 11,678 | 5,118 | 12,024 | 362 | 264 | 667 |
| Wheat..... | Bu..... | 18,013 | 27,284 | 6,169 | 20,034 | 25,994 | 8,580 |
| Total grains..... | | | | | 22,504 | 29,884 | 17,115 |
| Meal and flours— | | | | | | | |
| Rice flour, meal, etc..... | Lb..... | 911 | 900 | 4,013 | 57 | 55 | 155 |
| Wheat flour..... | Lb..... | 84,166 | 33,150 | 1,317 | 2,308 | 838 | 39 |
| Miscellaneous grain products— | | | | | | | |
| Biscuits, wafers, cakes, etc..... | Lb..... | 846 | 1,119 | 1,303 | 203 | 281 | 341 |
| Bran, shorts, and other by- product feeds..... | Ton..... | 1 91 | 167 | 256 | 1 1,824 | 3,541 | 5,993 |
| Bread, yeast, leavened..... | Lb..... | (⁴) | \$ 1,015 | 2,231 | (⁴) | \$ 121 | 289 |
| Macaroni, vermicelli, etc..... | Lb..... | 3,254 | \$ 3,870 | 6,191 | 250 | \$ 254 | 422 |
| Other grain products, n. e. s..... | Lb..... | (²) | \$ 1,913 | 2,098 | 1,041 | 588 | 544 |
| Total grains and grain prod- ucts..... | | | | | 28,187 | 35,562 | 25,198 |
| Nuts: | | | | | | | |
| Almonds— | | | | | | | |
| Shelled..... | Lb..... | 22,972 | 23,411 | 21,351 | 5,641 | 4,855 | 7,276 |
| Unshelled..... | Lb..... | 4,576 | 2,654 | 3,802 | 425 | 222 | 383 |
| Brazil and cream nuts..... | Lb..... | 39,808 | 45,241 | 32,701 | 2,045 | 2,451 | 2,622 |
| Chestnuts, including marrons..... | Lb..... | 20,161 | 27,209 | 28,406 | 941 | 1,024 | 1,122 |
| Coconuts in the shell..... | No..... | 77,033 | 65,299 | 64,750 | 1,743 | 1,723 | 1,489 |
| Coconut meat, desiccated or pre- pared..... | Lb..... | 32,496 | 45,147 | 43,309 | 2,371 | 3,619 | 3,506 |
| Filberts— | | | | | | | |
| Shelled..... | Lb..... | 6,209 | 7,358 | 4,345 | 948 | 1,102 | 1,146 |
| Unshelled..... | Lb..... | 14,366 | 14,111 | 9,326 | 1,057 | 909 | 1,029 |
| Peanuts— | | | | | | | |
| Shelled..... | Lb..... | 42,439 | 48,310 | 85,610 | 2,011 | 2,130 | 4,249 |
| Unshelled..... | Lb..... | 3,863 | 3,561 | 11,871 | 171 | 149 | 535 |
| Peanuts..... | Lb..... | (⁴) | (⁴) | 2,941 | (⁴) | (⁴) | 262 |
| Pignolia..... | Lb..... | (⁴) | \$ 192 | 691 | (⁴) | \$ 42 | 141 |
| Pistache..... | Lb..... | (⁴) | \$ 1,207 | 842 | (⁴) | \$ 461 | 385 |

1 Beginning Sept. 23, 1922.

2 Reported in value only.

3 Jan. 1-June 30.

4 Included with "Miscellaneous fruits, n. e. s."

5 Classified as "Citron or citron peel," "Ginger root, preserved," and "Jellies, jams, marmalades and fruit butter."

6 Included with Fruits, "Other prepared or preserved."

7 Included with "Other grain products, n. e. s."

8 Excludes "Other grain products, n. e. s." dutiable.

9 Included with Nuts, "Miscellaneous, n. e. s."

TABLE 643.—Agricultural products: Imports of the United States, 1923-1925—Continued

| Article Imported | Year ended June 30 | | | | | | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—continued | | | | | | | |
| Nuts—Continued. | | | | | | | |
| Walnuts— | | Thousands | Thousands | Thousands | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Shelled..... | Lb..... | 17,606 | 18,765 | 23,640 | 4,438 | 4,462 | 6,808 |
| Unshelled..... | Lb..... | 19,913 | 18,245 | 30,912 | 2,406 | 1,894 | 3,737 |
| Miscellaneous nuts, n. e. s..... | Lb..... | (¹) | 3,287 | 1,969 | 1,715 | 622 | 354 |
| Total nuts..... | | | | | 25,912 | 25,665 | 35,134 |
| Oilseeds and oilseed products: | | | | | | | |
| Oil cake and oil-cake meal..... | Lb..... | 14 24,251 | (⁽¹⁾) | (⁽¹⁾) | 14 636 | (⁽¹⁾) | (⁽¹⁾) |
| Bean..... | Lb..... | 1 22,772 | 31,909 | 41,315 | 1 422 | 576 | 774 |
| Coconut..... | Lb..... | 1 46,055 | 58,162 | 55,240 | 1 565 | 542 | 816 |
| Miscellaneous oil cake and oil-cake meal..... | Lb..... | 1 21,500 | 39,020 | 34,743 | 1 393 | 705 | 620 |
| Total oil cake and oil-cake meal..... | | | | | 2,016 | 1,823 | 2,210 |
| Oils— | | | | | | | |
| Essential and distilled— | | | | | | | |
| Bergamot..... | Lb..... | 1 113 | 85 | 100 | 1 295 | 248 | 326 |
| Citronella and lemon grass..... | Lb..... | 1 976 | 801 | 1,184 | 1 559 | 567 | 924 |
| Geranium..... | Lb..... | (⁽¹⁾) | 6 42 | 155 | (⁽¹⁾) | 6 246 | 869 |
| Lavender..... | Lb..... | 1 244 | 153 | 210 | 1 383 | 394 | 744 |
| Lemon..... | Lb..... | 447 | 543 | 437 | 278 | 343 | 328 |
| Orange..... | Lb..... | 1 183 | 211 | 224 | 1 361 | 407 | 492 |
| Otto of roses..... | Oz..... | (⁽¹⁾) | 6 26 | 36 | (⁽¹⁾) | 6 127 | 247 |
| Sandalwood..... | Lb..... | (⁽¹⁾) | 6 42 | 34 | (⁽¹⁾) | 6 200 | 158 |
| Thyme..... | Lb..... | (⁽¹⁾) | 6 62 | 92 | (⁽¹⁾) | 6 36 | 65 |
| Other essential and distilled oils..... | Lb..... | (⁽¹⁾) | 31 496 | 3,745 | 3,490 | 2,454 | 1,900 |
| Total essential and distilled oils..... | | | | | 5,375 | 5,112 | 6,053 |
| Expressed and fats— | | | | | | | |
| Chinese wood, or nut oil..... | Lb..... | 89,392 | 80,896 | 94,695 | 10,189 | 13,848 | 10,957 |
| Cocoa butter..... | Lb..... | 3,910 | 1,169 | 733 | 757 | 207 | 132 |
| Coconut oil..... | Lb..... | 212,573 | 181,230 | 250,328 | 14,968 | 13,934 | 20,230 |
| Linseed oil..... | Lb..... | 56,764 | 17,840 | 23,587 | 5,053 | 1,871 | 2,170 |
| Olive oil, edible..... | Lb..... | 74,626 | 3 36,210 | (⁽¹⁾) | 12,852 | 3 5,565 | (⁽¹⁾) |
| In packages weighing less than 40 lbs..... | Lb..... | (⁽¹⁾) | 6 23,208 | 48,071 | (⁽¹⁾) | 6 3,667 | 8,079 |
| Other olive oil..... | Lb..... | (⁽¹⁾) | 6 21,463 | 32,231 | (⁽¹⁾) | 6 3,567 | 5,818 |
| Olive oil, inedible..... | Lb..... | 42,636 | 3 11,346 | (⁽¹⁾) | 3,445 | 2 944 | (⁽¹⁾) |
| Denatured..... | Lb..... | (⁽¹⁾) | 6 6,250 | 8,621 | (⁽¹⁾) | 6 679 | 982 |
| Sulphured or foots..... | Lb..... | (⁽¹⁾) | 6 14,943 | 26,924 | (⁽¹⁾) | 6 1,376 | 2,317 |
| Palm kernel oil..... | Lb..... | (⁽¹⁾) | 6 1,126 | 37,364 | (⁽¹⁾) | 6 100 | 3,267 |
| Palm oil..... | Lb..... | 118,816 | 86,784 | 114,387 | 8,686 | 5,733 | 8,779 |
| Peanut oil..... | Lb..... | 7,553 | 15,061 | 3,510 | 706 | 1,287 | 380 |
| Rape oil..... | Gal..... | 1,770 | 2,068 | 1,059 | 1,226 | 1,366 | 1,512 |
| Soy-bean oil..... | Lb..... | 38,635 | 17,631 | 20,424 | 2,412 | 1,156 | 1,547 |
| Vegetable tallow..... | Lb..... | 1 8,467 | 3,887 | 7,031 | 1 584 | 278 | 639 |
| Miscellaneous oils, expressed and fats, n. e. s..... | Lb..... | (⁽¹⁾) | 8,037 | 7,678 | 1,601 | 1,159 | 1,300 |
| Total expressed and fats..... | | | | | 64,479 | 57,783 | 70,014 |
| Total vegetable oils..... | | | | | 69,854 | 62,895 | 76,067 |

¹ Beginning Sept. 22, 1922.² Reported in value only.³ July 1-Dec. 31.⁴ Jan. 1-June 30.⁵ July 1-Sept. 21, 1922.⁶ Classified as "Bean," "Coconut," and "Miscellaneous oil cake and oil-cake meal."⁷ Included with "Other essential and distilled oils."⁸ Excludes "Other essential and distilled oils," free of duty.⁹ Classified as Olive oil, edible, "In packages weighing less than 40 pounds" and "Other olive oil."¹⁰ Classified as "Olive oil, edible."¹¹ Classified as Olive oil, inedible, "Denatured" and "Sulphured or foots."¹² Classified as "Olive oil, inedible."¹³ Included with Vegetable oils, "Miscellaneous expressed and fats, n. e. s."

TABLE 643.—*Agricultural products: Imports of the United States, 1923-1925—Continued*

| Article imported | Year ended June 30 | | | | | | |
|--|--------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| | Quantity | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—continued | | | | | | | |
| Offseed and oilseed products—Con. | | | | | | | |
| Oilseeds: | | Thous- sands | Thous- sands | Thous- sands | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Caster beans..... | Lb..... | 88,199 | 81,543 | 90,787 | 2,876 | 3,221 | 4,321 |
| Copra, not prepared..... | Lb..... | 806,100 | 296,774 | 328,652 | 17,994 | 12,866 | 15,482 |
| Cottonseed..... | Lb..... | 156,982 | 88,744 | 72,696 | 1,430 | 1,482 | 915 |
| Flaxseed..... | Ba..... | 26,606 | 18,577 | 13,419 | 50,435 | 36,426 | 31,328 |
| Poppy seed..... | Lb..... | 16,317 | 4,750 | 6,805 | 1,633 | 413 | 616 |
| Miscellaneous oilseeds, n. e. s..... | Lb..... | 31,406 | 31,780 | 18,452 | 1,349 | 1,309 | 833 |
| Total oilseeds..... | | | | | 67,326 | 55,654 | 53,495 |
| Seeds, except oilseeds: | | | | | | | |
| Alfalfa..... | Lb..... | 15,165 | 12,899 | 4,810 | 1,589 | 1,623 | 780 |
| Clover— | | | | | | | |
| Albino..... | Lb..... | 12,242 | 10,978 | 10,265 | 1,257 | 1,248 | 1,483 |
| Crimson..... | Lb..... | 11,451 | 7,729 | 4,885 | 1,188 | 567 | 279 |
| Red..... | Lb..... | 609 | 24,287 | 6,494 | 91 | 3,620 | 1,663 |
| Miscellaneous clover, n. e. s..... | Lb..... | 9,601 | 10,102 | 7,743 | 1,149 | 1,424 | 1,027 |
| Garden and other seeds— | | | | | | | |
| Cabbage..... | Lb..... | 1,668 | 238 | 223 | 1,99 | 104 | 105 |
| Cassia..... | Lb..... | 9,559 | 9,864 | 11,764 | 1,305 | 374 | 617 |
| Turnip..... | Lb..... | 1,596 | 1,487 | 1,394 | 1,97 | 170 | 178 |
| Miscellaneous garden and flower seeds..... | Lb..... | (?) | 4,399 | 6,967 | 1,262 | 1,008 | 1,209 |
| Grass seed..... | Lb..... | 13,463 | 4,623 | 3,765 | 996 | 396 | 399 |
| Sugar beet..... | Lb..... | 15,890 | 11,620 | 14,256 | 1,679 | 1,121 | 1,464 |
| Vetch and other field seeds, n. e. s..... | Lb..... | 7,139 | 8,652 | 8,811 | 1,699 | 1,025 | 792 |
| Miscellaneous seeds, except oilseeds..... | Lb..... | (?) | 34,187 | 6,935 | 1,341 | 1,494 | 275 |
| Total seeds, except oilseeds..... | | | | | 8,812 | 14,174 | 10,290 |
| Spices: | | | | | | | |
| Allspice (Pimento) unground..... | Lb..... | (?) | 1,430 | 3,420 | (?) | 48 | 165 |
| Anise seed..... | Lb..... | (?) | 282 | 322 | (?) | 33 | 36 |
| Capsicum, red pepper, or cayenne pepper— | | | | | | | |
| Ground..... | Lb..... | 3,642 | 3,159 | 1,965 | 494 | 554 | 334 |
| Unground..... | Lb..... | 6,772 | 4,854 | 3,511 | 996 | 633 | 425 |
| Caraway seed..... | Lb..... | (?) | 947 | 6,191 | (?) | 209 | 567 |
| Cardamom seed..... | Lb..... | (?) | 80 | 176 | (?) | 80 | 223 |
| Cassia and cassia vera— | | | | | | | |
| Ground..... | Lb..... | (?) | (?) | (?) | (?) | (?) | (?) |
| Unground..... | Lb..... | 10,294 | 9,107 | 6,365 | 617 | 558 | 415 |
| Celery seed..... | Lb..... | (?) | 423 | 529 | (?) | 108 | 160 |
| Cinnamon and chips of..... | Lb..... | (?) | 660 | 1,504 | (?) | 109 | 325 |
| Cloves, unground..... | Lb..... | 6,776 | 6,050 | 8,908 | 1,146 | 1,435 | 1,239 |
| Coriander seed..... | Lb..... | (?) | 553 | 2,074 | (?) | 32 | 79 |
| Cumin seed..... | Lb..... | (?) | 556 | 1,069 | (?) | 111 | 228 |
| Ginger root, unground, not preserved..... | Lb..... | 6,318 | 4,964 | 4,312 | 678 | 679 | 635 |
| Mace, unground..... | Lb..... | (?) | 992 | 826 | (?) | 167 | 370 |
| Mustard— | | | | | | | |
| Ground or prepared..... | Lb..... | 1,764 | 1,456 | 1,472 | 1,018 | 755 | 819 |
| Mustard seed, whole..... | Lb..... | 13,216 | 16,136 | 9,908 | 693 | 800 | 607 |
| Nutmegs, unground..... | Lb..... | 5,258 | 3,327 | 4,206 | 699 | 592 | 1,230 |
| Paprika..... | Lb..... | (?) | (?) | 2,376 | (?) | (?) | 374 |
| Pepper, unground..... | Lb..... | 14,839 | (?) | (?) | 1,587 | (?) | (?) |
| Black..... | Lb..... | 120,386 | 22,353 | 31,219 | 1,346 | 1,534 | 2,781 |
| White..... | Lb..... | 4,598 | 9,989 | 8,268 | 498 | 566 | 1,035 |
| Pimento, whole..... | Lb..... | (?) | 1,763 | 2,953 | (?) | 211 | 329 |
| Vanilla beans..... | Lb..... | 1,281 | 628 | 840 | 2,364 | 3,639 | 5,853 |
| Miscellaneous spices, n. e. s..... | Lb..... | 18,640 | 11,344 | 2,918 | 2,360 | 1,761 | 470 |
| Total spices..... | Lb..... | 107,504 | 95,626 | 100,702 | 13,440 | 14,686 | 18,698 |

1 Beginning Sept. 22, 1922.

2 Reported in value only.

3 Jan. 1-June 30.

4 Included with "Miscellaneous spices, n. e. s."

5 Less than 500.

6 Included with "Capsicum, red pepper or cayenne pepper."

7 Classified as Pepper, unground, "Black" and "White."

TABLE 643.—Agricultural products: Imports of the United States, 1922-1925—Continued

| Article imported | Year ended June 30 | | | | | | |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | Quantity | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—continued | | | | | | | |
| Sugar, molasses, and sirups: | | Thousands | Thousands | Thousands | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Beet sugar (2,000 lbs.) | Ton | 0 | 0 | 2 | 0 | 0 | 142 |
| Cane sugar (2,000 lbs.) | Ton | 4,367 | 3,765 | 4,337 | 365,191 | 373,361 | 277,880 |
| Maple sugar and maple sirup | Lb. | 3,217 | 1,784 | 6,294 | 601 | 320 | 874 |
| Molasses | Gal. | 161,135 | 174,037 | 215,778 | 2,985 | 6,666 | 14,989 |
| Total sugar, molasses, and sirups | | | | | 368,687 | 380,347 | 293,885 |
| Tea | Lb. | 96,669 | 106,443 | 92,770 | 26,308 | 30,020 | 28,564 |
| Tobacco, unmanufactured: | | | | | | | |
| Cigar leaf— | | | | | | | |
| Stemmed | Lb. | 19,529 | 11,013 | 12,580 | 19,948 | 13,642 | 14,795 |
| Unstemmed | Lb. | 10,598 | 12,750 | 9,693 | 18,388 | 12,671 | 9,082 |
| Cigarette leaf | Lb. | 52,822 | 21,068 | 46,012 | 122,413 | 17,949 | 39,794 |
| Leaf suitable for cigar wrappers | Lb. | 8,794 | 6,414 | 5,766 | 19,432 | 15,236 | 14,180 |
| Product of the Philippine Islands | Lb. | 1,994 | 1,145 | 1,130 | 238 | 163 | 161 |
| Scraps and other unmanufactured tobacco | Lb. | 1,900 | 2,118 | 1,738 | 1,596 | 875 | 635 |
| Other leaf tobacco | Lb. | 10,129 | (⁽¹⁾) | (⁽¹⁾) | 8,193 | (⁽¹⁾) | (⁽¹⁾) |
| Total tobacco, unmanufactured | | | | | 69,193 | 58,980 | 78,687 |
| Vegetables: | | | | | | | |
| Dried and fresh— | | | | | | | |
| Beans, dried | Lb. | 157,356 | 53,152 | 85,272 | 5,512 | 1,958 | 4,196 |
| Chick peas or garbanzas | Lb. | (⁽²⁾) | 4,226 | 52,674 | (⁽²⁾) | 190 | 2,902 |
| Farinaceous substances—arrow-root, cassava, sago, and tapioca | Lb. | 93,964 | 90,961 | 116,314 | 3,465 | 4,255 | 4,685 |
| Garlic | Lb. | 7,890 | 6,418 | 7,796 | 246 | 264 | 440 |
| Mushrooms and truffles | Lb. | 5,991 | 2,516 | (⁽³⁾) | 1,817 | 722 | (⁽³⁾) |
| Mushrooms | Lb. | (⁽⁴⁾) | 2,146 | 5,385 | (⁽⁴⁾) | 672 | 1,845 |
| Truffles | Lb. | (⁽⁴⁾) | 14 | 54 | (⁽⁴⁾) | 84 | 76 |
| Onions | Lb. | 101,604 | 80,166 | 118,258 | 1,906 | 1,766 | 2,468 |
| Peas, dried | Lb. | 25,063 | 15,720 | 28,620 | 1,020 | 871 | 1,481 |
| Potatoes— | | | | | | | |
| Natural state | Lb. | 34,329 | 33,843 | 28,653 | 886 | 966 | 597 |
| Dried or prepared and flour of | Lb. | 14,258 | (⁽⁵⁾) | (⁽⁵⁾) | 14 | (⁽⁵⁾) | (⁽⁵⁾) |
| Tomatoes | Lb. | (⁽⁶⁾) | 50,838 | 69,218 | (⁽⁶⁾) | 1,626 | 2,348 |
| Turnips | Lb. | 100,259 | 140,000 | 155,284 | 1,297 | 873 | 637 |
| Miscellaneous vegetables, fresh, n. e. s. | Lb. | (⁽⁷⁾) | (⁽⁷⁾) | (⁽⁷⁾) | 3,551 | 2,569 | 2,069 |
| Prepared or preserved— | | | | | | | |
| Canned— | | | | | | | |
| Peas | Lb. | 1,845 | 1,489 | 1,934 | 111 | 150 | 226 |
| Tomatoes | Lb. | 20,166 | 30,946 | 64,467 | 1,269 | 1,646 | 3,035 |
| Other vegetables, canned | Lb. | 2,267 | 2,920 | 9,335 | 229 | 389 | 597 |
| Lentils | Lb. | (⁽⁸⁾) | 5,038 | 7,796 | (⁽⁸⁾) | 328 | 475 |
| Pickles and sauces | Lb. | (⁽⁹⁾) | 4,939 | (⁽⁹⁾) | 1,171 | 1,434 | (⁽⁹⁾) |
| Pickles | Lb. | (⁽⁹⁾) | 354 | 1,718 | (⁽⁹⁾) | 46 | 148 |
| Sauces | Lb. | (⁽⁹⁾) | 4,679 | 9,698 | (⁽⁹⁾) | 288 | 743 |
| Tomato paste | Lb. | (⁽⁹⁾) | 4,164 | 17,382 | (⁽⁹⁾) | 421 | 1,638 |
| Tomatoes, otherwise prepared | Lb. | (⁽⁹⁾) | 1,241 | 9,443 | (⁽⁹⁾) | 66 | 511 |
| Other vegetables, prepared or preserved | Lb. | (⁽⁹⁾) | 19,424 | 13,220 | 2,262 | 1,361 | 692 |

¹ Beginning Sept. 23, 1922.² Reported in value only.³ July 1-Dec. 31.⁴ Jan. 1-June 30.⁵ July 1-Sept. 21, 1922.⁶ Classified as Cigar leaf, "Stemmed" and "Unstemmed" and "Cigarette leaf."⁷ Included with "Miscellaneous seeds, except oilseeds."⁸ Classified as "Mushrooms and truffles."⁹ Classified as "Other vegetables prepared or preserved."¹⁰ Included with "Miscellaneous vegetables, fresh, n. e. s."¹¹ Classified as "Pickles" and "Sauces."¹² Classified as "Pickles and sauces."

TABLE 643.—*Agricultural products: Imports of the United States, 1923-1925—Continued*

| Article imported | Year ended June 30 | | | | | | |
|---|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Quantity | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—continued | | | | | | | |
| Vegetables—Continued. | | | | | | | |
| Prepared or preserved—Continued. | | | | | | | |
| Miscellaneous edible sub- | | | | | | | |
| stances— | | | | | | | |
| Bean cake, miso, or similar | Lb..... | | | | | | |
| products. | | | | | | | |
| Miscellaneous edible sub- | Lb..... | | | | | | |
| stances, n. e. s. | | | | | | | |
| Total vegetables..... | | | | | | | |
| Miscellaneous vegetable products: | | | | | | | |
| Argols or wine lees..... | Lb..... | 21,950 | 17,650 | 20,664 | 1,739 | 1,244 | 1,389 |
| Beet pulp, dried..... | Ton..... | 17 | 31 | 39 | 1,605 | 905 | 1,159 |
| Beverages— | | | | | | | |
| Distilled liquors..... | Pf. gal.... | 54 | 48 | 56 | 208 | 232 | 276 |
| Ginger ale, nonalcoholic..... | Gal..... | (¹) | 46 | 73 | (¹) | 65 | 95 |
| Lemon, lime, and sour orange | Lb..... | 1,165 | 4,296 | 4,268 | 129 | 512 | 513 |
| juice, not more than 2 per cent | | | | | | | |
| alcoholic. | | | | | | | |
| Wines— | | | | | | | |
| Champagne and other spar- | Gal..... | 14 | 2 | 2 | 83 | 12 | 11 |
| kling wines. | | | | | | | |
| Still wines..... | Gal..... | 162 | 91 | 80 | 259 | 121 | 123 |
| Other beverages and fruit juices, | Lb..... | (¹) | (¹) | (¹) | 481 | 373 | 197 |
| n. e. s. | | | | | | | |
| Broomcorn..... | Ton..... | (¹) | (¹) | (¹) | (¹) | (¹) | 5 |
| Drugs, herbs, leaves, roots, etc.— | | | | | | | |
| Cinchona bark and other from | Lb..... | 3,443 | 2,422 | 2,539 | 1,110 | 692 | 774 |
| which quinine may be ex- | | | | | | | |
| tracted. | | | | | | | |
| Licorice extract..... | Lb..... | 1,329 | 1,163 | 1,971 | 1,300 | 223 | 308 |
| Licorice root..... | Lb..... | 35,339 | 87,684 | 51,654 | 1,185 | 2,906 | 1,357 |
| Nux vomica..... | Lb..... | 2,078 | 1,262 | 1,612 | 198 | 37 | 50 |
| Opium, crude, 8.5 per cent or | Lb..... | 109 | 79 | 91 | 352 | 398 | 806 |
| more of morphine. | | | | | | | |
| Pyrethrum or insecticide flowers.. | Lb..... | 13,148 | 2,954 | 3,812 | 1,479 | 1,316 | 1,022 |
| Senna..... | Lb..... | 2,623 | 2,968 | 3,194 | 208 | 281 | 278 |
| Other drugs, herbs, leaves, roots, | Lb..... | 122,480 | 19,369 | 17,498 | 2,556 | 2,709 | 2,532 |
| etc. | | | | | | | |
| Total drugs, herbs, leaves, | | | | | 7,298 | 8,562 | 7,147 |
| roots, etc. | | | | | | | |
| Fibers, vegetable— | | | | | | | |
| Flax, unmanufactured— | | | | | | | |
| Hackled..... | Ton..... | 2 | 1 | 1 | 2,281 | 1,363 | 1,632 |
| Other flax..... | Ton..... | 6 | 4 | 3 | 2,019 | 891 | 1,402 |
| Hemp, unmanufactured..... | Ton..... | 6 | 1 | 3 | 1,411 | 452 | 1,349 |
| Isle or Tampico..... | Ton..... | 11 | 13 | 13 | 890 | 1,483 | 1,517 |
| Jute and jute butts, unmanufac- | Ton..... | 18 | (¹) | (¹) | 1,985 | (¹) | (¹) |
| tured. | | | | | | | |
| Jute..... | Ton..... | 166 | 71 | 52 | 10,132 | 7,904 | 8,846 |
| Jute butts..... | Ton..... | 110 | 12 | 4 | 1,032 | 684 | 562 |
| Kapok..... | Ton..... | 9 | 6 | 8 | 4,125 | 3,324 | 4,024 |
| Magwey or cantala..... | Ton..... | 11 | 1 | 1 | 1,92 | 64 | 81 |
| Manila or abaca..... | Ton..... | 96 | 98 | 73 | 13,202 | 13,526 | 17,266 |
| Sisal and henequen..... | Ton..... | 98 | 97 | 146 | 9,806 | 11,801 | 23,023 |
| Miscellaneous vegetable fibers, | Ton..... | 19 | 13 | 10 | 2,478 | 1,624 | 1,662 |
| n. e. s. | | | | | | | |
| Hay..... | Ton..... | 32 | 860 | 106 | 845 | 3,898 | 1,122 |
| Hops..... | Lb..... | 1,295 | 761 | 439 | 237 | 296 | 221 |
| Indigo and derivatives..... | Lb..... | 87 | 15 | 5 | 40 | 11 | 4 |

¹ Beginning Sept. 22, 1922.² Reported in value only.³ Jan. 1-June 30.⁴ July 1-Sept. 21, 1922.⁵ Less than 500.⁶ Included with "Miscellaneous edible substances, n. e. s."⁷ Included with "Other beverages and fruit juices, n. e. s."⁸ Included with "Miscellaneous vegetable products, n. e. s."⁹ Classified as "Jute" and "Jute butts."

TABLE 643.—Agricultural products: Imports of the United States, 1923-1925—Continued

| Article imported | Year ended June 30 | | | | | | |
|---|--------------------|----------------------|---------------------|--------------------|--------------------|----------------|------------------|
| | Quantity | | | Value | | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS—continued | | | | | | | |
| Miscellaneous vegetable products—Con. | | Thou- | Thou- | Thou- | 1,000 | 1,000 | 1,000 |
| Moss, seaweeds, etc. crude. | Lb. | 12,537 | 8,604 | 10,038 | 571 | 355 | 602 |
| Nursery and greenhouse stock— | | | | | | | |
| Bulbs, roots, and corms. | No. | ¹ 160,259 | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 4,330 | ⁽⁷⁾ | ⁽⁷⁾ |
| Hyacinth. | No. | ¹ 6,480 | 33,229 | 27,444 | ¹ 218 | 1,190 | 1,278 |
| Lily, tulip, and narcissus. | No. | ¹ 56,210 | 209,992 | 224,211 | ¹ 1,854 | 4,943 | 5,415 |
| Other bulbs, roots, etc. | No. | ¹ 7,661 | 20,910 | 20,701 | ¹ 117 | 216 | 290 |
| Trees, plants, cuttings and seedlings. | No. | ⁽⁷⁾ | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 4 | ⁽⁷⁾ | ⁽⁷⁾ |
| Fruit stock. | No. | ¹ 16,707 | 20,309 | 17,128 | ¹ 200 | 164 | 132 |
| Rose stocks and plants. | No. | ¹ 10,627 | 11,527 | 9,424 | ¹ 189 | 149 | 119 |
| Miscellaneous trees, plants, etc., n. e. s. | No. | ⁽⁷⁾ | ⁷ 305 | ⁷ 1,404 | 136 | 130 | 179 |
| Total nursery and greenhouse stock. | | | | | 7,048 | 6,792 | 7,413 |
| Starch. | Lb. | 12,715 | 12,126 | 10,441 | 406 | 431 | 432 |
| Vegetable ivory (tagua nuts). | Lb. | 33,571 | 29,973 | 36,698 | 918 | 916 | 1,865 |
| Miscellaneous feeds and fodders, n. e. s. | Lb. | ⁽⁷⁾ | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 925 | 1,585 | 1,820 |
| Miscellaneous vegetable products, n. e. s. | Lb. | ⁽⁷⁾ | ⁽⁷⁾ | ⁽⁷⁾ | 2,372 | 1,675 | 1,959 |
| Total vegetable products. | | | | | 1,098,722 | 1,095,947 | 1,145,487 |
| FOREST PRODUCTS | | | | | | | |
| Dyeing and tanning materials: | | | | | | | |
| Extracts for dyeing, coloring, etc. | Lb. | 3,556 | 3,949 | 3,438 | 270 | 332 | 315 |
| Extracts for tanning— | | | | | | | |
| Quebracho. | Lb. | 120,224 | 119,086 | 101,171 | 4,706 | 3,552 | 3,206 |
| Other extracts for tanning. | Lb. | 7,266 | 6,826 | 4,522 | 213 | 202 | 134 |
| Gambler. | Lb. | 7,727 | 4,743 | 5,136 | 460 | 378 | 657 |
| Logwood. | Ton. | 27 | 31 | 23 | 426 | 560 | 393 |
| Mangrove bark. | Ton. | 7 | 2 | 2 | 200 | 37 | 47 |
| Myrobalans fruit. | Ton. | ¹ 22 | 14 | 11 | ¹ 429 | 352 | 326 |
| Quebracho wood. | Ton. | 43 | 29 | 23 | 556 | 440 | 355 |
| Sumac. | Ton. | 8 | 4 | 4 | 434 | 359 | 483 |
| Valonia. | Lb. | ¹ 7,638 | 17,029 | 24,806 | ¹ 160 | 309 | 405 |
| Other crude dyeing and tanning materials. | Lb. | ⁽⁷⁾ | 62,591 | 49,721 | 1,372 | 1,024 | 1,040 |
| Total dyeing and tanning materials. | | | | | 9,316 | 7,575 | 7,361 |
| Gums, resins, and balsams: | | | | | | | |
| Balsams, crude. | Lb. | 521 | 314 | 451 | 206 | 208 | 259 |
| Camphor— | | | | | | | |
| Natural, crude. | Lb. | 3,498 | 1,955 | 1,904 | 2,226 | 1,179 | 1,012 |
| Refined and synthetic. | Lb. | 3,541 | 3,276 | ¹ 1,303 | 2,534 | 2,240 | ¹ 783 |
| Refined. | Lb. | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 895 | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 519 |
| Synthetic. | Lb. | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 941 | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 466 |
| Chicle. | Lb. | 9,125 | 7,175 | 10,624 | 4,563 | 3,649 | 5,249 |
| Gums and resins, n. e. s.— | | | | | | | |
| Arabic. | Lb. | 11,001 | 6,959 | 7,124 | 1,341 | 797 | 728 |
| Tragacanth. | Lb. | ¹ 1,075 | 948 | 997 | ¹ 538 | 354 | 262 |
| Other gums and resins, n. e. s. | Lb. | 9,712 | 7,611 | 9,210 | 1,168 | 790 | 904 |
| Tar, pitch, and turpentine. | Lb. | ⁽⁷⁾ | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 130 | 136 | 195 |
| Varnish, gums, and resins— | | | | | | | |
| Copal, damar, kauri. | Lb. | ¹ 11,590 | ⁽⁷⁾ | ⁽⁷⁾ | ¹ 1,880 | ⁽⁷⁾ | ⁽⁷⁾ |
| Damar. | Lb. | ¹ 9,383 | 8,746 | 12,104 | ¹ 1,299 | 1,100 | 1,417 |
| Kauri. | Lb. | ¹ 7,256 | 7,713 | 8,206 | ¹ 1,595 | 1,519 | 944 |
| Shellac. | Lb. | 32,778 | 28,512 | 21,436 | 21,034 | 15,171 | 11,434 |
| Other varnish, gums, etc. | Lb. | ¹ 31,308 | ¹ 27,995 | 31,756 | ¹ 3,264 | 3,293 | 5,323 |
| Total gums, resins, and balsams. | | | | | 41,278 | 30,403 | 29,465 |

¹ Beginning Sept. 22, 1922.² Reported in value only.³ Jan. 1-June 30.⁴ July 1-Sept. 21, 1922.⁵ Classified as "Hyacinth," "Lily, tulip and narcissus" and "Other bulbs, roots, etc."⁶ Classified as "Fruit stock," "Rose stocks and plants" and "Miscellaneous trees, plants, etc., n. e. s."⁷ Excludes "Miscellaneous trees, plants, etc., n. e. s.," free of duty.⁸ Classified as Camphor, "Refined and synthetic."⁹ Classified as "Damar," "Kauri" and "Other varnish, gums, etc."

TABLE 643.—Agricultural products: Imports of the United States, 1923-1925—Continued

| | | Year ended June 30 | | | | | | |
|--|-----------|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Article imported | | Quantity | | | Value | | | |
| | | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| FOREST PRODUCTS—continued | | | | | | | | |
| Rubber and similar gums: | | | Thousands | Thousands | Thousands | 1,000 dollars | 1,000 dollars | 1,000 dollars |
| Balesta..... | Lb..... | 1,757 | 1,335 | 873 | | 980 | 732 | 417 |
| Guayule..... | Lb..... | (¹) | 1,252 | 5,149 | (¹) | | 224 | 920 |
| Gutta-percha..... | Lb..... | 1,963 | 2,723 | 2,742 | | 339 | 422 | 433 |
| Jelutong or pontianak..... | Lb..... | 8,713 | 11,077 | 14,595 | | 702 | 1,016 | 1,380 |
| Rubber, crude..... | Lb..... | 797,655 | 617,102 | 862,586 | | 169,108 | 155,294 | 234,861 |
| Total rubber and similar gums..... | | | | | | 171,126 | 157,628 | 238,041 |
| Wood: | | | | | | | | |
| Boards, planks, deals, etc..... | M ft..... | 436 | (¹) | (¹) | | 12,700 | (¹) | (¹) |
| Hardwood..... | M ft..... | 1,52 | 87 | 67 | | 12,824 | 4,859 | 3,827 |
| Softwood..... | M ft..... | 11,479 | 1,099 | 1,636 | | 143,339 | 51,702 | 48,245 |
| Cabinet woods in the log— | | | | | | | | |
| Cedar..... | M ft..... | 10 | 10 | 10 | | 619 | 604 | 549 |
| Mahogany..... | M ft..... | 43 | 47 | 70 | | 3,412 | 4,350 | 5,649 |
| Product of the Philippine Islands..... | M ft..... | (¹) | 1 | 1 | (¹) | | 36 | 99 |
| Other cabinet woods in the log..... | M ft..... | (¹) | (¹) | 9 | | 743 | 664 | 764 |
| Laths..... | M..... | 1,563 | 1,535 | 1,811 | | 9,529 | 9,436 | 10,287 |
| Logs and timber, except cabinet woods..... | M ft..... | 217 | 195 | 190 | | 4,614 | 3,720 | 3,323 |
| Philippine mahogany, sawed..... | M ft..... | (¹) | (¹) | 20 | (¹) | (¹) | 515 | 1,085 |
| Pickets and palings..... | M..... | 38 | 32 | 57 | | 371 | 530 | 593 |
| Poles: Telegraph, telephone, etc..... | No..... | 1,201 | 608 | 647 | | 11,090 | 2,774 | 2,899 |
| Pulp wood— | | | | | | | | |
| Peeled..... | Cord..... | 773 | 945 | 963 | | 7,555 | 9,339 | 9,575 |
| Rosed..... | Cord..... | 131 | 107 | 141 | | 1,714 | 1,429 | 1,732 |
| Rongl..... | Cord..... | 304 | 322 | 258 | | 2,784 | 3,127 | 2,896 |
| Railroad ties..... | No..... | 1,622 | 975 | 1,079 | | 1,990 | 637 | 701 |
| Sawed cabinet woods..... | M ft..... | 4 | 3 | 5 | | 260 | 232 | 304 |
| Shingles..... | M..... | 2,095 | 2,417 | 2,551 | | 10,952 | 8,763 | 9,512 |
| Other wood, unmanufactured or partly manufactured..... | | (¹) | (¹) | (¹) | | 2,664 | 1,636 | 1,352 |
| Total wood..... | | | | | | 105,132 | 104,382 | 103,392 |
| Miscellaneous forest products: | | | | | | | | |
| Brier ivy or laurel root..... | Lb..... | (¹) | 2,069 | 5,923 | (¹) | | 144 | 450 |
| Chalk canes or reeds..... | Lb..... | (¹) | 4,499 | 4,674 | | 718 | 658 | 663 |
| Cork, bark or wood, unmanufactured..... | Lb..... | 68,818 | 58,217 | 66,856 | | 1,826 | 1,846 | 1,266 |
| Osior or willow for basket making..... | Lb..... | 1,813 | 2,293 | 1,241 | | 1,129 | 136 | 95 |
| Rattan, unmanufactured..... | Lb..... | (¹) | 13,926 | 13,296 | | 2,076 | 1,126 | 1,065 |
| Wood pulp— | | | | | | | | |
| Chemical wood pulp— | | | | | | | | |
| Sulphate..... | | | | | | | | |
| Bleached..... | Ton..... | 25 | 7 | 32 | | 1,638 | 496 | 1,837 |
| Unbleached..... | Ton..... | 269 | 245 | 312 | | 16,234 | 15,347 | 17,869 |
| Sulphite..... | | | | | | | | |
| Bleached..... | Ton..... | 254 | 246 | 306 | | 22,003 | 20,139 | 25,141 |
| Unbleached..... | Ton..... | 569 | 463 | 612 | | 28,397 | 28,783 | 32,652 |
| Mechanically ground..... | Ton..... | 244 | 233 | 267 | | 7,952 | 8,046 | 8,273 |
| Total forest products..... | | | | | | 460,723 | 374,359 | 465,413 |
| Total vegetable products including forest products..... | | | | | | 1,506,471 | 1,470,268 | 1,610,950 |
| Total vegetable products excluding forest products..... | | | | | | 1,096,723 | 1,066,947 | 1,145,487 |
| Total agricultural products including forest products..... | | | | | | 2,316,970 | 2,061,054 | 2,282,936 |
| Total agricultural products excluding forest products..... | | | | | | 1,906,245 | 1,716,715 | 1,817,473 |

C Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States, June, 1925.

¹ Beginning Sept. 22, 1922.

² Reported in value only.

³ Jan. 1-June 30.

⁴ Included with Rubber and similar gums, "Other crude, scrap, and reclaimed."

⁵ Classified as Boards, planks, deals, etc., "Hardwood" and "Softwood."

⁶ Included with All other articles, "Product of the Philippine Islands."

⁷ Included with Wood, "Other unmanufactured or partly manufactured."

TABLE 644.—Agricultural products: Shipments to the United States from Alaska, Hawaii, and Porto Rico, 1923-1925

ALASKA

| Article shipped | Year ended June 30 | | | | | |
|-------------------------------|--------------------|------------------|-----------|------------------|---------------|-----------------------------|
| | Quantity | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 1925 preliminary |
| | | Thousands | Thousands | Thousands | 1,000 dollars | 1,000 dollars 1,000 dollars |
| Animals..... | No. | (¹) | 1 | 1 | 6 | 125 206 |
| Wood pulp..... | Ton. | 3 | 3 | 0 | 61 | 52 0 |
| Wood, timber, and lumber..... | M ft. | (¹) | 3 | 7 | 123 | 188 215 |
| Total value of shipments..... | | | | | 190 | 365 415 |

HAWAII

| ANIMALS AND ANIMAL PRODUCTS | | | | | | | |
|---|-------|------------------|------------------|------------------|------------------|------------------|--------|
| Animals..... | No. | (¹) | 9 | 9 | 5 | 22 | 23 |
| Beeswax..... | Lb. | 35 | 25 | 33 | 7 | 5 | 9 |
| Bones, hoofs, horns, etc. | Lb. | 55 | 105 | 53 | 2 | 3 | 1 |
| Hides and skins..... | Lb. | 1,512 | 2,009 | 1,465 | 176 | 173 | 152 |
| Honey..... | Lb. | 1,668 | 1,647 | 1,618 | 79 | 94 | 98 |
| Tallow..... | Lb. | 428 | 467 | 473 | 30 | 30 | 34 |
| Wool, raw..... | Lb. | 333 | 121 | 173 | 118 | 43 | 74 |
| Total animals and animal products..... | | | | | 417 | 370 | 391 |
| VEGETABLE PRODUCTS | | | | | | | |
| Breadstuffs: | | | | | | | |
| Rice..... | Lb. | 799 | 165 | 391 | 41 | 11 | 24 |
| Other breadstuffs..... | Lb. | 146 | 121 | 154 | 10 | 9 | 12 |
| Coffee..... | Lb. | 2,281 | 2,049 | 3,712 | 406 | 431 | 987 |
| Fruits: | | | | | | | |
| Canned—Pineapples..... | Lb. | 257,865 | 297,966 | 340,353 | 23,322 | 28,247 | 30,219 |
| Dried, green or ripe— | | | | | | | |
| Bananas..... | Bunch | 218 | 218 | 226 | 222 | 211 | 237 |
| Pineapples..... | Box | 0 | 13 | 15 | 25 | 33 | 46 |
| Prepared or preserved fruits..... | Lb. | 20 | 49 | 30 | 8 | 8 | 8 |
| Pineapple juice..... | Lb. | 4 | 39 | 0 | (¹) | 4 | 0 |
| Nuts..... | Lb. | 178 | 97 | 39 | 8 | 4 | 2 |
| Sisal, unmanufactured..... | Ton. | (¹) | (¹) | (¹) | 2 | 2 | 5 |
| Sugar and molasses: | | | | | | | |
| Molasses..... | Gal. | 5,862 | 10,914 | 19,827 | 232 | 365 | 846 |
| Sugar (2,000 lbs.)..... | Ton. | 598 | 586 | 686 | 66,566 | 74,521 | 64,614 |
| Tobacco, leaf, unmanufactured..... | Lb. | 28 | 19 | 3 | 1 | 21 | 3 |
| Vegetables..... | Lb. | 600 | 524 | 521 | 23 | 30 | 33 |
| Total vegetable products..... | | | | | 94,896 | 103,897 | 97,038 |
| FOREST PRODUCTS | | | | | | | |
| Lumber—Boards, planks, and deals..... | M ft. | (¹) | (¹) | (¹) | (¹) | (¹) | 1 |
| Total value of shipments including forest products..... | | | | | 93,313 | 104,267 | 97,420 |
| Total value of shipments excluding forest products..... | | | | | 93,313 | 104,267 | 97,429 |

PORTO RICO

| ANIMAL PRODUCTS | | | | | | | |
|----------------------------|-----|-------|-------|-------|------------------|-----|-----|
| Beeswax..... | Lb. | 29 | 29 | 31 | 5 | 5 | 8 |
| Hides and skins— | | | | | | | |
| Cattle..... | Lb. | 510 | 589 | 578 | 55 | 40 | 55 |
| Other hides and skins..... | Lb. | 673 | 72 | 76 | 106 | 30 | 33 |
| Honey..... | Lb. | 2,023 | 2,763 | 2,027 | 118 | 177 | 134 |
| Tallow..... | Lb. | 2 | 0 | 0 | (¹) | 0 | 0 |
| Total animal products..... | | | | | 286 | 252 | 280 |

¹ Reported in value only.² Jan. 1-June 30.³ Less than 500.

TABLE 644.—*Agricultural products: Shipments to the United States from Alaska, Hawaii, and Porto Rico, 1923-1925—Continued*

PORTO RICO—Continued

| Article shipped | Year ended June 30 | | | | | | |
|---|--------------------|---------------|---------------|------------------|-------------------|-------------------|-------------------|
| | Quantity | | | | Value | | |
| | Unit | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS | | | | | | | |
| Coffee: | | Thousands (1) | Thousands (1) | Thousands (1) | 1,000 dollars (1) | 1,000 dollars (1) | 1,000 dollars (1) |
| Prepared (roasted, powdered)..... | Lb..... | 71 | 317 | 261 | 14 | 71 | 67 |
| Raw..... | Lb..... | 1 | 1 | 1 | 261 | 182 | 243 |
| Cotton, unmanufactured (478 lbs.)..... | Bale..... | | | | | | |
| Fruits: | | | | | | | |
| Fresh— | | | | | | | |
| Grapefruit..... | Box..... | 461 | 667 | 580 | 1,382 | 1,999 | 1,756 |
| Oranges..... | Box..... | 733 | 192 | 337 | 1,749 | 471 | 838 |
| Pineapples..... | Crate..... | (1) | 270 | 343 | 726 | 812 | 1,046 |
| Other fresh fruits..... | Lb..... | (1) | 1,707 | 647 | 131 | 38 | 22 |
| Prepared or preserved, canned or otherwise— | | | | | | | |
| Grapefruit..... | Lb..... | 14,060 | 3,862 | 3,841 | 1481 | 306 | 370 |
| Guavas..... | Lb..... | (1) | 5 | 5 | (1) | 1 | 1 |
| Pineapples..... | Lb..... | (1) | 1,470 | 1,295 | 84 | 163 | 154 |
| Other prepared or preserved fruits..... | Lb..... | (1) | 19 | 2 | 12 | 2 | 1 |
| Total fruits..... | | | | | 4,565 | 3,792 | 4,188 |
| Nuts: | | | | | | | |
| Coconuts..... | M..... | (1) | 18 | 19 | 567 | 605 | 710 |
| Copra..... | Lb..... | 145 | 218 | 31 | 2 | 7 | 1 |
| Other nuts..... | Lb..... | 0 | 71 | 25 | 0 | 9 | (1) |
| Seeds: | | | | | | | |
| Annatto..... | Lb..... | 1227 | 359 | 218 | 121 | 77 | 31 |
| Other seeds..... | Lb..... | (1) | 80 | 71 | 17 | 15 | 10 |
| Sugar and molasses: | | | | | | | |
| Molasses and sirups..... | Gal..... | 13,209 | 11,067 | 21,321 | 358 | 427 | 1,315 |
| Sugar (2,000 lbs.)..... | Ton..... | 355 | 372 | 571 | 46,176 | 47,793 | 53,240 |
| Tobacco, unmanufactured: | | | | | | | |
| Leaf..... | Lb..... | 11,465 | (1) | (1) | 16,144 | (1) | (1) |
| Stemmed..... | Lb..... | 13,360 | 18,842 | 13,048 | 12,295 | 11,903 | 7,173 |
| Unstemmed..... | Lb..... | 180 | 992 | 4,718 | 148 | 655 | 1,951 |
| Stems, scraps, and trimmings..... | Lb..... | 4,669 | 3,500 | 4,956 | 972 | 612 | 714 |
| Total tobacco, unmanufactured..... | Lb..... | 19,574 | 23,334 | 22,721 | 9,459 | 13,170 | 9,838 |
| Vegetables..... | Lb..... | 1582 | 902 | 1,065 | 130 | 31 | 40 |
| Miscellaneous vegetable products: | | | | | | | |
| Alcohol, denatured..... | Gal..... | 104 | 321 | 525 | 132 | 124 | 234 |
| Bay oil..... | Lb..... | 15 | 12 | 24 | 17 | 18 | 38 |
| Roots and plants— | | | | | | | |
| Ginger root..... | Lb..... | 144 | 48 | 20 | 14 | 4 | 2 |
| Other roots and plants..... | Lb..... | 12 | 9 | 10 | (1) | 1 | 1 |
| Straw, unmanufactured..... | Lb..... | (1) | 1 | 1 | (1) | (1) | (1) |
| Total vegetable products..... | | | | | 61,513 | 66,326 | 69,958 |
| FOREST PRODUCTS | | | | | | | |
| Wood, unmanufactured..... | Ft.b.m..... | 187 | 62 | 11 | 12 | 3 | 2 |
| Total value of shipments including forest products..... | | | | | 61,801 | 66,581 | 70,190 |
| Total value of shipments excluding forest products..... | | | | | 61,799 | 66,578 | 70,188 |

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1 Reported in value only.

2 July 1-Dec. 31.

3 Jan. 1-June 30.

4 Classified as Tobacco leaf, "Stemmed" and "Unstemmed."

5 Less than 500.

TABLE 645.—Value of principal groups of farm and forest products exported from and imported into the United States, 1923-1925

[Thousand dollars—i. e., 000 omitted]

| Article | Year ended June 30 | | | | | |
|---|--------------------------------|-------------|------------------|-------------|-------------|------------------|
| | Exports (domestic merchandise) | | | Imports | | |
| | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| ANIMALS AND ANIMAL PRODUCTS | | | | | | |
| Animals, live..... | 6, 018 | 5, 787 | 7, 547 | 9, 621 | 8, 799 | 9, 885 |
| Dairy products..... | 23, 327 | 28, 175 | 25, 633 | 32, 352 | 41, 650 | 30, 521 |
| Eggs and egg products..... | 9, 400 | 8, 734 | 7, 337 | 4, 356 | 7, 030 | 6, 846 |
| Hides and skins, raw (except fur)..... | 3, 496 | 10, 662 | 11, 744 | 140, 391 | 80, 818 | 92, 649 |
| Meats and meat products..... | 287, 168 | 296, 584 | 273, 147 | 9, 272 | 6, 922 | 7, 159 |
| Silk, unmanufactured..... | — | — | — | 413, 567 | 358, 792 | 361, 944 |
| Wool and mohair, unmanufactured..... | 121 | 134 | 133 | 162, 005 | 77, 729 | 124, 164 |
| Animal products, miscellaneous..... | 7, 973 | 8, 651 | 13, 416 | 34, 869 | 39, 028 | 38, 818 |
| Total animals and animal products..... | 338, 403 | 358, 727 | 338, 957 | 806, 523 | 620, 768 | 671, 986 |
| VEGETABLE PRODUCTS | | | | | | |
| Chocolate and cocoa..... | 613 | 709 | 607 | 35, 096 | 29, 004 | 35, 720 |
| Coffee..... | 5, 090 | 5, 957 | 8, 285 | 181, 639 | 206, 519 | 267, 153 |
| Cotton, unmanufactured— | | | | | | |
| Long staple..... | — | — | — | 22, 032 | 21, 142 | 20, 409 |
| Sea-island..... | 148 | 61 | 179 | — | — | — |
| Other..... | 114, 285 | 145, 832 | 210, 519 | — | — | — |
| Short staple..... | 542, 871 | 753, 289 | 842, 062 | 38, 608 | 22, 619 | 30, 231 |
| Linters..... | 1, 679 | 4, 793 | 7, 226 | — | — | — |
| Total cotton, unmanufactured..... | 658, 983 | 903, 975 | 1, 060, 886 | 60, 640 | 43, 761 | 50, 640 |
| Fruits..... | 71, 253 | 84, 510 | 85, 315 | 44, 650 | 42, 059 | 48, 383 |
| Grains and grain products..... | 452, 786 | 246, 862 | 530, 427 | 28, 187 | 35, 562 | 25, 198 |
| Nuts..... | 1, 405 | 1, 174 | 1, 100 | 25, 912 | 25, 605 | 35, 134 |
| Oilseeds and oilseed products..... | 36, 505 | 27, 790 | 47, 736 | 139, 196 | 120, 372 | 131, 772 |
| Seeds, except oilseeds..... | 4, 057 | 2, 886 | 3, 602 | 8, 812 | 14, 174 | 10, 290 |
| Spices..... | 201 | 199 | 236 | 13, 440 | 14, 585 | 18, 608 |
| Sugar, molasses, and sirups..... | 43, 124 | 18, 346 | 23, 616 | 368, 087 | 380, 347 | 233, 885 |
| Tea..... | — | — | — | 26, 368 | 30, 020 | 28, 664 |
| Tobacco, unmanufactured..... | 148, 232 | 168, 076 | 131, 535 | 69, 193 | 59, 930 | 78, 657 |
| Vegetables..... | 16, 689 | 19, 222 | 17, 810 | 25, 330 | 22, 849 | 33, 676 |
| Vegetable products, miscellaneous..... | 23, 228 | 28, 656 | 24, 053 | 71, 632 | 71, 100 | 87, 717 |
| Total vegetable products..... | 1, 460, 766 | 1, 508, 371 | 1, 941, 208 | 1, 098, 722 | 1, 065, 947 | 1, 145, 487 |
| Total farm products..... | 1, 799, 169 | 1, 867, 008 | 2, 280, 165 | 1, 905, 245 | 1, 716, 715 | 1, 817, 473 |
| FOREST PRODUCTS | | | | | | |
| Dyeing and tanning materials..... | 2, 275 | 1, 072 | 1, 937 | 9, 316 | 7, 575 | 7, 361 |
| Gums, resins, and balsams..... | 22, 909 | 23, 179 | 28, 783 | 41, 278 | 30, 403 | 29, 405 |
| Rubber and similar gums..... | — | — | — | 171, 120 | 157, 628 | 238, 041 |
| Wood..... | 99, 970 | 132, 121 | 119, 857 | 105, 132 | 104, 352 | 103, 392 |
| Forest products, miscellaneous..... | 4, 827 | 5, 527 | 6, 063 | 78, 873 | 74, 381 | 87, 204 |
| Total forest products..... | 129, 981 | 162, 799 | 156, 640 | 405, 725 | 374, 339 | 465, 403 |
| Total farm and forest products..... | 1, 929, 150 | 2, 029, 807 | 2, 436, 805 | 2, 310, 970 | 2, 091, 054 | 2, 282, 836 |
| SHIPMENTS FROM THE UNITED STATES TO PORTO RICO | | | | | | |
| ANIMALS AND ANIMAL PRODUCTS | | | | | | |
| Animals, live..... | \$99 | \$111 | \$187 | — | — | — |
| Dairy products..... | 1, 378 | 1, 619 | 1, 425 | — | — | — |
| Eggs..... | 20 | 30 | 30 | — | — | — |
| Hides and skins, raw (except fur)..... | — | — | — | \$163 | \$70 | \$58 |
| Meats and meat products..... | 5, 703 | 5, 897 | 6, 630 | (1) | — | — |
| Animal products, miscellaneous..... | 16 | 26 | 24 | 123 | 182 | 142 |
| Total animals and animal products..... | 7, 206 | 7, 683 | 8, 206 | 286 | 252 | 230 |
| SHIPMENTS FROM PORTO RICO TO THE UNITED STATES | | | | | | |
| Animals, live..... | — | — | — | — | — | — |
| Dairy products..... | — | — | — | — | — | — |
| Eggs..... | — | — | — | — | — | — |
| Hides and skins, raw (except fur)..... | — | — | — | — | — | — |
| Meats and meat products..... | — | — | — | — | — | — |
| Animal products, miscellaneous..... | — | — | — | — | — | — |

¹ Less than 500.² Jan. 1-June 30.

TABLE 645.—Value of principal groups of farm and forest products exported from and imported into the United States, 1923-1925—Continued

[Thousand dollars—i. e., 000 omitted]

| Article | Year ended June 30 | | | | | |
|--|--|--------|------------------|--|---------|------------------|
| | Shipments from the United States to Porto Rico | | | Shipments from Porto Rico to the United States | | |
| | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| VEGETABLE PRODUCTS | | | | | | |
| Chocolate and cocoa..... | 164 | 193 | 175 | | | |
| Coffee..... | 2 | 1 | 1 | 14 | 71 | 97 |
| Cotton, unmanufactured..... | | | | 261 | 133 | 246 |
| Fruits..... | 350 | 455 | 444 | 4,566 | 3,792 | 4,186 |
| Grains and grain products..... | 10,641 | 12,782 | 13,683 | | | |
| Nuts..... | 19 | 28 | 26 | 569 | 621 | 711 |
| Oilseeds and oilseed products..... | 273 | 370 | 360 | 35 | 92 | 41 |
| Seeds except oilseeds..... | 18 | 8 | 8 | 46,534 | 48,220 | 54,555 |
| Sugar, molasses, and sirups..... | 510 | 620 | 347 | | | |
| Tea..... | 4 | 2 | 3 | | | |
| Tobacco, unmanufactured..... | 770 | 708 | 645 | 9,459 | 13,170 | 9,838 |
| Vegetables..... | 2,003 | 2,627 | 3,157 | 130 | 31 | 40 |
| Vegetable products, miscellaneous..... | 221 | 452 | 514 | 42 | 147 | 275 |
| Total vegetable products..... | 15,055 | 18,246 | 19,331 | 61,513 | 66,326 | 69,958 |
| Total farm products..... | 22,261 | 25,929 | 27,627 | 61,799 | 66,578 | 70,188 |
| FOREST PRODUCTS | | | | | | |
| Resin, tar, turpentine, and pitch..... | 18 | 19 | 18 | | | |
| Wood..... | 1,801 | 2,871 | 2,065 | 12 | 3 | 2 |
| Total forest products..... | 1,819 | 2,890 | 2,083 | 12 | 3 | 2 |
| Total farm and forest products..... | 24,080 | 28,819 | 29,710 | 61,801 | 66,581 | 70,190 |
| ANIMALS AND ANIMAL PRODUCTS | | | | | | |
| Animals, live..... | 233 | 308 | 249 | 5 | 22 | 23 |
| Dairy products..... | 1,276 | 1,329 | 1,310 | | | |
| Eggs..... | 467 | 488 | 547 | | | |
| Hides and skins, raw (except fur)..... | | | | 176 | 173 | 152 |
| Meats and meat products..... | 1,557 | 1,564 | 1,760 | 30 | 30 | 34 |
| Wool, raw..... | | | | 118 | 43 | 74 |
| Animal products, miscellaneous..... | 14 | 42 | 18 | 82 | 102 | 100 |
| Total animals and animal products..... | 3,687 | 3,741 | 3,884 | 417 | 370 | 294 |
| VEGETABLE PRODUCTS | | | | | | |
| Chocolate and cocoa..... | 134 | 105 | 134 | | | |
| Coffee..... | 22 | 66 | 47 | 400 | 431 | 937 |
| Fruits..... | 909 | 947 | 1,100 | 22,577 | 28,508 | 30,510 |
| Grains and grain products..... | 5,380 | 6,171 | 7,022 | 51 | 20 | 26 |
| Nuts..... | 98 | 96 | 106 | 8 | 4 | 2 |
| Oilseeds and oilseed products..... | 242 | 314 | 430 | | | |
| Seeds, except oilseeds..... | 121 | 31 | 29 | | | |
| Sugar, molasses, etc..... | 825 | 619 | 256 | 60,818 | 74,886 | 65,462 |
| Tea..... | 20 | 22 | 27 | | | |
| Tobacco, unmanufactured..... | 13 | 1 | (1) | 1 | 21 | 3 |
| Vegetables..... | 900 | 1,130 | 1,266 | 39 | 30 | 33 |
| Vegetable products, miscellaneous..... | 227 | 316 | 326 | 2 | 2 | 5 |
| Total vegetable products..... | 8,945 | 9,817 | 10,692 | 92,806 | 103,897 | 97,636 |
| Total farm products..... | 12,632 | 13,588 | 14,578 | 93,813 | 104,287 | 97,426 |

1 Less than 500.

2 Jan. 1-June 30.

TABLE 645.—Value of principal groups of farm and forest products exported from and imported into the United States, 1923-1925—Continued

[Thousands dollars—i. e., 000 omitted]

| Article | Year ended June 30 | | | | | |
|--|--|--------|------------------|--|---------|------------------|
| | Shipments from the United States to Hawaii | | | Shipments from Hawaii to the United States | | |
| | 1923 | 1924 | 1925 preliminary | 1923 | 1924 | 1925 preliminary |
| FOREST PRODUCTS | | | | | | |
| Rosin, tar, turpentine, and pitch..... | 51 | 57 | 41 | (1) | ..... | ..... |
| Wood..... | 3,293 | 3,024 | 3,337 | (1) | (1) | 1 |
| Total forest products..... | 3,344 | 3,081 | 3,378 | (1) | (1) | 1 |
| Total farm and forest products..... | 15,976 | 17,539 | 17,954 | 93,313 | 104,287 | 97,430 |
| ANIMALS AND ANIMAL PRODUCTS | | | | | | |
| Shipments from the United States to Alaska | | | | | | |
| Animals, live..... | 79 | 115 | 77 | 6 | 125 | 200 |
| Dairy products..... | 1,223 | 1,259 | 1,244 | ..... | ..... | ..... |
| Eggs..... | 519 | 546 | 624 | ..... | ..... | ..... |
| Meats and meat products..... | 1,736 | 1,779 | 1,927 | ..... | ..... | ..... |
| Animal products, miscellaneous..... | 15 | 13 | 14 | ..... | ..... | ..... |
| Total animals and animal products..... | 3,553 | 3,712 | 3,886 | 6 | 125 | 200 |
| VEGETABLE PRODUCTS | | | | | | |
| Chocolate and cocoa..... | 24 | 18 | 22 | ..... | ..... | ..... |
| Coffee..... | 271 | 302 | 375 | ..... | ..... | ..... |
| Fruits..... | 711 | 847 | 905 | ..... | ..... | ..... |
| Grains and grain products..... | 929 | 890 | 1,049 | ..... | ..... | ..... |
| Nuts..... | 37 | 35 | 27 | ..... | ..... | ..... |
| Oilseeds and oilseed products..... | 58 | 60 | 96 | ..... | ..... | ..... |
| Seeds, except oilseeds..... | 19 | 7 | 11 | ..... | ..... | ..... |
| Sugar..... | 555 | 599 | 533 | ..... | ..... | ..... |
| Tea..... | 85 | 84 | 95 | ..... | ..... | ..... |
| Tobacco, unmanufactured..... | 13 | 2 | 1 | ..... | ..... | ..... |
| Vegetables..... | 699 | 797 | 927 | ..... | ..... | ..... |
| Vegetable products, miscellaneous..... | 108 | 208 | 248 | ..... | ..... | ..... |
| Total vegetable products..... | 3,549 | 3,825 | 4,289 | ..... | ..... | ..... |
| Total farm products..... | 7,169 | 7,537 | 8,175 | 6 | 125 | 200 |
| FOREST PRODUCTS | | | | | | |
| Rosin, tar, turpentine, and pitch..... | 29 | 51 | 52 | ..... | ..... | ..... |
| Wood..... | 1,166 | 1,426 | 1,547 | 123 | 188 | 215 |
| Forest products, miscellaneous..... | ..... | ..... | ..... | 61 | 52 | 0 |
| Total forest products..... | 1,195 | 1,479 | 1,599 | 194 | 240 | 215 |
| Total farm and forest products..... | 8,297 | 9,016 | 9,774 | 190 | 365 | 415 |

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1 Less than 500.

2 Jan. 1-June 30.

TABLE 646.—Exports of selected domestic agricultural products, 1909–1925

| Year ended June 30 | Cattle | Cheese | Packing-house products | | | | | | | |
|-------------------------|----------------|-----------------|--|-----------------|---------------------------|-----------------|---|--------------------------|--|--|
| | | | Beef, cured— salted or pickled | Beef, fresh | Beef oils— oleo oil | Beef tallow | Beef and its prod- ucts— total, so far as ascertain- able ¹ | Pork, cured— bacon | Pork, cured— hams and should- ers | Pork, cured— salted or pickled |
| | Thou- sands | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| 1909..... | 208 | 6,823 | 44,494 | 122,953 | 179,985 | 53,333 | 418,844 | 244,579 | 212,170 | 52,355 |
| 1910..... | 139 | 2,847 | 36,554 | 76,730 | 126,092 | 29,380 | 286,296 | 152,163 | 146,885 | 40,032 |
| 1911..... | 150 | 10,367 | 40,284 | 42,611 | 138,697 | 29,813 | 265,924 | 156,675 | 157,709 | 45,729 |
| 1912..... | 106 | 6,338 | 38,088 | 15,264 | 126,467 | 39,451 | 233,925 | 208,574 | 204,044 | 56,321 |
| 1913..... | 25 | 2,599 | 25,867 | 7,362 | 92,850 | 30,586 | 170,208 | 200,994 | 159,545 | 53,749 |
| 1914..... | 18 | 2,428 | 23,266 | 6,394 | 97,017 | 15,813 | 151,212 | 193,964 | 165,882 | 45,543 |
| 1915..... | 5 | 55,363 | 31,875 | 170,441 | 80,482 | 20,240 | 394,981 | 996,718 | 203,701 | 45,656 |
| 1916..... | 21 | 44,394 | 38,115 | 231,214 | 102,646 | 16,289 | 457,556 | 579,809 | 282,209 | 63,461 |
| 1917..... | 13 | 66,050 | 58,054 | 197,177 | 67,110 | 15,209 | 423,674 | 667,152 | 266,657 | 46,993 |
| 1918..... | 18 | 44,303 | 54,468 | 370,033 | 56,603 | 5,015 | 600,132 | 815,294 | 419,572 | 33,222 |
| 1919..... | 42 | 18,792 | 45,066 | 332,205 | 59,292 | 16,172 | 591,302 | 1,238,247 | 667,240 | 31,504 |
| 1920..... | 83 | 19,378 | 32,384 | 153,561 | 74,529 | 32,937 | 368,002 | 803,667 | 275,456 | 41,643 |
| 1921..... | 146 | 10,826 | 23,313 | 21,084 | 106,415 | 16,844 | 203,815 | 489,298 | 172,012 | 33,286 |
| 1922..... | 155 | 7,471 | 26,774 | 3,993 | 117,174 | 27,658 | 222,462 | 350,549 | 271,642 | 33,510 |
| 1923..... | 61 | 8,446 | 24,185 | 4,017 | 104,958 | 25,665 | 194,912 | 408,334 | 319,269 | 40,934 |
| 1924..... | 33 | 3,938 | 21,851 | 2,817 | 92,965 | 37,372 | 185,372 | 423,500 | 381,564 | 37,469 |
| 1925 ² | 106 | 9,432 | 22,407 | 3,144 | 105,145 | 28,776 | 190,211 | 236,263 | 292,214 | 26,726 |

| Year ended June 30 | Packing-house products | | | | Corn and corn meal (in terms of grain) | Lin- ters | Cot- ton | Cot- ton-in- cluding linters | Glucose and grape sugar | Corn oil cake and oil- cake meal | Cotton- seed oil cake and oil- cake meal |
|-------------------------|------------------------|--|------------------------|------------------|--|------------------|----------------|---------------------------------------|----------------------------------|---|---|
| | Pork— lard | Pork and its prod- ucts— total, as far as ascertain- able ¹ | Lard com- pounds | Apples, fresh | | | | | | | |
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 bales | 1,000 bales | 1,000 bales | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| 1909..... | 528,723 | 1,053,142 | 75,183 | 896 | 37,665 | (³) | ----- | 8,896 | 112,225 | 53,234 | 1,233,750 |
| 1910..... | 362,928 | 707,110 | 74,557 | 922 | 38,128 | (³) | ----- | 6,413 | 149,520 | 49,109 | 804,597 |
| 1911..... | 476,108 | 879,455 | 73,754 | 1,721 | 65,616 | (³) | ----- | 8,068 | 181,963 | 83,385 | 1,293,690 |
| 1912..... | 532,256 | 1,071,952 | 62,522 | 1,456 | 41,797 | (³) | ----- | 11,070 | 171,156 | 72,490 | 1,293,690 |
| 1913..... | 519,025 | 984,697 | 67,457 | 2,150 | 50,780 | (³) | ----- | 9,125 | 200,149 | 76,263 | 1,238,092 |
| 1914..... | 481,458 | 921,913 | 58,304 | 1,507 | 10,726 | (³) | ----- | 9,522 | 199,531 | 59,081 | 799,974 |
| 1915..... | 475,532 | 1,106,180 | 69,981 | 2,352 | 50,668 | 226 | 8,581 | 8,807 | 158,463 | 45,026 | 1,479,065 |
| 1916..... | 427,011 | 1,462,697 | 52,843 | 1,466 | 39,897 | 251 | 5,917 | 6,168 | 186,406 | 18,996 | 1,067,222 |
| 1917..... | 444,770 | 1,501,948 | 56,359 | 1,740 | 66,753 | 474 | 5,702 | 6,176 | 214,973 | 15,758 | 1,160,160 |
| 1918..... | 392,506 | 1,692,124 | 31,278 | 635 | 49,073 | 186 | 4,455 | 4,641 | 97,658 | 458 | 44,681 |
| 1919..... | 724,771 | 2,704,694 | 128,157 | 1,576 | 23,019 | 84 | 5,442 | 5,526 | 136,230 | 562 | 311,624 |
| 1920..... | 587,225 | 1,762,611 | 44,196 | 1,051 | 16,729 | 52 | 7,035 | 7,067 | 245,264 | 511 | 449,573 |
| 1921..... | 746,157 | 1,522,182 | 42,156 | 2,665 | 70,906 | 53 | 5,570 | 5,623 | 141,964 | 1,795 | 454,701 |
| 1922..... | 812,379 | 1,516,320 | 30,328 | 1,094 | 179,490 | 126 | 6,592 | 6,718 | 273,862 | 3,596 | 532,721 |
| 1923..... | 952,642 | 1,794,880 | 11,140 | 1,756 | 96,596 | 48 | 5,206 | 5,253 | 162,693 | 686 | 454,360 |
| 1924..... | 1,014,898 | 1,934,189 | 6,907 | 4,098 | 23,135 | 115 | 5,784 | 5,899 | 148,051 | ----- | 250,366 |
| 1925 ² | 792,735 | 1,400,149 | 8,922 | 3,221 | 9,791 | 200 | 5,239 | 5,439 | 139,577 | ----- | 885,375 |

¹ Includes canned, cured, and fresh beef, oleo oil, oleo stock, oleomargarine, tallow, and stearin from animal fats.² Preliminary.³ Includes canned, fresh, salted, or pickled pork, lard, neutral lard, lard oil, bacon, and hams.⁴ Bales of 500 pounds gross.⁵ Included with cotton.

TABLE 646.—Exports of selected domestic agricultural products, 1909-1925—Con.

| Year ended June 30 | Prunes | To- bacco— unmanu- factured | Hops | Oil, vegeta- ble— cotton- seed oil | Rice and rice bran, meal, and polish | Sugar, raw and refined | Wheat | Wheat flour | Wheat and wheat flour (in terms of grain) |
|-------------------------|-----------------|--------------------------------------|-----------------|---|---|------------------------------|------------------|------------------|--|
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 gallons | 1,000 pounds | 1,000 pounds | 1,000 bushels | 1,000 barrels | 1,000 bushels |
| 1909..... | 22,002 | 287,901 | 10,447 | 51,087 | 20,511 | 79,946 | 66,923 | 10,521 | 114,268 |
| 1910..... | 89,015 | 357,196 | 10,589 | 29,861 | 26,779 | 123,507 | 46,680 | 9,041 | 87,364 |
| 1911..... | 51,031 | 355,327 | 13,103 | 30,069 | 30,063 | 54,947 | 23,729 | 10,129 | 69,312 |
| 1912..... | 74,328 | 379,845 | 12,191 | 53,263 | 39,447 | 79,594 | 36,160 | 11,006 | 79,689 |
| 1913..... | 117,951 | 418,797 | 17,591 | 42,031 | 38,908 | 43,995 | 91,603 | 11,395 | 142,880 |
| 1914..... | 69,814 | 449,750 | 24,263 | 25,738 | 22,414 | 50,896 | 92,394 | 11,821 | 145,590 |
| 1915..... | 43,479 | 348,246 | 16,210 | 42,449 | 77,480 | 549,007 | 259,643 | 16,183 | 332,465 |
| 1916..... | 57,423 | 443,293 | 22,410 | 35,535 | 121,967 | 1,630,151 | 173,274 | 15,521 | 243,117 |
| 1917..... | 59,645 | 411,599 | 4,825 | 21,158 | 181,372 | 1,248,908 | 149,831 | 11,943 | 203,574 |
| 1918..... | 32,927 | 289,171 | 3,495 | 13,437 | 196,363 | 576,483 | 34,119 | 21,880 | 132,579 |
| 1919..... | 59,072 | 629,288 | 7,467 | 23,828 | 193,128 | 1,115,865 | 178,583 | 24,182 | 287,402 |
| 1920..... | 114,066 | 648,038 | 30,780 | 21,253 | 483,385 | 1,444,031 | 122,431 | 21,652 | 219,865 |
| 1921..... | 57,461 | 506,526 | 22,208 | 37,769 | 440,855 | 582,696 | 293,268 | 10,180 | 366,077 |
| 1922..... | 109,398 | 463,389 | 19,522 | 12,215 | 741,509 | 2,002,039 | 208,321 | 15,797 | 279,407 |
| 1923..... | 79,229 | 454,364 | 13,497 | 8,572 | 370,570 | 749,855 | 154,951 | 14,883 | 221,923 |
| 1924..... | 136,448 | 597,630 | 20,461 | 5,256 | 227,757 | 270,942 | 78,793 | 17,253 | 156,430 |
| 1925 ¹ | 171,771 | 430,702 | 16,122 | 7,101 | 112,037 | 501,124 | 195,490 | 13,896 | 258,023 |

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Cottonseed oil, 1910, pounds reduced to gallons at the rate of 7.5 pounds per gallon. It is assumed that 1 barrel of corn meal is the product of 4 bushels of corn, and 1 barrel of wheat flour the product of 4½ bushels of wheat.

¹ Preliminary.

TABLE 647.—Imports of selected agricultural products, 1909-1925

| Year ended June 30 | Cheese | Silk ¹ | Wool | Almonds | | Argols or wine lees | Cocoa and choco- late, total | Coffee | Corn | Oats, including oatmeal | Wheat |
|-------------------------|-----------------|-------------------|-----------------|-----------------|-----------------|---------------------------|---------------------------------------|-----------------|------------------|-------------------------------|------------------|
| | | | | Not shelled | Shelled | | | | | | |
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 bushels | 1,000 bushels | 1,000 bushels |
| 1909..... | 35,548 | 25,188 | 266,409 | 11,029 | 18,556 | 32,116 | 132,661 | 1,049,860 | 258 | 6,692 | 41 |
| 1910..... | 40,818 | 23,437 | 263,928 | 18,556 | 15,523 | 28,183 | 111,071 | 871,470 | 118 | 1,035 | 164 |
| 1911..... | 45,569 | 26,660 | 137,648 | 15,523 | 17,231 | 29,175 | 140,971 | 875,367 | 52 | 1,107 | 509 |
| 1912..... | 46,542 | 26,585 | 193,401 | 17,231 | 23,661 | 33,661 | 148,786 | 865,201 | 53 | 2,622 | 2,099 |
| 1913..... | 49,388 | 32,102 | 195,293 | 2,662 | 13,079 | 29,479 | 145,510 | 863,131 | 903 | 1,724 | 798 |
| 1914..... | 63,784 | 34,546 | 247,649 | 5,781 | 13,308 | 29,793 | 179,364 | 1,001,528 | 12,367 | 22,274 | 1,979 |
| 1915..... | 50,139 | 31,053 | 306,063 | 4,903 | 12,209 | 28,625 | 194,734 | 1,118,091 | 9,898 | 6,631 | 426 |
| 1916..... | 30,088 | 41,925 | 534,826 | 2,929 | 13,608 | 34,721 | 248,879 | 1,201,104 | 6,208 | 1,066 | 5,703 |
| 1917..... | 14,482 | 40,351 | 372,372 | 5,011 | 18,413 | 23,926 | 340,483 | 1,319,871 | 2,267 | 1,762 | 24,139 |
| 1918..... | 9,839 | 43,681 | 379,130 | 4,279 | 19,561 | 30,267 | 393,312 | 1,443,891 | 3,190 | 2,591 | 28,177 |
| 1919..... | 2,442 | 50,069 | 422,415 | 6,734 | 23,595 | 32,228 | 313,195 | 1,046,029 | 3,311 | 551 | 11,121 |
| 1920..... | 17,914 | 58,410 | 427,578 | 7,356 | 26,320 | 23,638 | 421,880 | 1,414,228 | 10,229 | 6,044 | 4,780 |
| 1921..... | 16,585 | 34,778 | 318,236 | 6,622 | 13,876 | 26,486 | 328,447 | 1,348,926 | 5,743 | 3,796 | 61,004 |
| 1922..... | 34,271 | 57,437 | 255,087 | 4,723 | 26,619 | 18,749 | 318,909 | 1,238,012 | 125 | 1,733 | 14,466 |
| 1923..... | 54,555 | 63,188 | 525,473 | 4,576 | 22,972 | 21,950 | 383,929 | 1,305,188 | 138 | 293 | 18,013 |
| 1924..... | 66,597 | 56,595 | 239,122 | 2,654 | 23,411 | 17,650 | 384,227 | 1,429,617 | 228 | 4,244 | 27,284 |
| 1925 ¹ | 61,489 | 70,270 | 284,706 | 3,802 | 21,351 | 20,664 | 386,689 | 1,279,570 | 4,617 | 3,041 | 6,169 |

¹ Includes "Silk, raw or as reeled from the cocoon," "Silk waste, and silk cocoons."

² Does not include oatmeal.

³ Preliminary.

TABLE 647.—Imports of selected agricultural products, 1909-1925—Continued

| Year ended June 30 | Wheat flour | Wheat, including wheat flour | Flax-seed | Un-manufactured tobacco | Flax | Hemp | Hops | Jute and jute butts | Licorice root |
|-------------------------|---------------|------------------------------|---------------|-------------------------|-----------------|-----------------|--------------|---------------------|---------------|
| | 1,000 barrels | 1,000 bushels | 1,000 bushels | 1,000 pounds | 1,000 long tons | 1,000 long tons | 1,000 pounds | 1,000 long tons | 1,000 pounds |
| 1909..... | 92 | 457 | 594 | 43,123 | 10 | 5 | 7,387 | 157 | 97,743 |
| 1910..... | 146 | 816 | 5,002 | 46,853 | 13 | 6 | 8,201 | 68 | 82,207 |
| 1911..... | 142 | 1,147 | 10,499 | 48,203 | 8 | 5 | 8,568 | 65 | 125,135 |
| 1912..... | 159 | 3,414 | 6,842 | 54,740 | 11 | 5 | 2,901 | 101 | 71,592 |
| 1913..... | 108 | 1,282 | 5,294 | 67,977 | 12 | 8 | 8,494 | 125 | 105,116 |
| 1914..... | 90 | 2,384 | 8,653 | 61,175 | 10 | 9 | 5,382 | 106 | 115,636 |
| 1915..... | 64 | 715 | 10,666 | 45,809 | 5 | 5 | 11,651 | 83 | 65,959 |
| 1916..... | 330 | 7,188 | 14,679 | 48,078 | 7 | 7 | 676 | 108 | 41,043 |
| 1917..... | 175 | 24,825 | 12,394 | 49,105 | 3 | 10 | 237 | 113 | 59,400 |
| 1918..... | 675 | 31,215 | 13,367 | 86,991 | 6 | 7 | 121 | 78 | 26,983 |
| 1919..... | 37 | 11,289 | 8,427 | 83,951 | 9 | 2 | ----- | 53 | 42,684 |
| 1920..... | 159 | 5,496 | 23,392 | 94,005 | 5 | 4 | 2,696 | 77 | 48,045 |
| 1921..... | 1,421 | 57,398 | 16,170 | 58,923 | 5 | 10 | 4,808 | 90 | 59,693 |
| 1922..... | 619 | 17,251 | 13,632 | 65,225 | 5 | 3 | 893 | 62 | 62,388 |
| 1923..... | 429 | 19,945 | 25,306 | 75,786 | 8 | 6 | 1,295 | 85 | 35,339 |
| 1924..... | 169 | 28,045 | 19,577 | 54,497 | 5 | 1 | 761 | 84 | 87,694 |
| 1925 [*] | 7 | 6,199 | 13,419 | 76,870 | 4 | 3 | 439 | 66 | 51,654 |

| Year ended June 30 | Manilla | Mo-lasses | Olive oil, for table use | Opium, crude | Pota-toes | Rice and rice flour, rice meal, and broken rice | Sisal grass | Sugar, raw and refined | Tea |
|-------------------------|-----------------|---------------|--------------------------|--------------|---------------|---|-----------------|------------------------|--------------|
| | 1,000 long tons | 1,000 gallons | 1,000 gallons | 1,000 pounds | 1,000 bushels | 1,000 pounds | 1,000 long tons | 1,000 pounds | 1,000 pounds |
| 1909..... | 62 | 22,993 | 4,179 | 517 | 8,384 | 222,900 | 91 | 4,189,421 | 114,917 |
| 1910..... | 93 | 31,292 | 3,702 | 449 | 353 | 225,401 | 100 | 4,094,546 | 85,626 |
| 1911..... | 74 | 25,838 | 4,406 | 636 | 219 | 208,775 | 118 | 3,987,978 | 102,564 |
| 1912..... | 69 | 28,828 | 4,837 | 400 | 13,735 | 190,063 | 114 | 4,104,618 | 101,407 |
| 1913..... | 74 | 33,927 | 5,221 | 508 | 827 | 232,104 | 154 | 4,740,041 | 91,813 |
| 1914..... | 50 | 51,410 | 6,218 | 455 | 3,646 | 300,195 | 216 | 5,066,822 | 91,131 |
| 1915..... | 51 | 70,840 | 6,711 | 484 | 271 | 277,191 | 186 | 5,420,982 | 96,948 |
| 1916..... | 79 | 85,717 | 7,224 | 147 | 210 | 281,324 | 229 | 5,633,162 | 109,800 |
| 1917..... | 77 | 110,238 | 7,533 | 87 | 3,079 | 216,049 | 143 | 5,332,746 | 103,304 |
| 1918..... | 86 | 130,731 | 2,538 | 158 | 1,180 | 456,059 | 160 | 4,903,327 | 151,515 |
| 1919..... | 68 | 130,075 | 4,283 | 344 | 3,534 | 263,726 | 153 | 5,836,048 | 108,172 |
| 1920..... | 77 | 154,670 | 6,813 | 629 | 6,941 | 179,930 | 176 | 7,596,032 | 97,826 |
| 1921..... | 52 | 118,414 | 4,443 | 77 | 3,423 | 96,805 | 159 | 7,012,679 | 72,196 |
| 1922..... | 44 | 87,908 | 7,941 | 144 | 2,110 | 73,620 | 72 | 8,464,326 | 86,142 |
| 1923..... | 98 | 161,135 | 9,950 | 109 | 572 | 69,536 | 98 | 8,733,488 | 96,609 |
| 1924..... | 88 | 174,037 | 10,784 | 79 | 564 | 35,210 | 97 | 7,530,000 | 105,443 |
| 1925 [*] | 73 | 215,778 | 10,707 | 91 | 478 | 57,677 | 146 | 8,678,131 | 92,779 |

| Year ended June 30 | Beeswax | Onions | Plums and prunes | Raisins | Currants | Dates | Figs |
|-------------------------|--------------|---------------|------------------|--------------|--------------|--------------|--------------|
| | 1,000 pounds | 1,000 bushels | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| 1909..... | 765 | 575 | 296 | 5,794 | 32,482 | 21,869 | 15,236 |
| 1910..... | 972 | 1,024 | ----- | 6,043 | 33,326 | 22,694 | 17,362 |
| 1911..... | 903 | 1,615 | ----- | 2,479 | 33,440 | 29,505 | 23,460 |
| 1912..... | 1,077 | 1,436 | ----- | 3,256 | 33,151 | 25,208 | 18,765 |
| 1913..... | 829 | 789 | ----- | 2,580 | 30,844 | 34,305 | 16,838 |
| 1914..... | 1,412 | 1,115 | ----- | 4,555 | 32,083 | 34,074 | 19,285 |
| 1915..... | 1,565 | 829 | ----- | 2,809 | 30,351 | 24,949 | 20,790 |
| 1916..... | 2,146 | 816 | ----- | 1,024 | 25,373 | 31,076 | 7,183 |
| 1917..... | 2,398 | 1,758 | ----- | 1,850 | 10,477 | 25,485 | 16,480 |
| 1918..... | 1,827 | 1,313 | ----- | 844 | 5,168 | 5,573 | 10,473 |
| 1919..... | 2,137 | 152 | ----- | 120 | 842 | 20,192 | 9,239 |
| 1920..... | 3,924 | 1,884 | ----- | 13,897 | 88,225 | 36,893 | 28,582 |
| 1921..... | 2,215 | 689 | ----- | 43,269 | 50,178 | 35,367 | 25,424 |
| 1922..... | 3,101 | 2,488 | ----- | 18,363 | 49,467 | 46,742 | 43,139 |
| 1923..... | 4,095 | 1,781 | ----- | 12,335 | 18,924 | 52,037 | 36,585 |
| 1924..... | 3,271 | 1,406 | ----- | 5,745 | 17,155 | 44,143 | 31,668 |
| 1925 [*] | 2,956 | 2,075 | ----- | 10,004 | 15,064 | 63,444 | 45,259 |

^{*}Preliminary.

TABLE 647.—Imports of selected agricultural products, 1909-1925—Continued

| Year ended June 30 | Hides and skins, other than furs | | | Macaroni, vermicelli, and all similar preparations | Lemons | Oranges and limes | Walnuts | |
|-------------------------|----------------------------------|--------------|----------------------------|--|------------------|-------------------|--------------|--------------|
| | Cattle | Goat | Other than cattle and goat | | | | Not shelled | Shelled |
| | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds | 1,000 pounds |
| 1909..... | 132,252 | 104,943 | 143,254 | 85,114 | 135,184 | 8,495 | 26,158 | 33,641 |
| 1910..... | 218,004 | 115,845 | 174,771 | 113,773 | 166,215 | 4,675 | 33,641 | 33,641 |
| 1911..... | 150,123 | 89,914 | 137,850 | 114,779 | 134,969 | 7,672 | 33,619 | 37,214 |
| 1912..... | 251,013 | 96,341 | 191,415 | 108,231 | 145,639 | 7,629 | 16,291 | 10,371 |
| 1913..... | 268,042 | 90,259 | 207,904 | 186,501 | 151,418 | 12,253 | 28,268 | 8,928 |
| 1914..... | 279,963 | 84,759 | 196,348 | 126,129 | ----- | ----- | 22,338 | 11,107 |
| 1915..... | 344,341 | 60,547 | 137,439 | 56,542 | ----- | ----- | 22,630 | 14,229 |
| 1916..... | 434,178 | 100,657 | 208,835 | 21,790 | ----- | ----- | 25,667 | 13,059 |
| 1917..... | 386,600 | 105,640 | 207,967 | 3,473 | ----- | ----- | 12,134 | 11,156 |
| 1918..... | 267,500 | 66,933 | 98,084 | 670 | ----- | ----- | 3,241 | 7,696 |
| 1919..... | 253,877 | 89,005 | 105,260 | 562 | (¹) | (¹) | 27,278 | 17,505 |
| 1920..... | 439,461 | 126,966 | 232,113 | 800 | (¹) | (¹) | 12,525 | 10,641 |
| 1921..... | 108,573 | 41,725 | 111,891 | 1,297 | (¹) | (¹) | 43,206 | 17,027 |
| 1922..... | 204,936 | 83,536 | 104,433 | 1,922 | 101,592 | (¹) | 19,913 | 17,006 |
| 1923..... | 405,363 | 89,401 | 163,401 | 3,254 | 122,818 | (¹) | 18,245 | 18,755 |
| 1924..... | 176,475 | 64,881 | 110,113 | 3,870 | 75,297 | 5,730 | 30,912 | 23,640 |
| 1925 ¹ | 198,312 | 65,956 | 100,725 | 6,191 | 93,530 | 4,929 | ----- | ----- |

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Where figures are lacking, either there were no imports or they were not separately classified for publication.

¹ Preliminary.

² Reported in value only.

TABLE 648.—Exports and imports of selected forest products, 1909-1925

| Year ended June 30 | Domestic exports | | | | | Imports | | | | |
|-------------------------|---------------------------|-----------|---------------|-----------------------|------------------------|----------------|---------------------------------------|--|----------|-----------------|
| | Lumber | | Rosin | Spirits of turpentine | Timber, hewn and sawed | Camphor, crude | Rubber and similar gums, crude, total | Lumber | | Wood pulp |
| | Boards, deals, and planks | Staves | | | | | | Boards, deals, planks, and other sawed | Shingles | |
| | 1,000 M feet | Thousands | 1,000 barrels | 1,000 gallons | 1,000 M feet | 1,000 pounds | 1,000 pounds | 1,000 M feet | 1,000 M | 1,000 long tons |
| 1909..... | 1,358 | 52,563 | 2,170 | 17,502 | 419 | 1,980 | 114,599 | 816 | 1,058 | 19,185 |
| 1910..... | 1,684 | 49,784 | 2,144 | 15,868 | 491 | 3,007 | 154,621 | 1,054 | 763 | 29,402 |
| 1911..... | 2,032 | 65,726 | 2,190 | 14,818 | 532 | 4,574 | 155,744 | 872 | 643 | 15,495 |
| 1912..... | 2,307 | 64,163 | 2,474 | 19,509 | 438 | 2,155 | 175,966 | 965 | 515 | 18,746 |
| 1913..... | 2,550 | 80,006 | 2,986 | 21,604 | 513 | 3,709 | 170,747 | 1,091 | 560 | 21,912 |
| 1914..... | 2,405 | 77,151 | 2,418 | 18,901 | 441 | 3,477 | 161,777 | 929 | 895 | 16,720 |
| 1915..... | 1,129 | 38,207 | 1,372 | 9,404 | 174 | 3,729 | 106,122 | 939 | 1,487 | 24,153 |
| 1916..... | 1,177 | 37,538 | 1,571 | 9,210 | 201 | 4,574 | 304,183 | 1,318 | 1,769 | 26,818 |
| 1917..... | 1,042 | 61,469 | 1,639 | 8,842 | 184 | 6,885 | 364,914 | 1,175 | 1,924 | 22,540 |
| 1918..... | 1,668 | 63,207 | 1,071 | 5,095 | 106 | 3,638 | 414,984 | 1,283 | 1,878 | 22,913 |
| 1919..... | 1,073 | 62,753 | 882 | 8,055 | 92 | 2,623 | 422,215 | 967 | 1,787 | 14,290 |
| 1920..... | 1,618 | 80,791 | 1,322 | 2,401 | 286 | 4,020 | 600,810 | 1,462 | 2,123 | 34,151 |
| 1921..... | 1,269 | 65,710 | 877 | 3,742 | 129 | 3,993 | 371,300 | 990 | 1,981 | 23,872 |
| 1922..... | 1,543 | 31,162 | 786 | 10,766 | 269 | 3,592 | 578,512 | 1,124 | 2,190 | 30,768 |
| 1923..... | 1,549 | 57,466 | 1,040 | 9,012 | 368 | 3,498 | 810,028 | 1,938 | 2,695 | 32,773 |
| 1924..... | 1,867 | 66,888 | 1,205 | 11,194 | 515 | 1,955 | 633,489 | 1,786 | 5,417 | 26,512 |
| 1925 ¹ | 1,929 | 79,877 | 1,412 | 12,205 | 596 | 1,904 | 825,745 | 1,732 | 2,551 | 21,436 |

Division of Statistical and Historical Research. Compiled from Foreign Commerce and Navigation of the United States, 1909-1918, and Monthly Summary of Foreign Commerce of the United States, June issues, 1920-1925.

¹ Preliminary.

TABLE 649.—*Destination of principal farm products exported from the United States, 1923-1925*

| Article and country to which exported | Year ended June 30 | | | | | |
|---------------------------------------|--------------------|-------------------|-------------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS | | | | | | |
| Cattle: | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Mexico..... | 49,223 | 26,006 | 99,375 | 80.1 | 79.4 | 94.1 |
| United Kingdom..... | 6,417 | 3 | 994 | 10.4 | (1) | .9 |
| Cuba..... | 2,529 | 3,046 | 3,214 | 4.1 | 9.3 | 3.0 |
| Canada..... | 1,601 | ,982 | 608 | 2.6 | 2.9 | .6 |
| Belgium..... | 1,443 | 2,368 | 844 | 2.3 | 7.3 | .8 |
| Germany..... | 0 | 1 | 0 | 0 | (1) | 0 |
| Other countries..... | 273 | 345 | 576 | 0.5 | 1.1 | .6 |
| Total..... | 61,486 | 32,761 | 105,611 | 100.0 | 100.0 | 100.0 |
| Horses: | | | | | | |
| Mexico..... | 3,802 | 7,579 | 5,375 | 44.0 | 64.8 | 49.4 |
| Canada..... | 2,496 | 1,754 | 1,727 | 28.9 | 15.0 | 15.9 |
| Spain..... | 1,214 | 1,011 | 562 | 14.0 | 8.6 | 5.2 |
| Cuba..... | 491 | 604 | 1,730 | 5.7 | 5.2 | 15.9 |
| United Kingdom..... | 158 | 110 | 601 | 1.8 | .9 | 5.5 |
| Germany..... | 10 | 41 | 147 | .1 | .4 | 1.3 |
| Belgium..... | 4 | 40 | 129 | .1 | .8 | 1.2 |
| Other countries..... | 466 | 554 | 608 | 5.4 | 4.8 | 5.6 |
| Total..... | 8,641 | 11,693 | 10,879 | 100.0 | 100.0 | 100.0 |
| Butter: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| United Kingdom..... | 3,408,128 | 51 | 2,354,289 | 36.2 | (1) | 28.1 |
| Cuba..... | 767,108 | 804,905 | 570,306 | 8.2 | 14.8 | 10.4 |
| Haiti..... | 615,399 | 512,453 | 905,221 | 6.5 | 9.4 | 6.8 |
| Other West Indies ¹ | 1,338,460 | 732,540 | 805,161 | 14.2 | 13.5 | 9.6 |
| Mexico..... | 904,158 | 843,245 | 1,108,750 | 9.6 | 15.5 | 13.0 |
| Panama..... | 657,793 | 739,120 | 805,650 | 7.0 | 13.6 | 9.6 |
| Peru..... | 234,975 | 518,243 | 455,316 | 2.5 | 9.6 | 5.4 |
| Other South America..... | 359,809 | 209,876 | 325,206 | 3.8 | 3.9 | 3.9 |
| Philippine Islands..... | 354,889 | 249,749 | 181,479 | 3.8 | 4.6 | 2.2 |
| Bermuda..... | 94,885 | 59,180 | 54,706 | 1.0 | 1.1 | .7 |
| Canada..... | 76,314 | 42,085 | 7,218 | .8 | .8 | .1 |
| Japan..... | 51,201 | 149,305 | 36,720 | .5 | 2.8 | .5 |
| Germany..... | 2,228 | 64,685 | 215,092 | (1) | 1.2 | 2.5 |
| Other countries..... | 544,490 | 499,562 | 598,669 | 5.9 | 9.2 | 7.2 |
| Total..... | 9,409,837 | 5,425,299 | 8,383,782 | 100.0 | 100.0 | 100.0 |
| Cheese: | | | | | | |
| United Kingdom..... | 3,296,276 | 65,046 | 55,920 | 39.0 | 1.7 | .6 |
| Cuba..... | 1,496,424 | 1,122,695 | 1,063,320 | 17.7 | 28.5 | 11.3 |
| Other West Indies ¹ | 609,421 | 510,140 | 565,971 | 7.9 | 12.9 | 6.0 |
| Mexico..... | 1,037,719 | 824,468 | 983,088 | 12.3 | 21.0 | 10.4 |
| Canada..... | 600,943 | 264,967 | 1,334,054 | 7.8 | 6.7 | 14.1 |
| Panama..... | 344,933 | 339,431 | 407,526 | 4.1 | 8.6 | 4.3 |
| Central America..... | 276,221 | 280,679 | 276,383 | 3.3 | 7.1 | 2.9 |
| China..... | 190,980 | 114,722 | 143,985 | 2.3 | 2.9 | 1.5 |
| Philippine Islands..... | 104,799 | 97,980 | 109,321 | 1.2 | 2.5 | 1.2 |
| Peru..... | 51,500 | 107,874 | 149,704 | .6 | 2.7 | 1.6 |
| Germany..... | 49,430 | 34,719 | 3,600,992 | .6 | .9 | 38.2 |
| Sweden..... | 8,054 | 3,489 | 0 | .1 | .1 | 0 |
| Other countries..... | 259,612 | 172,101 | 741,736 | 3.1 | 4.4 | 7.9 |
| Total..... | 8,446,321 | 3,938,311 | 9,432,000 | 100.0 | 100.0 | 100.0 |
| Milk: | | | | | | |
| Condensed— | | | | | | |
| United Kingdom..... | 1,476,878 | 509,534 | 224,750 | 3.1 | .8 | .5 |
| Germany..... | 1,021,240 | 1,814,976 | 310,085 | 2.1 | 2.7 | .6 |
| Other Europe..... | 4,000,067 | 1,689,784 | 438,652 | 8.5 | 2.5 | .9 |
| Total Europe..... | 6,498,185 | 4,014,294 | 973,457 | 13.7 | 6.0 | 2.0 |
| Cuba..... | 17,131,382 | 32,265,000 | 21,225,967 | 35.7 | 48.1 | 43.1 |
| Japan..... | 6,083,777 | 7,104,442 | 6,619,121 | 12.7 | 10.6 | 13.4 |
| Chosen..... | 506,188 | 435,648 | 394,066 | 1.1 | .6 | .8 |
| China..... | 2,701,412 | 2,769,066 | 2,667,615 | 5.6 | 4.1 | 5.4 |
| Hongkong..... | 2,421,396 | 2,469,790 | 2,408,724 | 5.0 | 3.7 | 4.9 |
| British South Africa..... | 2,695,488 | 1,451,795 | 1,342,383 | 5.6 | 2.2 | 2.7 |
| Philippine Islands..... | 2,030,954 | 8,045,581 | 5,820,585 | 4.2 | 12.0 | 11.8 |
| Straits Settlements..... | 1,275,215 | 302,824 | 51,000 | .2 | .4 | .1 |
| Mexico..... | 1,035,976 | 1,599,552 | 1,403,935 | 2.2 | 2.4 | 2.8 |
| Panama..... | 758,452 | 1,277,367 | 1,407,759 | 1.6 | 1.9 | 2.9 |
| Costa Rica..... | 278,605 | 337,385 | 376,201 | .6 | .5 | .8 |
| Brazil..... | 274,165 | 238,542 | 499,222 | .6 | .3 | .9 |
| Bolivia..... | 94,108 | 375,394 | 302,345 | .2 | .6 | .6 |
| Other countries..... | 4,060,966 | 4,424,138 | 3,854,718 | 8.5 | 6.6 | 7.8 |
| Total..... | 47,966,269 | 67,111,718 | 49,297,128 | 100.0 | 100.0 | 100.0 |

¹ Less than 0.05 per cent.² Excludes Bermuda.

TABLE 649.—Destination of principal farm products exported from the United States, 1923-1925—Continued

| Article and country to which exported | Year ended June 30 | | | | | |
|---|--------------------|---------------|---------------|-----------------|------------------|------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS—CON. | | | | | | |
| Milk—Continued. | | | | | | |
| Evaporated— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| United Kingdom..... | 24,483,752 | 36,527,062 | 28,662,026 | 22.5 | 24.9 | 23.1 |
| Germany..... | 15,422,430 | 49,403,004 | 43,355,455 | 14.1 | 33.7 | 34.9 |
| Russia in Europe..... | 15,028,237 | 0 | 31,038 | 13.8 | 0 | (¹) |
| Latvia..... | 9,821,520 | 0 | 0 | 9.0 | 0 | 0 |
| France..... | 6,847,621 | 7,888,594 | 3,765,448 | 6.3 | 5.4 | 3.0 |
| Ukraine..... | 4,500,242 | 9,221 | 0 | 4.1 | (¹) | 0 |
| Belgium..... | 2,249,432 | 6,965,583 | 1,679,616 | 2.1 | 4.8 | 1.3 |
| Netherlands..... | 1,003,604 | 7,460,785 | 7,328,170 | .9 | 5.1 | 5.9 |
| Other Europe..... | 2,187,438 | 1,152,229 | 1,079,180 | 2.0 | .8 | .0 |
| Total Europe..... | 81,544,276 | 109,407,078 | 85,900,933 | 74.8 | 74.7 | 69.1 |
| Philippine Islands..... | 5,123,214 | 8,161,713 | 10,066,562 | 4.7 | 5.6 | 8.1 |
| Panama..... | 3,401,574 | 3,660,092 | 3,742,465 | 3.1 | 2.5 | 3.0 |
| Peru..... | 2,990,064 | 4,164,858 | 5,012,879 | 2.7 | 2.8 | 4.0 |
| Mexico..... | 2,710,430 | 2,626,935 | 2,589,158 | 2.5 | 1.8 | 2.1 |
| Cuba..... | 2,678,733 | 3,643,224 | 3,120,571 | 2.5 | 2.5 | 2.5 |
| China..... | 1,562,948 | 907,812 | 2,607,684 | 1.4 | .6 | 2.1 |
| Japan..... | 788,644 | 4,213,370 | 1,732,435 | .7 | 2.9 | 1.4 |
| Other countries..... | 8,272,180 | 9,715,852 | 9,477,375 | 7.6 | 6.6 | 7.7 |
| Total..... | 109,072,063 | 146,500,934 | 124,250,062 | 100.0 | 100.0 | 100.0 |
| Powdered— | | | | | | |
| Germany..... | 993,547 | 243,105 | 1,036,003 | 34.1 | 9.0 | 18.4 |
| United Kingdom..... | 485,164 | 304,018 | 701,733 | 16.6 | 11.2 | 12.5 |
| France..... | 213,409 | 302,839 | 275,625 | 7.3 | 11.2 | 4.9 |
| Other Europe..... | 89,687 | 136,142 | 2,045,609 | 3.1 | 5.0 | 36.4 |
| Total Europe..... | 1,781,807 | 966,104 | 4,058,960 | 61.1 | 36.4 | 72.2 |
| Japan..... | 558,622 | 913,192 | 409,702 | 19.1 | 33.8 | 7.3 |
| Cuba..... | 113,737 | 150,699 | 237,451 | 3.9 | 6.6 | 4.2 |
| Mexico..... | 84,808 | 76,494 | 139,856 | 2.9 | 2.8 | 2.5 |
| Canada..... | 67,902 | 110,273 | 129,878 | 2.3 | 4.1 | 2.3 |
| Panama..... | 53,544 | 101,415 | 127,605 | 1.8 | 3.7 | 2.3 |
| Peru..... | 42,221 | 58,663 | 86,411 | 1.4 | 2.2 | 1.5 |
| China..... | 34,164 | 57,458 | 86,547 | 1.2 | 2.1 | 1.5 |
| Chile..... | 28,478 | 39,398 | 38,551 | 1.0 | 1.5 | .7 |
| Other countries..... | 153,092 | 212,228 | 307,654 | 5.3 | 7.8 | 5.5 |
| Total..... | 2,918,375 | 2,705,924 | 5,622,815 | 100.0 | 100.0 | 100.0 |
| Eggs, in the shell: | <i>Dozen</i> | <i>Dozen</i> | <i>Dozen</i> | | | |
| United Kingdom..... | 4,739,080 | 3,376,762 | 777,020 | 13.8 | 10.3 | 3.1 |
| Other Europe..... | 31,902 | 14,434 | 56 | .1 | (¹) | (¹) |
| Total Europe..... | 4,770,982 | 3,391,196 | 777,076 | 13.9 | 10.3 | 3.1 |
| Cuba..... | 11,542,575 | 13,135,196 | 11,957,622 | 33.7 | 40.0 | 47.6 |
| Canada..... | 8,577,206 | 6,479,665 | 4,133,040 | 25.0 | 19.7 | 16.6 |
| Mexico..... | 7,358,663 | 6,545,802 | 3,247,184 | 21.4 | 20.0 | 12.9 |
| Panama..... | 934,647 | 950,367 | 953,421 | 2.7 | 2.9 | 3.8 |
| Argentina..... | 740,100 | 1,881,710 | 3,567,630 | 2.2 | 5.7 | 14.2 |
| Other countries..... | 379,342 | 449,592 | 450,648 | 1.1 | 1.4 | 1.8 |
| Total..... | 34,283,515 | 32,831,528 | 25,106,621 | 100.0 | 100.0 | 100.0 |
| Beef, canned: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| United Kingdom..... | 722,441 | 303,680 | 691,917 | 31.2 | 19.7 | 37.7 |
| Cuba..... | 89,166 | 35,230 | 163,401 | 3.9 | 2.3 | 8.9 |
| Other West Indies..... | 374,537 | 100,080 | 125,341 | 14.0 | 6.5 | 6.8 |
| Philippine Islands..... | 291,241 | 113,388 | 213,361 | 12.6 | 7.3 | 11.6 |
| Dutch East Indies..... | 116,252 | 9,459 | 425 | 5.1 | .6 | (¹) |
| Bermuda..... | 101,698 | 17,945 | 8,283 | 4.4 | 1.1 | .5 |
| Canada..... | 93,900 | 31,735 | 141,875 | 4.1 | 2.1 | 7.7 |
| Mexico..... | 81,189 | 77,627 | 95,252 | 3.5 | 5.0 | 5.2 |
| Newfoundland and Labrador..... | 64,663 | 52,264 | 66,923 | 2.8 | 3.4 | 3.6 |
| Japan..... | 58,885 | 45,887 | 930 | 2.6 | 3.0 | .1 |
| Germany..... | 52,192 | 887,733 | 29,064 | 2.3 | 25.1 | 1.6 |
| Honduras..... | 44,202 | 57,852 | 42,243 | 1.9 | 3.7 | 2.3 |
| British Guiana..... | 38,021 | 13,650 | 3,967 | 1.6 | .9 | .3 |
| Panama..... | 28,466 | 37,788 | 3,967 | 1.2 | 2.4 | 1.9 |
| Venezuela..... | 20,466 | 21,907 | 26,600 | .8 | 1.4 | 1.4 |
| British South Africa..... | 12,722 | 21,090 | 18,141 | .5 | 1.4 | 1.0 |
| French Guiana..... | 10,944 | 6,973 | 5,831 | .5 | .5 | .3 |
| Netherlands..... | 0 | 72,444 | 0 | 0 | 4.7 | 0 |
| Other countries..... | 161,507 | 138,005 | 167,195 | 7.0 | 8.9 | 9.1 |
| Total..... | 2,312,480 | 1,544,707 | 1,834,823 | 100.0 | 100.0 | 100.0 |

¹ Less than 0.05 per cent.² Excludes Bermuda.

TABLE 649.—Destination of principal farm products exported from the United States, 1923-1925—Continued

| Article and country to which exported | Year ended June 30 | | | | | |
|---|--------------------|----------------------|--------------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS—CON. | | | | | | |
| Beef, pickled and other cured: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Newfoundland and Labrador..... | 6,627,439 | 7,420,262 | 7,841,130 | 27.4 | 34.0 | 35.0 |
| Cuba..... | 175,718 | 123,317 | 135,890 | .7 | .6 | .6 |
| Other West Indies ¹ | 5,070,684 | 4,704,803 | 4,675,329 | 20.9 | 21.5 | 21.8 |
| United Kingdom..... | 3,084,709 | 1,667,457 | 1,944,258 | 12.8 | 7.6 | 8.7 |
| Norway..... | 1,786,320 | 1,105,581 | 1,264,410 | 7.4 | 5.1 | 5.6 |
| Canada..... | 1,460,801 | 1,066,340 | 720,404 | 6.0 | 4.9 | 3.2 |
| Dutch Guiana..... | 1,137,500 | 855,760 | 1,108,906 | 4.7 | 3.9 | 5.0 |
| French Guiana..... | 481,000 | 338,675 | 312,025 | 2.0 | 1.5 | 1.5 |
| British West Africa..... | 817,731 | 1,277,336 | 868,050 | 3.4 | 5.8 | 3.9 |
| Germany..... | 462,936 | 447,215 | 398,469 | 1.9 | 2.0 | 1.6 |
| Belgium..... | 363,751 | 384,705 | 259,243 | 1.5 | 1.8 | 1.2 |
| Panama..... | 259,924 | 223,229 | 204,670 | 1.1 | 1.0 | .9 |
| Bermuda..... | 237,890 | 170,859 | 193,187 | 1.0 | .8 | .9 |
| Denmark..... | 196,700 | 168,520 | 73,000 | .8 | .5 | .3 |
| Netherlands..... | 190,989 | 62,462 | 50,575 | .8 | .3 | .2 |
| Other countries..... | 1,831,991 | 1,899,470 | 2,150,483 | 7.6 | 8.7 | 9.6 |
| Total..... | 24,185,263 | 21,850,981 | 22,407,029 | 100.0 | 100.0 | 100.0 |
| Bacon:² | | | | | | |
| United Kingdom..... | 188,274,240 | 146,232,728 | 104,627,031 | 46.1 | 35.8 | 49.4 |
| Germany..... | 74,441,278 | 60,226,029 | 25,972,307 | 18.2 | 19.0 | 12.3 |
| Netherlands..... | 30,971,830 | 37,050,139 | 7,994,827 | 7.6 | 9.1 | 3.8 |
| Cuba..... | 24,829,609 | 26,048,678 | 27,330,063 | 6.1 | 6.4 | 12.9 |
| Belgium..... | 23,215,436 | 16,089,551 | 6,401,874 | 5.7 | 3.0 | 3.0 |
| Norway..... | 12,268,761 | 10,427,177 | 8,774,714 | 3.0 | 2.6 | 4.1 |
| Sweden..... | 9,765,261 | 6,802,579 | 5,538,869 | 2.4 | 1.7 | 2.6 |
| Canada..... | 9,925,008 | 9,672,687 | 2,680,594 | 2.4 | 2.4 | 1.3 |
| Italy..... | 8,250,356 | 23,399,216 | 7,356,007 | 2.3 | 9.4 | 3.5 |
| France..... | 7,758,436 | 14,941,288 | 3,230,198 | 1.9 | 3.7 | 1.5 |
| Denmark..... | 2,456,053 | 1,601,980 | 1,605,104 | .6 | .4 | .8 |
| Mexico..... | 395,045 | 410,779 | 443,081 | .1 | .1 | .2 |
| Other countries..... | 14,771,022 | 20,157,551 | 9,721,775 | 3.6 | 4.9 | 4.6 |
| Total..... | 408,334,340 | 408,099,391 | 211,706,124 | 100.0 | 100.0 | 100.0 |
| Cumberland sides:³ | | | | | | |
| United Kingdom..... | | \$ 14,795,568 | 23,978,807 | | 96.1 | 97.6 |
| Canada..... | | 362,846 | | | 2.0 | .9 |
| Other countries..... | | 362,239 | 365,313 | | 1.9 | 1.5 |
| Total..... | | \$ 15,400,653 | 24,556,786 | | 100.0 | 100.0 |
| Hams and shoulders, cured:⁴ | | | | | | |
| United Kingdom..... | 259,352,777 | 297,751,899 | 229,124,596 | 81.2 | 80.4 | 82.6 |
| Canada..... | 19,535,776 | 15,111,834 | 5,661,147 | 6.1 | 4.1 | 2.0 |
| Belgium..... | 13,973,797 | 21,159,400 | 13,360,719 | 4.4 | 5.7 | 4.8 |
| Cuba..... | 12,784,118 | 14,247,755 | 15,724,791 | 4.0 | 3.9 | 5.7 |
| France..... | 2,142,135 | 4,586,967 | 1,113,360 | .7 | 1.3 | .4 |
| Mexico..... | 1,027,949 | 1,667,104 | 1,094,576 | .3 | .3 | .4 |
| Newfoundland and Labrador..... | 648,577 | 804,218 | 529,974 | .2 | .2 | .3 |
| Panama..... | 696,999 | 988,828 | 860,643 | .2 | .3 | .3 |
| Dominican Republic..... | 325,649 | 332,494 | 368,707 | .1 | .1 | .1 |
| Other countries..... | 8,842,306 | 13,423,053 | 9,469,710 | 2.8 | 3.7 | 3.4 |
| Total..... | 319,269,073 | 389,458,550 | 277,567,994 | 100.0 | 100.0 | 100.0 |
| Wiltshire sides:⁵ | | | | | | |
| United Kingdom..... | | \$ 10,619,129 | 12,025,415 | | 82.8 | 82.1 |
| Canada..... | | 1,667,151 | 2,572,566 | | 13.8 | 17.6 |
| Other countries..... | | 418,904 | | | 3.4 | .3 |
| Total..... | | \$ 12,105,184 | 14,647,217 | | 100.0 | 100.0 |

¹ Excludes Bermuda.² Includes "Cumberland sides" prior to Jan. 1, 1924.³ Included with "Bacon" prior to Jan. 1, 1924.⁴ January-June.⁵ Includes "Wiltshire sides" prior to Jan. 1, 1924.⁶ Included with "Hams and shoulders" prior to Jan. 1, 1924.

TABLE 649.—Destination of principal farm products exported from the United States, 1923-1925—Continued

| Article and country to which exported | Year ended June 30 | | | | | |
|--|--------------------|----------------------|--------------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS—con. | | | | | | |
| Pork: | | | | | | |
| Fresh— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| United Kingdom..... | 22,994,860 | 27,741,986 | 19,016,381 | 52.5 | 56.5 | 68.9 |
| France..... | 1,000 | 79,168 | 214,003 | (1) | 2 | 8 |
| Other Europe..... | 3,064,615 | 9,183,088 | 2,803,007 | 7.0 | 18.7 | 10.1 |
| Total Europe..... | 26,062,475 | 37,004,242 | 22,033,391 | 59.5 | 75.4 | 79.8 |
| Canada..... | 14,588,351 | 8,827,703 | 1,754,032 | 33.3 | 18.0 | 6.4 |
| Cuba..... | 2,203,886 | 2,181,492 | 1,885,694 | 5.0 | 4.4 | 6.8 |
| Panama..... | 499,956 | 551,923 | 576,720 | 1.1 | 1.1 | 2.1 |
| Philippine Islands..... | 157,103 | 141,192 | 69,351 | .4 | .3 | .3 |
| Bermuda..... | 82,837 | 97,306 | 102,711 | .2 | .2 | .4 |
| Mexico..... | 81,547 | 105,802 | 181,291 | .2 | .2 | .7 |
| Other countries..... | 105,455 | 202,866 | 1,000,270 | .3 | .4 | 3.5 |
| Total..... | 43,771,610 | 49,112,616 | 27,603,460 | 100.0 | 100.0 | 100.0 |
| Pickled— | | | | | | |
| Canada..... | 13,348,745 | 8,436,629 | 5,391,594 | 32.6 | 22.5 | 20.2 |
| United Kingdom..... | 5,852,630 | 4,105,706 | 3,280,555 | 14.3 | 11.0 | 12.3 |
| Newfoundland and Labrador..... | 5,265,840 | 5,154,915 | 4,206,344 | 12.9 | 13.8 | 15.7 |
| Germany..... | 3,525,805 | 3,306,849 | 4,091,821 | 8.6 | 8.8 | 1.8 |
| British West Indies..... | 3,377,793 | 3,084,256 | 2,671,817 | 8.3 | 8.2 | 10.0 |
| Cuba..... | 1,379,111 | 4,411,895 | 3,909,098 | 3.4 | 11.8 | 14.6 |
| Haiti..... | 1,269,842 | 1,304,729 | 1,013,649 | 3.1 | 3.5 | 3.8 |
| Norway..... | 1,567,944 | 2,349,184 | 1,813,984 | 3.8 | 6.3 | 6.8 |
| British Guiana..... | 972,334 | 770,440 | 829,282 | 2.4 | 2.1 | 3.5 |
| British Honduras..... | 708,250 | 676,121 | 545,701 | 1.7 | 1.8 | 2.1 |
| Belgium..... | 328,441 | 723,541 | 217,893 | .8 | 1.9 | .8 |
| Other countries..... | 3,330,031 | 3,137,134 | 2,234,218 | 8.1 | 8.3 | 8.4 |
| Total..... | 40,933,756 | 37,469,399 | 26,726,116 | 100.0 | 100.0 | 100.0 |
| Lard: | | | | | | |
| Germany..... | 328,111,782 | 329,792,983 | 251,982,930 | 34.4 | 32.5 | 31.8 |
| United Kingdom..... | 241,144,090 | 240,015,876 | 225,010,931 | 25.3 | 23.7 | 28.1 |
| Cuba..... | 37,897,540 | 92,082,370 | 86,479,830 | 9.2 | 9.1 | 10.9 |
| Dominican Republic..... | 4,200,001 | 4,148,800 | 3,574,089 | .4 | .4 | .5 |
| Haiti..... | 1,763,829 | 2,238,522 | 1,725,143 | .2 | .2 | .2 |
| Belgium..... | 50,472,076 | 40,634,462 | 22,538,090 | 5.3 | 4.0 | 2.8 |
| Netherlands..... | 47,802,425 | 71,570,259 | 50,368,556 | 5.0 | 7.1 | 6.4 |
| Mexico..... | 14,951,072 | 45,809,793 | 35,937,353 | 4.7 | 4.5 | 4.5 |
| France..... | 37,801,672 | 32,610,000 | 11,463,141 | 4.0 | 3.2 | 1.4 |
| Italy..... | 29,570,822 | 77,209,556 | 41,145,363 | 3.1 | 7.6 | 5.2 |
| Canada..... | 14,318,375 | 15,230,837 | 9,810,743 | 1.5 | 1.5 | 1.2 |
| Peru..... | 7,799,400 | 10,133,557 | 9,588,335 | .8 | 1.0 | 1.2 |
| Ecuador..... | 4,518,308 | 4,052,907 | 3,770,030 | .5 | .4 | .5 |
| Venezuela..... | 2,192,440 | 2,101,955 | 488,856 | .2 | .2 | .1 |
| Poland and Danzig..... | 6,708,091 | 3,279,220 | 5,658,169 | .7 | .8 | .7 |
| Sweden..... | 5,941,585 | 5,498,143 | 2,808,007 | .6 | .5 | .4 |
| Denmark..... | 5,696,646 | 7,364,675 | 4,092,192 | .6 | .7 | .6 |
| Switzerland..... | 2,789,067 | 2,722,105 | 1,051,593 | .3 | .3 | .1 |
| Other countries..... | 28,959,805 | 28,395,173 | 26,605,400 | 3.2 | 2.8 | 3.4 |
| Total..... | 952,041,705 | 1,014,808,388 | 792,735,441 | 100.0 | 100.0 | 100.0 |
| Lard compounds, containing animal fats: | | | | | | |
| Mexico..... | 2,092,365 | 1,307,222 | 1,251,842 | 24.2 | 18.9 | 14.0 |
| United Kingdom..... | 1,575,543 | 265,937 | 657,400 | 14.1 | 3.8 | 7.4 |
| Haiti..... | 1,444,849 | 1,498,345 | 1,628,117 | 13.0 | 21.7 | 17.1 |
| Cuba..... | 1,413,857 | 989,353 | 2,760,064 | 12.7 | 13.5 | 30.8 |
| Trinidad and Tobago..... | 400,339 | 19,281 | 13,971 | .6 | .3 | .2 |
| Dutch West Indies..... | 271,438 | 236,185 | 261,756 | 2.4 | 3.4 | 2.9 |
| Jamaica..... | 155,905 | 50,668 | 29,749 | 1.4 | .7 | .3 |
| Virgin Islands..... | 130,556 | 288,393 | 252,924 | 1.2 | 4.1 | 2.8 |
| Dominican Republic..... | 46,307 | 39,099 | 100,992 | .4 | .5 | 1.1 |
| Central America..... | 748,478 | 701,491 | 572,820 | 6.7 | 10.2 | 6.4 |
| Norway..... | 736,077 | 86,150 | 322,285 | 6.6 | 1.2 | 3.6 |
| Panama..... | 357,509 | 315,049 | 225,131 | 3.2 | 4.6 | 2.5 |
| Chile..... | 166,690 | 91,698 | 167,558 | 1.5 | 1.3 | 1.0 |
| Newfoundland and Labrador..... | 112,614 | 94,727 | 70,498 | 1.0 | 1.4 | .8 |
| Netherlands..... | 80,228 | 80,993 | 12,500 | .7 | 1.8 | .2 |
| British West Africa..... | 78,051 | 64,269 | 136,206 | .7 | .9 | 1.6 |
| Bermuda..... | 70,933 | 39,108 | 22,829 | .6 | .6 | .3 |
| Canada..... | 64,261 | 141,132 | 166,098 | .6 | 2.0 | 1.9 |
| Germany..... | 8,473 | 64,198 | 76,490 | (1) | 1.4 | .9 |
| Other countries..... | 586,187 | 561,978 | 308,252 | 5.3 | 8.2 | 3.4 |
| Total..... | 11,139,730 | 6,907,366 | 8,922,451 | 100.0 | 100.0 | 100.0 |

1 Less than 0.05 per cent.

TABLE 649.—*Destination of principal farm products exported from the United States, 1923-1925—Continued*

| Article and country to which exported | Year ended June 30 | | | | | |
|---|----------------------|----------------------|----------------------|-----------------|------------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS—con. | | | | | | |
| Lard, neutral: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Netherlands..... | 8,778,845 | 8,027,907 | 6,141,191 | 33.1 | 33.1 | 30.1 |
| United Kingdom..... | 5,476,907 | 4,609,418 | 2,702,025 | 20.7 | 19.0 | 13.2 |
| Norway..... | 4,314,719 | 3,263,354 | 1,891,235 | 16.3 | 13.6 | 9.3 |
| Germany..... | 2,059,671 | 2,411,557 | 4,705,542 | 7.8 | 10.0 | 23.0 |
| Sweden..... | 1,439,750 | 1,401,896 | 1,226,967 | 5.4 | 5.8 | 6.0 |
| Denmark..... | 1,212,976 | 1,284,990 | 1,027,015 | 4.6 | 5.3 | 5.0 |
| Belgium..... | 971,168 | 801,047 | 605,171 | 3.7 | 3.3 | 3.0 |
| Newfoundland and Labrador..... | 784,755 | 990,405 | 799,297 | 3.0 | 4.1 | 3.9 |
| Other countries..... | 1,455,788 | 1,409,407 | 1,322,473 | 5.4 | 5.8 | 6.5 |
| Total..... | 26,494,079 | 24,238,981 | 20,420,916 | 100.0 | 100.0 | 100.0 |
| Olse oil: | | | | | | |
| Netherlands..... | 47,052,838 | 41,649,811 | 46,206,581 | 44.8 | 44.8 | 44.0 |
| United Kingdom..... | 14,967,025 | 12,177,331 | 12,452,715 | 14.3 | 13.1 | 11.8 |
| Germany..... | 13,987,054 | 11,218,141 | 18,868,974 | 13.3 | 12.1 | 17.9 |
| Norway..... | 12,133,362 | 12,142,884 | 8,917,808 | 11.6 | 13.1 | 8.5 |
| Turkey in Europe..... | 4,123,958 | 18,901 | 0 | 3.9 | (¹) | 0 |
| Denmark..... | 2,581,795 | 3,279,632 | 3,503,417 | 2.5 | 3.5 | 3.3 |
| Sweden..... | 2,383,367 | 1,223,004 | 1,769,315 | 2.3 | 1.3 | 1.7 |
| Greece..... | 1,190,630 | 4,761,951 | 6,600,802 | 1.1 | 5.1 | 6.3 |
| Belgium..... | 1,065,677 | 1,843,777 | 2,075,601 | 1.6 | 2.0 | 2.0 |
| Newfoundland and Labrador..... | 1,522,240 | 1,282,125 | 1,060,126 | 1.5 | 1.4 | 1.0 |
| France..... | 245,712 | 19,111 | 0 | .2 | (¹) | 0 |
| Other countries..... | 3,102,720 | 3,348,333 | 3,630,144 | 2.9 | 3.6 | 3.5 |
| Total..... | 104,956,378 | 92,965,001 | 105,145,483 | 100.0 | 100.0 | 100.0 |
| VEGETABLE PRODUCTS | | | | | | |
| Cotton, excluding linters: | <i>500-lb. bales</i> | <i>500-lb. bales</i> | <i>500-lb. bales</i> | | | |
| United Kingdom..... | 1,400,317 | 1,685,377 | 2,605,456 | 26.9 | 29.1 | 31.6 |
| Germany..... | 928,541 | 1,271,738 | 1,765,673 | 17.8 | 22.0 | 21.4 |
| France..... | 697,535 | 738,841 | 932,866 | 13.4 | 12.8 | 11.3 |
| Italy..... | 572,068 | 559,833 | 747,594 | 11.0 | 9.7 | 9.1 |
| Spain..... | 249,780 | 216,166 | 286,581 | 4.8 | 3.7 | 3.5 |
| Belgium..... | 183,429 | 162,332 | 215,074 | 3.5 | 2.8 | 2.6 |
| Netherlands..... | 71,851 | 109,727 | 143,923 | 1.4 | 1.9 | 1.7 |
| Sweden..... | 60,591 | 72,323 | 61,174 | 1.2 | 1.3 | .8 |
| Russia in Europe..... | 7,693 | 120,318 | 286,367 | .1 | 2.1 | 3.5 |
| Other Europe..... | 109,548 | 83,820 | 96,581 | 2.1 | 1.4 | 1.2 |
| Total Europe..... | 4,281,353 | 5,020,484 | 7,141,289 | 82.2 | 86.8 | 86.7 |
| Japan..... | 679,159 | 583,957 | 849,584 | 13.1 | 10.1 | 10.3 |
| Canada..... | 203,112 | 146,688 | 197,668 | 3.9 | 2.5 | 2.4 |
| Other countries..... | 41,804 | 32,570 | 50,276 | .8 | .6 | .6 |
| Total..... | 5,205,518 | 5,783,690 | 8,238,817 | 100.0 | 100.0 | 100.0 |
| Linters: | | | | | | |
| Germany..... | 17,106 | 73,816 | 126,319 | 35.7 | 64.2 | 63.0 |
| France..... | 6,664 | 12,583 | 18,607 | 13.9 | 10.9 | 9.3 |
| Netherlands..... | 3,767 | 2,729 | 7,362 | 7.8 | 2.4 | 3.7 |
| United Kingdom..... | 2,691 | 9,518 | 17,969 | 5.6 | 8.3 | 9.0 |
| Belgium..... | 2,340 | 6,636 | 8,667 | 4.8 | 5.8 | 4.3 |
| Other Europe..... | 509 | 4,078 | 11,813 | 1.2 | 3.5 | 5.9 |
| Total Europe..... | 33,077 | 109,390 | 190,737 | 69.0 | 95.1 | 95.2 |
| Canada..... | 13,940 | 8,043 | 9,185 | 29.1 | 4.4 | 4.6 |
| Other countries..... | 929 | 611 | 332 | 1.9 | .5 | .2 |
| Total..... | 47,946 | 115,014 | 200,254 | 100.0 | 100.0 | 100.0 |
| Fruits: | | | | | | |
| Apples, fresh— | <i>Boxes</i> | <i>Boxes</i> | <i>Boxes</i> | | | |
| United Kingdom..... | 2,503,633 | 3,661,826 | 3,353,937 | 71.7 | 59.1 | 65.9 |
| Canada..... | 347,919 | 645,817 | 443,278 | 10.0 | 10.4 | 8.7 |
| Norway..... | 128,537 | 175,862 | 88,251 | 3.7 | 2.8 | 1.7 |
| Mexico..... | 103,824 | 126,223 | 118,042 | 3.0 | 2.0 | 2.3 |
| Argentina..... | 60,777 | 86,716 | 99,764 | 1.7 | 1.4 | 2.0 |
| Cuba..... | 49,973 | 85,425 | 60,274 | 1.4 | 1.4 | 1.2 |
| Brazil..... | 39,550 | 84,543 | 100,174 | 1.1 | 1.4 | 2.2 |
| Sweden..... | 25,254 | 179,274 | 106,269 | .7 | 2.9 | 2.1 |
| Denmark..... | 21,969 | 118,238 | 31,502 | .6 | 1.9 | .6 |
| Germany..... | 14,483 | 476,633 | 291,068 | .4 | 7.7 | 5.7 |
| Other countries..... | 195,325 | 557,642 | 386,509 | 5.7 | 9.0 | 7.6 |
| Total..... | 3,491,244 | 6,198,199 | 5,088,128 | 100.0 | 100.0 | 100.0 |

¹ Less than 0.05 per cent.

TABLE 649.—*Destination of principal farm products exported from the United States, 1923-1925—Continued*

| Article and country to which exported | Year ended June 30 | | | | | |
|---------------------------------------|--------------------|----------------|----------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Fruits—Continued. | | | | | | |
| Apples, fresh— | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| United Kingdom..... | 480,437 | 1,734,786 | 1,255,079 | 81.1 | 85.4 | 83.4 |
| Canada..... | 47,005 | 46,459 | 34,439 | 7.9 | 2.2 | 2.3 |
| Cuba..... | 20,156 | 24,537 | 17,546 | 3.4 | 1.2 | 1.2 |
| Norway..... | 13,261 | 30,244 | 22,675 | 2.2 | 1.5 | 1.5 |
| Argentina..... | 13,083 | 26,794 | 52,722 | 2.2 | 1.3 | 3.5 |
| Mexico..... | 4,414 | 1,749 | 1,999 | .7 | .1 | .1 |
| Brazil..... | 1,602 | 232 | 1,177 | .3 | (1) | .1 |
| Sweden..... | 1,180 | 78,768 | 70,237 | .2 | 3.9 | 4.6 |
| Germany..... | 18 | 42,568 | 19,731 | (1) | 2.1 | 1.3 |
| Denmark..... | 7 | 26,428 | 12,140 | (1) | 1.3 | .8 |
| Other countries..... | 11,418 | 20,676 | 17,480 | 2.0 | 1.0 | 1.2 |
| Total..... | 502,581 | 2,032,241 | 1,505,224 | 100.0 | 100.0 | 100.0 |
| Oranges— | <i>Boxes</i> | <i>Boxes</i> | <i>Boxes</i> | | | |
| Canada..... | 1,674,106 | 2,334,329 | 1,980,152 | 93.1 | 90.1 | 90.2 |
| United Kingdom..... | 27,572 | 80,074 | 80,974 | 1.5 | 3.1 | 3.7 |
| Other countries..... | 97,535 | 177,406 | 135,488 | 5.4 | 6.8 | 6.1 |
| Total..... | 1,799,213 | 2,591,808 | 2,196,614 | 100.0 | 100.0 | 100.0 |
| Apples, dried— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| Netherlands..... | 3,761,850 | 9,384,147 | 4,714,118 | 29.3 | 30.9 | 24.5 |
| United Kingdom..... | 1,677,141 | 2,171,010 | 2,570,807 | 13.1 | 7.1 | 13.4 |
| Sweden..... | 1,674,426 | 2,594,713 | 2,168,045 | 13.1 | 8.5 | 11.3 |
| France..... | 1,124,350 | 249,303 | 304,904 | 8.8 | .8 | 1.6 |
| Denmark..... | 991,536 | 1,585,798 | 910,600 | 7.7 | 5.2 | 4.7 |
| Norway..... | 894,108 | 480,481 | 566,756 | 7.0 | 1.6 | 3.0 |
| Germany..... | 836,265 | 12,211,971 | 6,632,065 | 6.5 | 40.2 | 34.5 |
| Finland..... | 619,591 | 439,134 | 468,964 | 4.8 | 1.4 | 2.4 |
| Belgium..... | 402,105 | 394,650 | 121,327 | 3.1 | 1.3 | .6 |
| Canada..... | 250,246 | 70,439 | 70,994 | 2.0 | .2 | .4 |
| Argentina..... | 53,735 | 111,049 | 109,460 | .4 | .4 | .6 |
| China..... | 52,332 | 65,692 | 62,964 | .4 | .2 | .3 |
| Other countries..... | 475,565 | 651,952 | 516,578 | 3.8 | 2.2 | 2.7 |
| Total..... | 12,817,250 | 30,410,339 | 19,224,682 | 100.0 | 100.0 | 100.0 |
| Apricots, dried— | | | | | | |
| France..... | 3,306,111 | 647,575 | 1,017,712 | 29.5 | 1.7 | 7.7 |
| United Kingdom..... | 1,246,608 | 6,419,033 | 1,993,868 | 11.1 | 16.6 | 15.0 |
| Denmark..... | 1,243,494 | 3,593,724 | 836,282 | 11.1 | 9.3 | 6.3 |
| Norway..... | 1,085,049 | 1,455,814 | 427,135 | 9.7 | 3.8 | 3.2 |
| Netherlands..... | 897,500 | 9,890,676 | 1,425,867 | 8.0 | 25.5 | 10.7 |
| Canada..... | 802,276 | 2,152,860 | 1,663,792 | 7.2 | 5.6 | 12.5 |
| Sweden..... | 801,447 | 1,670,530 | 748,954 | 7.2 | 4.3 | 5.6 |
| Japan..... | 405,946 | 396,348 | 271,915 | 3.6 | 1.0 | 2.0 |
| Belgium..... | 394,945 | 1,911,302 | 525,782 | 3.5 | 4.9 | 4.0 |
| Germany..... | 323,556 | 9,252,229 | 3,082,213 | 2.9 | 23.9 | 23.2 |
| New Zealand..... | 226,795 | 145,015 | 115,451 | 2.0 | .4 | .9 |
| Other countries..... | 459,456 | 1,237,552 | 1,183,203 | 4.2 | 3.0 | 8.9 |
| Total..... | 11,193,183 | 38,776,678 | 13,292,175 | 100.0 | 100.0 | 100.0 |
| Prunes— | | | | | | |
| France..... | 26,586,399 | 3,694,496 | 20,239,510 | 33.6 | 2.7 | 11.8 |
| United Kingdom..... | 18,905,239 | 30,160,616 | 31,032,927 | 23.9 | 22.1 | 18.4 |
| Canada..... | 13,951,017 | 15,209,349 | 14,775,869 | 17.6 | 11.1 | 8.6 |
| Sweden..... | 4,864,105 | 7,047,009 | 5,465,238 | 6.1 | 5.2 | 3.2 |
| Belgium..... | 2,515,887 | 3,522,493 | 4,750,229 | 3.2 | 2.6 | 2.8 |
| Denmark..... | 2,003,032 | 2,935,746 | 6,155,007 | 2.5 | 2.2 | 3.6 |
| Netherlands..... | 1,771,449 | 12,015,176 | 15,564,890 | 2.2 | 8.8 | 9.1 |
| New Zealand..... | 1,520,060 | 1,428,849 | 1,013,174 | 1.9 | 1.0 | .9 |
| Mexico..... | 1,029,352 | 812,708 | 893,523 | 1.3 | .6 | .5 |
| Norway..... | 742,431 | 1,233,414 | 3,936,697 | .9 | .9 | 2.3 |
| Germany..... | 263,056 | 51,125,557 | 55,000,201 | .3 | 37.5 | 32.0 |
| Other countries..... | 5,076,736 | 7,263,072 | 11,743,941 | 6.5 | 5.3 | 6.8 |
| Total..... | 79,228,753 | 130,448,485 | 171,771,206 | 100.0 | 100.0 | 100.0 |

1 Less than 0.05 per cent.

TABLE 649.—*Destination of principal farm products exported from the United States, 1923-1925—Continued*

| Article and country to which exported | Year ended June 30 | | | | | |
|---------------------------------------|--------------------|----------------|----------------|------------------|------------------|------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Fruits—Continued. | | | | | | |
| <i>Raisins—</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| United Kingdom..... | 37,411,004 | 20,607,010 | 23,675,405 | 30.8 | 28.4 | 26.1 |
| Canada..... | 30,764,423 | 34,093,277 | 38,039,533 | 32.7 | 33.7 | 41.0 |
| Netherlands..... | 6,549,300 | 4,107,251 | 4,260,150 | 7.0 | 4.7 | 4.7 |
| New Zealand..... | 5,062,815 | 4,079,832 | 3,424,404 | 5.4 | 4.6 | 3.8 |
| Japan..... | 4,632,227 | 7,695,350 | 1,915,839 | 4.9 | 8.7 | 2.1 |
| Denmark..... | 2,773,732 | 4,705,554 | 3,801,998 | 3.0 | 5.3 | 4.2 |
| China..... | 1,320,312 | 4,962,680 | 3,485,191 | 1.4 | 5.6 | 3.8 |
| Mexico..... | 1,254,672 | 1,586,697 | 1,783,104 | 1.3 | 1.8 | 2.0 |
| Germany..... | 287,715 | 527,852 | 5,099,975 | .3 | .6 | 5.6 |
| Other countries..... | 3,908,072 | 5,786,122 | 5,288,321 | 4.2 | 6.6 | 5.8 |
| Total..... | 93,962,362 | 88,151,644 | 90,782,980 | 100.0 | 100.0 | 100.0 |
| <i>Fruits, canned—</i> | | | | | | |
| United Kingdom..... | 164,760,873 | 120,481,946 | 154,798,023 | 79.5 | 72.6 | 77.9 |
| Canada..... | 10,191,798 | 10,415,589 | 9,413,330 | 4.9 | 6.3 | 4.7 |
| France..... | 6,454,479 | 3,340,040 | 4,311,533 | 3.1 | 2.0 | 2.1 |
| Cuba..... | 4,021,997 | 6,573,053 | 6,637,117 | 2.0 | 4.0 | 3.3 |
| Dutch East Indies..... | 2,198,419 | 1,149,410 | 1,171,221 | 1.1 | .7 | .6 |
| Netherlands..... | 1,941,947 | 3,009,816 | 2,219,280 | .9 | 1.8 | 1.1 |
| Belgium..... | 1,516,930 | 4,413,633 | 3,048,207 | .7 | 2.7 | 1.5 |
| Philippine Islands..... | 1,011,011 | 658,344 | 1,216,238 | .5 | .4 | .6 |
| Norway..... | 932,074 | 738,177 | 419,797 | .4 | .4 | .2 |
| Other countries..... | 14,191,477 | 15,133,478 | 15,997,955 | 6.9 | 9.1 | 8.0 |
| Total..... | 207,220,004 | 165,912,488 | 201,232,701 | 100.0 | 100.0 | 100.0 |
| <i>Glucose:</i> | | | | | | |
| United Kingdom..... | 93,054,723 | 79,661,081 | 82,751,108 | 59.6 | 56.5 | 60.5 |
| Egypt..... | 11,091,619 | 8,421,800 | 4,708,500 | 7.1 | 6.0 | 3.5 |
| Belgium..... | 4,384,683 | 4,882,609 | 3,905,571 | 4.1 | 3.5 | 2.9 |
| Argentina..... | 4,485,924 | 3,293,295 | 2,415,001 | 2.9 | 2.3 | 1.8 |
| British South Africa..... | 3,737,884 | 3,795,921 | 3,793,678 | 2.4 | 2.7 | 2.8 |
| Greece..... | 3,585,359 | 3,876,155 | 2,639,595 | 2.3 | 2.7 | 1.9 |
| Mexico..... | 2,638,023 | 2,671,754 | 3,163,757 | 1.7 | 1.9 | 2.3 |
| Turkey in Europe..... | 2,573,822 | 2,683,740 | 2,490,460 | 1.6 | 1.9 | 1.3 |
| New Zealand..... | 2,412,760 | 2,272,816 | 2,880,096 | 1.5 | 1.6 | 2.1 |
| Netherlands..... | 2,307,945 | 3,693,020 | 1,759,630 | 1.5 | 2.5 | 1.3 |
| Norway..... | 2,293,554 | 2,075,660 | 2,116,720 | 1.5 | 1.5 | 1.5 |
| Canada..... | 2,277,590 | 1,958,100 | 1,187,806 | 1.5 | 1.4 | .9 |
| Philippine Islands..... | 2,087,695 | 1,672,963 | 2,745,546 | 1.3 | 1.2 | 2.0 |
| Cuba..... | 2,037,531 | 2,795,377 | 2,634,217 | 1.3 | 2.0 | 1.9 |
| Germany..... | 1,794,295 | 667,400 | 34,000 | 1.1 | .5 | (¹) |
| Sweden..... | 1,642,620 | 3,034,040 | 5,489,444 | 1.0 | 2.1 | 4.0 |
| France..... | 1,322,484 | 35,361 | 19,225 | .8 | (¹) | (¹) |
| Italy..... | 1,202,379 | 4,075,938 | 3,014,271 | .8 | 2.9 | 2.2 |
| Other countries..... | 9,483,930 | 9,654,064 | 9,074,163 | 6.0 | 8.8 | 6.6 |
| Total..... | 156,314,639 | 141,141,220 | 136,822,738 | 100.0 | 100.0 | 100.0 |
| <i>Grains and grain products:</i> | | | | | | |
| <i>Corn—</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | | | |
| Canada..... | 32,153,890 | 8,257,917 | 4,239,042 | 34.2 | 39.0 | 50.1 |
| United Kingdom..... | 21,271,080 | 4,448,973 | 140,835 | 22.6 | 21.0 | 1.7 |
| Netherlands..... | 13,951,680 | 2,368,592 | 77,085 | 14.8 | 11.2 | .9 |
| Germany..... | 11,806,514 | 672,586 | 26,317 | 12.6 | 3.2 | .3 |
| Denmark..... | 3,320,120 | 885,964 | 0 | 3.5 | 4.2 | 0 |
| France..... | 3,174,168 | 380,313 | 4,844 | 3.4 | 1.8 | (¹) |
| Cuba..... | 2,778,141 | 2,615,050 | 2,267,214 | 3.0 | 12.3 | 26.8 |
| Belgium..... | 1,930,687 | 563,830 | 0 | 2.1 | 2.7 | 0 |
| Italy..... | 990,110 | 11 | 3 | 1.0 | (¹) | (¹) |
| Norway..... | 823,113 | 85,744 | 178 | .9 | .4 | (¹) |
| Spain..... | 422,375 | 161,462 | 2 | .4 | .7 | (¹) |
| Mexico..... | 288,487 | 334,830 | 1,366,317 | .3 | 1.6 | 16.2 |
| Russia in Europe..... | 3,392 | 0 | 8 | (¹) | 0 | (¹) |
| Other countries..... | 1,170,390 | 418,772 | 338,275 | 1.2 | 1.9 | 4.0 |
| Total..... | 94,904,063 | 21,186,344 | 8,460,120 | 100.0 | 100.0 | 100.0 |

¹ Less than 0.05 per cent.

TABLE 649.—Destination of principal farm products exported from the United States, 1923-1925—Continued

| Article and country to which exported | Year ended June 30 | | | | | |
|---|--------------------|----------------|----------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Grains and grain products—Continued. | | | | | | |
| Barley— | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| United Kingdom..... | 12,784,031 | 10,380,220 | 8,578,118 | 70.3 | 92.7 | 36.3 |
| Belgium..... | 1,443,526 | 172,015 | 2,225,207 | 7.9 | 1.5 | 9.4 |
| France..... | 1,251,743 | 15,020 | 45,973 | 6.9 | .2 | .2 |
| Netherlands..... | 696,922 | 32,124 | 2,520,346 | 2.8 | .3 | 10.7 |
| Norway..... | 523,546 | 226,973 | 541,928 | 2.9 | 2.0 | 2.3 |
| Germany..... | 441,702 | 32,882 | 7,775,309 | 2.4 | .3 | 32.9 |
| Denmark..... | 143,838 | 165,417 | 693,513 | .8 | 1.5 | 2.9 |
| Mexico..... | 120,570 | 159,223 | 200,752 | .7 | 1.4 | .8 |
| Other countries..... | 786,931 | 14,859 | 1,055,972 | 4.3 | .1 | 4.5 |
| Total..... | 18,192,809 | 11,208,733 | 23,653,118 | 100.0 | 100.0 | 100.0 |
| Rye— | | | | | | |
| Germany..... | 16,417,691 | 4,486,418 | 8,344,029 | 31.9 | 25.3 | 16.7 |
| Canada..... | 14,312,331 | 8,579,023 | 24,521,427 | 27.0 | 48.5 | 43.1 |
| Netherlands..... | 9,235,062 | 981,742 | 5,127,465 | 18.0 | 5.0 | 10.3 |
| Norway..... | 5,905,453 | 1,212,853 | 2,933,213 | 11.5 | 6.0 | 5.9 |
| Finland..... | 1,240,592 | 430,935 | 931,100 | 2.4 | 2.4 | 1.9 |
| Denmark..... | 1,005,705 | 520,945 | 804,010 | 2.0 | 3.0 | 1.8 |
| United Kingdom..... | 985,605 | 168,286 | 327,405 | 1.9 | 1.0 | .7 |
| Russia in Europe..... | 928,824 | 4,328 | 4,348,411 | 1.8 | (1) | 8.7 |
| Other countries..... | 1,476,227 | 1,406,827 | 2,539,368 | 2.9 | 7.9 | 5.1 |
| Total..... | 51,411,550 | 17,704,551 | 49,909,428 | 100.0 | 100.0 | 100.0 |
| Rye flour— | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | | | |
| Finland..... | 8,443 | 23,675 | 1,407 | 26.1 | 6.5 | 2.5 |
| Sweden..... | 7,527 | 27,698 | 15,649 | 18.0 | 7.6 | 28.2 |
| Norway..... | 5,062 | 888 | 161 | 12.1 | .2 | .3 |
| Canada..... | 4,367 | 4,108 | 3,983 | 10.4 | 1.1 | 7.2 |
| Netherlands..... | 3,273 | 60,747 | 7,544 | 7.8 | 10.0 | 13.6 |
| Latvia..... | 3,244 | 0 | 0 | 7.7 | 0 | 0 |
| Estonia..... | 1,830 | 1,125 | 260 | 4.4 | .3 | .5 |
| Denmark..... | 1,724 | 7,513 | 2,813 | 4.1 | 2.1 | 5.1 |
| Germany..... | 1,466 | 180,407 | 13,800 | 3.5 | 51.7 | 24.9 |
| France..... | 1,125 | 26,714 | 572 | 2.7 | 7.3 | 1.0 |
| Virgin Islands..... | 709 | 753 | 795 | 1.7 | .2 | 1.4 |
| Dutch West Indies..... | 208 | 329 | 332 | .5 | .1 | .6 |
| Cuba..... | 156 | 135 | 407 | .4 | (1) | .7 |
| Brazil..... | 503 | 0 | 0 | 1.2 | 0 | 0 |
| Australia..... | 478 | 0 | 0 | 1.1 | 0 | 0 |
| Russia in Europe..... | 255 | 0 | 686 | .6 | 0 | 1.2 |
| Palestine and Syria..... | 114 | 1,200 | 743 | .3 | .3 | 1.4 |
| Belgium..... | 0 | 10,413 | 0 | 0 | 2.9 | 0 |
| United Kingdom..... | 0 | 1,185 | 499 | 0 | 1.3 | .9 |
| Poland and Danzig..... | 0 | 0 | 504 | 0 | 0 | 1.5 |
| Other countries..... | 1,419 | 1,283 | 5,001 | 2.4 | .4 | 9.0 |
| Total..... | 41,903 | 208,193 | 55,475 | 100.0 | 100.0 | 100.0 |
| Wheat— | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | | | |
| Italy..... | 33,771,801 | 7,814,642 | 25,728,795 | 21.8 | 9.9 | 13.2 |
| United Kingdom..... | 28,237,471 | 16,811,144 | 40,274,402 | 18.2 | 21.3 | 20.6 |
| France..... | 14,750,879 | 2,460,866 | 14,290,429 | 9.5 | 3.1 | 7.3 |
| Netherlands..... | 12,246,730 | 4,207,748 | 16,727,326 | 7.9 | 5.4 | 8.6 |
| Belgium..... | 11,345,230 | 4,280,722 | 15,178,448 | 7.3 | 5.5 | 7.8 |
| Germany..... | 8,492,567 | 1,919,685 | 7,960,326 | 5.5 | 2.4 | 4.1 |
| Norway..... | 1,241,868 | 67,200 | 550,014 | .8 | .1 | .3 |
| Gibraltar..... | 1,086,580 | 183,592 | 867,268 | .7 | .2 | .4 |
| Russia in Europe..... | 85,274 | 0 | 0 | .1 | 0 | 0 |
| Spain..... | 23,997 | 0 | 1,039,245 | (1) | 0 | .5 |
| Other Europe..... | 1,858,269 | 1,069,762 | 8,974,008 | 1.2 | 1.4 | 4.6 |
| Total Europe..... | 113,150,775 | 38,823,789 | 131,708,256 | 73.0 | 49.3 | 67.4 |
| Canada..... | 31,992,628 | 17,979,540 | 55,596,684 | 20.6 | 22.8 | 28.4 |
| Japan..... | 5,352,422 | 10,256,988 | 4,040,967 | 3.8 | 13.6 | 2.1 |
| China..... | 1,106,580 | 8,381,021 | 374,065 | .7 | 16.5 | .2 |
| Other countries..... | 3,347,568 | 3,482,866 | 3,711,235 | 2.2 | 4.4 | 1.9 |
| Total..... | 154,956,971 | 78,788,034 | 195,490,207 | 100.0 | 100.0 | 100.0 |

Less than 0.05 per cent.

TABLE 649.—*Destination of principal farm products exported from the United States, 1923-1925—Continued*

| Article and country to which exported | Year ended June 30 | | | | | |
|--|--------------------|----------------|----------------|-----------------|------------------|------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Grain and grain products—Continued. | | | | | | |
| Wheat flour— | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| United Kingdom..... | 1,913,833 | 1,451,452 | 2,105,234 | 12.9 | 8.4 | 15.1 |
| Germany..... | 1,062,684 | 1,488,329 | 1,995,118 | 7.1 | 8.6 | 14.4 |
| Netherlands..... | 982,736 | 1,841,398 | 1,781,479 | 6.6 | 10.7 | 12.8 |
| Finland..... | 655,565 | 619,580 | 429,822 | 4.4 | 3.6 | 3.1 |
| Turkey in Europe..... | 472,378 | 32,790 | 1,292 | 3.2 | .2 | (¹) |
| Greece..... | 317,738 | 388,512 | 581,604 | 2.1 | 2.3 | 4.2 |
| Russia in Europe..... | 313,519 | 252 | 283,118 | 2.1 | (¹) | 2.0 |
| Norway..... | 216,555 | 119,770 | 246,907 | 1.5 | .7 | 1.8 |
| Denmark..... | 194,899 | 174,494 | 234,652 | 1.3 | 1.0 | 1.7 |
| Poland and Danzig..... | 158,785 | 34,716 | 113,881 | 1.1 | .2 | .8 |
| Sweden..... | 105,507 | 143,574 | 79,433 | .7 | .8 | .6 |
| Italy..... | 64,280 | 153,333 | 72,357 | .4 | .9 | .7 |
| Belgium..... | 42,072 | 58,834 | 101,662 | .3 | .3 | .7 |
| Other Europe..... | 518,670 | 90,569 | 176,984 | 3.4 | .5 | 1.3 |
| Total Europe..... | 7,009,221 | 6,597,621 | 8,203,633 | 47.1 | 38.2 | 59.0 |
| China..... | 1,475,843 | 2,938,805 | 1,329,328 | 9.9 | 17.0 | .9 |
| Hongkong..... | 825,197 | 1,354,656 | 449,762 | 5.5 | 7.9 | 3.2 |
| Cuba..... | 1,088,582 | 1,114,160 | 1,232,649 | 7.3 | 6.5 | 8.9 |
| Haiti..... | 281,000 | 428,634 | 249,674 | 1.0 | 2.5 | 1.8 |
| Other West Indies ¹ | 472,137 | 529,691 | 478,621 | 3.2 | 3.0 | 3.4 |
| Japan..... | 244,560 | 171,050 | 53,984 | 1.6 | 1.0 | .4 |
| Central America..... | 537,868 | 562,360 | 576,904 | 3.6 | 3.3 | 4.2 |
| Brazil..... | 477,568 | 530,160 | 688,330 | 3.2 | 3.1 | 5.0 |
| Philippine Islands..... | 469,838 | 885,419 | 588,604 | 3.2 | 3.4 | 4.2 |
| Kwantung, leased territory..... | 384,909 | 934,358 | 42,773 | 2.6 | 5.4 | .3 |
| Mexico..... | 365,664 | 495,203 | 216,074 | 2.5 | 2.9 | 1.6 |
| Egypt..... | 293,147 | 128,966 | 194,703 | 2.0 | .7 | 1.4 |
| British West Africa..... | 108,703 | 124,229 | 133,538 | .7 | .7 | 1.0 |
| Panama..... | 88,240 | 85,503 | 109,559 | .6 | .5 | .6 |
| Venezuela..... | 83,001 | 59,692 | 109,817 | .6 | .3 | .8 |
| Canada..... | 66,936 | 114,361 | 65,705 | .4 | .7 | .8 |
| Other countries..... | 610,240 | 497,692 | 393,111 | 4.1 | 2.9 | 2.8 |
| Total..... | 14,882,714 | 17,252,620 | 13,896,154 | 100.0 | 100.0 | 100.0 |
| Hops: | | | | | | |
| Belgium..... | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| Canada..... | 6,852,576 | 5,290,342 | 4,768,081 | 50.8 | 25.9 | 29.6 |
| United Kingdom..... | 3,031,538 | 3,142,801 | 3,318,211 | 22.5 | 15.4 | 20.6 |
| Australia..... | 2,351,919 | 8,341,301 | 5,758,018 | 17.4 | 40.8 | 35.7 |
| Japan..... | 382,633 | 55,670 | 80,728 | 2.8 | .3 | .5 |
| Germany..... | 168,521 | 552,500 | 635,247 | 1.2 | 2.7 | 3.9 |
| Other countries..... | 53,270 | 1,308,643 | 196,859 | .4 | 6.4 | 1.2 |
| Total..... | 656,726 | 1,760,448 | 1,364,834 | 4.9 | 8.5 | 8.5 |
| Total..... | 13,497,183 | 20,460,705 | 16,121,978 | 100.0 | 100.0 | 100.0 |
| Oil cake and oil-cake meal: | | | | | | |
| Cottonseed cake— | | | | | | |
| Denmark..... | 195,357,016 | 150,179,071 | 434,529,943 | 57.0 | 74.7 | 73.2 |
| Germany..... | 132,347,954 | 39,142,550 | 100,910,828 | 38.6 | 19.5 | 17.0 |
| United Kingdom..... | 7,775,307 | 4,890,946 | 11,786,420 | 2.3 | 2.4 | 2.0 |
| Sweden..... | 4,264,960 | 2,933,708 | 24,351,073 | 1.2 | 1.5 | 4.1 |
| Other countries..... | 2,798,957 | 3,760,879 | 22,084,253 | .9 | 1.9 | 3.7 |
| Total..... | 342,544,194 | 200,927,154 | 593,663,417 | 100.0 | 100.0 | 100.0 |
| Cottonseed meal— | | | | | | |
| United Kingdom..... | 83,015,447 | 35,136,660 | 134,854,900 | 74.2 | 71.1 | 46.2 |
| Norway..... | 11,201,439 | 3,920,000 | 21,194,000 | 10.0 | 7.9 | 7.3 |
| Belgium..... | 3,603,903 | 448,000 | 4,950,794 | 3.2 | .9 | 1.7 |
| Germany..... | 3,560,500 | 4,039,575 | 89,502,404 | 3.2 | 8.2 | 30.7 |
| Netherlands..... | 3,284,899 | 0 | 12,735,541 | 2.9 | 0 | 4.4 |
| Canada..... | 2,627,740 | 1,863,430 | 4,229,490 | 2.4 | 3.8 | 1.4 |
| Other countries..... | 4,505,912 | 4,031,456 | 24,244,277 | 4.1 | 8.1 | 8.3 |
| Total..... | 111,805,810 | 49,439,121 | 291,711,396 | 100.0 | 100.0 | 100.0 |
| Linseed or flaxseed cake— | | | | | | |
| Netherlands..... | 351,445,009 | 361,799,262 | 395,438,820 | 65.5 | 66.2 | 58.9 |
| Belgium..... | 91,655,770 | 86,467,843 | 187,903,965 | 17.1 | 15.8 | 28.0 |
| United Kingdom..... | 69,518,709 | 77,948,602 | 71,037,746 | 13.0 | 14.3 | 10.6 |
| Germany..... | 16,215,405 | 17,184,173 | 13,857,547 | 3.0 | 3.1 | 2.0 |
| Other countries..... | 7,720,345 | 3,447,672 | 3,221,964 | 1.4 | .6 | .5 |
| Total..... | 536,555,238 | 546,847,552 | 671,460,032 | 100.0 | 100.0 | 100.0 |

¹ Less than 0.05 per cent.² Excludes Bermuda.

TABLE 649.—Destination of principal farm products exported from the United States, 1923-1925—Continued

| Article and country to which exported | Year ended June 30 | | | | | |
|---------------------------------------|--------------------|-------------------|-------------------|-----------------|------------------|------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Oils, vegetable: | | | | | | |
| Cottonseed— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Canada..... | 26,549,253 | 20,518,191 | 23,714,362 | 41.3 | 52.0 | 44.5 |
| Mexico..... | 6,711,448 | 8,376,445 | 3,808,649 | 10.4 | 21.3 | 7.2 |
| Norway..... | 5,155,490 | 1,824,917 | 2,079,317 | 8.0 | 4.6 | 3.9 |
| Chile..... | 4,174,868 | 658,662 | 1,439,229 | 6.5 | 2.2 | 3.0 |
| Argentina..... | 3,840,798 | 642,735 | 1,573,118 | 6.0 | 1.6 | 3.0 |
| Cuba..... | 3,442,620 | 2,200,244 | 3,913,905 | 5.4 | 5.6 | 7.4 |
| Uruguay..... | 1,967,863 | 289,552 | 131,289 | 3.1 | (¹) | (¹) |
| Denmark..... | 1,705,794 | 19,016 | 9,805 | 2.7 | (¹) | (¹) |
| Netherlands..... | 1,312,695 | 0 | 9,252,004 | 2.0 | 0 | 17.4 |
| Dominican Republic..... | 1,045,782 | 1,070,257 | 975,337 | 1.6 | 2.7 | 1.8 |
| Panama..... | 515,414 | 538,598 | 459,991 | .8 | 1.4 | .9 |
| French Guiana..... | 493,331 | 188,324 | 78,728 | .8 | .5 | .1 |
| Germany..... | 361,201 | 119,734 | 2,405,473 | .6 | .3 | 4.5 |
| United Kingdom..... | 342,188 | 19,697 | 428,862 | .5 | (¹) | .8 |
| Greece..... | 302,320 | 18,877 | 13,471 | .5 | (¹) | (¹) |
| French West Indies..... | 231,380 | 25,628 | 129,026 | .4 | .1 | .2 |
| Italy..... | 206,099 | 11,779 | 447 | .3 | (¹) | (¹) |
| Other countries..... | 5,903,295 | 2,696,868 | 3,847,703 | 9.1 | 7.0 | 7.2 |
| Total..... | 64,291,869 | 39,417,542 | 53,260,616 | 100.0 | 100.0 | 100.0 |
| Sugar, refined: | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | | | |
| United Kingdom..... | 153,387 | 40,190 | 88,425 | 42.3 | 20.7 | 35.3 |
| France..... | 54,508 | 19,830 | 12,276 | 14.6 | 14.6 | 4.9 |
| Norway..... | 23,086 | 862 | 11,705 | 6.2 | .6 | 4.7 |
| Italy..... | 16,191 | 4,445 | 1,321 | 5.6 | .2 | .5 |
| Greece..... | 13,688 | 23,638 | 22,399 | 3.7 | 17.4 | 8.9 |
| Uruguay..... | 9,948 | 1,266 | 2,434 | 2.7 | .9 | 1.0 |
| Turkey in Europe..... | 9,892 | 0 | .560 | 2.6 | 0 | .2 |
| Argentina..... | 6,810 | 3,802 | 16,969 | 1.8 | 2.8 | 6.8 |
| Denmark..... | 6,135 | (¹) | 1,445 | 1.6 | (¹) | .6 |
| Germany..... | 5,674 | 2,124 | 5,030 | 1.5 | 1.6 | 2.0 |
| French Africa..... | 4,559 | 768 | 856 | 1.2 | .6 | .3 |
| Netherlands..... | 3,710 | 164 | 10,426 | 1.0 | .1 | 4.2 |
| Latvia..... | 3,361 | (¹) | 1,792 | .9 | (¹) | .7 |
| Cuba..... | 842 | 9,010 | 3,560 | .2 | 6.7 | 1.4 |
| Other West Indies ¹ | 2,244 | 3,437 | 3,619 | .6 | 2.5 | 1.4 |
| Morocco..... | 1,883 | 737 | 877 | .5 | .6 | .4 |
| Newfoundland and Labrador..... | 1,865 | 5,354 | 4,941 | .5 | 4.0 | 2.0 |
| Spanish Africa..... | 1,854 | 1,352 | 1,338 | .5 | 1.0 | .8 |
| British Africa..... | 1,626 | 1,386 | 1,973 | .4 | 1.0 | .8 |
| Panama..... | 1,606 | 1,222 | 2,491 | .4 | .9 | 1.0 |
| Mexico..... | 1,232 | 1,582 | 1,098 | .3 | 1.2 | .4 |
| Spain..... | 1,200 | 2,542 | 8,320 | .3 | 1.9 | 3.3 |
| Philippine Islands..... | 888 | 354 | 162 | .2 | .3 | (¹) |
| Bermuda..... | 848 | 1,055 | 1,135 | .2 | .8 | .5 |
| Canada..... | 631 | 6,665 | 8,769 | .2 | 4.9 | 3.5 |
| Other countries..... | 21,283 | 3,431 | 24,216 | 5.7 | 2.5 | 9.7 |
| Total..... | 374,928 | 135,471 | 250,562 | 100.0 | 100.0 | 100.0 |
| Tobacco, leaf: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| United Kingdom..... | 152,700,297 | 161,237,383 | 140,772,423 | 34.3 | 28.9 | 33.5 |
| Italy..... | 42,400,610 | 25,205,503 | 9,421,120 | 9.5 | 4.5 | 2.3 |
| China..... | 39,792,686 | 66,017,078 | 53,932,615 | 8.9 | 11.8 | 12.8 |
| Hongkong..... | 1,394,714 | 718,104 | 470,674 | .3 | .1 | .1 |
| France..... | 37,638,320 | 29,376,348 | 30,277,096 | 8.5 | 5.3 | 7.2 |
| Germany..... | 30,681,022 | 55,667,010 | 19,726,377 | 6.9 | 10.0 | 4.7 |
| Belgium..... | 22,922,358 | 35,065,458 | 15,753,227 | 5.1 | 6.3 | 3.6 |
| Australia..... | 18,080,795 | 24,388,906 | 20,331,513 | 4.0 | 4.4 | 4.9 |
| Netherlands..... | 16,901,535 | 50,302,103 | 15,738,024 | 3.8 | 9.0 | 3.8 |
| Canada..... | 14,134,995 | 13,156,749 | 11,658,679 | 3.2 | 2.4 | 2.8 |
| Spain..... | 13,794,761 | 22,072,215 | 32,745,565 | 3.1 | 4.0 | 7.8 |
| British West Africa..... | 10,330,701 | 9,430,198 | 10,217,748 | 2.3 | 1.7 | 2.4 |
| Sweden..... | 5,919,714 | 6,991,487 | 2,191,516 | 1.3 | 1.3 | .5 |
| Portugal..... | 5,714,648 | 3,757,887 | 2,985,812 | 1.3 | .7 | .7 |
| French Africa..... | 5,292,900 | 9,445,486 | 6,817,760 | 1.2 | 1.7 | 1.6 |
| Denmark..... | 5,037,335 | 5,531,636 | 4,170,352 | 1.1 | 1.0 | 1.0 |
| Norway..... | 3,425,895 | 4,275,471 | 4,829,116 | .8 | .8 | 1.1 |
| Argentina..... | 2,486,390 | 2,302,490 | 2,361,819 | .6 | .4 | .6 |
| Japan..... | 2,471,857 | 11,615,799 | 8,901,143 | .6 | 2.1 | 2.1 |
| Switzerland..... | 2,056,692 | 2,878,141 | 1,898,732 | .5 | .4 | .4 |

¹ Less than 0.05 per cent.² Excludes Bermuda.³ Less than one-half ton.

TABLE 649.—Destination of principal farm products exported from the United States, 1923-1925—Continued

| Article and country to which exported | Year ended June 30 | | | | | |
|---------------------------------------|--------------------|--------------------|--------------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Tobacco, leaf—Continued. | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Italy..... | 1,430,497 | 1,323,450 | 1,749,366 | .3 | .2 | .4 |
| Mexico..... | 424,837 | 1,502,878 | 1,970,315 | .1 | .2 | .5 |
| Other countries..... | 10,143,888 | 15,466,438 | 21,761,798 | 2.3 | 2.7 | 5.2 |
| Total..... | 445,142,247 | 557,288,217 | 420,222,690 | 100.0 | 100.0 | 100.0 |
| Potatoes: | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | | | |
| Cuba..... | 1,921,631 | 1,931,518 | 1,969,415 | 64.5 | 62.8 | 51.2 |
| Canada..... | 414,487 | 536,653 | 1,038,407 | 13.9 | 17.5 | 28.4 |
| Panama..... | 157,326 | 150,259 | 195,000 | 5.3 | 5.1 | 5.3 |
| Mexico..... | 143,690 | 203,156 | 108,479 | 4.8 | 6.6 | 4.6 |
| Philippine Islands..... | 46,190 | 12,452 | 3,574 | 1.6 | .4 | .1 |
| Dominican Republic..... | 37,759 | 31,777 | 41,994 | 1.3 | 1.0 | 1.2 |
| British Guiana..... | 31,548 | 27,968 | 15,587 | 1.1 | .9 | .4 |
| United Kingdom..... | 27,286 | 0 | 88,630 | .9 | 9 | 2.4 |
| Venezuela..... | 25,731 | 22,142 | 42,578 | .9 | .7 | 1.2 |
| Bermuda..... | 22,959 | 17,565 | 19,321 | .8 | .6 | .4 |
| Other countries..... | 151,341 | 135,466 | 175,887 | 4.9 | 4.4 | 4.8 |
| Total..... | 2,979,951 | 3,074,946 | 3,652,972 | 100.0 | 100.0 | 100.0 |
| FOREST PRODUCTS | | | | | | |
| Naval stores: | | | | | | |
| Rosin:* | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | | | |
| United Kingdom..... | 277,269 | 327,760 | 330,005 | 26.7 | 27.2 | 23.4 |
| Germany..... | 162,455 | 263,325 | 299,827 | 15.6 | 21.9 | 21.2 |
| Brazil..... | 103,314 | 110,398 | 106,109 | 9.9 | 9.2 | 7.5 |
| Japan..... | 86,739 | 69,019 | 73,726 | 8.3 | 5.7 | 5.2 |
| Argentina..... | 86,328 | 97,151 | 138,344 | 8.3 | 8.1 | 9.8 |
| Canada..... | 58,694 | 57,816 | 57,941 | 5.6 | 4.8 | 4.1 |
| Dutch East Indies..... | 46,215 | 25,551 | 45,897 | 4.4 | 2.1 | 3.2 |
| Italy..... | 34,827 | 30,529 | 50,567 | 3.3 | 2.5 | 3.6 |
| Sweden..... | 27,148 | 22,024 | 29,792 | 2.6 | 1.8 | 2.1 |
| Belgium..... | 22,660 | 32,732 | 49,267 | 2.2 | 3.1 | 4.1 |
| Netherlands..... | 16,917 | 31,748 | 61,875 | 1.6 | 2.6 | 4.1 |
| Cuba..... | 10,022 | 10,063 | 22,897 | 1.5 | 1.3 | 1.6 |
| Uruguay..... | 14,765 | 12,470 | 13,946 | 1.4 | 1.0 | 1.0 |
| Australia..... | 10,830 | 22,316 | 31,803 | 1.0 | 1.9 | 2.3 |
| Other countries..... | 75,521 | 86,136 | 106,044 | 7.6 | 7.2 | 7.5 |
| Total..... | 1,039,742 | 1,205,038 | 1,412,290 | 100.0 | 100.0 | 100.0 |
| Turpentine, spirits of— | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> | | | |
| United Kingdom..... | 5,012,968 | 6,077,604 | 6,859,312 | 55.6 | 54.3 | 55.7 |
| Canada..... | 884,901 | 947,853 | 818,600 | 9.8 | 8.5 | 6.6 |
| Netherlands..... | 706,906 | 826,315 | 1,070,708 | 7.8 | 7.4 | 8.7 |
| Germany..... | 491,331 | 951,021 | 1,294,530 | 5.5 | 8.5 | 10.5 |
| Australia..... | 481,344 | 708,413 | 536,305 | 5.3 | 6.2 | 4.4 |
| Argentina..... | 397,356 | 403,222 | 427,813 | 4.4 | 3.6 | 3.5 |
| Belgium..... | 291,953 | 497,216 | 493,254 | 3.2 | 4.2 | 3.9 |
| Brazil..... | 131,229 | 138,609 | 195,726 | 1.5 | 1.2 | 1.6 |
| British South Africa..... | 75,452 | 72,531 | 72,046 | .8 | .7 | .6 |
| Other countries..... | 533,916 | 508,089 | 518,204 | 6.1 | 5.2 | 4.5 |
| Total..... | 9,012,356 | 11,194,173 | 12,305,488 | 100.0 | 100.0 | 100.0 |
| Wood: | | | | | | |
| Lumber— | | | | | | |
| Pine— | <i>M feet</i> | <i>M feet</i> | <i>M feet</i> | | | |
| Japan..... | 135,259 | 322,286 | 134,845 | 39.6 | 51.4 | 23.4 |
| Australia..... | 77,819 | 54,745 | 92,493 | 16.6 | 8.7 | 16.0 |
| China..... | 68,121 | 72,927 | 90,102 | 14.5 | 11.6 | 15.6 |
| Peru..... | 34,479 | 55,404 | 74,260 | 7.4 | 8.2 | 12.9 |
| British South Africa..... | 15,725 | 2,914 | 10,011 | 3.4 | .5 | 1.7 |
| United Kingdom..... | 15,144 | 12,042 | 30,133 | 3.2 | 1.9 | 5.2 |
| Chile..... | 14,420 | 30,267 | 29,106 | 3.1 | 4.8 | 5.0 |
| Mexico..... | 12,494 | 21,227 | 24,776 | 2.7 | 3.4 | 4.3 |
| Canada..... | 11,185 | 12,458 | 8,147 | 2.4 | 2.0 | .6 |
| Cuba..... | 6,509 | 10,881 | 12,347 | 1.8 | 1.7 | 2.1 |
| Argentina..... | 6,750 | 7,623 | 18,383 | 1.4 | 1.2 | 3.3 |
| Other countries..... | 18,283 | 24,809 | 57,447 | 3.9 | 4.6 | 9.9 |
| Total..... | 468,288 | 628,553 | 577,050 | 100.0 | 100.0 | 100.0 |

* Barrels of 566 pounds.

TABLE 649.—Destination of principal farm products exported from the United States, 1923-1925—Continued

| Article and country to which exported | Year ended June 30 | | | | | |
|---------------------------------------|--------------------|---------------|---------------|------------------|-----------------|------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| FOREST PRODUCTS—continued | | | | | | |
| Wood—Continued. | | | | | | |
| Lumber—Continued. | | | | | | |
| Oak— | <i>M feet</i> | <i>M feet</i> | <i>M feet</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| United Kingdom..... | 67,544 | 85,213 | 95,929 | 48.9 | 52.7 | 54.1 |
| Canada..... | 37,879 | 35,940 | 36,807 | 27.4 | 22.2 | 17.8 |
| Belgium..... | 10,101 | 14,920 | 12,453 | 7.3 | 9.2 | 7.2 |
| Argentina..... | 9,155 | 7,953 | 11,573 | 6.6 | 4.9 | 6.7 |
| Uruguay..... | 2,042 | 1,061 | 1,912 | 1.5 | .7 | 1.1 |
| Spain..... | 1,787 | 1,520 | 2,781 | 1.3 | .9 | 1.6 |
| Netherlands..... | 1,393 | 2,526 | 6,125 | 1.0 | 1.6 | 3.5 |
| British South Africa..... | 1,309 | 3,521 | 3,825 | .9 | 2.2 | 2.2 |
| Other countries..... | 6,908 | 9,103 | 10,146 | 5.1 | 5.6 | 5.8 |
| Total..... | 138,118 | 161,757 | 173,551 | 100.0 | 100.0 | 100.0 |
| Pine, yellow, long leaf— | | | | | | |
| Argentina..... | 178,200 | 154,234 | 202,262 | 30.3 | 24.9 | 27.2 |
| Cuba..... | 125,854 | 124,206 | 152,785 | 21.3 | 20.1 | 20.7 |
| Dominican Republic..... | 5,519 | 9,037 | 10,689 | .9 | 1.5 | 1.4 |
| Other West Indies..... | 26,131 | 41,620 | 46,211 | 6.1 | 6.7 | 5.4 |
| Mexico..... | 54,495 | 60,472 | 68,871 | 9.3 | 9.8 | 9.3 |
| United Kingdom..... | 41,208 | 44,136 | 45,216 | 7.0 | 7.1 | 6.1 |
| Canada..... | 33,006 | 38,137 | 21,225 | 5.6 | 6.2 | 2.9 |
| Spain..... | 21,846 | 23,560 | 28,649 | 3.7 | 3.8 | 3.9 |
| Uruguay..... | 15,203 | 18,279 | 22,915 | 2.6 | 3.0 | 3.1 |
| Belgium..... | 14,217 | 21,168 | 14,436 | 2.4 | 3.4 | 2.0 |
| Italy..... | 10,638 | 15,913 | 21,098 | 1.8 | 2.6 | 3.0 |
| France..... | 6,265 | 5,336 | 5,402 | 1.1 | .9 | .7 |
| Netherlands..... | 5,817 | 9,000 | 24,527 | 1.0 | 1.5 | 3.3 |
| Panama..... | 4,202 | 5,808 | 5,759 | .7 | .9 | .8 |
| Bermuda..... | 1,443 | 651 | 1,170 | .3 | .1 | .2 |
| Other countries..... | 24,021 | 46,756 | 73,676 | 5.9 | 7.5 | 9.9 |
| Total..... | 587,565 | 618,493 | 739,708 | 100.0 | 100.0 | 100.0 |
| Railroad ties— | <i>Number</i> | <i>Number</i> | <i>Number</i> | | | |
| Canada..... | 614,412 | 698,646 | 481,224 | 25.0 | 23.1 | 17.0 |
| Honduras..... | 481,947 | 402,522 | 148,574 | 19.6 | 14.6 | 5.5 |
| Mexico..... | 282,933 | 760,017 | 608,621 | 11.5 | 27.8 | 22.6 |
| British India..... | 215,458 | 0 | 0 | 8.8 | 0 | 0 |
| Japan..... | 233,382 | 209,788 | 587 | 9.5 | 7.6 | (¹) |
| Chosen..... | 23,935 | 51,335 | 0 | 1.0 | 1.9 | 0 |
| Guatemala..... | 153,811 | 173,042 | 242,556 | 6.3 | 6.3 | 9.0 |
| Palestine and Syria..... | 117,963 | 0 | 0 | 4.8 | 0 | 0 |
| Peru..... | 103,400 | 228,850 | 173,494 | 4.2 | 8.3 | 6.4 |
| Chile..... | 52,500 | 0 | 1,000 | 2.1 | 0 | (¹) |
| Cuba..... | 34,841 | 50,078 | 186,161 | 1.6 | 1.8 | 6.9 |
| China..... | 36,016 | 59,083 | 251,717 | 1.5 | 2.1 | 9.3 |
| United Kingdom..... | 23,181 | 9,560 | 46,526 | 1.3 | .3 | 1.7 |
| Jamaica..... | 29,379 | 53,739 | 0 | 1.2 | 1.9 | 0 |
| Costa Rica..... | 15,725 | 28,617 | 306,225 | .6 | 1.0 | 11.4 |
| Panama..... | 390 | 11,277 | 16,575 | (¹) | .4 | .6 |
| Colombia..... | 0 | 32,781 | 0 | 0 | 1.2 | 0 |
| Other countries..... | 25,270 | 42,618 | 235,029 | 1.0 | 1.7 | 8.7 |
| Total..... | 2,459,543 | 2,788,953 | 2,698,292 | 100.0 | 100.0 | 100.0 |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States, June issues, 1923 and 1925.

¹ Less than 0.05 per cent.

² Excludes Bermuda.

TABLE 650.—*Origin of principal agricultural products imported into the United States, 1923-1925*

| Article and country of origin | Year ended June 30— | | | | | |
|---|---------------------|---------------|---------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS | | | | | | |
| Cattle: | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Canada..... | 230, 227 | 141, 171 | 121, 802 | 91.4 | 91.2 | 89.7 |
| Mexico..... | 20, 301 | 12, 853 | 13, 326 | 8.1 | 8.3 | 9.8 |
| United Kingdom..... | 737 | 680 | 482 | .3 | .5 | .4 |
| Other countries..... | 622 | 32 | 158 | .2 | (1) | .1 |
| Total..... | 251, 887 | 164, 736 | 135, 768 | 100.0 | 100.0 | 100.0 |
| Horses: | | | | | | |
| Canada..... | 2, 165 | 1, 900 | 1, 571 | 76.9 | 77.3 | 73.3 |
| United Kingdom..... | 310 | 419 | 374 | 11.0 | 17.0 | 17.5 |
| Mexico..... | 233 | 30 | 14 | 7.2 | 1.2 | .7 |
| Other countries..... | 138 | 109 | 183 | 4.9 | 4.5 | 8.5 |
| Total..... | 2, 816 | 2, 458 | 2, 142 | 100.0 | 100.0 | 100.0 |
| Butter: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| Denmark..... | 7, 371, 147 | 10, 457, 458 | 839, 629 | 46.7 | 35.5 | 11.7 |
| United Kingdom..... | 369, 106 | 1, 719, 622 | 52, 370 | 2.4 | 5.8 | .7 |
| Other Europe..... | 208, 011 | 1, 432, 848 | 133, 801 | 1.3 | 4.9 | 1.9 |
| Total Europe..... | 7, 948, 264 | 13, 609, 928 | 1, 025, 800 | 50.4 | 46.2 | 14.3 |
| New Zealand..... | 3, 887, 174 | 5, 047, 654 | 1, 985, 496 | 24.0 | 17.1 | 27.6 |
| Argentina..... | 2, 989, 355 | 6, 461, 170 | 3, 587, 770 | 19.0 | 21.9 | 49.9 |
| Other countries..... | 783, 479 | 4, 084, 041 | 414, 778 | 5.0 | 13.9 | 5.8 |
| Total..... | 164, 013 | 273, 031 | 175, 332 | 1.0 | .9 | 2.4 |
| Total..... | 15, 772, 285 | 29, 465, 824 | 7, 180, 176 | 100.0 | 100.0 | 100.0 |
| Cheese: | | | | | | |
| Italy..... | 20, 571, 704 | 32, 922, 074 | 32, 642, 809 | 37.7 | 49.4 | 53.4 |
| Switzerland..... | 14, 765, 121 | 16, 140, 224 | 15, 222, 229 | 27.1 | 24.2 | 24.8 |
| France..... | 4, 537, 008 | 4, 418, 938 | 4, 814, 120 | 8.3 | 6.8 | 7.8 |
| Netherlands..... | 2, 147, 774 | 3, 048, 284 | 2, 970, 093 | 3.9 | 4.6 | 4.8 |
| Greece..... | 922, 287 | 2, 055, 266 | 1, 886, 861 | 1.7 | 3.1 | 3.1 |
| United Kingdom..... | 531, 157 | 560, 432 | 276, 230 | 1.0 | .8 | .5 |
| Norway..... | 469, 419 | 467, 650 | 518, 945 | .9 | .7 | .8 |
| Other Europe..... | 571, 425 | 1, 697, 356 | 1, 312, 405 | 1.0 | 2.6 | 2.1 |
| Total Europe..... | 44, 515, 895 | 61, 310, 224 | 59, 843, 791 | 81.6 | 92.1 | 97.3 |
| Canada..... | 5, 858, 305 | 1, 803, 217 | 535, 349 | 10.8 | 2.7 | .9 |
| Argentina..... | 4, 000, 545 | 2, 736, 340 | 469, 498 | 7.3 | 4.1 | .8 |
| Mexico..... | 70, 661 | 254, 720 | 143, 082 | .1 | .4 | .2 |
| Other countries..... | 109, 864 | 492, 265 | 496, 869 | .2 | .7 | .8 |
| Total..... | 54, 555, 270 | 66, 596, 766 | 61, 488, 599 | 100.0 | 100.0 | 100.0 |
| Eggs, in the shell: | <i>Dozen</i> | <i>Dozen</i> | <i>Dozen</i> | | | |
| Canada..... | 261, 331 | 141, 717 | 162, 900 | 48.8 | 33.3 | 23.9 |
| Hongkong..... | 214, 582 | 219, 232 | 256, 073 | 40.1 | 51.4 | 37.5 |
| China..... | 36, 134 | 61, 638 | 252, 491 | 6.8 | 14.5 | 37.0 |
| Other countries..... | 22, 827 | 3, 320 | 10, 917 | 4.3 | .8 | 1.6 |
| Total..... | 534, 874 | 425, 907 | 682, 381 | 100.0 | 100.0 | 100.0 |
| Eggs and egg yolks (dried, frozen, and preserved): | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| China..... | 14, 441, 181 | 17, 365, 708 | 17, 581, 557 | 97.4 | 95.3 | 92.2 |
| Other countries..... | 380, 148 | 847, 292 | 1, 486, 727 | 2.6 | 4.7 | 7.8 |
| Total..... | 14, 821, 329 | 18, 213, 000 | 19, 068, 284 | 100.0 | 100.0 | 100.0 |
| Egg albumen: | | | | | | |
| China..... | 2, 908, 760 | 7, 166, 108 | 4, 050, 456 | 90.5 | 98.5 | 92.8 |
| Other countries..... | 304, 272 | 111, 149 | 312, 729 | 9.5 | 1.5 | 7.2 |
| Total..... | 3, 213, 032 | 7, 277, 257 | 4, 363, 185 | 100.0 | 100.0 | 100.0 |
| Hides and skins other than furs: | | | | | | |
| Calfskins, dry 1— | | | | | | |
| Argentina..... | 4, 474, 240 | 1, 673, 587 | 997, 043 | 29.9 | 15.6 | 12.3 |
| France..... | 1, 519, 034 | 198, 582 | 308, 076 | 10.1 | 1.8 | 3.8 |
| United Kingdom..... | 1, 225, 966 | 476, 850 | 96, 811 | 8.2 | 4.4 | 1.2 |
| Canada..... | 1, 224, 488 | 735, 309 | 486, 943 | 8.2 | 6.8 | 6.0 |
| Netherlands..... | 1, 070, 450 | 506, 728 | 434, 741 | 7.1 | 4.7 | 8.4 |

1 Less than 0.05 per cent.

2 Includes "Kip skins, dry," prior to Sept. 22, 1922.

TABLE 650.—Origin of principal agricultural products imported into the United States, 1923-1925—Continued

| Article and country of origin | Year ended June 30— | | | | | |
|---|---------------------|---------------------|---------------------|------------------|------------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS—CON. | | | | | | |
| Hides and skins other than furs—Con. | | | | | | |
| Calfskins, dry ¹ —Continued. | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Sweden..... | 961, 618 | 123, 713 | 280, 253 | 6.4 | 1.2 | 3.5 |
| Norway..... | 797, 118 | 390, 814 | 801, 198 | 5.3 | 3.6 | 9.9 |
| Germany..... | 587, 669 | 318, 101 | 149, 963 | 3.9 | 3.0 | 1.8 |
| Finland..... | 546, 288 | 1, 084, 443 | 1, 002, 517 | 3.6 | 10.1 | 12.4 |
| Latvia..... | 534, 818 | 1, 302, 671 | 725, 960 | 3.6 | 12.1 | 9.0 |
| Denmark..... | 302, 684 | 475, 374 | 194, 692 | 2.0 | 4.4 | 2.4 |
| Russia in Europe..... | 269, 914 | 74, 518 | 11, 531 | 1.8 | .7 | .1 |
| Belgium..... | 219, 201 | 47, 464 | 6, 856 | 1.5 | .4 | .1 |
| New Zealand..... | 171, 016 | 1, 011, 853 | 906, 925 | 1.1 | 9.4 | 11.2 |
| Poland..... | 162, 886 | 135, 176 | 366, 798 | 1.1 | 1.3 | 4.5 |
| China..... | 159, 943 | 40, 728 | 21, 409 | 1.1 | .4 | .3 |
| Uruguay..... | 106, 712 | 774, 580 | 331, 831 | .7 | 7.2 | 4.1 |
| Italy..... | 90, 331 | 42, 750 | 109, 726 | .6 | .4 | 1.4 |
| Switzerland..... | 87, 171 | 0 | 0 | .6 | 0 | 0 |
| British India..... | 38, 305 | 67, 092 | 60, 759 | .3 | .6 | .8 |
| Australia..... | 30, 678 | 407, 497 | 186, 621 | .2 | 3.8 | 2.3 |
| Other countries..... | 407, 515 | 858, 148 | 605, 154 | 2.7 | 8.1 | 7.5 |
| Total..... | 14, 988, 085 | 10, 754, 038 | 8, 087, 307 | 100.0 | 100.0 | 100.0 |
| Calfskins, wet ¹ — | | | | | | |
| France..... | 8, 833, 727 | 3, 395, 954 | 3, 937, 049 | 28.8 | 18.4 | 17.0 |
| Canada..... | 5, 068, 166 | 5, 412, 337 | 5, 519, 284 | 16.5 | 29.3 | 23.9 |
| Sweden..... | 3, 065, 676 | 1, 295, 525 | 2, 279, 794 | 10.0 | 7.0 | 9.9 |
| United Kingdom..... | 2, 805, 954 | 2, 154, 343 | 523, 090 | 9.1 | 11.7 | 2.3 |
| Denmark..... | 2, 103, 810 | 477, 312 | 1, 037, 827 | 6.9 | 2.6 | 4.5 |
| Netherlands..... | 1, 560, 670 | 425, 084 | 938, 844 | 5.1 | 2.3 | 4.1 |
| Italy..... | 1, 243, 504 | 373, 937 | 327, 414 | 4.0 | 2.0 | 1.4 |
| Argentina..... | 1, 144, 697 | 620, 425 | 421, 006 | 3.7 | 3.4 | 1.8 |
| Switzerland..... | 1, 085, 502 | 515, 619 | 795, 550 | 3.5 | 2.8 | 3.4 |
| Belgium..... | 1, 084, 696 | 129, 756 | 328, 784 | 3.5 | .7 | 1.4 |
| Finland..... | 623, 330 | 639, 043 | 368, 986 | 2.0 | 3.5 | 1.6 |
| Latvia..... | 576, 640 | 887, 225 | 1, 149, 498 | 1.9 | 4.8 | 5.0 |
| Norway..... | 461, 508 | 291, 977 | 425, 502 | 1.5 | 1.6 | 1.8 |
| Poland..... | 448, 907 | 145, 102 | 1, 650, 230 | 1.5 | .8 | 7.1 |
| Australia..... | 148, 134 | 542, 203 | 778, 980 | .5 | 2.9 | 3.4 |
| New Zealand..... | 126, 460 | 392, 815 | 1, 235, 654 | .4 | 2.1 | 5.3 |
| Uruguay..... | 9, 368 | 11, 951 | 0 | (¹) | .1 | 0 |
| Other countries..... | 344, 829 | 740, 268 | 1, 422, 399 | 1.1 | 4.0 | 6.1 |
| Total..... | 30, 735, 568 | 18, 450, 876 | 23, 137, 681 | 100.0 | 100.0 | 100.0 |
| Cattle hides, dry— | | | | | | |
| Argentina..... | 17, 719, 184 | 2, 509, 740 | 2, 040, 226 | 30.1 | 13.9 | 14.2 |
| Colombia..... | 7, 865, 138 | 6, 271, 063 | 5, 293, 983 | 13.4 | 34.6 | 36.8 |
| China..... | 6, 905, 068 | 1, 028, 209 | 52, 694 | 11.7 | 5.7 | .4 |
| Canada..... | 4, 186, 832 | 1, 466, 187 | 1, 114, 133 | 7.1 | 8.1 | 7.7 |
| United Kingdom..... | 3, 279, 153 | 191, 395 | 179, 745 | 5.6 | 1.1 | 1.3 |
| Dutch East Indies..... | 2, 582, 016 | 317, 622 | 0 | 4.4 | 1.8 | 0 |
| France..... | 2, 441, 200 | 604, 716 | 266, 190 | 4.2 | 3.3 | 1.8 |
| Venezuela..... | 2, 383, 540 | 2, 114, 545 | 1, 924, 866 | 4.1 | 11.7 | 13.4 |
| Brazil..... | 1, 709, 727 | 144, 644 | 169, 231 | 2.9 | .8 | 1.2 |
| British India..... | 1, 221, 562 | 82, 965 | 406, 575 | 2.1 | .5 | 2.8 |
| Uruguay..... | 1, 097, 292 | 347, 144 | 23, 148 | 1.9 | 1.9 | .2 |
| Cuba..... | 692, 290 | 1, 724 | 17, 503 | 1.2 | (¹) | .1 |
| Nicaragua..... | 634, 478 | 445, 524 | 475, 027 | 1.1 | 2.5 | 3.3 |
| Peru..... | 442, 858 | 95, 041 | 39, 251 | .8 | .5 | .3 |
| Mexico..... | 425, 597 | 240, 454 | 306, 951 | .7 | 1.3 | 2.1 |
| Italy..... | 366, 540 | 0 | 0 | .6 | .2 | 0 |
| Ecuador..... | 349, 107 | 100, 624 | 17, 702 | .6 | .6 | .1 |
| New Zealand..... | 198, 229 | 73, 964 | 51, 129 | .3 | .4 | .4 |
| Switzerland..... | 151, 535 | 1, 800 | 0 | .3 | (¹) | 0 |
| Australia..... | 126, 878 | 488, 810 | 394, 849 | .2 | 2.7 | 2.7 |
| Honduras..... | 112, 121 | 214, 683 | 181, 499 | .2 | 1.2 | 1.3 |
| Guatemala..... | 18, 962 | 12, 597 | 16, 571 | (¹) | .1 | .1 |
| Other countries..... | 3, 860, 936 | 1, 321, 372 | 1, 404, 945 | 6.5 | 7.1 | 9.8 |
| Total..... | 58, 770, 243 | 18, 111, 934 | 14, 376, 218 | 100.0 | 100.0 | 100.0 |

¹ Less than 0.05 per cent.² Includes "Kip skins, dry," prior to Sept. 22, 1922.³ Includes "Kip skins, wet," prior to Sept. 22, 1922.

TABLE 650.—Origin of principal agricultural products imported into the United States, 1923-1925—Continued

| Article and country of origin | Year ended June 30— | | | | | |
|---|---------------------|---------------|---------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS—CON. | | | | | | |
| Hides and skins other than furs—Con. | | | | | | |
| Cattle hides, wet— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Argentina..... | 135,695,992 | 99,860,875 | 113,565,163 | 53.9 | 62.9 | 61.4 |
| Uruguay..... | 34,561,249 | 11,714,089 | 8,614,600 | 10.0 | 7.4 | 4.7 |
| Canada..... | 20,489,525 | 28,002,925 | 36,094,996 | 8.8 | 18.1 | 19.5 |
| Brazil..... | 24,403,024 | 2,511,514 | 3,081,776 | 7.0 | 1.6 | 1.7 |
| France..... | 12,940,361 | 2,658,590 | 5,146,416 | 2.7 | 1.7 | 2.8 |
| Cuba..... | 12,418,583 | 2,019,120 | 6,165,361 | 3.6 | 1.3 | 3.3 |
| Italy..... | 5,667,392 | 701,266 | 6,567,386 | 1.6 | 0.4 | 3.3 |
| Australia..... | 5,062,759 | 1,833,715 | 3,394,173 | 1.5 | 1.2 | 1.8 |
| Venezuela..... | 375,171 | 84,107 | 271,515 | .1 | .1 | .1 |
| Other countries..... | 34,067,902 | 8,570,629 | 8,054,729 | 9.8 | 5.3 | 4.4 |
| Total..... | 346,612,958 | 158,362,830 | 184,935,515 | 100.0 | 100.0 | 100.0 |
| Goat and kid skins, dry— | | | | | | |
| British India..... | 19,597,086 | 13,173,680 | 17,190,066 | 28.0 | 25.4 | 30.1 |
| China..... | 12,148,704 | 8,636,578 | 8,467,982 | 17.2 | 16.7 | 14.8 |
| Argentina..... | 4,843,644 | 3,130,925 | 3,668,173 | 6.8 | 6.0 | 6.4 |
| Brazil..... | 4,569,259 | 4,132,230 | 3,857,513 | 6.5 | 8.0 | 6.7 |
| Aden..... | 4,549,505 | 2,855,206 | 2,372,301 | 6.4 | 5.5 | 4.1 |
| Spain..... | 3,451,722 | 3,158,354 | 1,641,596 | 4.9 | 6.1 | 2.9 |
| Mexico..... | 2,783,963 | 2,804,017 | 4,074,061 | 3.9 | 5.4 | 7.1 |
| United Kingdom..... | 1,925,208 | 1,283,918 | 1,992,246 | 2.7 | 2.4 | 3.6 |
| Venezuela..... | 1,901,211 | 1,438,085 | 1,463,367 | 2.5 | 2.6 | 2.5 |
| France..... | 1,361,982 | 632,390 | 1,372,174 | 1.9 | 1.2 | 2.4 |
| British South Africa..... | 1,359,964 | 1,066,425 | 1,717,369 | 1.9 | 2.1 | 1.3 |
| Other Dutch East Indies..... | 1,248,198 | 1,034,425 | 1,430,024 | 1.7 | 3.2 | 2.5 |
| British West Africa..... | 1,147,479 | 1,023,036 | 483,687 | 1.6 | 2.0 | .8 |
| Algeria, Tunis..... | 1,137,958 | 811,789 | 662,966 | 1.6 | 1.6 | 1.2 |
| Peru..... | 853,525 | 863,757 | 740,066 | 1.2 | 1.7 | 1.3 |
| Netherlands..... | 593,985 | 247,226 | 127,180 | .8 | .5 | .2 |
| Morocco..... | 461,520 | 175,133 | 336,425 | .8 | .3 | .6 |
| British East Africa..... | 349,862 | 470,050 | 913,215 | .5 | .9 | 1.6 |
| Greece..... | 325,808 | 220,157 | 347,980 | .5 | .4 | .6 |
| Other countries..... | 6,343,457 | 4,072,877 | 5,397,745 | 8.8 | 7.9 | 9.4 |
| Total..... | 70,764,050 | 51,810,858 | 57,202,066 | 100.0 | 100.0 | 100.0 |
| Goatskins, wet— | | | | | | |
| British India..... | 16,824,162 | 12,969,559 | 7,410,757 | 96.4 | 92.3 | 84.7 |
| United Kingdom..... | 361,842 | 14,057 | 275,580 | 2.0 | .1 | 3.1 |
| Argentina..... | 158,018 | 53,962 | 130,576 | .8 | .4 | 1.6 |
| British South Africa..... | 147,209 | 409,640 | 326,321 | .8 | 2.9 | 3.7 |
| Other countries..... | 1,115,824 | 602,763 | 601,886 | 6.6 | 4.3 | 6.0 |
| Total..... | 18,607,046 | 14,069,981 | 8,754,126 | 100.0 | 100.0 | 100.0 |
| Kip skins, dry— | | | | | | |
| Argentina..... | 7,208,064 | 2,381,371 | 345,406 | 62.9 | 67.3 | 18.6 |
| United Kingdom..... | 831,957 | 297,708 | 187,604 | 7.2 | 6.4 | 10.1 |
| Uruguay..... | 746,250 | 106,963 | 0 | 6.4 | 3.0 | 0 |
| France..... | 586,270 | 154,251 | 131,410 | 4.6 | 4.4 | 7.1 |
| British West Africa..... | 326,978 | 40,461 | 62,060 | 3.2 | 1.1 | 3.3 |
| Canada..... | 296,142 | 140,922 | 433,393 | 2.5 | 4.0 | 23.3 |
| China..... | 248,207 | 28,516 | 0 | 2.1 | .8 | 0 |
| Sweden..... | 174,860 | 105,950 | 82,070 | 1.5 | 3.0 | 4.4 |
| British India..... | 118,042 | 86,425 | 102,569 | 1.9 | 2.4 | 5.5 |
| Netherlands..... | 108,831 | 0 | 21,039 | .9 | 0 | 1.1 |
| Denmark..... | 102,862 | 0 | 156,638 | .9 | 0 | 8.4 |
| Poland and Danzig..... | 0 | 0 | 147,925 | 0 | 0 | 7.9 |
| Lithuania..... | 0 | 28,209 | 36,096 | 0 | .8 | 1.9 |
| Switzerland..... | 0 | 0 | 24,476 | 0 | 0 | 1.3 |
| Other countries..... | 899,986 | 172,085 | 122,814 | 7.7 | 4.3 | 7.1 |
| Total..... | 11,628,449 | 3,540,851 | 1,863,231 | 100.0 | 100.0 | 100.0 |
| Kip skins, wet— | | | | | | |
| France..... | 3,149,255 | 1,801,337 | 1,907,646 | 34.4 | 22.9 | 40.0 |
| Argentina..... | 2,990,463 | 2,927,099 | 844,860 | 32.7 | 37.3 | 16.9 |
| Canada..... | 702,288 | 1,016,218 | 1,184,614 | 7.7 | 12.9 | 23.7 |
| China..... | 555,793 | 433,059 | 9,517 | 6.1 | 5.5 | .2 |

* Included with "Calfskins, dry," prior to Sept. 22, 1922.

* Included with "Calfskins, wet," prior to Sept. 22, 1922.

TABLE 650.—Origin of principal agricultural products imported into the United States, 1923-1925—Continued

| Article and country of origin | Year ended June 30— | | | | | |
|--|---------------------|---------------|---------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS—CON. | | | | | | |
| Hides and skins other than furs—Con. | | | | | | |
| Kip skins, wet—Continued. | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Netherlands..... | 415,409 | 225,589 | 73,776 | 4.5 | 2.9 | 1.5 |
| Belgium..... | 258,375 | 102,272 | 39,284 | 2.8 | 1.3 | .8 |
| Sweden..... | 138,252 | 93,113 | 0 | 2.1 | 1.2 | 0 |
| United Kingdom..... | 113,494 | 464,106 | 128,609 | 1.2 | 5.9 | 2.6 |
| Italy..... | 81,692 | 54,797 | 348,256 | .9 | .7 | 6.9 |
| Lithuania..... | 0 | 149,520 | 0 | 0 | 1.9 | 0 |
| Other countries..... | 703,548 | 589,643 | 370,727 | 7.6 | 7.5 | 7.4 |
| Total..... | 9,167,530 | 7,857,723 | 4,997,279 | 100.0 | 100.0 | 100.0 |
| Sheep and lamb skins, dry and wet— | | | | | | |
| United Kingdom..... | 27,358,807 | 12,700,231 | 13,421,187 | 31.7 | 20.7 | 21.5 |
| Argentina..... | 16,229,412 | 12,442,382 | 10,531,498 | 18.8 | 20.2 | 16.9 |
| New Zealand..... | 13,666,790 | 12,917,279 | 16,638,919 | 15.8 | 21.0 | 26.7 |
| Australia..... | 4,838,716 | 2,674,258 | 2,532,934 | 5.6 | 4.4 | 4.1 |
| Spain..... | 3,978,638 | 3,056,921 | 1,155,008 | 4.6 | 5.0 | 1.9 |
| Canada..... | 3,600,849 | 1,462,469 | 2,039,042 | 4.2 | 2.4 | 3.3 |
| Uruguay..... | 3,321,104 | 2,757,060 | 1,458,531 | 3.9 | 4.5 | 2.3 |
| British South Africa..... | 2,499,658 | 1,306,995 | 1,446,241 | 2.9 | 2.2 | 2.4 |
| Brazil..... | 1,850,933 | 3,559,447 | 1,986,765 | 2.2 | 5.8 | 3.2 |
| Chile..... | 1,509,370 | 1,774,502 | 1,811,020 | 1.7 | 2.9 | 2.9 |
| Adon..... | 1,135,559 | 497,336 | 1,020,178 | 1.3 | .8 | 1.6 |
| France..... | 1,066,581 | 884,757 | 1,568,269 | 1.2 | 1.4 | 2.5 |
| China..... | 633,003 | 989,688 | 649,882 | .8 | 1.6 | 1.0 |
| Other countries..... | 4,576,199 | 4,362,328 | 6,031,876 | 5.3 | 7.1 | 9.7 |
| Total..... | 86,375,619 | 61,445,733 | 62,311,281 | 100.0 | 100.0 | 100.0 |
| Fibers, animal: | | | | | | |
| Silk, raw, in skeins reeled from cocoon..... | | | | | | |
| Japan..... | 37,999,046 | 34,445,020 | 46,855,276 | 72.1 | 74.6 | 79.2 |
| China..... | 10,584,948 | 8,718,404 | 8,757,498 | 20.1 | 18.9 | 14.9 |
| Italy..... | 1,818,206 | 1,576,078 | 2,064,281 | 3.5 | 3.4 | 3.5 |
| France..... | 408,684 | 396,454 | 269,729 | .8 | .8 | .4 |
| Other countries..... | 1,852,720 | 1,045,907 | 1,268,864 | 3.5 | 2.3 | 2.1 |
| Total..... | 52,683,604 | 46,171,863 | 59,137,645 | 100.0 | 100.0 | 100.0 |
| Wool, unmanufactured— | | | | | | |
| Carpet wool..... | | | | | | |
| China..... | 65,140,551 | 57,718,076 | 56,590,990 | 37.9 | 48.8 | 40.9 |
| United Kingdom..... | 40,859,099 | 29,396,237 | 45,521,261 | 35.4 | 24.8 | 32.9 |
| Argentina..... | 8,695,254 | 7,758,910 | 4,592,577 | 5.1 | 6.8 | 3.3 |
| France..... | 6,156,173 | 2,982,313 | 2,951,097 | 3.6 | 2.5 | 2.1 |
| Italy..... | 6,062,134 | 2,823,275 | 3,079,541 | 3.5 | 2.4 | 2.2 |
| Germany..... | 4,205,049 | 1,577,217 | 1,775,514 | 2.4 | 1.3 | 1.3 |
| British India..... | 3,696,097 | 3,432,146 | 5,929,067 | 2.2 | 2.9 | 4.3 |
| Palestine and Syria..... | 2,850,141 | 4,250,144 | 5,223,282 | 1.7 | 3.6 | 3.8 |
| Turkey in Asia..... | 2,456,828 | 2,071,319 | 1,993,790 | 1.4 | 1.7 | 1.4 |
| Denmark..... | 1,021,014 | 41,349 | 355 | .6 | (1) | (1) |
| Spain..... | 681,433 | 357,545 | 991,659 | .4 | .2 | .7 |
| Persia..... | 303,268 | 681,037 | 0 | .2 | .6 | 0 |
| Uruguay..... | 266,526 | 24,283 | 135,720 | .2 | (1) | .1 |
| British South Africa..... | 220,748 | 97,498 | 33,792 | .1 | .1 | (1) |
| Greece..... | 175,175 | 207,774 | 207,780 | .1 | .2 | .1 |
| Chile..... | 80,119 | 92,556 | 17,840 | .1 | .1 | (1) |
| Other countries..... | 9,003,583 | 4,663,479 | 9,550,275 | 5.1 | 4.1 | 6.9 |
| Total..... | 171,679,192 | 118,375,103 | 138,461,126 | 100.0 | 100.0 | 100.0 |
| Clothing wool— | | | | | | |
| United Kingdom..... | 15,407,063 | 4,236,568 | 6,862,079 | 35.3 | 33.0 | 28.2 |
| Argentina..... | 9,762,858 | 3,101,080 | 7,636,574 | 22.3 | 24.2 | 31.2 |
| Australia..... | 5,195,722 | 1,194,680 | 1,755,787 | 11.9 | 8.6 | 7.2 |
| Uruguay..... | 4,365,401 | 1,137,885 | 2,508,112 | 10.0 | 8.9 | 10.6 |
| Canada..... | 3,465,426 | 1,145,330 | 1,328,745 | 7.9 | 8.9 | 8.4 |
| British South Africa..... | 1,225,209 | 346,760 | 962,968 | 2.8 | 2.7 | 1.5 |
| Chile..... | 1,030,420 | 674,544 | 1,566,228 | 2.4 | 5.3 | 6.4 |
| New Zealand..... | 665,235 | 374,307 | 513,637 | 1.5 | 2.9 | 2.1 |
| China..... | 334,253 | 0 | 27,133 | .8 | 0 | .1 |
| Peru..... | 264,938 | 129,963 | 246,947 | .6 | 1.0 | 1.0 |
| Other countries..... | 1,976,011 | 568,850 | 1,529,482 | 4.5 | 4.5 | 6.3 |
| Total..... | 43,703,289 | 12,819,736 | 24,445,673 | 100.0 | 100.0 | 100.0 |

1 Less than 0.05 per cent.

2 Included with "Calfskins, wet," prior to Sept. 22, 1922.

TABLE 650.—*Origin of principal agricultural products imported into the United States, 1923-1925—Continued*

| Article and country of origin | Year ended June 30— | | | | | |
|--|---------------------|-------------------|-------------------|-----------------|------------------|-----------------|
| | 1923 | 1924 [*] | 1925 | 1923 | 1924 | 1925 |
| ANIMALS AND ANIMAL PRODUCTS—CON. | | | | | | |
| Fibers, animal—Continued. | | | | | | |
| Wool, unmanufactured—Contd. | | | | | | |
| Combing wool— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Argentina..... | 77,256,141 | 19,787,998 | 18,911,034 | 25.9 | 19.2 | 16.0 |
| Australia..... | 60,406,980 | 33,180,931 | 37,101,110 | 23.3 | 32.2 | 31.5 |
| United Kingdom..... | 58,657,619 | 23,751,430 | 19,827,037 | 19.7 | 23.1 | 16.6 |
| Uruguay..... | 42,040,631 | 6,572,372 | 17,504,090 | 14.1 | 6.4 | 14.8 |
| British South Africa..... | 16,187,811 | 4,271,234 | 3,478,924 | 5.4 | 4.1 | 2.9 |
| New Zealand..... | 13,666,196 | 5,884,796 | 9,808,767 | 4.6 | 5.7 | 8.4 |
| Canada..... | 5,952,834 | 4,857,552 | 4,357,052 | 2.0 | 4.7 | 3.7 |
| Other countries..... | 15,327,931 | 4,696,566 | 7,242,927 | 5.0 | 4.6 | 6.1 |
| Total..... | 298,496,152 | 103,002,879 | 117,990,941 | 100.0 | 100.0 | 100.0 |
| Hair of the Angora goat (mohair), alpaca, etc.— | | | | | | |
| United Kingdom..... | 4,674,695 | 1,852,429 | 1,083,648 | 41.0 | 37.6 | 28.4 |
| British South Africa..... | 3,469,041 | 715,621 | 1,126,932 | 30.5 | 14.5 | 29.6 |
| Turkey in Europe..... | 2,601,398 | 1,255,881 | 225,137 | 22.8 | 25.5 | 5.9 |
| Peru..... | 309,003 | 911,394 | 692,930 | 2.7 | 18.5 | 18.2 |
| China..... | 274,764 | 134,818 | 524,401 | 2.4 | 2.7 | 13.8 |
| Other countries..... | 65,123 | 54,438 | 155,504 | .6 | 1.2 | 4.1 |
| Total..... | 11,394,024 | 4,924,581 | 3,808,642 | 100.0 | 100.0 | 100.0 |
| VEGETABLE PRODUCTS | | | | | | |
| Cocoa or cacao beans: | | | | | | |
| British West Africa..... | 122,276,584 | 152,532,542 | 138,513,157 | 32.1 | 39.8 | 36.2 |
| Brazil..... | 59,978,071 | 71,736,843 | 71,816,467 | 15.7 | 18.7 | 18.6 |
| Dominican Republic..... | 42,457,894 | 42,368,024 | 46,926,416 | 11.1 | 11.1 | 12.3 |
| Ecuador..... | 40,886,824 | 30,310,474 | 28,969,365 | 10.7 | 7.9 | 7.6 |
| British West Indies..... | 39,938,150 | 35,004,010 | 37,374,107 | 10.5 | 9.1 | 9.8 |
| Venezuela..... | 21,990,119 | 15,253,536 | 18,406,584 | 5.8 | 4.0 | 4.8 |
| United Kingdom..... | 16,030,541 | 9,525,066 | 6,686,178 | 4.2 | 2.5 | 1.7 |
| Haiti..... | 5,026,713 | 2,648,900 | 2,250,650 | 1.3 | .7 | .6 |
| Portugal..... | 2,398,716 | 1,675,833 | 3,053,786 | .6 | .4 | .8 |
| Other countries..... | 30,524,446 | 21,916,014 | 28,531,291 | 8.0 | 5.8 | 7.4 |
| Total..... | 381,508,058 | 382,971,242 | 382,570,001 | 100.0 | 100.0 | 100.0 |
| Coffee: | | | | | | |
| Brazil..... | 840,038,490 | 950,950,167 | 860,269,172 | 64.4 | 66.5 | 67.2 |
| Colombia..... | 163,889,565 | 254,361,159 | 223,169,914 | 14.9 | 17.8 | 17.4 |
| Central America..... | 125,398,369 | 90,816,554 | 65,974,578 | 9.6 | 6.4 | 6.1 |
| Venezuela..... | 58,609,417 | 59,967,439 | 57,392,861 | 4.5 | 4.2 | 4.5 |
| Mexico..... | 39,490,968 | 31,601,993 | 22,825,216 | 3.0 | 2.2 | 1.8 |
| Dutch East Indies..... | 20,987,513 | 21,084,533 | 27,966,440 | 1.6 | 1.5 | 2.2 |
| West Indies..... | 10,500,978 | 5,295,523 | 11,237,537 | .8 | .4 | .9 |
| Aden..... | 2,436,100 | 5,157,285 | 4,958,853 | .2 | .3 | .4 |
| Other countries..... | 13,936,254 | 10,362,204 | 5,774,963 | 1.0 | .7 | .5 |
| Total..... | 1,305,187,684 | 1,429,616,859 | 1,279,569,534 | 100.0 | 100.0 | 100.0 |
| Fibers, vegetable: | | | | | | |
| Cotton, raw— | | | | | | |
| Egypt..... | 187,990,018 | 78,631,055 | 91,930,193 | 66.9 | 53.8 | 59.3 |
| China..... | 24,792,329 | 21,577,342 | 15,941,770 | 10.5 | 14.8 | 10.3 |
| Mexico..... | 15,868,478 | 13,442,658 | 22,287,221 | 6.7 | 9.2 | 14.4 |
| Peru..... | 10,335,486 | 9,955,661 | 5,678,348 | 4.4 | 6.8 | 3.6 |
| British India..... | 8,894,607 | 16,302,430 | 13,044,278 | 3.8 | 11.2 | 8.4 |
| United Kingdom..... | 5,274,508 | 4,181,755 | 3,666,467 | 2.2 | 2.9 | 2.4 |
| Other countries..... | 12,936,993 | 1,932,732 | 2,544,021 | 5.5 | 1.8 | 1.6 |
| Total..... | 236,092,419 | 146,023,533 | 155,092,298 | 100.0 | 100.0 | 100.0 |
| Flax, unmanufactured— | | | | | | |
| United Kingdom..... | <i>Tons</i> 2,661 | <i>Tons</i> 1,699 | <i>Tons</i> 1,595 | 32.4 | 34.8 | 37.0 |
| Canada..... | 2,091 | 1,292 | 499 | 25.5 | 26.4 | 11.6 |
| Belgium..... | 765 | 290 | 520 | 9.3 | 5.9 | 12.0 |
| Latvia..... | 474 | 241 | 455 | 5.8 | 7.0 | 10.5 |
| Germany..... | 471 | 2 | 250 | 5.7 | (¹) | 5.8 |
| Italy..... | 451 | 297 | 154 | 5.5 | 6.1 | 3.6 |
| Poland and Danzig..... | 344 | 62 | 12 | 4.2 | 1.3 | .3 |
| Netherlands..... | 282 | 170 | 141 | 2.8 | 2.8 | 2.2 |

¹ Less than 0.5 per cent.^{*} Includes Bermuda.

TABLE 650.—Origin of principal agricultural products imported into the United States, 1923-1925—Continued

| Article and country of origin | Year ended June 30— | | | | | |
|-------------------------------------|---------------------|----------------|----------------|------------------|------------------|------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Fibers, vegetable—Continued. | | | | | | |
| Flax, unmanufactured—Continued. | <i>Tons</i> | <i>Tons</i> | <i>Tons</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Japan..... | 126 | 316 | 153 | 1.5 | 6.5 | 3.5 |
| Russia in Europe..... | 18 | 108 | 198 | .2 | 2.2 | 4.6 |
| Other countries..... | 524 | 308 | 338 | 6.4 | 6.3 | 7.8 |
| Total..... | 8,207 | 4,885 | 4,315 | 100.0 | 100.0 | 100.0 |
| Manila fiber— | | | | | | |
| Philippine Islands..... | 96,758 | 97,261 | 72,402 | 99.1 | 99.2 | 99.3 |
| Other countries..... | 851 | 771 | 513 | .9 | .8 | .7 |
| Total..... | 97,609 | 98,032 | 72,915 | 100.0 | 100.0 | 100.0 |
| Sisal grass— | | | | | | |
| Mexico..... | 77,383 | 71,162 | 116,374 | 79.3 | 73.4 | 79.7 |
| Dutch East Indies..... | 8,932 | 11,172 | 13,742 | 9.2 | 11.5 | 9.4 |
| British East Africa..... | 3,104 | 1,875 | 6,318 | 3.2 | 1.9 | 3.7 |
| United Kingdom..... | 1,185 | 1,905 | 742 | 1.2 | .9 | .5 |
| Belgium..... | 864 | 4,759 | 3,489 | .9 | 4.9 | 2.4 |
| Other countries..... | 6,114 | 7,066 | 6,316 | 6.2 | 7.4 | 4.3 |
| Total..... | 97,582 | 96,969 | 145,981 | 100.0 | 100.0 | 100.0 |
| Fruits: | | | | | | |
| Bananas— | <i>Bunches</i> | <i>Bunches</i> | <i>Bunches</i> | | | |
| Central America..... | 29,076,239 | 27,976,873 | 31,981,525 | 65.3 | 62.3 | 63.3 |
| Jamaica..... | 9,881,633 | 9,406,524 | 10,635,004 | 22.2 | 20.9 | 21.0 |
| Colombia..... | 2,466,880 | 2,343,982 | 2,260,400 | 5.5 | 5.2 | 4.5 |
| Cuba..... | 1,716,376 | 2,277,353 | 2,118,885 | 3.9 | 5.1 | 4.2 |
| Other countries..... | 1,363,118 | 2,930,373 | 3,517,517 | 3.1 | 6.5 | 7.0 |
| Total..... | 44,504,246 | 44,935,105 | 50,513,331 | 100.0 | 100.0 | 100.0 |
| Lemons ¹ — | <i>Boxes</i> | <i>Boxes</i> | <i>Boxes</i> | | | |
| Italy..... | 1,636,414 | 1,010,100 | 1,260,865 | 98.6 | 99.3 | 99.8 |
| Other countries..... | 23,294 | 7,432 | 3,050 | 1.4 | .7 | .2 |
| Total..... | 1,659,708 | 1,017,532 | 1,263,915 | 100.0 | 100.0 | 100.0 |
| Currants— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| Greece..... | 18,556,646 | 16,809,730 | 14,675,834 | 98.1 | 98.0 | 97.4 |
| Other countries..... | 367,498 | 345,692 | 388,321 | 1.9 | 2.0 | 2.6 |
| Total..... | 18,924,144 | 17,155,431 | 15,064,155 | 100.0 | 100.0 | 100.0 |
| Dates— | | | | | | |
| British India..... | 42,384,714 | 68,728 | 26,185 | 81.5 | .2 | (¹) |
| United Kingdom..... | 3,343,006 | 1,581,824 | 12,870,897 | 6.4 | 3.6 | 20.3 |
| Turkey in Asia..... | 2,334,231 | 2,810,883 | 4,320,657 | 4.5 | 6.4 | 6.8 |
| Hejaz, Arabia, etc..... | 2,168,026 | 36,630,233 | 35,498,330 | 4.2 | 82.8 | 56.0 |
| Palestine and Syria..... | 23,124 | 340 | 8,668,075 | (¹) | (¹) | 13.7 |
| Other countries..... | 1,784,130 | 3,150,674 | 2,059,876 | 3.4 | 7.0 | 3.2 |
| Total..... | 52,037,231 | 44,142,682 | 63,444,020 | 100.0 | 100.0 | 100.0 |
| Figs— | | | | | | |
| Greece..... | 17,093,647 | 4,456,595 | 7,596,281 | 46.7 | 14.1 | 16.8 |
| Portugal..... | 6,163,428 | 3,866,124 | 4,794,097 | 16.8 | 12.2 | 10.6 |
| Turkey in Asia..... | 4,614,558 | 19,688,606 | 22,157,498 | 12.3 | 62.2 | 48.9 |
| Italy..... | 1,550,149 | 1,526,320 | 3,793,447 | 4.2 | 4.8 | 8.4 |
| United Kingdom..... | 1,259,785 | 343,755 | 1,933,145 | 3.4 | 1.1 | 4.3 |
| Spain..... | 1,173,151 | 322,381 | 795,381 | 3.2 | 1.0 | 1.7 |
| Turkey in Europe..... | 1,146,765 | 115,006 | 120,903 | 3.1 | .4 | .3 |
| Other countries..... | 3,683,572 | 1,348,953 | 4,068,257 | 10.3 | 4.2 | 9.0 |
| Total..... | 36,585,055 | 31,667,740 | 45,250,009 | 100.0 | 100.0 | 100.0 |
| Grains: | | | | | | |
| Rice, cleaned— | | | | | | |
| French Indo-China..... | 27,773,526 | 1,770,000 | 417,500 | 48.8 | 5.5 | 1.0 |
| Hongkong..... | 21,054,035 | 21,266,678 | 24,941,943 | 37.0 | 66.1 | 59.9 |
| Germany..... | 2,599,180 | 3,270,003 | 3,019,987 | 4.6 | 10.2 | 7.2 |
| China..... | 2,071,080 | 1,636,611 | 1,673,119 | 3.6 | 5.1 | 4.0 |

¹ Less than 0.05 per cent.² Boxes of 74 pounds net.³ Includes Greece in Asia.

TABLE 650.—Origin of principal agricultural products imported into the United States, 1923-1925—Continued

| Article and country of origin | Year ended June 30— | | | | | |
|---|---------------------|----------------|----------------|-----------------|-----------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Grains—Continued. | | | | | | |
| Rice, cleaned—Continued. | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| British India..... | 1,587,012 | 523,870 | 2,006,091 | 2.8 | 1.6 | 4.8 |
| United Kingdom..... | 518,672 | 296,778 | 0 | .9 | .9 | 0 |
| Netherlands..... | 380,000 | 1,823,281 | 4,858,073 | .7 | 5.7 | 11.7 |
| Italy..... | 253,957 | 527,952 | 632,927 | .4 | 1.6 | 1.5 |
| Dutch East Indies..... | 220,496 | 0 | 0 | .4 | 0 | 0 |
| Mexico..... | 0 | 187,167 | 2,853,159 | 0 | .6 | 6.9 |
| Other countries..... | 488,734 | 891,404 | 1,235,967 | .8 | 2.7 | 3.0 |
| Total..... | 56,946,692 | 32,192,744 | 41,639,466 | 100.0 | 100.0 | 100.0 |
| Rice, uncleaned (including paddy)— | | | | | | |
| Mexico..... | 7,137,461 | 2,542,163 | 360 | 61.1 | 49.7 | (1) |
| Japan..... | 2,552,505 | 2,326,042 | 11,603,666 | 21.9 | 45.5 | 96.5 |
| French Indo-China..... | 1,282,000 | 0 | 0 | 11.0 | 0 | 0 |
| Hongkong..... | 317,561 | 149,543 | 87,006 | 2.7 | 2.9 | .7 |
| Other countries..... | 388,691 | 98,757 | 333,323 | 3.3 | 1.9 | 2.8 |
| Total..... | 11,678,218 | 5,117,505 | 12,024,355 | 100.0 | 100.0 | 100.0 |
| Rice flour and meal— | | | | | | |
| Japan..... | 242,063 | 388,278 | 410,972 | 37.6 | 43.1 | 10.4 |
| French Indo-China..... | 200,000 | 0 | 0 | 22.0 | 0 | 0 |
| Hongkong..... | 172,992 | 201,446 | 166,236 | 19.0 | 22.4 | 4.1 |
| China..... | 2,100 | 4,135 | 2,480 | .2 | .1 | .1 |
| Germany..... | 156,750 | 159,040 | 2,803,141 | 17.2 | 17.7 | 69.9 |
| Netherlands..... | 22,400 | 60,000 | 0 | 2.5 | 6.7 | 0 |
| Dutch East Indies..... | 6,394 | 2,717 | 0 | .7 | .8 | 0 |
| Canada..... | 1,744 | 1,480 | 4,233 | .2 | .2 | .1 |
| United Kingdom..... | 688 | 48,500 | 112 | .1 | 5.4 | (1) |
| Mexico..... | 0 | 0 | 605,784 | 0 | 0 | 15.1 |
| Other countries..... | 4,950 | 37,344 | 14,368 | .5 | 4.1 | .3 |
| Total..... | 910,981 | 899,940 | 4,013,326 | 100.0 | 100.0 | 100.0 |
| Wheat— | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | | | |
| Canada..... | 18,012,467 | 27,276,774 | 6,109,024 | 100.0 | 100.0 | 100.0 |
| Other countries..... | 73 | 7,131 | 169 | (1) | (1) | (1) |
| Total..... | 18,012,540 | 27,283,905 | 6,169,193 | 100.0 | 100.0 | 100.0 |
| Wheat flour— | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | | | |
| Canada..... | 428,659 | 168,799 | 6,219 | 99.8 | 99.8 | 92.6 |
| Other countries..... | 762 | 233 | 499 | .2 | .2 | 7.4 |
| Total..... | 429,421 | 169,132 | 6,718 | 100.0 | 100.0 | 100.0 |
| Nuts: | | | | | | |
| Filberts, shelled— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| Spain..... | 4,672,896 | 3,017,454 | 2,197,138 | 75.3 | 41.0 | 50.0 |
| Turkey in Europe..... | 654,527 | 2,065,648 | 174,966 | 10.5 | 28.1 | 17.8 |
| France..... | 539,693 | 1,474,318 | 923,815 | 8.7 | 20.1 | 21.3 |
| Italy..... | 277,172 | 509,054 | 188,451 | 4.5 | 6.9 | 4.3 |
| Other countries..... | 64,285 | 286,514 | 260,353 | 1.0 | 3.9 | 6.0 |
| Total..... | 6,208,573 | 7,352,988 | 4,344,743 | 100.0 | 100.0 | 100.0 |
| Filberts, not shelled— | | | | | | |
| Italy..... | 13,911,108 | 14,037,698 | 7,184,872 | 96.8 | 99.5 | 77.0 |
| Spain..... | 261,377 | 44,932 | 2,090,345 | 1.7 | .3 | 22.4 |
| France..... | 87,455 | 27,525 | 32,430 | .6 | .2 | .4 |
| Turkey in Europe..... | 58,264 | 0 | 5,169 | .4 | 0 | .1 |
| Other countries..... | 65,071 | 504 | 11,833 | .5 | (1) | .1 |
| Total..... | 14,366,275 | 14,110,659 | 9,325,619 | 100.0 | 100.0 | 100.0 |
| Peanuts, shelled— | | | | | | |
| China..... | 28,350,727 | 42,043,532 | 83,786,251 | 66.8 | 87.0 | 97.9 |
| Hongkong..... | 0 | 60,522 | 41,069 | 0 | .1 | .1 |
| Japan..... | 12,102,549 | 2,359,318 | 466,018 | 28.5 | 4.9 | .5 |
| Spain..... | 694,219 | 947,536 | 408,280 | 1.4 | 1.8 | .5 |
| Kwantung, leased territory..... | 41,600 | 838,156 | 10,000 | 1.1 | 1.1 | (1) |
| Other countries..... | 1,350,230 | 2,463,382 | 838,009 | 3.2 | 5.1 | 1.0 |
| Total..... | 42,438,725 | 48,800,746 | 86,000,627 | 100.0 | 100.0 | 100.0 |

¹ Less than 0.05 per cent.

TABLE 650.—*Origin of principal agricultural products imported into the United States, 1923-1925—Continued*

| Article and country of origin | Year ended June 30— | | | | | |
|-------------------------------------|---------------------|---------------|---------------|-----------------|------------------|------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Nuts—Continued. | | | | | | |
| Peanuts, not shelled— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| China..... | 2,462,095 | 2,055,120 | 9,357,234 | 63.7 | 85.8 | 82.3 |
| Hongkong..... | 47,607 | 66,589 | 40,298 | 1.2 | 1.9 | .4 |
| Japan..... | 999,204 | 409,590 | 1,543,498 | 25.9 | 11.5 | 13.6 |
| Spain..... | 303,593 | 11,110 | 184,979 | 7.9 | .3 | 1.0 |
| Other countries..... | 49,640 | 18,215 | 245,244 | 1.3 | .5 | 2.1 |
| Total..... | 3,862,139 | 3,560,624 | 11,371,433 | 100.0 | 100.0 | 100.0 |
| Walnuts, shelled— | | | | | | |
| France..... | 13,846,640 | 15,233,834 | 17,050,910 | 78.6 | 81.2 | 72.1 |
| China..... | 1,676,430 | 1,756,451 | 3,424,349 | 9.5 | 9.4 | 14.5 |
| Spain..... | 585,329 | 710,591 | 1,047,109 | 3.3 | 3.8 | 4.4 |
| Italy..... | 280,385 | 155,518 | 747,761 | 1.6 | .8 | 3.2 |
| Canada..... | 254,840 | 257,130 | 344,727 | 1.4 | 1.4 | 1.5 |
| Turkey in Europe..... | 213,096 | 143,051 | 348,907 | 1.2 | .8 | 1.5 |
| Other countries..... | 742,732 | 508,209 | 675,827 | 4.4 | 2.6 | 2.8 |
| Total..... | 17,606,092 | 18,764,784 | 23,639,590 | 100.0 | 100.0 | 100.0 |
| Walnuts, not shelled— | | | | | | |
| Italy..... | 8,497,492 | 10,380,368 | 11,477,843 | 42.7 | 56.9 | 37.1 |
| France..... | 8,487,674 | 4,622,757 | 9,222,391 | 42.6 | 25.3 | 20.8 |
| China..... | 1,591,683 | 1,951,850 | 6,332,118 | 8.0 | 10.7 | 20.5 |
| Chile..... | 574,467 | 333,080 | 811,245 | 2.9 | 1.8 | 2.6 |
| Canada..... | 199,738 | 65,400 | 269,433 | 1.0 | .4 | .9 |
| Japan..... | 100,700 | 35,000 | 430,159 | .5 | .2 | 1.4 |
| Rumania..... | 73,218 | 166,266 | 449,656 | .4 | .9 | 1.5 |
| Turkey in Europe..... | 18,673 | 214,001 | 164,527 | .1 | 1.2 | .5 |
| Other countries..... | 360,774 | 466,614 | 1,755,313 | 1.8 | 2.6 | 5.7 |
| Total..... | 19,913,419 | 18,244,930 | 30,912,253 | 100.0 | 100.0 | 100.0 |
| Oils, vegetable: | | | | | | |
| Coconut— | | | | | | |
| Philippine Islands..... | 210,968,211 | 181,013,122 | 250,120,748 | 99.2 | 99.9 | 99.9 |
| British India..... | 1,492,431 | 125,434 | 157,665 | .7 | .1 | .1 |
| Other countries..... | 112,775 | 91,763 | 49,511 | .1 | (¹) | (¹) |
| Total..... | 212,573,417 | 181,230,319 | 250,327,924 | 100.0 | 100.0 | 100.0 |
| Olive oil, edible— | | | | | | |
| Italy..... | 43,935,892 | 52,076,274 | 58,380,487 | 58.9 | 64.4 | 72.7 |
| Spain..... | 18,213,291 | 19,560,602 | 11,323,964 | 24.4 | 24.2 | 14.1 |
| France..... | 8,053,740 | 6,117,812 | 6,050,906 | 10.8 | 7.6 | 7.5 |
| Greece..... | 8,571,235 | 1,633,255 | 2,487,619 | 4.8 | 2.0 | 3.1 |
| Turkey in Europe..... | 277,798 | 57,281 | 8,183 | .4 | .1 | (¹) |
| Turkey in Asia..... | 0 | 834 | 2,575 | 0 | (¹) | (¹) |
| Other countries..... | 533,971 | 1,434,877 | 2,048,705 | .7 | 1.7 | 2.6 |
| Total..... | 74,625,925 | 80,880,745 | 80,302,411 | 100.0 | 100.0 | 100.0 |
| Soy-bean oil— | | | | | | |
| Kwantung..... | 31,621,507 | 16,034,460 | 15,491,975 | 81.8 | 90.9 | 75.8 |
| Japan..... | 4,190,610 | 21,010 | 180,360 | 10.8 | .1 | .9 |
| China..... | 2,105,590 | 1,534,950 | 3,431,570 | 5.4 | 8.7 | 16.8 |
| Other countries..... | 717,674 | 40,790 | 1,330,438 | 2.0 | .3 | 6.5 |
| Total..... | 38,635,381 | 17,631,210 | 20,433,843 | 100.0 | 100.0 | 100.0 |
| Seeds: | | | | | | |
| Flaxseed— | | | | | | |
| Argentina..... | 22,350,931 | 10,189,352 | 8,255,176 | 89.3 | 82.6 | 61.5 |
| Canada..... | 2,191,103 | 3,805,498 | 5,137,183 | 8.8 | 17.2 | 38.3 |
| Other countries..... | 483,902 | 41,000 | 26,728 | 1.9 | .2 | .2 |
| Total..... | 25,005,936 | 19,576,750 | 13,419,087 | 100.0 | 100.0 | 100.0 |
| Clover seed— | | | | | | |
| Clover, red— | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| France..... | 245,766 | 17,094,803 | 4,842,035 | 40.4 | 70.4 | 74.6 |
| Poland..... | 132,000 | 0 | 0 | 21.7 | 0 | 0 |
| Canada..... | 131,284 | 556,231 | 715,841 | 21.5 | 2.3 | 1.8 |
| Germany..... | 52,848 | 733,845 | 519,201 | 8.7 | 3.0 | 8.0 |
| United Kingdom..... | 35,858 | 2,883,926 | 409,223 | 5.9 | 16.0 | 6.3 |

¹ Less than 0.05 per cent.² Includes Greece in Asia.

TABLE 650.—*Origin of principal agricultural products imported into the United States, 1923-1925—Continued*

| Article and country of origin | Year ended June 30— | | | | | |
|--|---------------------|-------------------|-------------------|------------------|------------------|-----------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Seeds—Continued. | | | | | | |
| Clover seed—Continued. | | | | | | |
| Clover, red—Continued. | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Czechoslovakia..... | 10,910 | 100,723 | 21,600 | 1.8 | .4 | .3 |
| Italy..... | 0 | 974,564 | 194,356 | 0 | 4.0 | 3.0 |
| Chile..... | 0 | 654,654 | 230,709 | 0 | 2.7 | 3.5 |
| Other countries..... | 0 | 289,125 | 160,197 | 0 | 1.2 | 2.5 |
| Total..... | 608,666 | 24,287,371 | 6,494,062 | 100.0 | 100.0 | 100.0 |
| All other, including alsike, crimson, and all other clover— | | | | | | |
| Canada..... | 10,482,073 | 18,513,745 | 16,614,679 | 78.9 | 64.3 | 72.6 |
| France..... | 1,569,395 | 8,080,806 | 4,520,774 | 11.8 | 21.1 | 19.7 |
| United Kingdom..... | 475,639 | 935,547 | 40,627 | 3.6 | 3.2 | 2 |
| Germany..... | 303,289 | 1,431,992 | 868,356 | 2.3 | 5.0 | 3.2 |
| Poland..... | 64,953 | 53,484 | 273,613 | .5 | .2 | 1.8 |
| Czechoslovakia..... | 50,401 | 581,239 | 191,355 | .4 | 2.0 | .8 |
| Chile..... | 0 | 88,424 | 0 | 0 | .3 | 0 |
| Italy..... | 0 | 17,600 | 43,250 | 0 | .1 | .2 |
| Other countries..... | 341,708 | 1,101,301 | 340,708 | 2.5 | 3.8 | 1.5 |
| Total..... | 13,293,458 | 28,804,138 | 22,893,402 | 100.0 | 100.0 | 100.0 |
| Spices: | | | | | | |
| Pepper (unground)— | | | | | | |
| Dutch East Indies..... | 18,594,560 | 21,793,822 | 27,297,296 | 55.5 | 79.8 | 72.8 |
| British India..... | 8,900,406 | 1,310,831 | 3,496,047 | 20.6 | 4.8 | 9.3 |
| Straits Settlements..... | 5,130,284 | 3,073,228 | 4,249,780 | 15.3 | 11.2 | 11.3 |
| United Kingdom..... | 473,376 | 230,467 | 363,507 | 1.4 | .8 | 1.1 |
| Netherlands..... | 285,144 | 117,864 | 750,507 | .8 | .4 | 2.0 |
| Ceylon..... | 284,132 | 2,141 | 194,948 | .8 | (¹) | .5 |
| Other countries..... | 1,879,856 | 807,087 | 1,123,069 | 5.6 | 3.0 | 3.0 |
| Total..... | 33,547,758 | 27,335,450 | 37,505,374 | 100.0 | 100.0 | 100.0 |
| Sugar, raw, cane: | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | | | |
| Cuba..... | 4,020,796 | 3,257,632 | 3,858,198 | 92.1 | 86.5 | 89.0 |
| Philippine Islands..... | 276,616 | 315,426 | 882,880 | 6.3 | 8.4 | 8.8 |
| Central America..... | 34,490 | 16,723 | 18,397 | .8 | .5 | .4 |
| Peru..... | 4,396 | 52,805 | 29,830 | .1 | 1.4 | .7 |
| Other South America..... | 2,177 | 25,000 | 3,011 | (¹) | .7 | .1 |
| Dominican Republic..... | 1,740 | 39,095 | 6,396 | (¹) | 1.0 | .1 |
| Other countries..... | 26,529 | 58,729 | 38,297 | .7 | 1.5 | .9 |
| Total..... | 4,366,744 | 3,765,000 | 4,336,996 | 100.0 | 100.0 | 100.0 |
| Tea: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| Japan..... | 35,074,918 | 34,297,049 | 23,529,302 | 37.2 | 32.5 | 30.7 |
| British East Indies..... | 19,851,220 | 23,780,914 | 24,784,514 | 20.5 | 22.5 | 26.7 |
| United Kingdom..... | 15,545,681 | 17,780,569 | 18,985,531 | 16.1 | 16.9 | 20.5 |
| China..... | 13,507,750 | 18,538,792 | 10,321,852 | 14.0 | 17.6 | 11.1 |
| Dutch East Indies..... | 8,666,908 | 8,672,748 | 6,202,286 | 9.0 | 8.2 | 6.7 |
| Canada..... | 791,745 | 705,650 | 611,567 | .8 | .7 | .7 |
| Other countries..... | 2,330,366 | 1,727,275 | 3,343,652 | 2.4 | 1.6 | 3.6 |
| Total..... | 96,668,608 | 105,442,997 | 92,778,704 | 100.0 | 100.0 | 100.0 |
| Tobacco, leaf (unmanufactured): | | | | | | |
| Leaf, product of Philippine Islands..... | 1,924,196 | 1,145,121 | 1,129,995 | 100.0 | 100.0 | 100.0 |
| Leaf, suitable for cigar wrappers— | | | | | | |
| Netherlands..... | 8,576,043 | 6,219,949 | 5,608,130 | 96.7 | 97.0 | 97.3 |
| Dutch East Indies..... | 119,016 | 19,431 | 5,526 | 1.3 | .8 | 1 |
| Cuba..... | 58,882 | 32,242 | 122,464 | .7 | .5 | 2.1 |
| Canada..... | 17,172 | 23,108 | 18,707 | .2 | .4 | .3 |
| Other countries..... | 96,389 | 118,909 | 11,270 | 1.1 | 1.8 | .2 |
| Total..... | 8,867,502 | 6,413,639 | 5,766,007 | 100.0 | 100.0 | 100.0 |
| All other leaf— | | | | | | |
| Greece..... | 27,869,579 | 12,887,544 | 27,724,885 | 44.2 | 28.8 | 40.0 |
| Cuba..... | 22,489,375 | 18,265,315 | 20,737,457 | 35.6 | 40.8 | 30.4 |
| Turkey in Europe..... | 4,547,316 | 1,052,244 | 1,226,963 | 7.2 | 2.8 | 1.8 |
| Germany..... | 2,475,697 | 8,813,752 | 1,440,988 | 2.0 | 8.8 | 2.5 |

¹ Less than 0.05 per cent. ² Includes Greece in Asia. ³ Includes 73,575 pounds from the Virgin Islands.

TABLE 650.—*Origin of principal agricultural products imported into the United States, 1923-1925—Continued*

| Article and country of origin | Year ended June 30— | | | | | |
|-------------------------------------|---------------------|----------------|----------------|------------------|------------------|------------------|
| | 1923 | 1924 | 1925 | 1923 | 1924 | 1925 |
| VEGETABLE PRODUCTS—continued | | | | | | |
| Tobacco, leaf—Continued. | | | | | | |
| All other leaf—Continued. | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | <i>Per cent</i> | <i>Per cent</i> | <i>Per cent</i> |
| Turkey in Asia..... | 1,284,647 | 1,849,916 | 6,508,377 | 2.0 | 3.0 | 9.5 |
| Netherlands..... | 1,120,439 | 107,504 | 3,399 | 1.8 | .2 | (¹) |
| Italy..... | 825,262 | 4,069,388 | 9,636,710 | 1.3 | 9.1 | 14.0 |
| United Kingdom..... | 588,638 | 615,799 | 72,600 | .9 | 1.4 | .1 |
| Bulgaria..... | 290,027 | 1,546,617 | 349,236 | .5 | 3.5 | .5 |
| China..... | 98,000 | 102,639 | 53,647 | .2 | .2 | .1 |
| Other countries..... | 1,483,044 | 990,048 | 372,435 | 2.4 | 2.2 | .6 |
| Total..... | 63,078,024 | 44,821,306 | 68,235,035 | 100.0 | 100.0 | 100.0 |
| Vegetables: | | | | | | |
| Onions— | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | | | |
| Spain..... | 990,288 | 1,097,991 | 1,090,360 | 55.5 | 78.1 | 52.5 |
| Egypt..... | 447,082 | 147,796 | 618,238 | 25.1 | 10.5 | 29.8 |
| United Kingdom..... | 157,396 | 51,540 | 70,710 | 8.8 | 3.7 | 3.4 |
| Canada..... | 42,300 | 774 | 28,637 | 2.4 | (¹) | 1.4 |
| Netherlands..... | 33,484 | 310 | 62,480 | 1.9 | (¹) | 2.9 |
| Mexico..... | 19,597 | 28,536 | 17,873 | 1.1 | 2.0 | .9 |
| Bermuda..... | 17,551 | 9,297 | 8,645 | 1.0 | .7 | .4 |
| Canary Islands..... | 13,498 | 7,551 | 6,587 | .8 | .5 | .3 |
| Italy..... | 10,784 | 17,016 | 18,656 | .6 | 1.2 | .9 |
| Australia..... | 3,423 | 3,712 | 8,013 | .2 | .3 | .4 |
| Other countries..... | 47,122 | 41,897 | 146,499 | 2.6 | 3.0 | 7.1 |
| Total..... | 1,782,525 | 1,406,420 | 2,074,698 | 100.0 | 100.0 | 100.0 |
| Potatoes (natural state)— | | | | | | |
| Canada..... | 470,357 | 451,806 | 394,053 | 82.2 | 80.1 | 82.5 |
| Bermuda..... | 89,514 | 87,320 | 59,980 | 15.6 | 15.5 | 12.6 |
| Canary Islands..... | 5,683 | 0 | 1,147 | 1.0 | 0 | .2 |
| Netherlands..... | 3,337 | 1,476 | 0 | .6 | .3 | 0 |
| Azores and Madeira Islands..... | 1,062 | 0 | 0 | .2 | 0 | 0 |
| Cuba..... | 512 | 4,793 | 8,585 | .1 | .8 | 1.8 |
| Spain..... | 4 | 3,609 | 7,283 | (¹) | .6 | 1.5 |
| Egypt..... | 0 | 11,196 | 0 | 0 | 2.0 | 0 |
| Other countries..... | 1,678 | 3,846 | 6,506 | .3 | .7 | 1.4 |
| Total..... | 572,147 | 564,046 | 477,554 | 100.0 | 100.0 | 100.0 |
| FOREST PRODUCTS | | | | | | |
| India rubber, crude: | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | | |
| British East Indies..... | 547,799,814 | 416,837,321 | 506,103,995 | 68.7 | 67.5 | 63.1 |
| Dutch East Indies..... | 113,302,153 | 115,233,963 | 147,319,412 | 14.2 | 18.7 | 18.3 |
| United Kingdom..... | 75,700,650 | 47,513,200 | 101,748,803 | 9.5 | 7.7 | 12.7 |
| Brazil..... | 30,771,572 | 23,534,637 | 30,928,250 | 3.9 | 3.8 | 3.9 |
| Netherlands..... | 10,821,152 | 3,610,487 | 4,544,570 | 1.4 | .6 | .6 |
| France..... | 2,742,632 | 1,310,209 | 3,537,751 | .2 | .2 | .4 |
| Peru..... | 1,574,697 | 764,401 | 1,526,316 | .2 | .1 | .2 |
| Other South America..... | 2,083,793 | 3,097,943 | 1,975,079 | .3 | .5 | .2 |
| Canada..... | 379,604 | 98,552 | 284,970 | (¹) | (¹) | (¹) |
| Mexico..... | 144,253 | 32,756 | 0 | (¹) | (¹) | 0 |
| Portugal..... | 10,748 | 75,883 | 0 | (¹) | (¹) | 0 |
| Other countries..... | 12,374,081 | 4,992,545 | 4,617,174 | 1.5 | .9 | .6 |
| Total..... | 797,655,149 | 617,101,897 | 802,886,402 | 100.0 | 100.0 | 100.0 |
| Wood: | | | | | | |
| Cabinet wood, mahogany— | <i>M feet</i> | <i>M feet</i> | <i>M feet</i> | | | |
| Central America..... | 17,575 | 22,777 | 31,058 | 41.0 | 48.5 | 44.2 |
| Africa..... | 14,771 | 16,033 | 26,081 | 34.4 | 34.1 | 37.1 |
| Mexico..... | 5,221 | 2,906 | 9,568 | 12.2 | 6.2 | 13.6 |
| United Kingdom..... | 3,923 | 2,897 | 1,938 | 9.1 | 6.2 | 2.3 |
| Other countries..... | 1,405 | 2,362 | 1,647 | 3.3 | 5.0 | 2.8 |
| Total..... | 42,895 | 46,975 | 70,282 | 100.0 | 100.0 | 100.0 |

Division of Statistical and Historical Research. Compiled from *Monthly Summary of Foreign Commerce of the United States*, June issues, 1923 and 1925.

¹ Less than 0.05 per cent.

TABLE 651.—Foreign trade of the United States in agricultural products: Comparative summary, 1909-1925

| Year ended June 30 | Agricultural exports ¹ | | | Agricultural imports ¹ | | | Excess of agricultural exports (+) or of imports (-) | Forest products | | | |
|-------------------------|-----------------------------------|---------------------------|---------------|-----------------------------------|---------------------------|---------------|--|-----------------|---|---------------|--|
| | Domestic | | Foreign | Total | Percentage of all imports | Exports | | | Excess of exports (+) or of imports (-) | | |
| | Total | Percentage of all exports | | | | Domestic | | Foreign | | Imports | |
| | 1,000 dollars | Per cent | 1,000 dollars | 1,000 dollars | Per cent | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | |
| 1900..... | 903,238 | 55.1 | 9,585 | 638,613 | 48.7 | +274,210 | 72,442 | 4,083 | 123,920 | -46,495 | |
| 1910..... | 871,158 | 50.9 | 14,470 | 687,509 | 44.2 | +198,119 | 85,030 | 9,802 | 178,872 | -84,040 | |
| 1911..... | 1,030,794 | 51.2 | 14,065 | 680,205 | 44.5 | +365,254 | 103,039 | 7,587 | 102,312 | -51,686 | |
| 1912..... | 1,050,627 | 49.4 | 12,108 | 783,457 | 47.4 | +279,277 | 108,122 | 6,413 | 172,523 | -57,983 | |
| 1913..... | 1,123,652 | 46.3 | 15,029 | 816,301 | 45.0 | +323,381 | 124,836 | 7,432 | 180,502 | -48,235 | |
| 1914..... | 1,113,974 | 47.8 | 17,729 | 924,247 | 48.8 | +207,456 | 106,979 | 4,518 | 155,261 | -43,765 | |
| 1915..... | 1,475,938 | 54.3 | 34,420 | 910,786 | 54.4 | +599,571 | 52,554 | 5,089 | 165,849 | -108,207 | |
| 1916..... | 1,518,071 | 35.5 | 42,088 | 1,189,705 | 54.1 | +370,454 | 68,155 | 4,364 | 252,851 | -180,331 | |
| 1917..... | 1,908,253 | 31.6 | 37,640 | 1,404,972 | 52.8 | +600,921 | 68,919 | 11,172 | 322,699 | -242,609 | |
| 1918..... | 2,280,466 | 39.1 | 39,553 | 1,618,874 | 55.0 | +701,144 | 87,181 | 6,066 | 335,033 | -241,787 | |
| 1919..... | 3,579,918 | 50.6 | 103,530 | 1,768,191 | 57.1 | +1,915,257 | 113,275 | 6,004 | 293,781 | -174,501 | |
| 1920..... | 3,861,511 | 48.6 | 122,598 | 3,129,659 | 59.7 | +854,450 | 190,049 | 11,026 | 508,410 | -307,334 | |
| 1921..... | 2,007,641 | 40.8 | 87,019 | 1,941,837 | 53.1 | +752,823 | 141,876 | 7,805 | 343,141 | -193,460 | |
| 1922..... | 1,915,865 | 51.8 | 40,783 | 1,282,880 | 49.2 | +673,769 | 94,115 | 5,120 | 245,474 | -146,239 | |
| 1923..... | 1,799,108 | 46.3 | 43,359 | 1,905,245 | 50.4 | -62,718 | 129,981 | 6,989 | 405,725 | -268,755 | |
| 1924..... | 1,807,098 | 44.2 | 57,640 | 1,716,715 | 48.3 | +206,023 | 162,799 | 6,642 | 374,330 | -204,898 | |
| 1925 ² | 2,280,165 | 47.7 | 54,091 | 1,817,473 | 47.5 | +516,783 | 156,640 | 11,932 | 465,403 | -296,891 | |

Division of Statistical and Historical Research. Compiled from Foreign Commerce and Navigation of the United States, 1900-1918, and Monthly Summary of Foreign Commerce of the United States, June issues, 1920-1925. All values are gold.

¹Not including forest products.

²Preliminary.

FARM MANAGEMENT AND COSTS STATISTICS

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924

This table presents some results, in terms of averages per farm, from most of the farm business surveys and farm account books kept by farmers that have been made in the United States from 1907 to 1924. It includes essentially all the leading types of farming. The studies were made either singly or cooperatively in some form by the United States Department of Agriculture, and the agricultural colleges and experiment stations.

EXPLANATION OF TERMS

Capital.—The value of all real estate, machinery, livestock, and other property used to carry on the year's business. It includes the value of the farm dwelling, but not of the household furnishings.

Receipts.—Proceeds from the sale of crops produced during the farm year, the increase from livestock, and the receipts from work off the farm, rent of buildings, etc. The increase from stock is found by subtracting the sum of the amount paid for stock purchases and the inventory value at the beginning of the year from the sum of the receipts from livestock products, sales of livestock, and the inventory value at the end of the year. Receipts do not include the family living from the farm.

Expenses.—Annual expenditures made in carrying on the farm business. They include depreciation on buildings and equipment, and the unpaid labor performed by members of the farm family, but do not include the farmer's own labor, or any household and personal expenses.

Farm income.—The difference between receipts and expenses. It does not include the family living from the farm.

Labor income.—Farm income less 5 per cent interest charge for the use of the capital. It does not include the family living from the farm. In some of the studies, as originally published, other rates of interest were used.

Returns to capital.—The rate returned to the capital after the farmer's labor is deducted from the farm income.

Labor income represents what the farm has earned from the year's business for the labor and management of the farmer after a charge of 5 per cent has been deducted for the use of the capital, while return to capital represents what the farm has earned from the year's business for the capital used after a charge has been deducted for the labor and management of the farmer.

Family living from the farm.—The food products set aside from the year's production, and the fuel, and house rent furnished by the farm for the living of the family living from the farm.

Farmer's labor.—An allowance for the farmer's own labor and management at the rate he would have to pay another man to take his place. It does not include the family living from the farm.

Other unpaid family labor.—The unpaid family labor other than the labor of the farmer himself determined on the basis of what it would cost to have the same work done by hired labor, or on the amount of additional labor that would need to be hired to carry on the same sized business if the family labor had not been available.

Principal sources of receipts.—These are named in order of importance and in most instances, include all those amounting to 5 per cent or more of the total receipts. Under this heading cotton includes sales of cottonseed; poultry includes sales of eggs; sheep includes lambs and wool; horses includes mules and colts; work off the farm includes man, man and team, and machine work; wood lot includes sales of timber, lumber, posts, firewood, etc. Cattle does not include sales of dairy products.

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | Re-ceipts | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farmer's family labor | Other unpaid family labor |
|--------------------------------|-------------------------------|------------------------|----------------|---------------|---------|-------------|-----------|-----------|-------------|--------------|-------------------|-----------------------------|-----------------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| Alabama: | | | Number | Acres | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Chilton..... | Cotton, work off farm. | 1920 | 90 | 77 | 4,952 | 3,139 | 637 | 390 | 35 | -180 | -10.2 | ..... | 481 | 167 |
| Dauphin..... | Cotton, peanuts. | 1915 | 90 | 170 | 6,183 | 4,939 | 2,079 | 523 | 1,259 | 947 | 10.9 | ..... | 579 | 174 |
| Macon..... | Cotton, corn. | 1919 | 83 | 96 | 6,434 | 4,904 | 1,559 | 959 | 620 | 297 | 3.0 | ..... | 424 | 101 |
| Madison..... | do. | 1920 | 53 | 178 | 12,502 | 10,201 | 1,377 | 1,789 | -412 | -1,062 | -7.4 | ..... | 326 | 230 |
| Marshall..... | Cotton. | 1915 | 90 | 58 | 4,833 | 3,917 | 1,118 | 594 | 324 | 282 | 1.2 | ..... | 494 | 147 |
| Do..... | Cotton, corn. | 1919 | 79 | 71 | 6,354 | 3,285 | 1,597 | 1,011 | 946 | 693 | 6.9 | ..... | 476 | 200 |
| Tallapoosa..... | Cotton, cattle, hogs. | 1915 | 89 | 204 | 4,834 | 3,850 | 1,941 | 645 | 333 | 170 | -1.6 | ..... | 463 | 146 |
| Several southeastern counties. | Cotton, hogs, peanuts. | 1919 | 72 | ..... | 8,993 | 6,985 | 2,716 | 1,225 | 1,491 | 1,041 | ..... | ..... | 465 | ..... |
| Do..... | Cotton, peanuts, hogs, corn. | 1921 | 101 | 113 | 5,138 | 4,302 | 1,007 | 683 | 324 | 67 | .1 | ..... | 321 | 102 |

| | | | | | | | | | | | | |
|-------------------------------------|--------------|------------|--------------|------------------|------------------|----------------|----------------|----------------|----------------|-------------|------------|-----|
| Morgan— Fort Morgan Wiggins | 1914 1915 | 105 67 | 187 7,128 | 20,537 7,128 | 16,572 | 4,968 | 2,144 | 2,724 643 | 1,682 287 | 10.6 | 510 | 182 |
| Pueblo— Arkansas | 1914 1915 | 90 48 | 83 13,361 | 12,946 13,361 | 10,683 | 2,455 | 1,058 | 1,397 1,468 | 785 890 | 7.2 | 512 | 116 |
| Rio Grande— Vista | 1914 | 78 | 334 | 26,667 | 23,397 | 5,050 | 1,964 | 3,066 | 1,752 | 9.2 | 628 | 146 |
| Weld— Lucerne | 1914 1915 | 228 182 | 136 134 | 24,000 24,450 | 20,750 20,904 | 5,520 6,581 | 2,742 2,963 | 2,787 3,918 | 1,587 2,696 | 8.8 13.5 | 670 614 | 135 |
| Do— Do | 1921 | 150 | 119 | 33,212 | 29,263 | 6,650 | 3,769 | 2,881 | 1,220 | 5.8 | 953 | 136 |
| Do— Do | 1922 | 20 | 139 | 35,394 | 31,517 | 11,658 | 10,914 | 739 | 1,031 | —5 | 331 | 138 |
| Do— Do | 1923 | 22 | 100 | 38,431 | 34,886 | 14,756 | 11,708 | 3,048 | 1,126 | 5.5 | 944 | 237 |
| Do— Do | 1924 | 20 | 171 | 40,664 | 35,780 | 19,548 | 15,445 | 4,103 | 2,070 | 7.9 | 886 | 277 |
| Connecticut— Fairfield—Danbury | 1915 | 46 | 10,100 | 10,100 | 2,169 | 1,258 | 911 | 406 | — | — | — | — |
| Hartford—Farmington | 1915 | 30 | 11,174 | 11,174 | 3,018 | 1,945 | 1,073 | 514 | — | — | — | — |
| Litchfield— Bridgewater | 1914 | 66 | 160 | 14,216 | 10,187 | 3,691 | 2,188 | 1,903 | 792 | 6.9 | 515 | 182 |
| Cornwall— New Haven—Cheshire | 1915 | 24 35 | 219 95 | 13,141 11,757 | 9,640 9,030 | 2,730 3,199 | 1,735 2,148 | 955 1,051 | 338 468 | — | — | — |
| New London— Lebanon | 1913 | 67 | 121 | 7,300 | 5,273 | 1,918 | 1,442 | 476 | 111 | .2 | 461 | 66 |
| Do— Do | 1914 | 40 | 104 | 6,838 | 4,663 | 2,245 | 1,195 | 1,051 | 706 | — | — | — |
| Tolland and Windham | 1913 | 57 | 160 | 8,669 | 6,267 | 2,540 | 1,743 | 797 | 364 | 4.5 | 465 | 102 |
| Windham—Putnam | 1915 | 41 | 160 | 7,060 | 7,060 | 1,681 | 961 | 720 | 367 | — | — | — |
| Delaware— Kent—Wyoming | 1914 | 55 | 120 | 17,088 | 15,945 | 3,164 | 1,971 | 1,193 | 339 | 5.3 | 293 | 65 |
| New Castle— Middletown | 1914 | 65 | 218 | 20,605 | 16,600 | 4,629 | 2,186 | 2,443 | 1,413 | 10.7 | 232 | 42 |
| Do— Do | 1915 | 62 | 216 | 20,737 | 16,699 | 3,145 | 1,692 | 1,096 | 65 | 3.9 | 290 | 29 |
| Do— Do | 1924 | 65 | 216 | 22,832 | 18,304 | 4,904 | 3,208 | 1,696 | 554 | 4.5 | 540 | 210 |
| Sussex— Milton | 1914 | 68 | 112 | 5,982 | 4,536 | 845 | 488 | 353 | 59 | — | — | 91 |
| Lewis— Seaford | 1922 | 86 | 50 | 8,220 | 6,039 | 1,160 | 903 | 257 | —154 | —1.6 | 419 | 168 |
| Do— Do | 1923 | 91 | 86 | 8,036 | 6,457 | 1,995 | 1,410 | 585 | 183 | 1.0 | 509 | 173 |
| Florida— Alachua— Gainesville | 1923 | 90 | 228 | 8,090 | 6,378 | 2,534 | 1,634 | 900 | 496 | 7.6 | 397 | 144 |
| Do— Do | 1924 | 133 | 211 | 7,774 | 6,239 | 1,729 | 1,290 | —124 | —513 | —5.3 | 291 | 122 |
| Levy—Williston | 1923 | 120 | 170 | 8,111 | 6,461 | 3,067 | 1,712 | 1,375 | 969 | 13.9 | 451 | 133 |
| Hillsboro— Plant City | 1917 | 100 | 52 | 6,253 | 5,115 | 2,618 | 1,242 | 1,376 | 1,063 | 14.5 | 470 | 141 |
| Do— Do | 1918 | 100 | 53 | 6,681 | 5,336 | 2,241 | 1,478 | 763 | 459 | 3.5 | 532 | 181 |

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms, acres | Capital | | Receipts | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm-ers' labor | Other unpaid family labor |
|-------------------------|--|------------------------|----------------|----------------------|---------|-------------|----------|-----------|-------------|--------------|-------------------|-----------------------------|-----------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| Florida—Continued | | | | | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Hillsboro—Continued. | Strawberries, oranges, string beans, tomatoes, potatoes | 1919 | 100 | 54 | 7,655 | 6,128 | 2,336 | 1,431 | 905 | 522 | 3.1 | 499 | 670 | 166 |
| Do..... | Strawberries, oranges, string beans, tomatoes, potatoes | 1920 | 100 | 54 | 8,306 | 6,845 | 3,556 | 1,991 | 1,565 | 1,150 | 10.0 | 520 | 734 | 148 |
| Do..... | Strawberries, oranges, tomatoes, string beans, cucumbers | 1921 | 100 | 53 | 8,615 | 7,177 | 3,565 | 2,092 | 1,473 | 1,042 | 9.0 | 451 | 695 | 152 |
| Do..... | Strawberries, string beans, oranges, tomatoes, potatoes | 1922 | 100 | 52 | 9,662 | 8,182 | 3,076 | 2,228 | 848 | 365 | 2.3 | 420 | 624 | 177 |
| Folk— | | | | | | | | | | | | | | |
| Winter Haven..... | Oranges, grapefruit, tangerines | 1917 | 100 | 40 | 20,556 | 19,553 | 2,700 | 1,487 | 1,213 | 180 | 4.1 | --- | 394 | 7 |
| Do..... | do..... | 1918 | 100 | 41 | 21,702 | 20,429 | 6,011 | 2,052 | 3,929 | 2,944 | 16.4 | --- | 350 | 9 |
| Do..... | do..... | 1919 | 100 | 42 | 28,688 | 27,082 | 8,512 | 2,823 | 5,689 | 4,254 | 18.0 | 230 | 529 | 20 |
| Do..... | do..... | 1920 | 100 | 41 | 33,906 | 33,908 | 10,301 | 3,621 | 6,680 | 4,855 | 17.0 | --- | 538 | 5 |
| Do..... | do..... | 1921 | 100 | 41 | 40,512 | 38,493 | 5,530 | 3,507 | 2,023 | --- | 3.7 | --- | 531 | 16 |
| Do..... | do..... | 1922 | 100 | 41 | 41,776 | 39,806 | 9,044 | 3,428 | 5,616 | 3,527 | 12.2 | 263 | 509 | 13 |
| Georgia: | | | | | | | | | | | | | | |
| Brooks..... | Cotton, hogs, watermelons, corn | 1914 | 106 | 146 | 8,962 | 6,788 | 2,165 | 1,536 | 659 | 209 | 2.8 | 584 | 405 | 101 |
| Bulleck..... | Cotton, hogs, corn, melons | 1920 | 50 | 144 | 14,862 | 12,457 | 1,355 | 1,758 | --- | --- | --- | --- | 563 | 184 |
| Greene..... | do..... | 1918 | 78 | 290 | 14,426 | 12,365 | 5,217 | 2,287 | 2,930 | 2,229 | 15.9 | --- | 657 | 177 |
| Do..... | do..... | 1919 | 74 | 224 | 14,950 | 12,029 | 4,736 | 1,815 | 1,815 | 1,067 | 8.0 | --- | 624 | 228 |
| Floyd..... | do..... | 1920 | 44 | 107 | 9,482 | 7,676 | 1,111 | 1,240 | --- | --- | --- | --- | 539 | 257 |
| Laurens..... | Cotton, cattle, work of farm, corn | 1918 | 85 | 173 | 13,090 | 11,190 | 4,616 | 1,876 | 2,540 | 1,886 | 15.3 | --- | 533 | 162 |
| Do..... | Cotton, corn, hogs | 1919 | 75 | 166 | 11,495 | 9,145 | 2,187 | 1,073 | 314 | --- | --- | --- | 497 | 201 |
| Mitchell..... | Cotton, peanuts, hogs, corn | 1919 | 50 | 267 | 18,021 | 14,100 | 4,987 | 3,412 | 1,575 | 674 | 5.3 | --- | 617 | 106 |
| Sumter..... | do..... | 1913 | 317 | 367 | 15,258 | 12,710 | 4,357 | 2,814 | 1,543 | 780 | 7.2 | --- | 447 | 44 |
| White..... | do..... | 1913 | 217 | 109 | 3,845 | 3,288 | 1,312 | 720 | 562 | 400 | 10.0 | --- | 207 | 172 |
| Colored..... | do..... | 1918 | 336 | 367 | 24,227 | 20,367 | 7,823 | 4,378 | 3,445 | 2,384 | 11.7 | 690 | 615 | 74 |
| Colored..... | Cotton, hogs, corn | 1918 | 214 | 123 | 7,004 | 5,781 | 2,933 | 1,336 | 1,597 | 1,217 | 17.6 | 471 | 367 | 318 |
| White..... | Cotton, corn, hogs, peanuts | 1924 | 97 | 289 | 16,717 | 13,368 | 4,357 | 3,273 | 1,064 | 226 | 2.8 | 707 | 651 | 77 |
| Idaho: | | | | | | | | | | | | | | |
| Twin Falls..... | Wheat, potatoes, beans, sugar beets, alfalfa | 1919 | 200 | 73 | 30,521 | 27,170 | 5,083 | 2,387 | 2,748 | 1,222 | 6.1 | 516 | 890 | 119 |
| Do..... | Wheat, sugar beets, potatoes, beans, cattle | 1920 | 192 | 71 | 20,023 | 25,967 | 3,736 | 2,431 | 1,305 | --- | --- | 580 | 1,058 | 170 |
| Do..... | Wheat, potatoes, sugar beets, cattle, clover seed, beans | 1921 | 181 | 71 | 21,093 | 18,731 | 2,756 | 2,018 | 788 | --- | --- | 534 | 786 | 82 |
| Do..... | Beans, wheat, potatoes, sugar beets, clover seed, cattle | 1922 | 87 | 73 | 20,837 | 18,451 | 3,356 | 1,984 | 1,422 | 380 | 3.0 | 507 | 796 | 95 |

| | 1914 | 10 | 22 | 11, 414 | 10, 900 | 1, 025 | 714 | 314 | -257 | | 30 |
|--|------|-----|-----|---------|---------|--------|--------|--------|---------|------|-----|
| Iaaho and Washington: Nez Perce and Astoria | | | | | | | | | | | |
| Latah and Whitman— | | | | | | | | | | | |
| Palouse | 1914 | 246 | 319 | 27, 450 | ... | 3, 787 | 1, 430 | 2, 357 | 985 | 7.0 | 105 |
| Do | 1919 | 226 | 301 | 46, 183 | 41, 510 | 8, 650 | 4, 032 | 4, 607 | 2, 246 | 7.7 | 263 |
| Do | 1920 | 241 | 333 | 51, 900 | 46, 580 | 6, 339 | 4, 850 | 1, 889 | -906 | 1.2 | 278 |
| Do | 1921 | 250 | 327 | 48, 518 | 42, 386 | 4, 130 | 3, 725 | ... | -1, 921 | -1.1 | 206 |
| Illinois: | | | | | | | | | | | |
| Adams, Hancock, and | 1924 | 51 | 302 | 43, 653 | 37, 292 | 4, 784 | 1, 877 | 2, 907 | 724 | 5.3 | 209 |
| McDonough | | | | | | | | | | | |
| Cass and Menard | 1910 | 144 | 228 | 45, 290 | 41, 051 | 4, 427 | 1, 532 | 2, 805 | 631 | 5.5 | 85 |
| Champaign | 1915 | 81 | 212 | 55, 046 | 50, 961 | 5, 523 | 1, 640 | 3, 883 | 1, 131 | 5.6 | 88 |
| Champaign, Ford, and | 1924 | 52 | 228 | 54, 118 | 47, 874 | 6, 376 | 2, 002 | 4, 374 | 1, 568 | 7.4 | 113 |
| McLean | | | | | | | | | | | |
| Clark, Coles, Douglas, | 1924 | 32 | 200 | 40, 366 | 35, 884 | 5, 528 | 1, 694 | 3, 834 | 1, 816 | 8.2 | 176 |
| Montrie | | | | | | | | | | | |
| Clinton | 1922 | 25 | 164 | 19, 367 | 15, 402 | 2, 187 | 1, 078 | 1, 109 | 141 | 1.7 | 782 |
| Do | 1923 | 21 | 163 | 20, 302 | 16, 187 | 2, 567 | 1, 451 | 1, 416 | 401 | 4.5 | 494 |
| Do | 1924 | 58 | 164 | 17, 212 | 13, 390 | 2, 604 | 1, 296 | 1, 308 | 447 | 4.7 | 494 |
| Edwards, Lawrence, | 1924 | 41 | 174 | 20, 085 | 16, 569 | 3, 177 | 1, 271 | 1, 906 | 902 | 7.2 | 285 |
| Richland, and Wash- | | | | | | | | | | | |
| bush | | | | | | | | | | | |
| Greene, Jersey, and | 1924 | 41 | 174 | 26, 401 | 20, 812 | 3, 245 | 1, 493 | 1, 752 | 482 | 4.6 | 220 |
| Macoupin | | | | | | | | | | | |
| Grundy | 1915 | 61 | 181 | 30, 670 | ... | 3, 379 | 1, 277 | 2, 102 | 118 | | 255 |
| Henry, Marshall, Put- | 1924 | 41 | 205 | 46, 855 | 40, 227 | 6, 079 | 2, 011 | 4, 068 | 1, 725 | 7.4 | 561 |
| man, Whiteside | | | | | | | | | | | |
| Jo Daviess, Ogle, and | 1924 | 51 | 180 | 31, 448 | 25, 806 | 3, 251 | 1, 496 | 1, 755 | 183 | 3.8 | 266 |
| Stephenson | | | | | | | | | | | |
| Kane | 1915 | 80 | 184 | 37, 812 | 31, 896 | 4, 969 | 2, 196 | 2, 771 | 880 | 6.2 | 234 |
| La Salle | 1924 | 34 | 247 | 67, 670 | 59, 516 | 8, 079 | 2, 589 | 5, 490 | 2, 106 | 7.2 | 261 |
| Logan, Macon, McLean, | 1924 | 30 | 232 | 59, 661 | 52, 533 | 7, 296 | 2, 409 | 4, 889 | 1, 904 | 7.3 | 208 |
| and Tazewell | | | | | | | | | | | |
| Monroe and Randolph | 1924 | 23 | 175 | 16, 297 | 12, 808 | 2, 644 | 1, 294 | 1, 350 | 540 | 5.0 | 363 |
| Tazewell | | | | | | | | | | | |
| Do | 1914 | 67 | 185 | 46, 230 | 41, 725 | 3, 417 | 1, 188 | 2, 229 | -82 | 3.6 | 74 |
| Do | 1915 | 50 | 174 | 50, 566 | ... | 4, 262 | 1, 240 | 3, 022 | 479 | | |
| Do | 1916 | 40 | 153 | 54, 846 | ... | 5, 088 | 1, 427 | 3, 661 | 919 | 6.8 | |
| Do | 1922 | 36 | 170 | 24, 751 | 21, 162 | 2, 338 | 1, 231 | 1, 279 | -112 | 2.7 | 468 |
| Do | 1923 | 24 | 161 | 22, 595 | 18, 835 | 2, 310 | 1, 231 | 1, 279 | 140 | 3.5 | 491 |
| Do | 1924 | 34 | 188 | 42, 807 | 36, 150 | 5, 409 | 2, 143 | 3, 265 | 1, 126 | 6.3 | 585 |
| Will | 1924 | 50 | 231 | 61, 833 | 54, 901 | 7, 931 | 2, 476 | 4, 455 | 1, 333 | 12.8 | 427 |
| Woodford | 1916 | 19 | 199 | 52, 723 | 46, 315 | 8, 765 | 1, 596 | 1, 199 | 4, 563 | 9.8 | |
| Do | 1917 | 19 | 169 | 57, 587 | 46, 459 | 7, 519 | 2, 013 | 5, 806 | 2, 627 | 9.3 | 468 |
| Do | 1918 | 19 | 201 | 59, 034 | 48, 033 | 7, 699 | 1, 940 | 5, 750 | 2, 757 | 8.8 | 526 |
| Do | 1919 | 19 | 197 | 57, 624 | 46, 047 | 3, 852 | 2, 469 | 1, 353 | 1, 628 | 1.3 | 596 |
| Do | 1921 | 19 | 201 | 55, 570 | 46, 045 | 2, 866 | 2, 315 | ... | -2, 227 | (*) | 551 |
| Do | 1922 | 99 | 233 | 65, 870 | 59, 145 | 4, 821 | 2, 803 | 2, 618 | -675 | 8.2 | 525 |
| Do | 1923 | 95 | 204 | 55, 411 | 48, 067 | 5, 353 | 2, 029 | 2, 324 | -447 | 8.1 | 579 |
| Do | 1924 | 101 | 208 | 58, 565 | 51, 355 | 6, 179 | 1, 961 | 4, 318 | 1, 580 | 7.2 | 590 |

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | Re-ceipts | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm-er's labor | Other unpaid family labor |
|-------------------------|---|------------------------|----------------|---------------|---------|-------------|-----------|-----------|-------------|--------------|-------------------|-----------------------------|-----------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| | | | Number | Acres | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Illinois and Iowa: | | | | | | | | | | | | | | |
| Warren and Henry | Hogs, corn, cattle | 1921 | 53 | 174 | 51,852 | 43,682 | 3,863 | 2,229 | 1,634 | 119 | 2.0 | 577 | 577 | 119 |
| Do. | Hogs, cattle, corn, wheat, oats | 1922 | 42 | 171 | 47,762 | 42,180 | 5,182 | 2,338 | 2,794 | 406 | 4.7 | 564 | 564 | 63 |
| Indiana: | | | | | | | | | | | | | | |
| Adams | Dairy, hogs, small grains | 1918 | 34 | 122 | 18,203 | 16,455 | 4,630 | 1,098 | 2,652 | 1,722 | | | | 112 |
| Allen | Dairy, small grains, hogs | 1917 | 12 | 115 | 20,365 | 17,183 | 3,697 | 1,408 | 2,789 | 1,769 | | | | |
| Do. | Do. | 1918 | 12 | 97 | 16,111 | 12,800 | 3,423 | 1,485 | 1,938 | 1,132 | | | | |
| Bartholomew | Hogs, wheat, cattle, dairy, poultry | 1914 | 69 | 125 | 10,089 | 8,084 | 1,474 | 780 | 744 | 240 | | | | 128 |
| Do. | Cattle, hogs, dairy, wheat, corn, poultry, hay | 1915 | 63 | 120 | 9,705 | 7,843 | 1,114 | 521 | 593 | 108 | 3.0 | | 299 | 99 |
| Do. | Hogs, dairy, wheat, cattle, corn, poultry | 1916 | 63 | 128 | 12,784 | 10,509 | 1,847 | 629 | 1,218 | 579 | 7.0 | | 321 | 104 |
| Do. | Hogs, wheat, dairy, cattle, corn, poultry | 1917 | 43 | 123 | 10,070 | 7,756 | 1,969 | 671 | 1,298 | 794 | 10.0 | | 286 | 60 |
| Do. | Do. | | | | | | | | | | | | | |
| Benton | Corn, oats, hogs, cattle | 1918 | 18 | 162 | 14,611 | 10,955 | 3,361 | 1,717 | 1,644 | 913 | | | | 67 |
| Do. | Oats, corn, hogs, cattle | 1914 | 49 | 206 | 44,780 | 40,927 | 3,370 | 1,357 | 2,013 | 226 | | | | 53 |
| Do. | Dairy, cattle, hogs work off farm, corn, poultry | 1915 | 53 | 210 | 45,728 | 42,028 | 4,753 | 1,130 | 3,623 | 1,337 | 7.3 | | 290 | 290 |
| Clarke | Do. | 1916 | 49 | 130 | 7,204 | 5,331 | 1,341 | 571 | 770 | 410 | 7.0 | | 298 | 53 |
| Do. | Do. | | | | | | | | | | | | | |
| Do. | Do. | 1917 | 15 | 114 | 7,621 | 5,416 | 2,416 | 859 | 1,557 | 1,176 | | | | |
| Do. | Do. | 1918 | 5 | 118 | 9,636 | 8,543 | 2,893 | 1,545 | 1,348 | 866 | | | | |
| Clinton | Hogs, oats, wheat, corn, cattle | 1910 | 100 | 116 | 19,055 | 16,977 | 1,911 | 624 | 1,287 | 334 | 5.1 | | 312 | 48 |
| Do. | Hogs, corn, cattle, oats, clover seed | 1913 | 100 | 124 | 24,936 | 22,672 | 2,265 | 762 | 1,503 | 256 | 4.7 | | 325 | 85 |
| Do. | Hogs, corn, oats, wheat | 1914 | 100 | 126 | 23,724 | 23,084 | 2,190 | 860 | 1,330 | 44 | 3.9 | | 332 | 78 |
| Do. | Hogs, corn, oats, wheat, cattle | 1915 | 100 | 129 | 24,436 | 23,728 | 2,408 | 890 | 1,509 | 187 | 4.4 | | 338 | 78 |
| Do. | Hogs, corn, oats, cattle | 1916 | 100 | 130 | 26,598 | 23,888 | 3,118 | 978 | 1,810 | 810 | 6.7 | | 349 | 79 |
| Do. | Hogs, oats, cattle, corn | 1917 | 100 | 130 | 27,822 | 24,571 | 3,615 | 1,372 | 2,243 | 852 | 6.6 | | 402 | 89 |
| Do. | Hogs, oats, cattle, wheat, corn | 1918 | 100 | 137 | 31,135 | 27,720 | 4,578 | 1,600 | 2,978 | 1,421 | 7.9 | | 527 | 120 |
| Do. | Hogs, corn, wheat, oats, cattle | 1919 | 100 | 130 | 32,618 | 28,702 | 4,655 | 1,881 | 3,774 | 1,143 | 6.5 | | 490 | 121 |
| Do. | Hogs, small grains, cattle, corn | 1917 | 25 | 138 | 22,672 | 18,225 | 6,049 | 1,654 | 4,395 | 3,261 | | | 657 | 65 |
| Deer | Do. | 1918 | 10 | 209 | 26,712 | 19,062 | 8,752 | 5,508 | 3,274 | 1,968 | | | | |
| Do. | Do. | | | | | | | | | | | | | |
| DeKalb | Hogs, wheat, dairy, sheep, hay | 1917 | 6 | 111 | 14,306 | 11,050 | 3,683 | 1,536 | 2,147 | 1,432 | | | | 24 |
| Dubuque | Wheat, dairy, cattle, poultry, hogs | 1914 | 70 | 135 | 8,141 | 6,737 | 1,217 | 568 | 649 | 242 | | | | 121 |
| Do. | Do. | 1915 | 42 | 145 | 9,750 | 8,037 | 1,290 | 609 | 681 | 193 | | | | 126 |
| Do. | Dairy, hogs, cattle, wheat, poultry | 1916 | 21 | 152 | 10,155 | 8,236 | 1,614 | 606 | 1,008 | 500 | | | | 243 |
| Gibson | Hogs, cattle, dairy, poultry | 1914 | 9 | 126 | 10,314 | 8,133 | 1,738 | 1,006 | 732 | 216 | | | | 171 |
| Do. | Hogs, cattle, dairy, hay, poultry, wheat, work off farm | 1915 | 80 | 97 | 8,451 | 6,882 | 1,195 | 553 | 687 | 214 | 2.8 | | 404 | 38 |
| Do. | Do. | | | | | | | | | | | | | |
| Do. | Hogs, cattle, poultry, dairy, horses, hay | 1916 | 65 | 95 | 7,930 | 6,253 | 1,319 | 465 | 854 | 458 | 6.6 | | 329 | 21 |
| Do. | Hogs, dairy, poultry, wheat, hay | 1917 | 38 | 87 | 7,865 | 6,047 | 1,829 | 572 | 1,257 | 864 | | | | 16 |
| Do. | Do. | 1918 | 13 | 91 | 8,025 | 6,110 | 2,723 | 937 | 1,786 | 1,385 | | | | |

| Grant. | Hogs, cattle, corn, dairy, poultry | 1916 | 79 | 99 | 19,273 | 16,151 | 2,757 | 745 | 2,012 | 1,048 | 8.9 | 300 | 52 |
|-------------|--|------|-----|-------|--------|--------|-------|-------|-------|--------|------|-----|-----|
| Do. | Hogs, small grains, corn | 1917 | 14 | 91 | 20,242 | 16,108 | 4,354 | 1,127 | 3,227 | 2,215 | | | 48 |
| Greene. | Hogs, cattle, wheat, dairy, poultry | 1914 | 30 | 247 | 18,022 | 14,843 | 2,254 | 1,039 | 1,215 | 911 | | | 48 |
| Harrison. | Dairy, poultry, wheat | 1917 | 18 | 92 | 5,143 | 3,533 | 2,413 | 1,413 | 911 | 654 | | | 48 |
| Hendricks. | Hogs, small grain, corn | 1917 | 13 | 132 | 19,606 | 15,165 | 4,856 | 1,516 | 3,340 | 2,360 | | | 72 |
| Henry. | Hogs, cattle, wheat | 1915 | 46 | 338 | 23,747 | 18,941 | 3,474 | 1,744 | 1,730 | 543 | 5.0 | 531 | 53 |
| Jefferson. | Dairy, poultry, small grains, tobacco | 1916 | 168 | 1,016 | 7,615 | 7,615 | 1,735 | 761 | 974 | 466 | | | 64 |
| Do. | do. | 1917 | 22 | 122 | 7,620 | 5,365 | 2,151 | 1,209 | 828 | 565 | | | 55 |
| Johnson. | Hogs, small grains, corn | 1917 | 20 | 149 | 25,850 | 23,490 | 6,559 | 1,694 | 4,865 | 3,573 | | | 125 |
| LaPorte. | Dairy, small grains | 1914 | 8 | 169 | 30,614 | 10,045 | 4,154 | 2,177 | 1,977 | 451 | | | 118 |
| Lawrence. | Hogs, cattle, wheat, dairy, poultry | 1914 | 15 | 175 | 18,242 | 15,230 | 3,124 | 2,294 | 1,830 | 82 | | | 51 |
| Do. | Cattle, hogs, dairy, horses, poultry, wheat | 1915 | 65 | 199 | 13,863 | 11,059 | 1,902 | 872 | 1,030 | 337 | 5.1 | 319 | 51 |
| Do. | Dairy, poultry, wheat | 1916 | 42 | 200 | 14,938 | 10,623 | 2,825 | 910 | 1,915 | 1,168 | | | 26 |
| Do. | do. | 1917 | 29 | 182 | 14,535 | 10,754 | 3,747 | 1,261 | 2,486 | 1,759 | | | 32 |
| Do. | do. | 1918 | 9 | 153 | 11,936 | 9,488 | 5,050 | 2,548 | 2,502 | 1,905 | | | 32 |
| Madison. | Hogs, corn, cattle, poultry, dairy | 1913 | 60 | 98 | 16,061 | 13,854 | 2,171 | 824 | 1,347 | 558 | | | 63 |
| Do. | Hogs, cattle, wheat, corn, horses, dairy | 1914 | 54 | 113 | 18,513 | 15,715 | 2,304 | 820 | 1,484 | | | | 59 |
| Do. | Hogs, corn, small grain | 1915 | 26 | 105 | 16,912 | 14,412 | 2,223 | 702 | 1,521 | 675 | | | 60 |
| Marion. | Lettuce, tomatoes, cucumbers | 1917 | 25 | 11 | 13,335 | 12,199 | 3,122 | 3,031 | 91 | 576 | -5.0 | 755 | 423 |
| Do. | do. | 1918 | 25 | 12 | 13,101 | 11,907 | 4,035 | 3,164 | 871 | 216 | 5 | 806 | 679 |
| Montgomery. | Hogs, corn, oats, cattle, wheat | 1915 | 77 | 151 | 25,969 | 23,084 | 2,849 | 889 | 1,960 | 665 | 6.0 | 397 | 62 |
| Do. | Hogs, corn, cattle, oats | 1916 | 42 | 167 | 29,847 | 25,835 | 4,325 | 1,274 | 3,051 | 1,559 | | | 23 |
| Do. | Hogs, corn, small grains | 1917 | 21 | 160 | 28,647 | 23,892 | 6,550 | 1,944 | 4,606 | 3,174 | | | 2 |
| Orange. | Dairy, wheat, hogs, poultry | 1917 | 22 | 167 | 13,884 | 10,784 | 3,642 | 1,392 | 2,250 | 1,556 | | | 43 |
| Pulaski. | Cattle, hogs, poultry, corn, wheat, dairy | 1914 | 62 | 137 | 13,827 | 11,585 | 1,715 | 832 | 883 | 1,192 | | | 108 |
| Do. | Cattle, hogs, wheat, corn, poultry, dairy | 1915 | 77 | 134 | 15,051 | 12,541 | 1,746 | 712 | 1,034 | 281 | 5.0 | 285 | 80 |
| Do. | Hogs, cattle, wheat, corn, poultry, dairy | 1916 | 70 | 138 | 16,570 | 13,635 | 2,041 | 761 | 1,280 | 482 | 5.2 | 256 | 64 |
| Do. | Small grains, dairy, hogs | 1917 | 59 | 154 | 17,877 | 13,547 | 3,521 | 994 | 2,527 | 1,633 | | | 36 |
| Spencer. | Dairy, hogs, wheat, cattle, poultry, hay | 1915 | 46 | 143 | 14,464 | 12,568 | 1,710 | 844 | 866 | 1,443 | 4.5 | 213 | 99 |
| Do. | Wheat, dairy, poultry | 1916 | 20 | 154 | 16,735 | 13,220 | 3,099 | 1,158 | 1,941 | 1,101 | | | 134 |
| Do. | do. | 1917 | 9 | 117 | 12,289 | 10,297 | 2,762 | 904 | 1,838 | 1,244 | | | 140 |
| Stark. | Small grains, dairy, poultry, truck | 1914 | 7 | 190 | 23,902 | 19,986 | 2,734 | 901 | 1,533 | 638 | | | 131 |
| Do. | Wheat, hogs, corn, oats, potatoes, cattle, dairy | 1915 | 59 | 150 | 17,426 | 15,044 | 1,666 | 825 | 841 | -30 | 2.7 | 304 | |
| Do. | Wheat, hogs, cattle, dairy, oats, corn | 1916 | 41 | 179 | 17,343 | 14,876 | 1,816 | 632 | 1,164 | 297 | 5.0 | 293 | 117 |
| Do. | Small grains, dairy, poultry, truck | 1917 | 22 | 142 | 17,414 | 14,163 | 2,162 | 1,139 | 1,343 | 472 | | | 159 |
| Sullivan. | Hogs, cattle, wheat | 1914 | 20 | 266 | 30,693 | 26,305 | 3,290 | 1,729 | 1,531 | 859 | | | 116 |
| Tippecanoe. | Small grains, cattle, hogs | 1919 | 74 | 207 | 55,600 | 49,971 | 6,566 | 2,947 | 3,619 | 2,330 | 5.4 | 609 | 271 |
| Do. | do. | 1920 | 82 | 229 | 58,121 | 52,936 | 4,082 | 3,595 | 2,330 | 2,330 | -2 | 671 | 261 |
| Do. | Hogs, wheat, cattle, oats, poultry, dairy | 1921 | 20 | 220 | 41,578 | 38,171 | 3,295 | 2,340 | 855 | -1,139 | -7 | 642 | 213 |
| Wabash. | Hogs, wheat, cattle, oats, poultry, dairy | 1915 | 53 | 129 | 23,423 | 20,108 | 2,403 | 1,006 | 1,367 | 226 | 4.2 | 420 | 66 |
| Do. | Hogs, cattle, corn, wheat, oats | 1916 | 49 | 128 | 22,990 | 19,380 | 2,994 | 729 | 2,265 | 1,115 | 8.3 | 367 | 44 |
| Do. | Hogs, cattle, small grains | 1917 | 40 | 122 | 21,444 | 18,076 | 4,142 | 1,051 | 3,091 | 2,019 | | | 44 |
| Washington. | Hogs, dairy, cattle, wheat, poultry | 1914 | 59 | 118 | 8,566 | 6,715 | 1,467 | 886 | 1,461 | 1,513 | | | 66 |

TABLE 652.—Farm business surveys: Summaries 71,515 of farm records from 45 localities in 45 States, 1907-1924.—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | | Re-captis | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farmer's labor | Other unpaid family labor |
|---|--|------------------------|----------------|---------------|---------|-------------|---------|-----------|-----------|-------------|--------------|-------------------|-----------------------------|----------------|---------------------------|
| | | | | | Total | Real estate | Dollars | | | | | | | | |
| Indiana—Continued. | | | | | | | | | | | | | | | |
| Washington. | Hogs, dairy, cattle, wheat, poultry, horses. | 1915 | 53 | 108 | 7,637 | 5,934 | 1,395 | 1,385 | 571 | 824 | 442 | | | Dollars | Dollars |
| Do. | Hogs, dairy, cattle, poultry, horses. | 1916 | 44 | 117 | 7,098 | 4,995 | 1,563 | 591 | 972 | 619 | | | | | 66 |
| Do. | Dairy, poultry, small grains. | 1917 | 30 | 103 | 7,489 | 6,030 | 2,491 | 789 | 1,722 | 1,348 | | | | | 40 |
| Wells. | Hogs, small grains, hay, dairy, poultry. | 1914 | 7 | 154 | 52,301 | 28,289 | 3,793 | 1,439 | 2,354 | 739 | | | | | 113 |
| Indiana and Michigan. | Onions, peppermint, livestock, hay, grain, celery. | 1914 | 100 | 114 | 16,910 | 14,668 | 3,183 | 1,265 | 1,918 | 1,072 | | 8.7 | | 448 | |
| Several counties, northern Indiana and southern Michigan. | | | | | | | | | | | | | | | |
| Iowa. | | | | | | | | | | | | | | | |
| Blackhawk. | Hogs, dairy, cattle, corn, oats. | 1914 | 67 | 163 | 38,641 | 34,416 | 3,175 | 934 | 2,241 | 309 | | 4.7 | | 420 | 114 |
| Do. | Hogs, dairy, cattle, oats. | 1915 | 54 | 167 | 40,842 | 35,840 | 2,647 | 1,337 | 2,630 | -412 | | 3.2 | | 323 | 97 |
| Blackhawk, Tama, and Grundy. | Cattle, hogs, corn, oats. | 1913 | 965 | 207 | 46,027 | 40,717 | 3,613 | 1,008 | 2,607 | 306 | | 4.8 | | 408 | 128 |
| Bremer and Fayette. | Dairy, hogs, poultry, cattle. | 1923 | 239 | 150 | 28,684 | 24,080 | 3,348 | 1,555 | 1,793 | 359 | | 3.3 | | 837 | 220 |
| Calhoun. | Corn, oats, hogs, cattle. | 1922 | 202 | 181 | 45,620 | 31,757 | 2,742 | 1,769 | 2,035 | -248 | | 2.6 | | 531 | 151 |
| Clay. | Hogs, cattle, oats, dairy, horses. | 1915 | 34 | 176 | 35,722 | 31,757 | 2,396 | 1,896 | 472 | 314 | | | | 824 | 80 |
| Do. | Hogs, corn, cattle, oats, dairy. | 1916 | 38 | 181 | 33,356 | 29,600 | 2,899 | 272 | 3,064 | 1,345 | | | | | |
| Dickinson. | Hogs, cattle, oats, corn. | 1915 | 223 | 223 | 33,135 | 29,883 | 2,893 | 1,049 | 1,673 | 115 | | 4.2 | | 265 | 100 |
| Emmet. | Hogs, oats, cattle, dairy. | 1913 | 57 | 240 | 30,573 | 26,179 | 2,819 | 1,159 | 1,980 | 2,470 | | | | 108 | 124 |
| Do. | Hogs, corn, oats, cattle. | 1916 | 60 | 183 | 35,302 | 31,753 | 2,961 | 1,682 | 1,590 | 804 | | | | 117 | 84 |
| Greene. | Corn, hogs, oats, cattle. | 1914 | 52 | 181 | 35,694 | 31,753 | 2,733 | 1,445 | 1,574 | 382 | | 4.0 | | 302 | 56 |
| Do. | Hogs, corn, cattle, oats. | 1916 | 52 | 181 | 35,694 | 31,753 | 2,733 | 1,445 | 1,574 | 382 | | 4.0 | | 302 | 56 |
| Greene and Guthrie. | Hogs, corn, cattle, oats. | 1910 | 227 | 158 | 25,897 | 20,908 | 2,494 | 922 | 2,472 | 1,196 | | 8.8 | | 347 | 70 |
| Harrison. | Hogs, cattle, corn. | 1916 | 63 | 147 | 25,897 | 20,908 | 2,494 | 922 | 2,472 | 1,196 | | 8.8 | | 347 | 70 |
| Henry. | Corn, hogs, cattle, oats. | 1915 | 41 | 168 | 35,195 | 32,435 | 2,435 | 1,035 | 2,463 | 785 | | | | 114 | 114 |
| Do. | Corn, hogs, oats, cattle. | 1916 | 41 | 168 | 35,195 | 32,435 | 2,435 | 1,035 | 2,463 | 785 | | | | 114 | 114 |
| Humboldt. | Hogs, corn, cattle, oats, poultry, dairy. | 1922 | 71 | 190 | 46,880 | 32,640 | 3,640 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Do. | Hogs, corn, cattle, oats, poultry, dairy. | 1923 | 41 | 189 | 46,880 | 32,640 | 3,640 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Do. | Hogs, cattle, corn, wheat. | 1915 | 55 | 189 | 46,880 | 32,640 | 3,640 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Montgomery. | Hogs, dairy. | 1922 | 169 | 190 | 34,849 | 32,430 | 2,430 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Pelt. | Hogs, cattle. | 1919 | 277 | 190 | 34,849 | 32,430 | 2,430 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Pottawatomie. | Hogs, cattle, wheat. | 1920 | 236 | 236 | 34,849 | 32,430 | 2,430 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Do. | Hogs, cattle, wheat. | 1921 | 236 | 236 | 34,849 | 32,430 | 2,430 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Do. | Hogs, cattle. | 1922 | 236 | 236 | 34,849 | 32,430 | 2,430 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Do. | Cattle, hogs. | 1923 | 68 | 236 | 34,849 | 32,430 | 2,430 | 1,089 | 2,570 | 1,890 | | 6.1 | | 392 | 122 |
| Scott. | Hogs, barley, cattle, corn. | 1915 | 158 | 158 | 31,183 | 28,022 | 2,997 | 1,273 | 2,705 | 331 | | 3.4 | | 567 | 187 |
| Do. | Hogs, cattle, barley, wheat. | 1916 | 50 | 154 | 46,440 | 35,960 | 3,500 | 1,253 | 2,247 | 102 | | | | 201 | 201 |
| Do. | Hogs, cattle, barley, wheat. | 1916 | 50 | 154 | 46,440 | 35,960 | 3,500 | 1,253 | 2,247 | 102 | | | | 201 | 201 |

| | 1919 | 19 | 5,158 | 3,611 | 3,295 | 1,621 | 1,674 | 1,416 | | | |
|---|------|-----|--------|--------|--------|-------|-------|-------|--|--|-----|
| Dairy, potatoes | 1919 | 19 | 5,158 | 3,611 | 3,295 | 1,621 | 1,674 | 1,416 | | | |
| do. | 1921 | 22 | 6,509 | 4,075 | 2,445 | 1,758 | 1,867 | 362 | | | |
| Dairy, poultry | 1922 | 20 | 6,305 | 4,066 | 2,146 | 1,503 | 1,683 | 328 | | | |
| do. | 1923 | 10 | 6,882 | 4,424 | 3,049 | 1,960 | 1,689 | 745 | | | |
| Piscataquis | 1921 | 29 | 6,884 | 4,914 | 2,009 | 1,804 | 1,708 | 361 | | | |
| do. | 1922 | 16 | 7,741 | 5,727 | 2,001 | 1,501 | 1,500 | 113 | | | |
| Dairy, potatoes | 1922 | 16 | 7,741 | 5,727 | 2,001 | 1,501 | 1,500 | 113 | | | |
| Dairy, poultry | 1922 | 20 | 5,662 | 4,062 | 1,737 | 1,175 | 1,562 | 279 | | | |
| Somerset | 1922 | 14 | 6,489 | 4,969 | 2,509 | 1,494 | 1,015 | 691 | | | |
| Dairy, lumber | 1923 | 21 | 7,688 | 5,230 | 3,284 | 2,178 | 1,106 | 713 | | | |
| Dairy, poultry | 1921 | 21 | 7,252 | 5,107 | 2,404 | 1,560 | 1,805 | 442 | | | |
| do. | 1922 | 21 | 7,252 | 5,107 | 2,404 | 1,560 | 1,805 | 442 | | | |
| do. | 1923 | 18 | 6,155 | 4,510 | 2,188 | 1,272 | 1,590 | 926 | | | |
| Maryland: | | | | | | | | | | | |
| Carroll and Frederick | 1918 | 94 | 27,595 | 20,519 | 7,502 | 3,048 | 1,654 | 1,054 | | | |
| Cattle, wheat, sugar corn, corn, poultry | 1914 | 239 | 16,783 | 13,756 | 2,963 | 1,461 | 1,022 | 783 | | | 108 |
| do. | 1915 | 140 | 20,247 | 16,428 | 2,713 | 1,333 | 1,380 | 368 | | | 102 |
| Truck crops, small fruits | 1916 | 152 | 26 | 5,539 | 1,743 | 1,043 | 700 | 408 | | | 57 |
| Washington, D. C. | | | | | | | | | | | |
| Massachusetts: | | | | | | | | | | | |
| Barnstable—Falmouth | 1921 | 14 | 5,324 | 4,929 | 2,105 | 951 | 1,154 | 888 | | | |
| Dorchester— | | | | | | | | | | | |
| Sheffield | 1920 | 39 | 177 | 15,452 | 10,739 | 3,737 | 2,801 | 936 | | | |
| do. | 1921 | 55 | 196 | 13,858 | 9,682 | 3,440 | 2,560 | 864 | | | |
| do. | 1922 | 48 | 190 | 13,406 | 9,522 | 3,600 | 2,609 | 991 | | | |
| do. | 1923 | 52 | 188 | 12,170 | 8,485 | 3,901 | 1,538 | 825 | | | |
| Hancock | 1923 | 23 | 260 | 8,056 | 5,783 | 2,942 | 1,711 | 828 | | | |
| do. | 1923 | 37 | 87 | 7,622 | 5,588 | 3,062 | 1,975 | 706 | | | 53 |
| Dairy, work of farm, poultry, truck crops, potatoes | 1913 | | | | | | | | | | |
| Dairy, poultry, work of farm, potatoes | 1914 | 75 | 8,101 | 5,773 | 2,670 | 1,795 | 875 | 470 | | | 57 |
| Dairy, work of farm, poultry, potatoes | 1915 | 42 | 90 | 9,278 | 6,317 | 3,075 | 1,522 | 659 | | | 76 |
| Dairy, poultry | 1921 | 12 | 12,413 | 10,125 | 3,537 | 2,730 | 1,107 | 486 | | | |
| Dairy, work of farm, apples, truck crops, poultry | 1914 | 90 | 118 | 9,601 | 7,093 | 2,548 | 1,660 | 888 | | | 102 |
| Dairy, work of farm, apples, poultry, truck crops | 1915 | 68 | 99 | 8,735 | 6,416 | 2,190 | 1,561 | 629 | | | 84 |
| Poultry, truck crops | 1921 | 9 | 14,338 | 11,931 | 5,716 | 3,918 | 1,768 | 1,081 | | | |
| Onions, tobacco, dairy, work of farm | 1914 | 57 | 109 | 16,552 | 4,678 | 3,187 | 1,491 | 663 | | | 117 |
| Dairy, apples | 1922 | 19 | 194 | 9,113 | 6,321 | 3,226 | 2,148 | 622 | | | |
| do. | 1923 | 19 | 164 | 9,571 | 6,354 | 4,028 | 2,432 | 1,117 | | | |
| Dairy, livestock | 1922 | 24 | 121 | 7,318 | 4,640 | 2,675 | 1,522 | 553 | | | |
| do. | 1923 | 26 | 185 | 7,425 | 4,819 | 2,394 | 1,523 | 841 | | | |
| do. | 1921 | 24 | 196 | 15,467 | 10,158 | 4,035 | 2,867 | 1,048 | | | |
| Shelburne | 1921 | 25 | 202 | 15,170 | 9,370 | 3,654 | 2,804 | 845 | | | |
| do. | 1922 | 23 | 202 | 14,053 | 8,524 | 4,675 | 3,205 | 87 | | | |
| Dairy, work of farm, cattle, poultry, potatoes | 1914 | 99 | 138 | 8,213 | 5,952 | 2,314 | 1,595 | 719 | | | 107 |
| do. | 1915 | 35 | 162 | 7,433 | 5,343 | 1,910 | 1,070 | 840 | | | 52 |
| Dairy, truck, crops | 1921 | 24 | 118 | 6,851 | 5,104 | 2,059 | 1,307 | 782 | | | |
| do. | 1922 | 23 | 128 | 7,267 | 5,313 | 2,504 | 1,532 | 908 | | | |
| Tobacco, onions | 1914 | 83 | 66 | 17,908 | 13,063 | 3,676 | 2,316 | 1,221 | | | 138 |
| Dairy | 1923 | 29 | 137 | 20,138 | 14,552 | 5,799 | 4,169 | 1,683 | | | 65 |
| Dairy, work of farm, apples, poultry | 1913 | 36 | 71 | 9,375 | 7,258 | 2,957 | 1,739 | 948 | | | |
| Dairy, apples | 1920 | 41 | 87 | 9,549 | 7,873 | 2,937 | 1,570 | 590 | | | |
| do. | 1921 | 39 | 88 | 9,956 | 7,852 | 1,792 | 1,602 | 308 | | | |

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | Re-ceipts | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm-er's family labor | Other unpaid family labor |
|--|---|------------------------|----------------|---------------|---------|-------------|-----------|-----------|-------------|--------------|-------------------|-----------------------------|------------------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| | | | Number | Acres | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Massachusetts—Continued. Middlesex—Continued. | Do. | 1922 | 38 | 94 | 10,101 | 8,145 | 2,689 | 1,922 | 76 | 283 | 2.9 | — | — | — |
| | Borboro | 1923 | 36 | 93 | 10,082 | 8,845 | 3,197 | 2,647 | 1,103 | 659 | 6.5 | — | — | — |
| | Do. | 1920 | 62 | 102 | 15,468 | 11,810 | 4,962 | 3,647 | 1,316 | 540 | 3.5 | — | — | — |
| | Littleton | 1921 | 59 | 95 | 16,630 | 12,014 | 4,960 | 3,457 | 1,508 | 683 | 4.2 | — | — | — |
| | Do. | 1922 | 53 | 103 | 16,108 | 12,742 | 4,960 | 3,457 | 1,508 | 683 | 4.2 | — | — | — |
| | Do. | 1922 | 47 | 108 | 15,442 | 12,130 | 3,705 | 3,705 | 1,817 | 1,046 | 6.3 | — | — | — |
| | Norfolk | 1915 | 20 | 93 | 8,600 | 6,657 | 2,643 | 1,829 | 814 | 1,227 | 2.9 | — | — | 36 |
| | Plymouth | 1921 | 29 | 22 | 8,334 | 6,073 | 4,349 | 2,705 | 1,644 | 1,227 | 2.9 | — | — | — |
| | Worcester | 1913 | 100 | 110 | 9,693 | 7,538 | 2,821 | 2,108 | 713 | 290 | 5.0 | — | — | 115 |
| | Do. | 1914 | 84 | 131 | 8,320 | 6,205 | 2,482 | 1,614 | 898 | 452 | 7.4 | — | — | 84 |
| Michigan: | Dairy, apples, work off farm, poultry, cattle. | 1915 | 36 | 120 | 9,347 | 6,933 | 2,834 | 1,665 | 1,139 | 672 | 7.4 | — | — | — |
| | Alpena | 1915 | 50 | 120 | 5,414 | 3,766 | 1,048 | 444 | 604 | 333 | 5.1 | — | — | 76 |
| | Branch | 1914 | 61 | 97 | 8,166 | 6,540 | 1,302 | 636 | 666 | 238 | 3.5 | — | — | 49 |
| | Do. | 1915 | 57 | 90 | 9,025 | 6,961 | 1,514 | 563 | 962 | 511 | 7.3 | — | — | 69 |
| | Gratiot | 1919 | 63 | 90 | 20,300 | 17,416 | 3,659 | 1,771 | 1,888 | 873 | 4.9 | — | — | 162 |
| | Iron | 1914 | 87 | 78 | 4,927 | 3,549 | 1,080 | 645 | 385 | 139 | .6 | — | — | 127 |
| | Jackson and Shiawassee | 1921 | 23 | 159 | 24,436 | 18,610 | 3,473 | 2,210 | 1,263 | 41 | — | — | — | — |
| | Kent | 1914 | 10 | 138 | 20,110 | 16,325 | 3,269 | 2,010 | 1,259 | 253 | 3.2 | — | — | 168 |
| | Lenawee | 1914 | 453 | 112 | 12,413 | 10,337 | 1,967 | 824 | 1,143 | 522 | 6.1 | — | — | 87 |
| | Do. | 1921 | 24 | 179 | 34,583 | 27,568 | 5,021 | 3,656 | 1,366 | — | — | — | — | 105 |
| Minnesota: | Sheep, hogs, cattle, wheat. | 1915 | 67 | 65 | 7,990 | 6,316 | 1,500 | 892 | 886 | 1,500 | — | — | — | — |
| | Livestock, crops. | 1915 | 21 | 197 | 16,692 | 13,043 | 2,902 | 2,040 | 862 | 27 | — | — | — | 116 |
| | Potatoes, apples, dairy. | 1921 | 96 | 71 | 7,501 | 5,993 | 1,141 | 557 | 584 | 209 | 4.0 | — | — | 122 |
| | Dairy, cattle, hogs, poultry, apples. | 1914 | 87 | 104 | 8,795 | 7,023 | 1,655 | 563 | 1,122 | 682 | 8.8 | — | — | 56 |
| | Dairy, beans, cattle, hogs, potatoes, wheat. | 1915 | 76 | 93 | 8,972 | 7,007 | 1,705 | 702 | 943 | 494 | 6.9 | — | — | 83 |
| | Beans, hogs, cattle, dairy, wheat, poultry, oats. | 1914 | 73 | 103 | 10,064 | 7,883 | 1,729 | 709 | 1,020 | 517 | 6.8 | — | — | 83 |
| | Cattle, hogs, dairy, beans, field beans, wheat. | 1915 | 54 | 101 | 10,784 | 9,107 | 1,580 | 657 | 982 | 398 | 5.5 | — | — | 64 |
| | Wheat, dairy, cattle, hogs, sheep, poultry. | 1915 | 54 | 101 | 10,784 | 9,107 | 1,580 | 657 | 982 | 398 | 5.5 | — | — | 64 |
| | St. Joseph | 1915 | 54 | 101 | 10,784 | 9,107 | 1,580 | 657 | 982 | 398 | 5.5 | — | — | 64 |
| | Do. | 1915 | 54 | 101 | 10,784 | 9,107 | 1,580 | 657 | 982 | 398 | 5.5 | — | — | 64 |

| | | | | | | | | | | | | |
|--|------|-----|-----|--------|--------|-------|-------|-------|-------|-----|-------|-----|
| Tuscola..... | 1914 | 190 | 98 | 10,660 | 8,882 | 1,773 | 695 | 1,078 | 545 | | | 87 |
| Do..... | 1919 | 94 | 100 | 17,376 | 13,871 | 3,725 | 2,008 | 1,717 | 848 | 3.6 | 1,099 | 46 |
| Wayne and Monroe..... | 1921 | 24 | 140 | 31,764 | 23,271 | 4,300 | 2,730 | 1,570 | -18 | | | |
| Michigan, Minnesota, and Wisconsin: Several counties of cut-over land in each State. | 1914 | 801 | 108 | 6,856 | | | | 392 | 49 | | | 168 |
| Minnesota: | | | | | | | | | | | | |
| Betrum..... | 1918 | 69 | 162 | 6,170 | 4,720 | 1,574 | 812 | 862 | 553 | | | 187 |
| Clay..... | 1913 | 69 | 254 | 14,197 | 12,324 | 1,918 | 758 | 1,130 | 380 | 5.0 | 392 | 175 |
| Do..... | 1914 | 66 | 264 | 15,448 | 12,529 | 1,922 | 744 | 1,178 | 408 | | | 140 |
| Do..... | 1916 | 58 | 254 | 16,176 | 13,528 | 2,524 | 944 | 1,580 | 771 | | | 133 |
| Do..... | 1916 | 45 | 246 | 16,169 | 13,309 | 3,656 | 943 | 2,713 | 1,905 | | | 182 |
| Crow Wing..... | 1915 | 34 | 147 | 7,780 | 5,901 | 1,055 | 402 | 653 | 264 | 3.8 | 365 | 92 |
| Do..... | 1916 | 22 | 162 | 8,859 | 6,309 | 1,337 | 610 | 827 | 384 | | | 106 |
| Dakota..... | 1913 | 60 | 217 | 27,650 | 19,332 | 2,320 | 986 | 1,334 | 202 | 4.5 | 325 | 131 |
| Do..... | 1914 | 51 | 200 | 20,995 | 17,919 | 2,371 | 899 | 1,472 | 422 | 5.2 | 376 | 114 |
| Do..... | 1915 | 20 | 200 | 22,141 | 18,690 | 2,371 | 952 | 1,419 | 312 | 4.5 | 415 | 65 |
| Grant..... | 1916 | 9 | 242 | 20,957 | 17,422 | 2,369 | 1,009 | 1,360 | 312 | | | 238 |
| Iowa: | | | | | | | | | | | | |
| Jackson..... | 1918 | 67 | 125 | 8,357 | 6,301 | 2,195 | 1,140 | 1,035 | 617 | | | 319 |
| Do..... | 1914 | 57 | 214 | 28,358 | 24,741 | 2,550 | 831 | 1,759 | 341 | | | 173 |
| Do..... | 1915 | 56 | 233 | 30,610 | 26,688 | 2,999 | 987 | 1,312 | -218 | | | 137 |
| Do..... | 1916 | 47 | 212 | 28,106 | 24,421 | 3,578 | 960 | 2,579 | 1,171 | | | 167 |
| Kandiyohi..... | 1914 | 43 | 203 | 22,866 | 18,690 | 2,467 | 1,043 | 1,454 | 311 | 4.7 | 389 | 246 |
| Laquei Park..... | 1915 | 38 | 251 | 27,128 | 23,845 | 3,020 | 946 | 2,074 | 718 | 6.2 | 404 | 119 |
| Do..... | 1916 | 29 | 290 | 20,117 | 24,658 | 3,405 | 1,034 | 2,375 | 919 | | | 100 |
| Malhomen..... | 1918 | 61 | 293 | 14,693 | 11,036 | 3,425 | 1,354 | 1,571 | 886 | | | 504 |
| Pope..... | 1914 | 64 | 232 | 17,442 | 14,691 | 1,870 | 769 | 1,101 | 229 | | | 123 |
| Do..... | 1915 | 62 | 233 | 18,249 | 15,046 | 2,004 | 861 | 1,143 | 231 | | | 79 |
| Do..... | 1916 | 50 | 301 | 25,263 | 21,729 | 2,125 | 1,066 | 1,059 | -204 | | | 203 |
| Renville..... | 1914 | 73 | 291 | 25,102 | 22,095 | 2,600 | 923 | 1,677 | 422 | 5.0 | 413 | 174 |
| Do..... | 1915 | 57 | 226 | 26,551 | 23,145 | 2,681 | 968 | 1,683 | 355 | 4.7 | 448 | 113 |
| Rice..... | 1911 | 104 | 168 | 16,996 | 14,091 | 2,255 | 1,011 | 1,244 | 394 | | | 243 |
| Do..... | 1912 | 401 | 137 | 14,181 | 11,969 | 1,655 | 633 | 1,022 | 313 | 5.1 | 209 | 116 |
| Do..... | 1914 | 50 | 301 | 25,263 | 21,729 | 2,125 | 1,066 | 1,059 | -204 | | | 203 |
| Stevens..... | 1915 | 50 | 288 | 25,202 | 22,018 | 3,012 | 1,120 | 1,862 | 632 | | | 130 |
| Do..... | 1916 | 18 | 286 | 25,511 | 21,774 | 2,160 | 1,248 | 912 | -364 | | | 136 |
| Traverse..... | 1914 | 70 | 130 | 10,974 | 8,235 | 1,339 | 591 | 969 | 435 | 6.0 | 332 | 122 |
| Do..... | 1915 | 47 | 138 | 11,415 | 8,714 | 1,913 | 668 | 1,245 | 674 | 7.6 | 373 | 78 |
| Washington..... | 1916 | 7 | 158 | 13,691 | 10,104 | 3,103 | 1,046 | 2,037 | 1,357 | | | 54 |

TABLE 652.—Farm business surveys: Summaries of 71,615 farm records from 435 localities in 45 States, 1907-1924—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | Re-ceipts | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm-er's labor | Other unpaid family labor |
|---------------------------------|--|------------------------|----------------|---------------|---------|-------------|-----------|-----------|-------------|--------------|-------------------|-----------------------------|-----------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| | | | Number | Acres | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Mississippi: | | | | | | | | | | | | | | |
| Coshoma | Cotton | 1914 | 106 | 983 | 71,259 | 62,908 | 15,500 | 11,759 | 3,741 | 178 | 3.9 | 935 | 44 | |
| Copiah | Tomatoes, cabbage | 1918 | 10 | 109 | 62,500 | 5,180 | 4,688 | 2,336 | 2,336 | 182 | 28.3 | 606 | 182 | |
| Do | Tomatoes, cabbage, carrots | 1919 | 91 | 121 | 5,915 | 4,109 | 3,100 | 2,133 | 1,787 | 1,491 | 25.7 | 263 | 279 | |
| Do | Tomatoes, cattle, cabbage, peas, dairy | 1920 | 5 | 97 | 6,039 | 3,540 | 1,728 | 946 | 782 | 642 | 2.8 | 642 | 84 | |
| Jones | Cotton, dairy, cattle, hogs, poultry | 1919 | 154 | 154 | 6,331 | 6,331 | 1,809 | 1,009 | 800 | 473 | 4.1 | 531 | 187 | |
| Lowndes | Cotton, corn, hay, cattle, work off farm | 1920 | 47 | 513 | 48,602 | 41,619 | 1,946 | 1,067 | -2,141 | -4,571 | -6.2 | 871 | 116 | |
| Madison | Cotton, corn, work off farm, cattle | 1920 | 45 | 336 | 23,340 | 18,748 | 2,507 | 3,121 | -614 | -1,781 | -5.5 | 663 | 136 | |
| Monroe | Cotton | 1919 | 48 | 152 | 11,902 | 10,210 | 2,154 | 1,251 | 903 | 308 | 3.6 | 477 | 237 | |
| Washington | do | 1919 | 29 | 280 | 57,072 | 49,135 | 8,560 | 6,627 | 1,933 | -921 | 1.8 | 885 | 158 | |
| Missouri: | | | | | | | | | | | | | | |
| Berry and Lawrence | Wheat, small fruits, cattle, horses, hogs, poultry | 1914 | 244 | 122 | 9,033 | 7,688 | 1,368 | 546 | 822 | 370 | 5.9 | 202 | 115 | |
| Monett | Hogs, wheat, cattle, poultry | 1913 | 69 | 118 | 15,767 | 13,834 | 1,547 | 775 | 772 | -16 | | | 55 | |
| Jackson | Hogs, cattle, wheat | 1912 | 669 | 138 | 11,531 | 9,469 | 1,841 | 842 | 909 | 422 | | | 60 | |
| Johnson | Hogs, cattle, wheat, corn | 1915 | 44 | 194 | 29,697 | 25,196 | 4,156 | 2,827 | 1,329 | -156 | | | 252 | |
| Saline | Cattle, hogs, wheat, dairy, poultry, horses | 1917 | 79 | 206 | 7,603 | 5,425 | 1,563 | 669 | 884 | 514 | 6.0 | 440 | | |
| Several counties, Ozark region. | | | | | | | | | | | | | | |
| Montana: | | | | | | | | | | | | | | |
| Blaine | Wheat | 1920 | 29 | 529 | 8,942 | 6,687 | 1,648 | 1,326 | 322 | -125 | | | 249 | |
| Do | do | 1921 | 27 | 572 | 9,298 | 7,403 | 1,490 | 688 | 802 | 337 | | | 81 | |
| Do | do | 1922 | 27 | 613 | 9,150 | 7,210 | 1,892 | 922 | 070 | 512 | | | 42 | |
| Chocoma | do | 1920 | 28 | 544 | 22,970 | 19,592 | 4,435 | 2,834 | 1,601 | 483 | | | 227 | |
| Do | do | 1921 | 30 | 557 | 24,731 | 21,655 | 5,086 | 1,868 | 3,218 | 1,062 | | | 124 | |
| Do | do | 1922 | 25 | 605 | 20,644 | 18,118 | 2,641 | 1,500 | 1,141 | 109 | | | 72 | |
| Do | do | 1915 | 20 | 21 | 241 | | 3,737 | 2,468 | 1,269 | 207 | | | | |
| Custer | Cattle, alfalfa | 1915 | 66 | 448 | 10,776 | 8,415 | 1,688 | 928 | 760 | 221 | 9 | 353 | 664 | 66 |
| Custer and Dawson | Wheat, cattle, hogs | 1922 | 62 | 415 | 12,612 | 9,729 | 3,266 | 1,879 | 1,387 | 756 | 6.4 | 313 | 581 | 89 |
| Danville and Sheridan | Wheat | 1921 | 61 | 421 | 12,838 | 10,193 | 3,330 | 1,803 | 1,512 | 870 | 7.2 | 317 | 594 | 100 |
| Do | do | 1922 | 55 | 421 | 13,197 | 10,193 | 3,017 | 1,077 | 1,940 | 1,280 | | | | |
| Dawson | Wheat, flax, cattle, oats | 1915 | 41 | 715 | 32,479 | 28,076 | 4,924 | 2,640 | 2,884 | 660 | 5.1 | 641 | | 231 |
| Pergus | Wheat, cattle | 1913 | 64 | 234 | 16,598 | 13,426 | 1,826 | 1,005 | 821 | -4 | 1.9 | 503 | 161 | 161 |
| Fairhead | Hogs, wheat, cattle, dairy, oats, hay | 1914 | 22 | 222 | 18,305 | 15,087 | 2,524 | 1,731 | 793 | -122 | | 700 | 216 | 216 |
| Do | Dairy | 1921 | 186 | 260 | 27,173 | 23,252 | 3,767 | 1,382 | 2,185 | 826 | 6.2 | 500 | 112 | 112 |
| Do | Oats, peas, hay, barley, wheat, cattle, hogs | 1913 | | | | | | | | | | | | |
| Do | Wheat, peas, hay, cattle, oats, hogs | 1918 | 70 | 259 | 32,665 | 28,367 | 5,937 | 2,476 | 3,461 | 1,828 | 8.2 | 769 | 292 | 292 |
| Do | Wheat, hay, cattle, peas | 1919 | 80 | 251 | 43,703 | 37,894 | 5,003 | 3,112 | 1,991 | -294 | 1.9 | 1,081 | 317 | 317 |
| Do | Wheat, peas, hay, oats, cattle | 1920 | 77 | 254 | 42,906 | 37,587 | 3,917 | 3,440 | 1,477 | -1,668 | -1.5 | 1,116 | 263 | 263 |
| Do | Wheat, cattle, hay, peas, hogs, oats | 1921 | 57 | 249 | 34,999 | 30,578 | 2,997 | 2,165 | 832 | -918 | -1 | 1,866 | 253 | 253 |
| Do | Wheat, cattle, hay, peas, hogs | 1922 | 80 | 253 | 33,307 | 29,628 | 4,273 | 2,371 | 1,902 | 237 | 2.9 | 947 | 191 | 191 |

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924.—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms in-cluded | Size of farms | Capital | | Re-cipients | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm-er's labor | Other unpaid family labor |
|-------------------------|---|------------------------|-----------------|---------------|----------------|---------------|-------------|-------------|-------------|--------------|-------------------|-----------------------------|-----------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| Nebraska—Continued. | | | | | | | | | | | | | | |
| Thomas | Cattle | 1915 | 67 | 1,369 | Dollars 11,838 | Dollars 1,260 | Dollars 569 | Dollars 691 | Dollars 99 | | | | | |
| Thurston | Corn, hogs, cattle, oats | 1914 | 55 | 212 | 24,380 | 21,634 | 3,690 | 2,634 | 1,405 | | | | | 65 |
| Do | do | 1915 | 50 | 220 | 24,716 | 2,406 | 1,071 | 1,335 | 99 | | | | | |
| Valley | Crops, livestock | 1923 | 26 | 223 | 23,422 | 2,807 | 2,807 | 1,860 | 189 | | | | | |
| Do | do | 1924 | 28 | 230 | 13,645 | 2,403 | 1,151 | 1,252 | 570 | | | | | |
| New Hampshire. | | | | | | | | | | | | | | |
| Belknap | Dairy | 1914 | 56 | | 5,742 | 1,299 | 828 | 471 | 184 | | | | | |
| Do | do | 1915 | 55 | | 6,096 | 1,203 | 718 | 485 | 180 | | | | | |
| Do | Dairy, poultry | 1919 | 36 | | 6,796 | 4,571 | 2,155 | 801 | 461 | | | | | |
| Cheshire | Dairy, cattle, work off farm, poultry | 1914 | 65 | 194 | 7,556 | 5,443 | 1,840 | 631 | 253 | | 2.3 | | 457 | 52 |
| Do | Dairy | 1915 | 51 | | 8,598 | | | 716 | 286 | | | | | |
| Do | Dairy, poultry | 1919 | 29 | | 6,704 | 4,142 | 3,168 | 1,184 | 849 | | | | | |
| Oregon. | | | | | | | | | | | | | | |
| Colebrook | Dairy, cattle, work off farm, potatoes | 1914 | 75 | 236 | 8,201 | 5,333 | 2,105 | 883 | 473 | | 5.1 | | 461 | 68 |
| Do | Dairy | 1915 | 59 | | 7,825 | 1,956 | 1,956 | 705 | 1,251 | 860 | | | | |
| Do | do | 1919 | 34 | | 7,791 | 4,832 | 3,118 | 1,824 | 1,294 | 904 | | | | |
| Grafton | Dairy, cattle, woodland, work off farm | 1914 | 84 | 200 | 7,105 | 4,591 | 1,922 | 1,184 | 738 | 383 | 4.0 | | 452 | 100 |
| Do | Dairy | 1915 | 62 | | 9,428 | 2,454 | 2,454 | 1,320 | 849 | | | | | |
| Do | do | 1918 | 35 | | 8,547 | 3,866 | 2,390 | 1,406 | 1,069 | | | | | |
| Do | do | 1919 | 44 | | 7,951 | 4,004 | 3,642 | 2,187 | 1,455 | 1,057 | | | | |
| Do | do | 1921 | 27 | | 9,414 | 4,915 | 4,029 | 2,774 | 1,255 | 784 | | | | |
| Hillsboro | Dairy, poultry, apples, work off farm, woodland, cattle | 1908 | 296 | 108 | 6,350 | 4,124 | 1,582 | 978 | 604 | 337 | 5.7 | | 300 | 50 |
| Do | Dairy, poultry, apples, peaches, hay | 1913 | 65 | 131 | 8,840 | 6,468 | 3,353 | 2,180 | 1,173 | 731 | 6.5 | | 597 | 109 |
| Do | Dairy, poultry, apples, cattle | 1918 | 19 | | 6,960 | 3,924 | 3,924 | 2,616 | 1,308 | 960 | | | | |
| Do | Dairy, poultry, apples | 1918 | 136 | 129 | 7,180 | 5,104 | 2,576 | 1,807 | 769 | 410 | .3 | | 751 | 116 |
| Do | Dairy, poultry | 1919 | 25 | | 6,929 | 4,641 | 4,097 | 2,703 | 1,994 | 1,648 | | | | |
| Merrimac | Dairy | 1909 | 428 | 174 | 6,151 | 4,404 | 4,319 | 866 | 573 | 265 | | | | |
| Do | Dairy, cattle, poultry, work off farm | 1913 | 73 | 193 | 6,653 | 4,860 | 2,294 | 1,559 | 735 | 387 | 4.4 | | 428 | 70 |
| Do | Dairy | 1915 | 60 | | 6,470 | | 1,783 | 1,198 | 566 | 271 | | | | 127 |
| Do | Dairy, cattle | 1916 | 48 | | 6,504 | | 2,078 | 1,183 | 855 | 560 | | | | |
| Do | Dairy, poultry | 1919 | 33 | | 6,720 | 4,184 | 3,677 | 2,393 | 1,184 | 848 | | | | |
| Rockingham | Dairy | 1914 | 54 | | 8,387 | | | 788 | 374 | | | | | |
| Do | do | 1915 | 45 | | 8,639 | | 2,591 | 1,462 | 1,129 | 607 | | | | |
| Do | do | 1919 | 31 | | 6,975 | 4,761 | 3,881 | 2,337 | 1,541 | 1,195 | | | | |
| Sullivan | Dairy, cattle, work off farm, poultry | 1914 | 95 | 202 | 7,133 | 5,052 | 1,760 | 1,066 | 694 | 337 | 3.2 | | 465 | 98 |
| Do | Dairy | 1915 | 51 | | 7,984 | | 1,719 | 868 | 821 | 428 | | | | |
| Do | do | 1918 | 61 | | 6,175 | | 2,616 | 1,548 | 1,068 | 759 | | | | |

TABLE 652.—Farm-business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | Re- ceipts | Ex- penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm- er's labor | Other unpaid family labor |
|----------------------------|---|------------------------|----------------|---------------|---------|----------------|---------------|---------------|----------------|-----------------|-------------------------|---|------------------------|------------------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| New York—Continued. | | | | | | | | | | | | | | |
| Cortland | Grade A milk, cabbage, potatoes, cattle | 1921 | 168 | 19,261 | 13,681 | 7,018 | 4,983 | 2,025 | 1,065 | 334 | 6.2 | 428 | 385 | 428 |
| Dutchess | Milk, cattle, eggs, hay, apples | 1914 | 66 | 192 | 14,375 | 10,629 | 2,746 | 1,483 | 1,544 | 53 | 6.1 | 385 | 345 | 53 |
| Do. | do. | 1915 | 46 | 156 | 12,404 | 9,443 | 2,383 | 1,259 | 1,104 | 25 | 484 | 345 | 25 | 25 |
| Franklin | Milk, cattle, potatoes, hay | 1914 | 21 | 139 | 11,590 | 8,742 | 2,263 | 1,403 | 860 | 280 | 3.6 | 440 | 440 | 0 |
| Hertford | Milk, butter, cattle | 1915 | 68 | 139 | 7,722 | 5,262 | 1,495 | 672 | 673 | 287 | 2.6 | 472 | 166 | 166 |
| Do. | Milk, butter, cattle, hay | 1915 | 37 | 135 | 7,630 | 5,191 | 1,460 | 874 | 786 | 404 | 4.8 | 420 | 120 | 120 |
| Jefferson | Milk, hay, cattle | 1910 | 670 | 143 | 9,096 | 6,839 | 1,851 | 791 | 1,060 | 610 | 7.9 | 344 | 96 | 67 |
| Do. | Hay, milk, cattle, gas | 1914 | 172 | 132 | 10,258 | 1,964 | 610 | 1,354 | 683 | 0.4 | — | 504 | 67 | 0 |
| Do. | China factory milk, cattle, eggs | 1921 | 67 | 203 | 13,909 | 10,601 | 2,002 | 1,681 | 321 | -374 | -1.4 | 520 | 423 | 67 |
| Livingston | Milk, beans, cattle, wheat, potatoes, hay | 1906 | 149 | 12,037 | 9,516 | 2,457 | 1,189 | 1,268 | 666 | — | 6.9 | 438 | 67 | 0 |
| Do. | do. | 1918 | 697 | 147 | 18,859 | 14,818 | 4,258 | 3,100 | 1,158 | 215 | 3.1 | 582 | 232 | 232 |
| Madison | Grade B milk, cattle, alfalfa, peas | 1921 | 125 | 141 | 15,371 | 11,030 | 4,278 | 3,281 | 1,907 | 228 | 1.8 | 720 | 389 | 389 |
| Do. | do. | 1922 | 108 | 145 | 15,588 | 11,345 | 3,692 | 2,914 | 783 | 4 | — | 701 | 377 | 377 |
| Do. | Grade B milk, peas, cabbage, cattle | 1921 | 121 | 167 | 16,586 | 11,059 | 3,682 | 1,180 | 321 | — | 2.2 | 783 | 270 | 270 |
| Do. | do. | 1922 | 88 | 151 | 16,080 | 10,918 | 4,556 | 3,714 | 836 | 32 | 6 | 743 | 255 | 255 |
| Do. | do. | 1923 | 98 | 163 | 15,546 | 10,476 | 5,516 | 4,356 | 1,160 | 383 | 2.2 | 814 | 236 | 236 |
| Monroe | Potatoes, wheat, milk, butter, cabbage | 1914 | 100 | 108 | 15,359 | 12,798 | 2,291 | 1,293 | 1,068 | 200 | 4.0 | 360 | 158 | 158 |
| Do. | do. | 1915 | 104 | 134 | 15,734 | 12,889 | 2,294 | 1,284 | 1,170 | 615 | 8.9 | 344 | 188 | 188 |
| Montgomery | Milk, cattle, hay | 1914 | 77 | 135 | 11,104 | 7,629 | 2,000 | 1,064 | 1,140 | 647 | 6.9 | 409 | 205 | 205 |
| Do. | do. | 1915 | 72 | 135 | 10,890 | 7,629 | 2,000 | 1,064 | 1,140 | 647 | 6.9 | 440 | 219 | 219 |
| Nassau | Potatoes, sweet corn, cabbage, carrots | 1914 | 84 | 70 | 18,293 | 13,360 | 6,479 | 3,846 | 1,508 | 843 | 7.1 | 445 | 361 | 361 |
| Do. | do. | 1915 | 27 | 70 | 18,777 | 13,763 | 6,065 | 3,646 | 1,093 | 1,215 | 8.4 | 458 | 502 | 502 |
| Niagara | Apples, peaches, tomatoes, pears | 1915 | 89 | 73 | 18,397 | 16,233 | 3,068 | 2,126 | 1,093 | 1,093 | 9.4 | 407 | 106 | 106 |
| Do. | do. | 1914 | 98 | 72 | 18,397 | 16,233 | 3,068 | 2,126 | 1,093 | 1,093 | 9.4 | 427 | 137 | 137 |
| Do. | do. | 1915 | 81 | 74 | 18,331 | 13,883 | 3,376 | 1,686 | 1,580 | — | — | 447 | 147 | 147 |
| Do. | do. | 1916 | 87 | 66 | 15,322 | 13,481 | 2,460 | 1,409 | 1,051 | 285 | 4.0 | 439 | 119 | 119 |
| Do. | do. | 1917 | 113 | 62 | 15,068 | 13,073 | 3,288 | 2,008 | 1,287 | 534 | 5.6 | 448 | 133 | 133 |
| Do. | do. | 1918 | 139 | 70 | 14,902 | 12,824 | 3,098 | 2,127 | 1,573 | 823 | 7.6 | 508 | 118 | 118 |
| Do. | do. | 1919 | 156 | 74 | 14,994 | 12,745 | 3,355 | 2,056 | 1,319 | 569 | 4.6 | 629 | 133 | 133 |
| Do. | do. | 1920 | 178 | 72 | 17,474 | 13,025 | 3,916 | 2,283 | 1,411 | 987 | 2.2 | 750 | 226 | 226 |
| Do. | do. | 1921 | 171 | 68 | 16,722 | 14,945 | 3,257 | 2,031 | 1,374 | 344 | 2.7 | 651 | 168 | 168 |
| Do. | do. | 1922 | 178 | 67 | 17,664 | 13,776 | 3,188 | 2,031 | 1,374 | 344 | 2.7 | 651 | 168 | 168 |
| Do. | do. | 1923 | 194 | 64 | 16,441 | 14,496 | 2,928 | 2,279 | 1,256 | — | — | 680 | 159 | 159 |
| Do. | do. | 1924 | 202 | 65 | 17,104 | 13,194 | 3,622 | 2,256 | 1,256 | — | — | 680 | 159 | 159 |
| Oneida | Milk, potatoes, apples, hops, hay | 1914 | 62 | 106 | 11,072 | 8,274 | 2,864 | 1,771 | 1,148 | 594 | 6.1 | 718 | 164 | 164 |
| Do. | do. | 1915 | 88 | 101 | 10,689 | 7,878 | 2,864 | 1,771 | 1,148 | 594 | 7.3 | 478 | 202 | 202 |
| Orange | Milk, eggs, cattle | 1915 | 71 | 122 | 10,934 | 7,374 | 2,112 | 1,345 | 1,345 | 320 | 4.3 | 440 | 200 | 200 |
| Oswego | do. | 1915 | 102 | 83 | 7,462 | 5,408 | 1,553 | 767 | 786 | 412 | 5.4 | 373 | 141 | 141 |
| Do. | do. | 1916 | 35 | 78 | 7,309 | 4,882 | 1,952 | 1,029 | 923 | 558 | 6.1 | 385 | 87 | 87 |

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924.—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms, Acres | Capital | | Re-ceipts | Ex-pense | Farm income | Labor income | Return to capital | Family living from the farm | Farm-er's labor | Other unpaid family labor |
|-------------------------|--|------------------------|----------------|----------------------|---------|-------------|-----------|----------|-------------|--------------|-------------------|-----------------------------|-----------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| Ohio—Continued. | | | Number | | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Highland..... | Hogs, wheat, cattle, poultry, dairy | 1915 | 81 | 137 | 14,196 | 11,662 | 2,186 | 891 | 1,265 | 585 | 6.9 | 317 | 317 | 39 |
| Do..... | Hogs, dairy, wheat, poultry | 1923 | 15 | | 13,570 | 11,600 | 2,307 | 1,124 | 1,183 | 499 | | | | 44 |
| Hooking..... | Dairy, hay, poultry, wheat, hogs | 1921 | 58 | | 12,145 | 9,337 | 2,006 | 1,524 | 482 | 126 | | | | 17 |
| Huron..... | Wheat, hogs, dairy, sheep, poultry | 1917 | 58 | | 18,677 | 15,526 | 4,018 | 1,653 | 2,422 | 2,422 | | | | 188 |
| Do..... | do..... | 1918 | 33 | | 15,904 | 12,255 | 4,314 | 1,665 | 2,649 | 1,554 | | | | 149 |
| Do..... | do..... | 1919 | 28 | | 16,301 | 13,090 | 4,729 | 1,687 | 3,042 | 2,227 | | | | 111 |
| Do..... | Wheat, dairy, hogs, sheep, poultry | 1920 | 26 | | 19,862 | 15,032 | 3,365 | 2,327 | 868 | 125 | | | | 148 |
| Do..... | do..... | 1921 | 23 | | 17,122 | 13,116 | 2,766 | 2,168 | 1,559 | 464 | | | | 131 |
| Do..... | Dairy, wheat, hogs, sheep, poultry | 1922 | 18 | | 17,003 | 12,578 | 3,436 | 2,019 | 1,277 | 567 | | | | 100 |
| Do..... | do..... | 1923 | 19 | | 11,857 | 9,672 | 2,501 | 1,229 | 1,272 | 679 | | | | 68 |
| Lake..... | Dairy, fruit, truck, poultry | 1916 | 80 | | 16,822 | 12,786 | 4,436 | 1,564 | 2,872 | 2,081 | | | | 132 |
| Lorain..... | Hogs, poultry, dairy, wheat | 1917 | 62 | | 14,732 | 11,759 | 2,529 | 1,265 | 1,264 | 527 | | | | 40 |
| Mercer..... | Tobacco, dairy, corn, hogs, wheat, poultry, cattle | 1923 | 15 | | 12,639 | 10,961 | 1,663 | 1,574 | 1,119 | 487 | 6.5 | | 301 | 90 |
| Mifflin..... | do..... | 1914 | 106 | 79 | | | | | | | | | | 94 |
| Montgomery..... | Hogs, dairy, wheat, tobacco, cattle, poultry | 1915 | 100 | 97 | 12,967 | 10,944 | 2,014 | 794 | 1,220 | 572 | 6.7 | | 354 | |
| Morgan and Noble..... | Sheep, cattle, poultry, dairy | 1922 | 51 | | 11,913 | 9,377 | 1,735 | 738 | 997 | 401 | | | 928 | 17 |
| Paulding..... | Sugar beets, corn, oats, wheat, hogs | 1919 | 48 | 126 | 35,298 | 32,314 | 4,848 | 1,992 | 2,816 | 1,061 | 5.3 | | 318 | 240 |
| Portage..... | Dairy, cattle, hogs, wheat, poultry, potatoes, corn, off farm, truck | 1914 | 67 | 99 | 8,367 | 6,965 | 1,158 | 631 | 2,627 | 209 | 8.8 | | | 58 |
| Do..... | Dairy, wheat, potatoes, poultry, hogs | 1915 | 54 | | 8,364 | 6,929 | 1,401 | 632 | 769 | 351 | | | 351 | 81 |
| Sandusky..... | Hogs, wheat, oats, dairy, corn, cattle, poultry | 1915 | 84 | 124 | 17,469 | 13,127 | 2,255 | 715 | 1,540 | 667 | 6.8 | | | 60 |
| Scioto..... | Dairy, wheat, hogs, truck, potatoes | 1918 | 31 | | 10,391 | 7,974 | 2,644 | 1,299 | 1,545 | 1,025 | | | | 149 |
| Do..... | do..... | 1919 | 38 | | 10,515 | 10,144 | 2,250 | 1,327 | 1,223 | 1,307 | | | | 91 |
| Do..... | do..... | 1920 | 40 | | 12,661 | 9,002 | 2,572 | 1,685 | 887 | 254 | | | | 63 |
| Do..... | Dairy, hogs, wheat, truck, poultry | 1921 | 33 | | 13,432 | 10,101 | 2,257 | 1,919 | 338 | 234 | | | | 110 |
| Do..... | Dairy, hogs, wheat, poultry, truck | 1922 | 28 | | 12,466 | 9,448 | 2,414 | 1,367 | 827 | 294 | | 579 | | 96 |
| Do..... | do..... | 1923 | 25 | | 13,008 | 10,167 | 2,559 | 1,114 | 936 | 283 | | | | 76 |
| Shelby..... | Hogs, dairy, wheat, poultry, cattle | 1919 | 11 | | 23,890 | 19,315 | 4,633 | 1,890 | 2,503 | 1,406 | | | | 243 |
| Do..... | Hogs, dairy, wheat, poultry, oats | 1920 | 11 | | 23,890 | 19,315 | 4,633 | 2,110 | 2,093 | 506 | | | | 243 |
| Do..... | Hogs, dairy, wheat, poultry, cattle | 1921 | 11 | | 24,000 | 19,326 | 2,527 | 3,528 | 1,656 | 1,656 | | | | 98 |
| Do..... | do..... | 1922 | 11 | | 22,914 | 17,328 | 2,716 | 1,006 | 1,006 | 1,006 | | | | 186 |
| Do..... | do..... | 1923 | 7 | | 21,722 | 17,324 | 3,259 | 1,574 | 1,691 | 1,691 | | | | 21 |
| Summit..... | Dairy, wheat, potatoes, poultry, hogs | 1918 | 60 | | 11,366 | 6,538 | 2,503 | 833 | 1,689 | 844 | | | | 66 |
| Trumbull..... | Dairy, cattle, poultry, work off farm | 1914 | 90 | 112 | 8,346 | 6,538 | 1,201 | 944 | 699 | 201 | 4.0 | | 334 | 78 |
| Do..... | do..... | 1915 | 38 | | 8,103 | 7,163 | 1,510 | 1,510 | 1,510 | 1,510 | | | | 78 |
| Warren..... | Hogs, dairy, poultry, wheat | 1923 | 17 | | 14,207 | 11,800 | 3,120 | 1,362 | 1,738 | 1,046 | | | | |

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | Re-cipients | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm-er's labor | Other unpaid family labor |
|--|---|------------------------|----------------|---------------|---------|-------------|-------------|-----------|-------------|--------------|-------------------|-----------------------------|-----------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| | | | Number | Acres | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Oregon—Continued. Lane..... | Dairy, hay, hogs, cattle, hogs, oats, wheat, work off farm. | 1914 | 98 | 119 | 15,726 | 13,494 | 1,573 | 878 | 685 | -91 | 1.1 | 321 | 84 | |
| | Dairy, wheat, hay, hogs, work off farm, cattle, oats, hogs. | 1915 | 45 | 138 | 15,962 | 13,998 | 1,966 | 939 | 1,027 | 229 | 2.9 | 557 | 75 | |
| | Oats, hogs, wheat, dairy, potatoes, poultry, clover seed. | 1912 | 367 | 150 | 18,012 | 16,180 | 2,207 | 960 | 1,247 | 346 | 5.0 | 344 | 102 | |
| | Hogs, alfalfa, work off farm, dairy, cattle, clover, seed, wheat. | 1915 | 44 | 97 | 16,344 | 13,963 | 2,904 | 1,195 | 1,709 | 882 | 6.5 | 651 | 69 | |
| | Hay, alfalfa..... | 1919 | 62 | 67 | 15,605 | 13,958 | 3,501 | 1,826 | 1,675 | 895 | | | | |
| Do..... | do..... | 1920 | 78 | 71 | 16,881 | 15,380 | 2,054 | 1,974 | 80 | 784 | | | | |
| | do..... | 1921 | 84 | 109 | 13,446 | 14,470 | 2,827 | 1,857 | -20 | -944 | | | | |
| | do..... | 1922 | 93 | 69 | 13,946 | 14,470 | 2,347 | 1,982 | 365 | | | | | |
| | do..... | 1923 | 93 | 63 | 8,998 | 11,909 | 1,985 | 1,588 | 397 | -53 | | | | |
| | Prunes..... | 1923 | 22 | 114 | 29,519 | 30,550 | 3,700 | 4,242 | -533 | -2,159 | -5.0 | 1,068 | 171 | |
| Polk..... | do..... | 1924 | 25 | 130 | 31,820 | 30,176 | 3,022 | 3,224 | 1,798 | 207 | 3.7 | 612 | 130 | |
| | Wheat..... | 1920 | 114 | 996 | 41,200 | 52,559 | 13,082 | 7,761 | 5,321 | 2,261 | 6.7 | 644 | 164 | |
| | do..... | 1921 | 112 | 1,042 | 64,635 | 57,393 | 11,509 | 6,964 | 4,545 | 1,213 | 5.2 | 548 | 192 | |
| | do..... | 1922 | 132 | 1,074 | 59,550 | 52,673 | 6,909 | 5,960 | 949 | -2,029 | 3.9 | 513 | 158 | |
| | Wheat, work off farm..... | 1915 | 104 | 86 | 30,484 | 18,296 | 2,277 | 5,980 | 1,297 | 323 | 3.8 | 535 | 106 | |
| Tillamook..... | Dairy, cattle..... | 1913 | 104 | 86 | 30,519 | 18,296 | 2,277 | 5,980 | 1,297 | 323 | 3.8 | 535 | 106 | |
| | Prunes..... | 1923 | 25 | 99 | 22,459 | 20,600 | 4,069 | 2,612 | 1,457 | 334 | 3.6 | 980 | 104 | |
| | do..... | 1924 | 25 | 99 | 22,459 | 20,600 | 4,069 | 2,612 | 1,457 | 334 | 3.6 | 980 | 104 | |
| | Wheat, dairy, hogs, clover seed, oats, cattle, hay..... | 1915 | 93 | 189 | 19,920 | 17,663 | 2,306 | 901 | 1,405 | 409 | 4.9 | 434 | 82 | |
| | do..... | 1914 | 202 | 135 | 5,493 | 3,632 | 1,287 | 656 | 631 | 356 | | | | |
| Pennsylvania: Bradford..... | Dairy, cattle..... | 1914 | 502 | 94 | 10,860 | 8,344 | 2,418 | 1,030 | 1,398 | 845 | 9.7 | 335 | 97 | |
| | do..... | 1911 | 27 | 79 | 12,893 | 10,501 | 5,166 | 2,857 | 3,067 | 1,664 | 14.7 | 408 | 88 | |
| | Mushrooms, dairy, flowers, hay..... | 1921 | 389 | 101 | 16,251 | 12,745 | 3,804 | 2,821 | 983 | 1,170 | 2.6 | 550 | 223 | |
| | do..... | 1922 | 37 | 58 | 15,849 | 13,832 | 6,711 | 5,172 | 1,539 | 747 | 6.9 | 657 | 501 | |
| | Mushrooms..... | 1922 | 349 | 101 | 7,644 | 5,785 | 1,240 | 5,573 | 667 | 285 | 4.4 | 334 | 83 | |
| Mercer—Grove City..... | Dairy, cattle, poultry, hogs..... | 1916 | 51 | 118 | 13,583 | 8,382 | 5,079 | 4,065 | 984 | 305 | 1.1 | 501 | 145 | |
| | Dairy, work off farm, poultry..... | 1920 | 84 | 129 | 14,684 | | 4,635 | 4,026 | 609 | -125 | | 666 | 113 | |
| | Dairy, poultry, work off farm, potatoes, Market garden crops..... | 1921 | 26 | | 20,859 | | 4,635 | | 2,085 | 1,042 | | | | |
| | do..... | 1922 | | | | | | | | | | | | |
| | do..... | 1923 | | | | | | | | | | | | |
| Rhode Island: Several counties..... | Cotton..... | 1914 | 112 | 136 | 8,940 | 7,748 | 1,178 | 957 | 221 | -226 | -5 | 264 | 138 | |
| | do..... | 1918 | 89 | 95 | 10,471 | 9,352 | 2,823 | 1,209 | 1,614 | 1,080 | 9.6 | 607 | 245 | |
| | do..... | 1919 | 73 | 90 | 12,639 | 10,671 | 3,448 | 1,813 | 1,635 | 1,003 | 8.3 | 583 | 416 | |
| | do..... | 1921 | 333 | 138 | 14,254 | 11,991 | 2,448 | 1,984 | 464 | -249 | 1.3 | 565 | 277 | |
| | do..... | 1922 | 144 | | | | | | 957 | -69 | | | | |
| South Carolina: Anderson..... | do..... | 1923 | | | | | | | | | | | | |
| | do..... | 1914 | 112 | 136 | 8,940 | 7,748 | 1,178 | 957 | 221 | -226 | -5 | 264 | 138 | |
| | do..... | 1918 | 89 | 95 | 10,471 | 9,352 | 2,823 | 1,209 | 1,614 | 1,080 | 9.6 | 607 | 245 | |
| | do..... | 1919 | 73 | 90 | 12,639 | 10,671 | 3,448 | 1,813 | 1,635 | 1,003 | 8.3 | 583 | 416 | |
| | do..... | 1921 | 333 | 138 | 14,254 | 11,991 | 2,448 | 1,984 | 464 | -249 | 1.3 | 565 | 277 | |
| Do..... | do..... | 1922 | 144 | | | | | | 957 | -69 | | | | |
| | do..... | 1923 | | | | | | | | | | | | |
| | do..... | 1914 | 112 | 136 | 8,940 | 7,748 | 1,178 | 957 | 221 | -226 | -5 | 264 | 138 | |
| | do..... | 1918 | 89 | 95 | 10,471 | 9,352 | 2,823 | 1,209 | 1,614 | 1,080 | 9.6 | 607 | 245 | |
| | do..... | 1919 | 73 | 90 | 12,639 | 10,671 | 3,448 | 1,813 | 1,635 | 1,003 | 8.3 | 583 | 416 | |

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 435 localities in 45 States, 1907-1924—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | Receipts | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm-er's labor | Other unpaid family labor |
|--------------------------|---|------------------------|----------------|---------------|---------|-------------|----------|-----------|-------------|--------------|-------------------|-----------------------------|-----------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| | | | Number | Acres | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Utah—Continued. | | | | | | | | | | | | | | |
| Coele—Continued. | | | | | | | | | | | | | | |
| Hyde Park..... | Beets, dairy, wheat, work off farm, cattle. | 1915 | 49 | 107 | 13,994 | 11,351 | 2,151 | 898 | 1,253 | 533 | 5.0 | 546 | 546 | 107 |
| Do..... | Beets, dairy, grain, cattle, horses | 1916 | 32 | | 12,087 | 9,701 | 2,291 | 765 | 1,596 | 923 | | | | 87 |
| Carbon—Wellington..... | Alfalfa, work off farm, cattle, potatoes, horses. | 1914 | 26 | 129 | 8,391 | 6,397 | 1,640 | 803 | 887 | 417 | 4.0 | 498 | 498 | 13 |
| Emergy— | | | | | | | | | | | | | | |
| Ferron..... | Cattle, hogs, work off farm, dairy, bees, apples. | 1914 | 40 | 111 | 7,121 | 4,396 | 1,396 | 785 | 611 | 255 | 2.7 | | 416 | 137 |
| Do..... | Cattle, clover seed, work off farm, poultry, hogs. | 1915 | 48 | 101 | 6,970 | 4,384 | 1,269 | 588 | 681 | 333 | 4.0 | | 400 | 154 |
| Do..... | Cattle, fruit, grain, hogs, poultry | 1916 | 34 | | 6,769 | 4,029 | 1,544 | 590 | 954 | 616 | | | | 140 |
| Millard— | | | | | | | | | | | | | | |
| Hinckley..... | Alfalfa seed, alfalfa, cattle, work off farm, dairy, horses | 1914 | 59 | 153 | 9,581 | 6,513 | 1,793 | 695 | 1,066 | 619 | 6.4 | | 487 | 120 |
| Do..... | Alfalfa seed, cattle, work off farm, hay, wheat, dairy. | 1915 | 60 | 155 | 9,608 | 7,516 | 1,319 | 451 | 868 | 388 | 3.9 | | 491 | 74 |
| Do..... | Alfalfa, cattle, grain, dairy, hogs. | 1916 | 39 | | 7,983 | 6,109 | 1,582 | 575 | 1,007 | 608 | | | | 63 |
| Salt Lake— | | | | | | | | | | | | | | |
| Sandy..... | Work off farm, alfalfa, beets, wheat, cattle, sheep. | 1915 | 47 | 201 | 14,287 | 12,019 | 2,302 | 980 | 1,822 | 609 | 4.1 | | 735 | 182 |
| Draper..... | Cattle, dairy, hogs, beets. | 1916 | 45 | | 7,542 | 6,132 | 1,726 | 839 | 887 | 510 | | | | 71 |
| Salt Lake and Weber..... | Beets, dairy, wheat, alfalfa, cattle, work off farm. | 1914 | 372 | 75 | 11,899 | 10,323 | 1,660 | 745 | 917 | 322 | 3.7 | | 478 | 139 |
| Sevier— | | | | | | | | | | | | | | |
| Monroe..... | Sheep, wool, cattle, beets, dairy | 1914 | 66 | 66 | 12,135 | 8,640 | 3,054 | 1,917 | 1,137 | 530 | 4.7 | | 572 | 170 |
| Do..... | Sheep, cattle, beets, dairy, wheat | 1915 | 37 | 53 | 10,970 | 7,407 | 2,559 | 1,079 | 1,480 | 832 | 9.2 | | 476 | 166 |
| Do..... | Sheep, cattle, beets, grain, hay, dairy | 1916 | 57 | | 10,151 | 6,719 | 3,640 | 1,780 | 1,860 | 1,332 | | | | 131 |
| Utah— | | | | | | | | | | | | | | |
| Provo..... | Beets, fruit, cattle, alfalfa, work off farm. | 1913 | 69 | 47 | 9,000 | | 1,480 | 613 | 887 | 417 | | | | 169 |
| Do..... | Beets, fruit, cattle. | 1914 | 75 | 64 | 11,688 | | 2,417 | 1,105 | 1,812 | 728 | | | | 154 |
| Pleasant Grove..... | Beets, cattle, dairy, grain, potatoes, fruit, hogs. | 1916 | 57 | | 7,732 | 6,254 | 1,649 | 608 | 1,041 | 651 | | | | 81 |
| Vermont: | | | | | | | | | | | | | | |
| Addison..... | Dairy, cattle | 1916 | 33 | 221 | 9,701 | 6,188 | 2,199 | 1,046 | 1,103 | 618 | 6.7 | | 455 | 52 |
| Barnington..... | Dairy, cattle, potatoes | 1916 | 34 | 250 | 10,941 | 7,204 | 2,806 | 1,401 | 1,405 | 858 | 8.2 | | 510 | 77 |
| Caledonia—Barnet..... | Dairy, cattle, hogs | 1914 | 70 | 186 | 8,061 | 5,101 | 2,279 | 1,349 | 980 | 527 | 5.6 | | 480 | 54 |
| Chittenden..... | Dairy. | 1917 | 41 | | 16,160 | 5,133 | 2,486 | 2,486 | 2,647 | 1,839 | | | | |
| Do..... | | 1919 | 29 | | 9,181 | | | | 1,357 | 896 | | | | |

TABLE 652.—Farm business surveys: Summaries of 71,515 farm records from 455 localities in 45 States, 1907-1924—Continued

| State, county, locality | Principal sources of receipts | Year covered by survey | Farms included | Size of farms | Capital | | Re-ceipts | Ex-penses | Farm income | Labor income | Return to capital | Family living from the farm | Farm-er's labor | Other unpaid family labor |
|------------------------------|---|------------------------|----------------|---------------|---------|-------------|-----------|-----------|-------------|--------------|-------------------|-----------------------------|-----------------|---------------------------|
| | | | | | Total | Real estate | | | | | | | | |
| Washington—Continued. | | | | | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Per cent | Dollars | Dollars | Dollars |
| Spokane— | Dairy, cattle, oats, potatoes | 1915 | 202 | 46 | 14,968 | 12,193 | 2,218 | 1,037 | 1,181 | 432 | 4.5 | 504 | 71 | 51 |
| Opportunity | Small fruits, apples, dairy | 1914 | 30 | 22 | 10,680 | 10,000 | 801 | 662 | 139 | 385 | --- | --- | --- | --- |
| Waverly | Wheat, oats, hogs, cattle | 1914 | 124 | 320 | 22,032 | 3,285 | 1,332 | 1,033 | 1,332 | 1,033 | --- | --- | --- | --- |
| Wahkiakum | Dairy, cattle, hogs, poultry | 1914 | 87 | 122 | 12,273 | 8,881 | 1,861 | 794 | 1,067 | 453 | --- | --- | --- | 124 |
| do | do | 1915 | 72 | 122 | 13,269 | 10,679 | 1,748 | 830 | 918 | 255 | 5.5 | 190 | 11 | 11 |
| Walla Walla | Wheat, dairy, barley, cattle | 1914 | 92 | 216 | 27,569 | 24,375 | 3,813 | 1,451 | 2,362 | 964 | 6.4 | 594 | 32 | 22 |
| Do | Dairy, cattle, alfalfa, wheat, hogs, apples, horses | 1915 | 39 | 102 | 16,766 | 14,424 | 2,242 | 845 | 1,397 | 559 | --- | --- | --- | 68 |
| Yakima— | | | | | | | | | | | | | | |
| Sunnyside | Potatoes, alfalfa, hogs, apples, dairy, cattle | 1915 | 94 | 46 | 11,534 | --- | 2,068 | 1,189 | 879 | 302 | --- | --- | --- | --- |
| Do | Potatoes, alfalfa, wheat, dairy | 1921 | 175 | 61 | 16,183 | 13,671 | 3,094 | 2,519 | 575 | 734 | -1.0 | 388 | 743 | 183 |
| Do | Alfalfa, potatoes, dairy, wheat, cattle | 1922 | 139 | 46 | 13,336 | 11,564 | 2,263 | 1,869 | 394 | 273 | -1.9 | 425 | 645 | 146 |
| West Virginia— | | | | | | | | | | | | | | |
| Brooke | Dairy, poultry, cattle, work off farm, sheep | 1913 | 201 | 150 | 10,507 | 8,757 | 1,427 | 777 | 650 | 125 | --- | --- | --- | 153 |
| Do | Dairy, cattle, sheep | 1914 | 22 | 201 | 14,060 | 12,181 | 2,829 | 1,350 | 1,479 | 775 | --- | --- | --- | 162 |
| Do | Dairy, cattle, work off farm, sheep | 1915 | 22 | 204 | 15,783 | 12,649 | 3,578 | 1,315 | 2,260 | 1,471 | --- | --- | --- | 182 |
| Do | Dairy, cattle, sheep, poultry, work off farm | 1916 | 22 | 207 | 16,180 | 12,649 | 3,535 | 1,494 | 2,341 | 1,332 | --- | --- | --- | 216 |
| Do | Dairy, sheep, cattle, hogs, poultry | 1917 | 22 | 205 | 19,920 | 15,127 | 4,404 | 1,588 | 2,816 | 1,820 | --- | --- | --- | 207 |
| Do | do | 1923 | 37 | 134 | 12,028 | 9,365 | 2,860 | 1,477 | 803 | 202 | 4 | --- | --- | 202 |
| Greenbrier and Monroe | Livestock | 1914 | 239 | 253 | 17,400 | 14,165 | 1,639 | 753 | 876 | 76 | --- | --- | --- | 106 |
| Do | do | 1915 | 239 | 255 | 17,676 | 14,124 | 1,750 | 750 | 996 | 76 | --- | --- | --- | 113 |
| Do | do | 1923 | 87 | 211 | 19,108 | 15,867 | 1,825 | 1,106 | 717 | 238 | --- | --- | --- | 168 |
| Preston | Cattle, dairy, poultry, work off farm, horses, hay | 1913 | 74 | 162 | 8,845 | 6,810 | 1,413 | 787 | 616 | 174 | 4.5 | 219 | --- | 161 |
| Do | Cattle, dairy, poultry, work off farm, horses | 1914 | 20 | 162 | 10,940 | 8,300 | 1,857 | 809 | 1,048 | 501 | --- | --- | --- | 141 |
| Do | Cattle, dairy, poultry, potatoes, horses | 1915 | 20 | 161 | 11,070 | 8,289 | 1,796 | 866 | 930 | 375 | --- | --- | --- | 132 |
| Do | Cattle, dairy, poultry, horses | 1916 | 20 | 162 | 11,284 | 8,322 | 2,255 | 1,296 | 702 | 702 | --- | --- | --- | 166 |
| Do | Cattle, poultry, dairy, work off farm, buckwheat | 1917 | 20 | 162 | 11,546 | 8,374 | 2,817 | 1,136 | 1,081 | 1,104 | --- | --- | --- | 144 |
| Upshur | Cattle, sheep, poultry, dairy, work off farm | 1913 | 147 | 145 | 7,350 | 6,021 | 665 | 400 | 265 | -103 | .8 | 204 | 80 | 80 |
| Wisconsin— | | | | | | | | | | | | | | |
| Barron | Dairy, cattle, potatoes, oats, hogs | 1915 | 51 | 144 | 11,333 | 9,167 | 1,796 | 738 | 1,038 | 490 | 6.4 | 326 | 160 | 160 |
| Dane | Dairy, hogs, cattle | 1913 | 60 | 149 | 17,307 | 14,762 | 1,961 | 862 | 1,079 | 214 | 4.2 | 361 | 182 | 182 |
| Do | do | 1914 | 60 | 150 | 17,596 | 14,829 | 1,541 | 955 | 1,079 | 56 | 3.3 | 356 | 184 | 184 |

| | | | | | | | | | | | | |
|----------------------------------|------|-----|-------|--------|--------|-------|-------|-------|-------|------|-------|-----|
| Do..... | 1915 | 60 | 146 | 17,451 | 14,641 | 1,858 | 917 | 941 | 68 | 3.4 | 342 | 175 |
| Do..... | 1916 | 60 | 147 | 17,303 | 14,847 | 2,960 | 1,043 | 1,517 | 627 | 6.3 | 388 | 222 |
| Do..... | 1917 | 60 | 147 | 18,305 | 14,928 | 3,278 | 1,288 | 1,990 | 1,075 | 5.0 | 525 | 276 |
| Do..... | 1918 | 30 | 145 | 19,460 | 14,971 | 3,873 | 1,107 | 2,163 | 1,192 | 4.4 | 494 | 404 |
| Eau Claire..... | 1915 | 48 | 163 | 12,220 | 10,327 | 1,551 | 807 | 744 | 132 | 3.5 | 322 | 215 |
| Do..... | 1916 | 34 | 165 | 13,038 | 10,403 | 1,768 | 740 | 1,028 | 376 | 5.3 | 343 | 180 |
| Green..... | 1915 | 84 | 203 | 31,036 | 25,653 | 3,357 | 1,374 | 1,993 | 431 | 4.9 | 469 | 100 |
| Kenosha..... | 1919 | 50 | 103 | 32,071 | 28,664 | 4,831 | 2,073 | 2,758 | 1,154 | 5.1 | 1,137 | 263 |
| St. Croix..... | 1915 | 50 | 117 | 18,926 | 15,508 | 2,758 | 1,262 | 1,496 | 550 | 5.0 | 384 | 131 |
| Walworth..... | 1915 | 50 | 170 | 22,487 | 18,870 | 2,690 | 1,514 | 1,716 | 582 | 6.0 | 352 | 143 |
| Do..... | 1916 | 40 | 170 | 22,460 | 18,280 | 3,077 | 1,438 | 2,221 | 1,000 | 8.3 | 353 | 129 |
| Winnebago..... | 1920 | 262 | 133 | 26,928 | 22,487 | 3,392 | 2,138 | 2,847 | 1,096 | 4.5 | 946 | 211 |
| Do..... | 1914 | 78 | 101 | 11,610 | 9,362 | 1,693 | 738 | 900 | 319 | 4.1 | 333 | 102 |
| Wood..... | 1915 | 60 | 99 | 11,738 | 9,341 | 2,073 | 730 | 295 | 707 | 8.1 | 342 | 145 |
| Do..... | 1914 | 50 | 211 | 7,567 | 6,425 | 553 | 523 | 430 | 52 | 1.8 | 293 | 181 |
| Do..... | 1915 | 52 | 213 | 7,287 | 6,176 | 833 | 631 | 207 | -107 | -1.6 | 322 | 173 |
| Wyoming: Campbell and Crook..... | 1924 | 60 | 7,115 | 53,777 | 26,356 | 7,472 | 3,900 | 3,572 | 883 | 5.6 | 576 | 250 |

D Vision of Farm Management and Costs.

TABLE 653.—Wheat: Value per acre based on December 1 price, 1903-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 28.05 | 30.29 | 23.10 | 24.20 | 25.75 | 29.43 | 31.36 | 50.49 | 32.90 | 52.14 | 41.36 | 50.60 | 29.75 | 42.50 | 30.68 | 44.25 | 47.67 |
| Massachusetts..... | 30.00 | 30.18 | 27.52 | 24.50 | 24.50 | 29.00 | 32.10 | 41.25 | 47.20 | 50.82 | 35.32 | 38.00 | 17.50 | 31.50 | 29.40 | 31.50 | 31.50 |
| Montana..... | 23.31 | 22.75 | 18.52 | 13.84 | 13.60 | 24.30 | 25.25 | 35.28 | 44.10 | 39.13 | 46.15 | 38.15 | 20.74 | 22.80 | 22.22 | 26.04 | 26.00 |
| New York..... | 19.51 | 18.13 | 16.13 | 16.90 | 19.62 | 21.20 | 22.80 | 32.80 | 40.47 | 36.55 | 39.60 | 32.80 | 21.47 | 22.00 | 22.00 | 29.04 | 30.03 |
| Pennsylvania..... | 18.33 | 16.38 | 12.42 | 17.10 | 15.47 | 18.82 | 19.24 | 30.75 | 33.88 | 36.38 | 37.80 | 28.22 | 18.02 | 22.00 | 19.00 | 23.76 | 28.40 |
| Ohio..... | 17.81 | 14.58 | 14.56 | 7.64 | 16.20 | 19.42 | 21.11 | 22.82 | 44.88 | 40.28 | 42.19 | 20.96 | 13.39 | 16.38 | 18.02 | 26.11 | 28.73 |
| Indiana..... | 16.83 | 13.57 | 7.44 | 16.20 | 17.92 | 17.64 | 20.28 | 37.56 | 37.56 | 43.08 | 31.29 | 20.04 | 12.72 | 16.24 | 16.17 | 24.14 | 22.48 |
| Illinois..... | 18.10 | 16.02 | 14.24 | 7.80 | 16.08 | 18.08 | 19.00 | 18.15 | 37.98 | 45.97 | 35.91 | 24.47 | 16.10 | 18.51 | 16.82 | 21.84 | 24.10 |
| Michigan..... | 21.06 | 13.20 | 15.84 | 9.60 | 13.62 | 20.29 | 21.51 | 27.72 | 36.72 | 29.08 | 40.74 | 25.70 | 16.83 | 16.10 | 16.82 | 33.07 | 26.53 |
| Wisconsin..... | 18.72 | 17.76 | 14.31 | 15.77 | 15.83 | 19.10 | 21.56 | 28.16 | 45.05 | 49.61 | 29.02 | 23.25 | 12.71 | 17.61 | 16.27 | 30.74 | 27.37 |
| Minnesota..... | 16.13 | 15.04 | 9.29 | 11.32 | 12.31 | 10.81 | 15.30 | 25.33 | 35.35 | 42.64 | 23.50 | 12.74 | 9.41 | 13.84 | 12.06 | 28.68 | 18.12 |
| Iowa..... | 15.81 | 17.85 | 14.43 | 15.44 | 15.66 | 17.86 | 17.40 | 25.43 | 39.60 | 37.80 | 29.60 | 24.50 | 15.75 | 22.28 | 16.46 | 26.68 | 22.89 |
| Missouri..... | 13.44 | 12.01 | 13.82 | 11.25 | 14.36 | 16.66 | 12.05 | 14.02 | 29.64 | 35.29 | 28.22 | 20.00 | 10.79 | 13.12 | 12.61 | 17.70 | 19.82 |
| North Dakota..... | 12.60 | 4.50 | 7.12 | 12.42 | 7.66 | 11.31 | 15.83 | 8.36 | 16.00 | 27.61 | 16.63 | 11.70 | 7.22 | 12.69 | 6.36 | 19.78 | 15.33 |
| South Dakota..... | 12.60 | 11.99 | 3.64 | 9.80 | 6.89 | 8.85 | 14.71 | 10.20 | 27.44 | 37.81 | 19.68 | 10.38 | 7.92 | 12.83 | 7.78 | 18.75 | 15.08 |
| Nebraska..... | 16.73 | 12.96 | 11.62 | 12.14 | 12.71 | 17.67 | 18.37 | 31.04 | 28.91 | 22.06 | 27.88 | 22.01 | 12.83 | 13.73 | 8.29 | 23.32 | 17.91 |
| Kansas..... | 13.82 | 11.84 | 9.74 | 11.47 | 10.27 | 19.48 | 11.12 | 19.68 | 24.16 | 28.08 | 29.67 | 20.02 | 11.35 | 12.35 | 9.19 | 20.86 | 12.87 |
| Delaware..... | 14.56 | 13.80 | 13.03 | 16.80 | 12.76 | 22.94 | 16.35 | 24.20 | 34.32 | 28.89 | 23.56 | 29.07 | 11.27 | 17.50 | 18.00 | 23.63 | 26.83 |
| Maryland..... | 15.86 | 16.01 | 14.10 | 14.25 | 11.64 | 22.79 | 16.90 | 27.39 | 33.19 | 33.94 | 23.02 | 22.50 | 14.42 | 18.49 | 19.20 | 22.91 | 31.71 |
| Virginia..... | 12.98 | 12.42 | 11.52 | 11.72 | 13.06 | 15.66 | 14.90 | 20.96 | 28.08 | 26.28 | 26.43 | 22.50 | 11.37 | 15.25 | 14.63 | 19.83 | 22.86 |
| West Virginia..... | 14.69 | 12.75 | 11.73 | 14.64 | 13.00 | 16.20 | 16.20 | 23.20 | 30.38 | 31.38 | 29.70 | 23.75 | 14.62 | 14.03 | 15.08 | 19.11 | 21.33 |
| North Carolina..... | 12.06 | 12.54 | 10.81 | 12.40 | 13.08 | 14.04 | 13.08 | 18.48 | 23.45 | 16.10 | 18.41 | 24.37 | 10.80 | 12.24 | 14.21 | 19.20 | 20.81 |
| South Carolina..... | 14.60 | 13.86 | 14.02 | 10.95 | 15.99 | 16.68 | 14.90 | 20.03 | 30.45 | 28.60 | 28.80 | 28.05 | 22.88 | 12.56 | 16.94 | 18.20 | 26.85 |
| Georgia..... | 14.50 | 13.65 | 13.68 | 11.35 | 14.65 | 16.21 | 14.19 | 21.20 | 26.45 | 27.13 | 27.62 | 24.00 | 18.38 | 12.00 | 13.39 | 16.05 | 18.12 |
| Kentucky..... | 13.10 | 11.90 | 11.68 | 9.90 | 13.06 | 17.00 | 11.45 | 14.94 | 28.44 | 27.82 | 24.26 | 19.48 | 11.50 | 13.57 | 13.39 | 14.73 | 22.40 |
| Tennessee..... | 11.98 | 11.47 | 11.04 | 10.50 | 11.76 | 16.28 | 11.34 | 16.06 | 20.42 | 21.40 | 20.65 | 18.52 | 12.00 | 11.68 | 11.73 | 15.44 | 20.75 |
| Alabama..... | 13.65 | 13.59 | 13.80 | 11.98 | 13.46 | 16.38 | 15.00 | 17.88 | 27.00 | 22.05 | 22.05 | 22.06 | 16.06 | 17.44 | 13.00 | 16.17 | 19.28 |
| Mississippi..... | 13.31 | 16.24 | 12.00 | 11.84 | 13.40 | 16.25 | 21.00 | 26.25 | 45.00 | 41.00 | 35.00 | 21.30 | 18.20 | 17.40 | 16.50 | 18.60 | 26.80 |
| Arkansas..... | 12.84 | 13.07 | 9.45 | 9.40 | 11.70 | 12.87 | 12.62 | 13.04 | 24.84 | 24.84 | 19.19 | 18.05 | 9.30 | 13.78 | 11.88 | 15.30 | 19.50 |
| Oklahoma..... | 12.93 | 14.18 | 7.36 | 9.60 | 8.20 | 17.48 | 10.82 | 16.20 | 22.31 | 23.33 | 28.70 | 21.60 | 10.75 | 9.31 | 10.23 | 10.84 | 12.05 |
| Texas..... | 10.74 | 14.70 | 9.40 | 13.95 | 16.45 | 12.87 | 16.88 | 19.03 | 25.20 | 21.50 | 33.00 | 22.36 | 10.00 | 8.90 | 10.82 | 23.86 | 12.40 |
| Montana..... | 26.80 | 18.62 | 22.10 | 15.42 | 15.71 | 18.88 | 20.67 | 31.07 | 19.97 | 24.44 | 6.94 | 13.18 | 10.46 | 12.99 | 11.97 | 20.31 | 14.98 |
| Idaho..... | 24.19 | 16.27 | 17.39 | 17.89 | 22.79 | 22.79 | 22.40 | 36.85 | 36.85 | 40.90 | 37.31 | 28.00 | 17.28 | 19.44 | 22.88 | 23.44 | 35.13 |
| Wyoming..... | 28.41 | 23.75 | 24.44 | 22.96 | 18.00 | 20.88 | 20.88 | 31.32 | 42.40 | 48.01 | 30.33 | 27.00 | 13.39 | 11.48 | 12.72 | 16.80 | 21.48 |
| Colorado..... | 27.44 | 18.29 | 16.88 | 17.67 | 16.38 | 20.71 | 19.36 | 29.70 | 43.62 | 23.98 | 27.67 | 24.30 | 10.26 | 11.93 | 10.79 | 16.94 | 17.18 |

TABLE 654.—Rye: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| New Mexico..... | 28.06 | 20.00 | 22.90 | 18.61 | 18.24 | 21.78 | 19.08 | 27.90 | 27.30 | 35.07 | 38.00 | 25.62 | 14.28 | 10.06 | 12.96 | 17.73 | 9.22 |
| Arizona..... | 34.75 | 28.76 | 28.12 | 33.77 | 33.20 | 35.00 | 32.20 | 43.50 | 52.50 | 62.40 | 56.25 | 62.88 | 26.25 | 20.90 | 36.40 | 29.62 | 36.76 |
| Utah..... | 23.31 | 18.56 | 15.61 | 19.28 | 17.67 | 21.50 | 22.10 | 32.22 | 32.34 | 37.98 | 32.34 | 28.84 | 17.10 | 17.37 | 21.53 | 21.43 | 33.06 |
| Nevada..... | 29.55 | 26.88 | 26.88 | 26.88 | 22.71 | 28.12 | 28.12 | 40.88 | 50.04 | 52.53 | 45.37 | 40.14 | 30.55 | 31.44 | 20.21 | 34.36 | 45.53 |
| Washington..... | 21.83 | 13.18 | 16.12 | 15.96 | 16.94 | 23.50 | 21.07 | 33.99 | 30.49 | 25.68 | 35.95 | 22.52 | 19.61 | 13.42 | 21.25 | 18.54 | 23.16 |
| Oregon..... | 18.79 | 15.56 | 15.75 | 18.00 | 15.75 | 21.22 | 18.65 | 33.35 | 26.39 | 29.55 | 40.70 | 27.17 | 19.89 | 18.68 | 21.21 | 21.30 | 26.25 |
| California..... | 15.54 | 16.92 | 15.84 | 15.81 | 13.30 | 17.08 | 15.20 | 24.32 | 39.60 | 32.40 | 31.62 | 25.20 | 16.05 | 24.72 | 23.33 | 23.10 | 28.12 |
| United States..... | 15.57 | 12.28 | 10.96 | 12.12 | 12.16 | 16.41 | 15.58 | 19.50 | 28.35 | 31.80 | 27.48 | 19.58 | 11.85 | 14.02 | 12.34 | 21.40 | 18.16 |
| Division of Crop and Livestock Estimates. | | | | | | | | | | | | | | | | | |
| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Massachusetts..... | 17.01 | 15.98 | 15.20 | 18.50 | 18.13 | 19.19 | 20.40 | 23.50 | 38.00 | 45.40 | 40.25 | 35.10 | 28.25 | 26.60 | 24.30 | 29.00 | 20.40 |
| Connecticut..... | 16.83 | 17.20 | 17.20 | 16.10 | 17.76 | 18.62 | 21.93 | 24.50 | 43.05 | 45.10 | 40.00 | 31.32 | 28.50 | 30.00 | 22.50 | 25.00 | 24.70 |
| New York..... | 13.60 | 13.64 | 14.86 | 12.64 | 12.60 | 15.75 | 17.39 | 23.04 | 34.96 | 28.38 | 34.00 | 27.05 | 15.24 | 15.92 | 14.63 | 19.21 | 16.50 |
| New Jersey..... | 12.88 | 13.86 | 13.61 | 13.62 | 14.40 | 15.17 | 18.40 | 22.23 | 32.38 | 32.00 | 25.60 | 22.75 | 17.83 | 16.15 | 16.73 | 19.75 | 16.74 |
| Pennsylvania..... | 12.24 | 12.41 | 12.08 | 13.48 | 12.96 | 14.94 | 15.12 | 18.53 | 28.90 | 28.05 | 25.12 | 22.40 | 16.20 | 14.79 | 15.47 | 18.08 | 17.88 |
| Ohio..... | 13.07 | 11.88 | 13.18 | 11.62 | 11.38 | 13.77 | 14.62 | 17.40 | 28.98 | 25.50 | 23.20 | 19.44 | 10.92 | 11.79 | 12.00 | 17.76 | 13.20 |
| Indiana..... | 12.21 | 10.74 | 10.96 | 9.86 | 9.42 | 13.86 | 13.12 | 16.68 | 24.00 | 21.08 | 19.60 | 18.20 | 9.48 | 9.48 | 10.22 | 14.51 | 9.69 |
| Illinois..... | 13.17 | 12.35 | 13.61 | 11.20 | 10.72 | 13.60 | 15.36 | 18.91 | 28.88 | 28.50 | 21.45 | 20.25 | 13.60 | 12.00 | 11.25 | 15.52 | 12.42 |
| Michigan..... | 10.69 | 10.40 | 12.41 | 8.64 | 8.87 | 14.56 | 13.18 | 18.59 | 23.10 | 21.45 | 17.02 | 19.11 | 9.10 | 9.73 | 8.68 | 13.87 | 9.75 |
| Wisconsin..... | 11.36 | 11.36 | 14.28 | 11.16 | 9.98 | 15.02 | 16.10 | 21.38 | 31.26 | 26.40 | 21.01 | 20.80 | 9.66 | 10.51 | 9.62 | 18.55 | 11.25 |
| Minnesota..... | 11.40 | 10.88 | 14.59 | 11.50 | 9.12 | 16.73 | 15.80 | 19.05 | 30.90 | 30.60 | 19.50 | 20.74 | 10.85 | 12.92 | 7.16 | 23.76 | 10.30 |
| Iowa..... | 11.21 | 11.84 | 13.86 | 11.78 | 10.92 | 14.63 | 14.80 | 19.53 | 27.90 | 27.93 | 20.99 | 19.89 | 11.75 | 13.79 | 11.62 | 18.58 | 13.12 |
| Missouri..... | 12.80 | 11.25 | 11.64 | 11.64 | 11.25 | 12.18 | 11.61 | 13.53 | 24.26 | 22.82 | 18.00 | 15.00 | 9.63 | 11.79 | 11.00 | 14.18 | 14.40 |
| North Dakota..... | 10.49 | 5.36 | 12.62 | 8.46 | 6.48 | 14.36 | 11.85 | 16.62 | 15.58 | 15.23 | 9.68 | 11.90 | 6.38 | 9.66 | 3.74 | 16.22 | 6.50 |
| South Dakota..... | 10.03 | 6.37 | 7.60 | 10.14 | 6.60 | 13.26 | 14.52 | 21.24 | 24.90 | 25.38 | 16.25 | 14.72 | 9.28 | 10.44 | 5.64 | 14.28 | 6.56 |
| Nebraska..... | 10.06 | 9.60 | 9.75 | 8.96 | 8.70 | 11.84 | 12.78 | 18.56 | 24.18 | 17.42 | 13.74 | 14.52 | 7.62 | 7.28 | 6.72 | 14.06 | 8.73 |
| Kansas..... | 10.65 | 10.22 | 8.91 | 10.81 | 10.50 | 16.00 | 12.16 | 15.95 | 23.35 | 24.31 | 15.51 | 13.00 | 7.68 | 7.77 | 6.38 | 13.92 | 8.72 |
| Delaware..... | 10.50 | 10.70 | 14.25 | 11.84 | 11.09 | 16.10 | 15.34 | 18.45 | 28.48 | 24.90 | 20.50 | 20.40 | 11.00 | 14.80 | 13.82 | 16.88 | 18.00 |
| Maryland..... | 12.08 | 12.08 | 12.47 | 12.40 | 10.94 | 14.62 | 14.52 | 17.05 | 26.88 | 25.50 | 22.82 | 24.02 | 12.58 | 16.72 | 15.33 | 18.30 | 21.66 |
| Virginia..... | 10.33 | 10.80 | 10.24 | 10.62 | 9.96 | 11.70 | 13.48 | 13.38 | 26.25 | 21.00 | 19.55 | 18.60 | 10.45 | 10.35 | 12.84 | 14.72 | 15.24 |
| West Virginia..... | 12.15 | 11.61 | 9.90 | 10.92 | 11.74 | 13.05 | 13.02 | 19.01 | 22.62 | 24.66 | 21.45 | 17.60 | 11.40 | 11.40 | 10.30 | 14.45 | 15.60 |
| North Carolina..... | 9.68 | 10.10 | 10.00 | 9.76 | 10.09 | 10.50 | 12.08 | 12.61 | 20.00 | 17.62 | 18.69 | 18.65 | 8.75 | 9.60 | 14.04 | 13.41 | 18.06 |
| South Carolina..... | 13.62 | 14.60 | 14.50 | 13.76 | 15.75 | 17.25 | 15.10 | 18.13 | 28.30 | 33.04 | 29.50 | 33.00 | 25.00 | 18.00 | 18.16 | 20.90 | 22.05 |
| Georgia..... | 13.50 | 14.56 | 13.11 | 12.88 | 12.82 | 13.95 | 12.88 | 15.29 | 22.41 | 18.48 | 24.21 | 21.00 | 15.75 | 12.82 | 17.10 | 16.84 | 16.74 |
| Kentucky..... | 11.18 | 11.05 | 11.28 | 11.44 | 10.79 | 13.02 | 11.28 | 14.45 | 21.88 | 21.90 | 21.00 | 18.00 | 11.20 | 12.65 | 12.05 | 13.97 | 15.25 |

TABLE 654.—Rye: Value per acre based on December 1 price, 1909-1925—Continued

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Tennessee..... | 10.57 | 10.12 | 11.78 | 11.27 | 11.88 | 12.74 | 10.82 | 13.50 | 19.11 | 19.20 | 16.00 | 17.10 | 10.80 | 10.71 | 11.60 | 15.18 | 14.30 |
| Alabama..... | 15.37 | 14.40 | 12.50 | 15.41 | 15.70 | 14.50 | 13.50 | 22.75 | 25.46 | 28.71 | 24.70 | 27.25 | 19.20 | 7.65 | 19.20 | 17.16 | 12.64 |
| Arkansas..... | 11.02 | 11.76 | 8.00 | 11.02 | 10.92 | 11.02 | 10.50 | 11.50 | 20.25 | 22.05 | 19.00 | 22.00 | 11.70 | 12.00 | 10.80 | 14.41 | 14.30 |
| Oklahoma..... | 12.56 | 11.10 | 9.88 | 10.44 | 8.17 | 15.50 | 10.40 | 12.50 | 17.00 | 20.57 | 21.00 | 15.00 | 7.92 | 8.00 | 10.80 | 14.14 | 13.20 |
| Texas..... | 13.78 | 11.84 | 10.70 | 18.26 | 15.15 | 14.65 | 17.51 | 12.60 | 19.60 | 12.69 | 28.39 | 24.00 | 12.00 | 11.25 | 11.76 | 17.76 | 4.80 |
| Montana..... | 21.75 | 13.60 | 16.56 | 14.10 | 11.55 | 14.70 | 14.62 | 19.48 | 20.06 | 17.28 | 5.55 | 8.64 | 5.04 | 7.56 | 5.61 | 12.74 | 9.25 |
| Idaho..... | 15.05 | 13.20 | 15.08 | 13.20 | 12.76 | 13.40 | 13.60 | 16.15 | 20.52 | 24.73 | 24.50 | 14.00 | 12.60 | 10.05 | 12.92 | 12.20 | 16.00 |
| Wyoming..... | 23.00 | 14.98 | 18.00 | 12.55 | 10.16 | 13.77 | 16.60 | 16.74 | 21.70 | 27.86 | 16.20 | 29.70 | 12.18 | 7.28 | 8.58 | 8.80 | 7.68 |
| Colorado..... | 16.06 | 9.38 | 8.40 | 10.72 | 10.20 | 11.38 | 12.25 | 14.70 | 23.36 | 9.50 | 11.44 | 12.36 | 6.90 | 5.94 | 6.72 | 7.65 | 6.70 |
| Utah..... | 15.40 | 12.58 | 10.85 | 10.20 | 10.20 | 10.50 | 10.08 | 12.00 | 12.80 | 23.40 | 14.00 | 12.45 | 6.51 | 6.00 | 10.26 | 9.63 | 11.00 |
| Washington..... | 19.74 | 18.24 | 17.60 | 13.00 | 12.60 | 16.74 | 13.65 | 16.10 | 22.52 | 20.55 | 22.20 | 15.20 | 9.50 | 10.20 | 11.30 | 10.51 | 13.75 |
| Oregon..... | 17.00 | 15.10 | 17.55 | 11.20 | 13.12 | 16.00 | 16.20 | 19.55 | 21.55 | 22.55 | 15.96 | 15.00 | 9.16 | 10.50 | 13.36 | 13.60 | 15.40 |
| United States..... | 11.63 | 11.42 | 12.96 | 11.16 | 10.25 | 14.57 | 14.41 | 18.57 | 24.19 | 21.60 | 15.95 | 17.39 | 9.50 | 10.62 | 7.92 | 16.96 | 9.30 |

Division of Crop and Livestock Estimates.

TABLE 655.—Corn: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 30.40 | 32.66 | 39.60 | 30.00 | 33.06 | 40.48 | 34.85 | 51.17 | 84.36 | 73.15 | 107.25 | 57.60 | 38.50 | 41.00 | 42.56 | 38.48 | 50.40 |
| New Hampshire..... | 26.68 | 31.74 | 36.90 | 34.50 | 29.97 | 37.72 | 34.20 | 52.90 | 95.80 | 67.50 | 79.05 | 65.25 | 39.75 | 32.25 | 46.62 | 64.32 | 50.00 |
| Vermont..... | 27.01 | 28.38 | 32.80 | 28.80 | 23.97 | 38.07 | 38.64 | 47.30 | 95.85 | 64.60 | 81.36 | 59.22 | 41.80 | 38.22 | 42.90 | 53.46 | 48.00 |
| Massachusetts..... | 30.78 | 31.55 | 34.32 | 34.65 | 36.52 | 39.95 | 37.69 | 40.30 | 96.75 | 83.40 | 89.96 | 50.00 | 36.96 | 37.60 | 48.45 | 58.05 | 53.00 |
| Rhode Island..... | 32.20 | 33.20 | 42.75 | 36.52 | 36.14 | 41.16 | 43.00 | 42.78 | 99.12 | 79.20 | 83.70 | 72.00 | 50.60 | 48.00 | 43.70 | 56.00 | 54.00 |
| Connecticut..... | 30.75 | 36.18 | 40.26 | 38.50 | 32.72 | 40.94 | 45.50 | 51.60 | 107.50 | 85.50 | 90.00 | 56.00 | 46.80 | 43.20 | 43.87 | 51.60 | 55.00 |
| New York..... | 26.64 | 24.13 | 29.64 | 27.02 | 23.08 | 34.03 | 31.20 | 33.03 | 61.33 | 63.00 | 71.38 | 46.00 | 30.82 | 28.46 | 32.40 | 38.78 | 34.92 |
| New Jersey..... | 23.22 | 21.60 | 26.13 | 25.84 | 23.62 | 29.26 | 28.50 | 40.00 | 71.40 | 61.50 | 67.20 | 37.40 | 24.91 | 23.40 | 38.00 | 38.44 | 37.96 |
| Pennsylvania..... | 22.40 | 24.19 | 30.26 | 28.78 | 28.08 | 31.02 | 29.95 | 37.83 | 59.67 | 62.00 | 69.09 | 45.00 | 28.40 | 31.68 | 36.00 | 43.07 | 40.80 |
| Ohio..... | 22.12 | 16.70 | 22.39 | 19.26 | 23.62 | 23.85 | 23.24 | 28.35 | 51.68 | 46.30 | 52.03 | 29.51 | 16.61 | 25.74 | 30.34 | 27.04 | 27.36 |
| Indiana..... | 20.00 | 15.72 | 19.44 | 16.93 | 21.60 | 19.14 | 19.38 | 28.56 | 45.00 | 39.27 | 46.25 | 23.90 | 13.32 | 20.72 | 23.87 | 24.06 | 23.92 |
| Illinois..... | 18.67 | 18.15 | 16.40 | 17.01 | 17.69 | 19.41 | 18.48 | 24.78 | 41.80 | 42.60 | 46.50 | 20.41 | 12.92 | 21.30 | 24.38 | 31.35 | 24.36 |
| Michigan..... | 21.59 | 17.17 | 21.45 | 19.38 | 22.44 | 24.12 | 21.76 | 26.12 | 35.13 | 39.00 | 51.05 | 31.93 | 18.72 | 23.65 | 26.91 | 30.20 | 30.00 |
| Wisconsin..... | 19.90 | 16.90 | 21.78 | 18.21 | 24.30 | 26.32 | 15.64 | 33.12 | 35.86 | 52.26 | 56.25 | 33.26 | 21.25 | 28.04 | 26.60 | 27.30 | 33.48 |
| Minnesota..... | 17.05 | 14.72 | 17.86 | 12.76 | 21.20 | 18.20 | 14.26 | 26.80 | 33.00 | 44.40 | 48.00 | 19.12 | 12.71 | 18.48 | 21.96 | 22.96 | 20.15 |

| | | | | | | | | | | | | | | | | |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Iowa..... | 15.44 | 13.07 | 16.43 | 15.05 | 20.40 | 20.90 | 15.30 | 29.20 | 39.95 | 43.92 | 49.92 | 21.62 | 25.20 | 25.11 | 26.04 | 24.95 |
| Missouri..... | 15.58 | 14.52 | 15.60 | 14.72 | 12.95 | 14.96 | 16.82 | 17.55 | 39.95 | 28.60 | 37.26 | 20.18 | 19.35 | 22.20 | 23.04 | 20.95 |
| North Dakota..... | 17.05 | 11.48 | 15.00 | 11.48 | 14.08 | 16.24 | 9.38 | 22.26 | 13.58 | 24.70 | 46.20 | 17.28 | 14.58 | 18.00 | 15.20 | 12.92 |
| South Dakota..... | 15.85 | 10.00 | 11.66 | 11.32 | 14.25 | 13.00 | 14.21 | 21.94 | 33.60 | 37.40 | 33.62 | 12.60 | 8.32 | 17.94 | 17.04 | 10.50 |
| Nebraska..... | 12.40 | 11.55 | 11.55 | 8.88 | 9.75 | 12.98 | 14.10 | 20.28 | 32.50 | 22.66 | 31.96 | 13.86 | 14.50 | 17.49 | 20.02 | 13.86 |
| Kansas..... | 10.75 | 8.55 | 9.14 | 9.20 | 2.50 | 11.66 | 15.91 | 9.00 | 16.25 | 10.58 | 21.28 | 11.66 | 6.88 | 13.89 | 18.88 | 10.43 |
| Delaware..... | 17.98 | 16.54 | 20.74 | 17.34 | 18.58 | 22.32 | 19.53 | 30.26 | 47.60 | 42.16 | 45.40 | 28.12 | 16.65 | 26.81 | 30.24 | 24.05 |
| Maryland..... | 20.41 | 19.43 | 23.00 | 20.08 | 2.43 | 25.16 | 21.35 | 34.71 | 54.60 | 47.25 | 43.90 | 31.18 | 47.20 | 32.23 | 34.41 | 31.50 |
| Virginia..... | 17.17 | 16.58 | 17.52 | 17.04 | 19.76 | 16.60 | 20.24 | 26.04 | 41.31 | 44.32 | 47.32 | 30.40 | 27.22 | 27.26 | 26.46 | 22.22 |
| West Virginia..... | 23.24 | 17.68 | 19.79 | 21.97 | 24.80 | 25.73 | 23.31 | 30.80 | 51.00 | 55.80 | 53.76 | 39.44 | 25.50 | 33.66 | 32.24 | 36.50 |
| North Carolina..... | 14.28 | 14.14 | 15.09 | 15.11 | 17.16 | 17.46 | 16.17 | 20.31 | 34.00 | 37.17 | 35.15 | 25.42 | 15.05 | 22.95 | 22.32 | 20.35 |
| South Carolina..... | 15.03 | 15.17 | 16.56 | 15.22 | 18.92 | 17.02 | 14.36 | 17.52 | 36.48 | 33.15 | 31.52 | 22.04 | 11.84 | 17.32 | 14.76 | 13.53 |
| Georgia..... | 11.95 | 11.31 | 13.23 | 11.73 | 14.10 | 11.90 | 11.70 | 15.50 | 25.60 | 24.75 | 23.20 | 13.75 | 7.93 | 13.05 | 12.88 | 10.70 |
| Florida..... | 10.46 | 11.05 | 11.68 | 10.27 | 12.30 | 12.80 | 10.93 | 13.50 | 21.00 | 22.08 | 21.00 | 13.50 | 7.42 | 12.18 | 15.12 | 15.39 |
| Kentucky..... | 17.98 | 15.37 | 16.38 | 16.72 | 15.58 | 16.00 | 16.80 | 24.36 | 38.12 | 37.96 | 37.20 | 25.01 | 14.08 | 24.22 | 25.50 | 21.46 |
| Tennessee..... | 15.40 | 14.50 | 16.35 | 16.16 | 18.78 | 16.32 | 15.66 | 24.41 | 34.80 | 34.80 | 33.60 | 24.26 | 13.42 | 18.17 | 23.03 | 17.80 |
| Alabama..... | 11.48 | 12.78 | 14.04 | 13.59 | 15.40 | 13.60 | 11.73 | 12.75 | 20.00 | 21.61 | 23.06 | 15.39 | 8.06 | 15.12 | 15.25 | 13.50 |
| Mississippi..... | 11.74 | 12.92 | 13.68 | 12.99 | 15.40 | 13.50 | 12.35 | 13.72 | 28.29 | 25.67 | 24.00 | 16.32 | 10.98 | 15.52 | 15.12 | 16.92 |
| Arkansas..... | 12.96 | 13.92 | 14.98 | 13.67 | 14.82 | 14.00 | 14.72 | 17.35 | 33.60 | 23.40 | 22.52 | 22.70 | 12.54 | 15.66 | 17.12 | 13.59 |
| Louisiana..... | 15.87 | 12.98 | 12.95 | 12.24 | 16.94 | 14.48 | 13.12 | 19.74 | 25.28 | 25.75 | 26.25 | 16.32 | 12.68 | 16.17 | 13.22 | 16.92 |
| Oklahoma..... | 9.35 | 8.16 | 4.55 | 7.67 | 7.92 | 8.00 | 13.57 | 12.56 | 12.50 | 12.30 | 30.48 | 15.12 | 8.00 | 12.60 | 16.01 | 6.75 |
| Texas..... | 11.40 | 12.98 | 7.60 | 13.44 | 19.08 | 14.43 | 13.63 | 19.76 | 18.37 | 17.60 | 35.40 | 21.84 | 13.61 | 14.60 | 18.60 | 8.35 |
| Montana..... | 30.10 | 21.85 | 21.20 | 17.83 | 24.28 | 21.28 | 19.32 | 25.25 | 21.85 | 28.35 | 6.60 | 9.68 | 12.10 | 16.00 | 17.82 | 15.68 |
| Idaho..... | 22.95 | 22.72 | 25.50 | 22.32 | 21.76 | 22.32 | 22.75 | 35.00 | 48.05 | 73.20 | 52.80 | 36.00 | 17.50 | 30.02 | 32.34 | 30.75 |
| Wyoming..... | 21.84 | 6.60 | 11.40 | 14.72 | 23.20 | 17.50 | 16.75 | 19.80 | 35.00 | 35.00 | 26.40 | 13.43 | 11.00 | 18.90 | 11.28 | 16.10 |
| Colorado..... | 16.94 | 11.94 | 10.92 | 10.40 | 10.95 | 13.80 | 13.20 | 13.95 | 25.00 | 23.62 | 21.30 | 14.35 | 4.50 | 10.56 | 16.25 | 8.80 |
| New Mexico..... | 28.17 | 20.70 | 20.75 | 16.80 | 13.88 | 22.40 | 18.98 | 23.73 | 37.60 | 45.00 | 32.62 | 22.87 | 18.80 | 11.15 | 19.80 | 15.00 |
| Arizona..... | 32.10 | 35.75 | 32.01 | 33.00 | 30.80 | 38.40 | 34.50 | 49.00 | 51.30 | 58.80 | 58.00 | 37.40 | 29.10 | 36.00 | 27.50 | 26.00 |
| Utah..... | 27.32 | 23.45 | 28.35 | 22.50 | 23.80 | 26.25 | 27.20 | 37.95 | 42.50 | 50.65 | 28.80 | 32.83 | 18.70 | 22.74 | 23.66 | 23.30 |
| Nevada..... | 30.00 | 27.45 | 29.40 | 29.40 | 40.12 | 39.60 | 32.55 | 42.50 | 45.00 | 67.20 | 37.66 | 51.20 | 34.92 | 29.12 | 27.10 | 30.00 |
| Washington..... | 23.91 | 21.00 | 22.52 | 21.02 | 22.40 | 16.71 | 20.79 | 37.00 | 59.94 | 64.60 | 66.60 | 45.00 | 34.40 | 35.15 | 33.60 | 33.25 |
| Oregon..... | 24.56 | 20.40 | 22.80 | 21.60 | 24.60 | 28.76 | 31.82 | 48.05 | 45.00 | 44.05 | 41.08 | 40.30 | 30.00 | 31.50 | 36.90 | 31.03 |
| California..... | 31.67 | 30.00 | 32.40 | 31.45 | 29.04 | 31.32 | 35.08 | 39.68 | 59.20 | 67.55 | 57.28 | 36.60 | 26.90 | 37.80 | 46.64 | 41.42 |
| United States..... | 15.32 | 13.31 | 14.79 | 11.20 | 15.99 | 16.65 | 16.22 | 21.66 | 33.58 | 32.70 | 38.91 | 21.14 | 12.50 | 18.38 | 22.46 | 19.25 |

Division of Crop and Livestock Estimates.

TABLE 656.—Oats: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Maine | Dollars 21.46 | Dollars 20.79 | Dollars 22.03 | Dollars 22.03 | Dollars 22.03 | Dollars 24.12 | Dollars 25.12 | Dollars 25.12 | Dollars 26.07 | Dollars 34.24 | Dollars 31.28 | Dollars 35.53 | Dollars 19.25 | Dollars 17.86 | Dollars 20.72 | Dollars 24.70 | Dollars 24.75 |
| New Hampshire | 20.10 | 21.83 | 21.83 | 21.83 | 21.83 | 20.52 | 20.52 | 20.52 | 21.92 | 23.06 | 28.05 | 28.05 | 19.25 | 22.80 | 24.00 | 28.47 | 24.96 |
| Vermont | 10.10 | 20.75 | 20.65 | 20.65 | 20.65 | 22.70 | 22.70 | 22.70 | 20.80 | 30.60 | 26.55 | 26.55 | 19.47 | 19.04 | 22.05 | 26.22 | 23.60 |
| Massachusetts | 17.98 | 17.75 | 20.30 | 13.98 | 20.72 | 18.36 | 18.36 | 21.12 | 20.97 | 36.40 | 20.70 | 27.20 | 18.29 | 21.42 | 22.05 | 23.70 | 23.70 |
| Rhode Island | 13.25 | 16.80 | 18.82 | 12.87 | 13.00 | 15.95 | 16.50 | 18.36 | 22.25 | 37.80 | 28.50 | 22.40 | 16.80 | 18.60 | 19.20 | 22.50 | 21.45 |
| Connecticut | 14.58 | 16.19 | 19.66 | 15.04 | 15.95 | 17.88 | 17.88 | 20.70 | 26.07 | 34.24 | 23.96 | 22.50 | 18.00 | 18.20 | 17.98 | 20.30 | 20.13 |
| New York | 13.82 | 14.49 | 15.04 | 12.94 | 15.74 | 16.06 | 18.22 | 16.12 | 26.25 | 34.44 | 21.16 | 25.80 | 11.28 | 15.30 | 17.71 | 22.22 | 18.20 |
| New Jersey | 12.75 | 16.32 | 14.25 | 12.54 | 13.63 | 15.66 | 15.60 | 18.30 | 23.80 | 31.60 | 24.00 | 24.00 | 10.80 | 17.06 | 13.08 | 19.20 | 16.20 |
| Pennsylvania | 13.00 | 14.43 | 14.15 | 12.57 | 14.26 | 15.30 | 16.72 | 17.67 | 25.55 | 31.20 | 24.80 | 24.74 | 12.82 | 16.32 | 15.08 | 22.22 | 17.85 |
| Ohio | 13.32 | 13.02 | 14.44 | 14.52 | 12.98 | 13.72 | 14.76 | 14.84 | 28.16 | 30.80 | 23.76 | 22.10 | 7.59 | 12.15 | 15.52 | 21.22 | 16.18 |
| Indiana | 11.90 | 10.97 | 12.24 | 12.03 | 8.13 | 12.26 | 13.60 | 15.30 | 26.46 | 26.14 | 22.08 | 13.86 | 6.96 | 8.40 | 10.92 | 17.76 | 10.36 |
| Illinois | 13.91 | 11.40 | 12.10 | 12.99 | 9.04 | 12.89 | 15.75 | 19.04 | 33.80 | 29.48 | 21.00 | 16.98 | 7.68 | 11.12 | 13.65 | 18.33 | 11.44 |
| Michigan | 12.50 | 11.90 | 13.16 | 11.52 | 11.70 | 15.08 | 14.70 | 15.90 | 23.04 | 27.60 | 17.75 | 19.01 | 6.55 | 13.94 | 13.76 | 18.62 | 12.80 |
| Wisconsin | 13.65 | 10.13 | 13.41 | 11.94 | 13.50 | 11.61 | 16.74 | 18.87 | 29.04 | 31.22 | 23.38 | 21.95 | 8.02 | 16.07 | 15.61 | 19.20 | 18.43 |
| Minnesota | 11.53 | 9.18 | 9.12 | 10.84 | 12.10 | 11.20 | 13.76 | 12.46 | 23.31 | 23.83 | 17.92 | 13.50 | 5.52 | 11.36 | 12.58 | 18.49 | 13.02 |
| Iowa | 9.45 | 10.21 | 10.46 | 11.83 | 11.73 | 13.53 | 12.80 | 17.76 | 29.61 | 26.88 | 22.14 | 14.04 | 5.98 | 12.96 | 13.39 | 18.49 | 12.96 |
| Missouri | 11.61 | 10.75 | 6.66 | 11.55 | 9.54 | 9.46 | 9.88 | 13.25 | 20.40 | 20.30 | 19.17 | 14.94 | 6.00 | 7.04 | 11.25 | 12.75 | 11.44 |
| North Dakota | 10.50 | 2.59 | 9.64 | 9.11 | 7.71 | 10.36 | 10.80 | 9.46 | 9.30 | 14.34 | 10.38 | 8.40 | 3.99 | 8.58 | 6.44 | 11.88 | 7.29 |
| South Dakota | 10.20 | 6.90 | 13.18 | 8.45 | 9.01 | 10.45 | 11.76 | 14.03 | 20.74 | 22.01 | 18.27 | 11.22 | 4.40 | 9.92 | 10.54 | 14.80 | 9.82 |
| Nebraska | 8.75 | 7.84 | 5.98 | 7.32 | 10.07 | 12.80 | 9.92 | 16.68 | 23.18 | 14.43 | 21.32 | 12.80 | 5.69 | 7.92 | 11.22 | 12.04 | 9.86 |
| Kansas | 12.13 | 11.32 | 6.75 | 11.20 | 8.78 | 14.07 | 9.80 | 12.92 | 19.84 | 16.06 | 20.51 | 11.97 | 5.54 | 7.58 | 11.22 | 11.75 | 10.12 |
| Delaware | 12.24 | 14.53 | 14.10 | 13.72 | 15.56 | 13.50 | 17.08 | 18.60 | 24.96 | 30.45 | 20.51 | 23.10 | 12.88 | 13.11 | 11.20 | 16.90 | 10.25 |
| Maryland | 12.45 | 13.80 | 13.23 | 13.44 | 14.04 | 16.66 | 16.66 | 18.00 | 28.25 | 28.38 | 22.96 | 22.75 | 12.15 | 16.30 | 16.09 | 21.76 | 10.96 |
| Virginia | 10.26 | 10.78 | 10.80 | 11.54 | 11.18 | 8.99 | 13.75 | 14.80 | 20.58 | 23.00 | 22.00 | 17.74 | 11.48 | 11.80 | 13.86 | 16.92 | 15.06 |
| West Virginia | 11.98 | 12.60 | 12.92 | 13.16 | 12.24 | 11.03 | 14.79 | 14.72 | 21.33 | 24.57 | 19.11 | 21.33 | 11.44 | 13.34 | 15.12 | 17.52 | 16.74 |
| North Carolina | 10.99 | 10.92 | 10.40 | 11.53 | 11.38 | 14.26 | 14.26 | 12.95 | 14.88 | 18.36 | 17.70 | 21.12 | 12.60 | 14.07 | 16.28 | 15.12 | 14.44 |
| South Carolina | 15.12 | 13.65 | 14.69 | 14.19 | 16.08 | 14.20 | 12.73 | 14.40 | 18.00 | 23.96 | 23.60 | 24.72 | 17.32 | 18.07 | 18.20 | 18.02 | 17.10 |
| Georgia | 12.49 | 11.65 | 15.05 | 13.52 | 14.86 | 14.00 | 12.87 | 15.40 | 18.72 | 23.50 | 20.70 | 22.68 | 13.44 | 16.30 | 16.30 | 17.72 | 15.70 |
| Florida | 12.75 | 10.53 | 10.12 | 12.04 | 12.00 | 12.00 | 10.65 | 12.60 | 10.65 | 20.70 | 18.00 | 18.00 | 8.15 | 8.94 | 13.50 | 12.60 | 12.60 |
| Kentucky | 11.97 | 9.20 | 9.20 | 11.84 | 10.30 | 11.13 | 12.45 | 12.60 | 18.76 | 20.48 | 23.48 | 17.16 | 10.25 | 10.25 | 11.76 | 15.54 | 12.39 |
| Tennessee | 10.60 | 10.58 | 9.75 | 10.20 | 11.13 | 12.19 | 12.25 | 13.02 | 20.75 | 23.25 | 17.20 | 15.44 | 9.84 | 9.54 | 12.60 | 14.49 | 14.08 |
| Alabama | 11.55 | 11.10 | 12.67 | 12.40 | 14.14 | 15.18 | 11.97 | 13.12 | 18.26 | 20.33 | 18.90 | 15.84 | 14.30 | 15.00 | 13.60 | 13.05 | 13.26 |
| Mississippi | 10.56 | 10.56 | 12.60 | 14.04 | 12.60 | 14.04 | 12.90 | 13.32 | 17.86 | 21.40 | 16.80 | 14.79 | 12.80 | 12.54 | 14.44 | 13.60 | 14.82 |
| Arkansas | 13.45 | 12.65 | 10.60 | 9.95 | 14.04 | 12.72 | 14.04 | 14.28 | 21.00 | 22.44 | 19.36 | 19.50 | 9.90 | 14.25 | 14.26 | 11.52 | 9.28 |
| Louisiana | 12.40 | 10.54 | 13.65 | 10.61 | 12.54 | 14.49 | 13.75 | 12.92 | 20.96 | 24.75 | 22.00 | 18.86 | 16.10 | 15.39 | 14.96 | 16.60 | 16.80 |

TABLE 657.—Barley: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Oklahoma..... | 13.34 | 13.50 | 4.32 | 8.53 | 8.10 | 11.28 | 9.45 | 7.12 | 17.25 | 20.16 | 22.40 | 14.52 | 5.40 | 9.00 | 10.40 | 13.25 | 11.73 |
| Texas..... | 11.59 | 16.45 | 13.55 | 15.48 | 16.58 | 12.00 | 14.91 | 17.38 | 21.32 | 13.52 | 26.58 | 14.52 | 7.02 | 12.65 | 18.24 | 20.06 | 7.75 |
| Montana..... | 21.55 | 17.48 | 19.82 | 18.89 | 13.92 | 13.65 | 16.64 | 17.86 | 17.86 | 11.22 | 5.46 | 11.22 | 8.16 | 11.84 | 12.54 | 13.86 | 11.92 |
| Idaho..... | 22.25 | 16.17 | 17.60 | 15.47 | 14.85 | 16.72 | 15.98 | 23.22 | 29.26 | 37.60 | 29.40 | 25.84 | 13.76 | 17.48 | 20.24 | 20.88 | 21.07 |
| Wyoming..... | 17.50 | 16.00 | 17.25 | 15.47 | 15.20 | 16.80 | 18.06 | 21.00 | 26.80 | 32.50 | 33.44 | 23.56 | 11.40 | 12.40 | 15.98 | 17.40 | 16.10 |
| Colorado..... | 20.14 | 17.99 | 16.80 | 16.26 | 15.40 | 18.00 | 15.99 | 19.80 | 26.88 | 24.00 | 23.38 | 18.90 | 10.23 | 11.25 | 14.72 | 14.50 | 13.50 |
| New Mexico..... | 26.40 | 16.99 | 22.12 | 15.62 | 18.00 | 17.10 | 18.00 | 19.43 | 25.20 | 24.92 | 26.03 | 21.92 | 13.30 | 9.05 | 14.00 | 12.00 | 12.80 |
| Arizona..... | 23.23 | 36.09 | 25.20 | 31.29 | 21.50 | 23.40 | 20.68 | 30.00 | 38.40 | 48.00 | 35.00 | 25.92 | 22.75 | 21.08 | 24.00 | 22.68 | 22.50 |
| Utah..... | 23.97 | 20.64 | 21.01 | 22.74 | 18.40 | 21.50 | 21.15 | 26.54 | 37.04 | 43.65 | 27.34 | 27.04 | 26.26 | 23.47 | 21.92 | 23.17 | 29.14 |
| Nevada..... | 23.60 | 28.16 | 27.90 | 20.80 | 27.35 | 23.60 | 24.75 | 32.25 | 38.40 | 44.84 | 25.30 | 44.64 | 28.26 | 27.90 | 28.67 | 24.48 | 29.25 |
| Washington..... | 23.22 | 20.54 | 23.26 | 19.28 | 19.00 | 19.74 | 18.50 | 26.82 | 31.18 | 26.46 | 37.20 | 33.55 | 21.00 | 22.74 | 28.50 | 22.72 | 22.88 |
| Oregon..... | 19.66 | 16.22 | 15.27 | 13.66 | 16.07 | 17.75 | 18.28 | 22.82 | 18.75 | 24.00 | 28.80 | 23.72 | 12.16 | 14.25 | 17.55 | 17.06 | 16.83 |
| California..... | 20.72 | 18.50 | 20.06 | 21.45 | 18.96 | 18.55 | 16.50 | 23.40 | 28.75 | 30.08 | 27.84 | 24.00 | 13.77 | 22.40 | 19.50 | 18.10 | 20.96 |
| United States..... | 12.94 | 10.88 | 10.98 | 11.93 | 11.45 | 12.99 | 13.65 | 15.80 | 24.37 | 24.59 | 20.66 | 16.20 | 7.16 | 11.74 | 13.20 | 17.01 | 12.66 |

Division of Crop and Livestock Estimates.

TABLE 657.—Barley: Value per acre based on December 1 price, 1909–1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 21.94 | 23.56 | 23.20 | 20.17 | 22.40 | 24.30 | 19.88 | 27.04 | 27.30 | 31.25 | 47.60 | 35.88 | 22.36 | 28.00 | 30.00 | 28.06 | 28.00 |
| New Hampshire..... | 20.00 | 20.02 | 20.64 | 23.52 | 22.40 | 25.24 | 23.75 | 26.20 | 43.75 | 44.60 | 46.62 | 37.96 | 27.44 | 27.44 | 27.55 | 27.30 | 26.50 |
| Vermont..... | 23.10 | 21.09 | 23.01 | 28.00 | 25.60 | 26.50 | 23.58 | 27.50 | 40.60 | 45.45 | 47.50 | 33.60 | 20.00 | 28.13 | 27.55 | 31.53 | 26.56 |
| New York..... | 17.11 | 19.81 | 21.25 | 17.68 | 18.42 | 19.88 | 24.25 | 24.53 | 36.40 | 39.60 | 39.92 | 28.71 | 13.02 | 19.24 | 27.55 | 23.83 | 21.93 |
| Pennsylvania..... | 14.61 | 16.70 | 16.25 | 18.70 | 18.46 | 18.60 | 22.12 | 15.75 | 39.20 | 33.60 | 31.36 | 21.60 | 13.33 | 16.58 | 16.13 | 23.56 | 21.93 |
| Ohio..... | 15.80 | 17.10 | 22.65 | 17.05 | 13.92 | 14.75 | 16.74 | 22.24 | 38.94 | 28.75 | 28.75 | 22.71 | 13.26 | 12.68 | 17.01 | 23.80 | 21.70 |
| Indiana..... | 14.80 | 15.12 | 19.88 | 15.70 | 12.50 | 16.75 | 18.20 | 20.25 | 31.72 | 28.48 | 29.50 | 24.48 | 9.12 | 9.80 | 14.95 | 18.46 | 16.33 |
| Illinois..... | 14.56 | 16.91 | 25.76 | 16.70 | 14.82 | 18.00 | 19.88 | 20.96 | 38.40 | 32.67 | 32.67 | 24.98 | 12.10 | 17.11 | 16.52 | 24.00 | 20.79 |
| Michigan..... | 15.07 | 15.08 | 16.90 | 14.60 | 14.88 | 16.90 | 18.29 | 22.30 | 26.04 | 30.00 | 30.09 | 22.62 | 9.86 | 16.70 | 15.36 | 23.44 | 17.64 |
| Wisconsin..... | 15.68 | 16.58 | 25.24 | 16.17 | 13.00 | 16.43 | 19.88 | 31.50 | 31.68 | 32.84 | 32.06 | 26.63 | 11.48 | 18.30 | 17.38 | 24.96 | 24.29 |
| Minnesota..... | 11.09 | 12.60 | 18.24 | 11.56 | 11.52 | 12.19 | 14.94 | 16.53 | 26.97 | 28.30 | 28.20 | 15.50 | 6.80 | 12.46 | 11.00 | 22.06 | 15.60 |
| Iowa..... | 10.12 | 16.52 | 20.37 | 16.12 | 13.75 | 14.30 | 14.94 | 26.84 | 40.55 | 28.50 | 28.50 | 17.32 | 9.87 | 9.87 | 14.01 | 21.70 | 17.67 |
| Missouri..... | 17.00 | 16.20 | 15.00 | 16.37 | 13.00 | 15.00 | 13.75 | 13.40 | 25.50 | 25.50 | 26.00 | 27.44 | 14.30 | 16.56 | 21.06 | 20.50 | 26.45 |
| North Dakota..... | 9.63 | 3.02 | 16.86 | 10.46 | 8.00 | 8.50 | 14.78 | 12.40 | 11.50 | 13.70 | 12.42 | 10.08 | 9.84 | 9.84 | 9.65 | 15.50 | 9.68 |
| South Dakota..... | 8.78 | 10.37 | 4.75 | 10.92 | 8.65 | 11.50 | 14.72 | 18.84 | 23.70 | 23.01 | 25.39 | 13.00 | 4.93 | 9.66 | 9.00 | 17.28 | 12.22 |
| Nebraska..... | 9.46 | 8.22 | 6.60 | 9.24 | 7.84 | 11.04 | 13.02 | 21.00 | 25.97 | 14.02 | 25.70 | 14.50 | 6.92 | 8.46 | 12.32 | 15.75 | 13.12 |
| Kansas..... | 9.54 | 8.10 | 3.90 | 9.40 | 4.46 | 11.52 | 13.62 | 12.22 | 25.20 | 9.50 | 40.39 | 11.43 | 5.50 | 7.78 | 10.88 | 10.72 | 6.55 |
| Maryland..... | 20.48 | 18.91 | 13.50 | 18.36 | 18.56 | 21.78 | 23.60 | 23.36 | 32.50 | 37.20 | 40.39 | 30.25 | 20.10 | 24.00 | 26.40 | 30.69 | 28.71 |
| Virginia..... | 20.24 | 19.63 | 16.10 | 18.75 | 18.20 | 23.80 | 21.75 | 23.38 | 41.70 | 35.20 | 32.50 | 27.00 | 15.56 | 22.00 | 21.60 | 28.35 | 25.22 |
| Kentucky..... | 18.54 | 15.60 | 22.67 | 19.50 | 20.75 | 21.94 | 23.10 | 23.40 | 32.20 | 33.20 | 33.25 | 32.20 | 14.64 | 23.60 | 22.60 | 24.24 | 24.70 |

TABLE 657.—Barley: Value per acre based on December 1 price, 1909-1925—Continued

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Tennessee..... | Dollars 18.96 | Dollars 18.40 | Dollars 25.20 | Dollars 20.80 | Dollars 17.50 | Dollars 22.14 | Dollars 18.00 | Dollars 23.70 | Dollars 21.60 | Dollars 34.96 | Dollars 36.00 | Dollars 25.30 | Dollars 21.00 | Dollars 18.00 | Dollars 23.00 | Dollars 22.00 | Dollars 25.30 |
| Oklahoma..... | 14.86 | 16.20 | 16.10 | 10.90 | 17.20 | 13.25 | 13.25 | 12.50 | 26.64 | 21.08 | 36.60 | 17.28 | 9.90 | 9.35 | 15.40 | 16.10 | 10.50 |
| Texas..... | 18.40 | 27.00 | 16.74 | 22.85 | 19.44 | 17.50 | 19.04 | 13.60 | 27.40 | 22.08 | 39.20 | 17.25 | 10.80 | 12.35 | 16.32 | 19.00 | 6.48 |
| Montana..... | 23.94 | 17.36 | 23.46 | 18.34 | 14.88 | 16.16 | 16.32 | 21.28 | 15.45 | 22.00 | 7.84 | 11.70 | 12.30 | 12.50 | 12.24 | 17.25 | 15.12 |
| Idaho..... | 16.50 | 23.40 | 22.18 | 20.16 | 19.00 | 21.06 | 21.06 | 31.88 | 30.45 | 36.10 | 36.40 | 26.25 | 15.04 | 22.10 | 24.94 | 25.42 | 24.64 |
| Wyoming..... | 22.94 | 20.10 | 25.50 | 21.08 | 18.60 | 21.12 | 19.80 | 28.71 | 46.80 | 48.10 | 25.25 | 29.60 | 18.85 | 16.80 | 20.85 | 20.85 | 20.13 |
| Colorado..... | 23.76 | 19.20 | 20.01 | 19.50 | 15.20 | 21.88 | 26.24 | 34.32 | 22.80 | 20.34 | 22.80 | 18.36 | 8.14 | 11.21 | 15.60 | 14.40 | 12.18 |
| New Mexico..... | 40.00 | 20.00 | 23.10 | 24.85 | 17.28 | 25.50 | 23.10 | 28.00 | 38.92 | 30.80 | 26.18 | 17.70 | 14.64 | 14.25 | 15.20 | 9.00 | 14.45 |
| Arizona..... | 35.20 | 32.40 | 31.75 | 34.80 | 28.47 | 21.60 | 20.72 | 37.80 | 52.50 | 43.20 | 43.00 | 47.60 | 24.60 | 28.05 | 33.25 | 26.40 | 35.00 |
| Utah..... | 26.40 | 21.60 | 28.38 | 26.55 | 21.18 | 22.50 | 22.10 | 27.36 | 41.40 | 49.00 | 32.29 | 31.20 | 13.35 | 19.25 | 28.42 | 24.80 | 35.55 |
| Nevada..... | 28.50 | 26.00 | 32.40 | 35.67 | 36.90 | 30.55 | 33.60 | 38.98 | 41.65 | 52.86 | 39.75 | 49.50 | 24.88 | 29.40 | 21.68 | 43.78 | 39.26 |
| Washington..... | 25.26 | 16.53 | 25.16 | 22.79 | 21.06 | 20.28 | 23.24 | 34.69 | 33.35 | 17.48 | 40.50 | 35.30 | 19.14 | 17.76 | 27.42 | 18.21 | 23.12 |
| Oregon..... | 20.79 | 19.53 | 22.10 | 19.80 | 19.25 | 18.30 | 22.32 | 30.80 | 33.35 | 34.60 | 34.65 | 32.20 | 16.00 | 19.98 | 23.45 | 22.00 | 24.09 |
| California..... | 19.61 | 17.05 | 23.90 | 21.00 | 17.68 | 17.70 | 17.98 | 26.60 | 34.80 | 28.90 | 38.07 | 23.00 | 14.00 | 19.22 | 21.14 | 24.71 | 23.25 |
| United States..... | 13.37 | 12.97 | 18.25 | 15.00 | 12.77 | 14.00 | 16.53 | 20.71 | 26.95 | 24.12 | 26.50 | 17.77 | 8.76 | 13.06 | 13.66 | 19.20 | 15.49 |

Division of Crop and Livestock Estimates.

TABLE 658.—Flaxseed: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Wisconsin..... | Dollars 19.98 | Dollars 22.00 | Dollars 22.20 | Dollars 18.68 | Dollars 17.22 | Dollars 16.58 | Dollars 24.30 | Dollars 28.50 | Dollars 28.50 | Dollars 36.30 | Dollars 45.15 | Dollars 53.32 | Dollars 13.75 | Dollars 23.40 | Dollars 25.41 | Dollars 28.25 | Dollars 31.19 |
| Minnesota..... | 15.00 | 17.25 | 14.56 | 12.24 | 11.07 | 11.90 | 18.48 | 20.40 | 28.02 | 33.46 | 33.60 | 17.38 | 14.34 | 21.80 | 19.74 | 26.56 | 21.19 |
| Iowa..... | 12.74 | 26.84 | 14.80 | 14.26 | 11.56 | 11.40 | 13.50 | 21.50 | 30.25 | 35.20 | 39.00 | 18.00 | 13.31 | 18.24 | 18.74 | 26.32 | 23.00 |
| North Dakota..... | 14.60 | 8.46 | 13.98 | 11.06 | 8.71 | 10.62 | 17.62 | 25.96 | 11.70 | 26.91 | 20.29 | 9.43 | 9.04 | 13.90 | 16.32 | 19.30 | 14.69 |
| South Dakota..... | 14.19 | 11.45 | 9.43 | 9.72 | 8.64 | 9.22 | 18.37 | 22.97 | 20.93 | 30.88 | 29.75 | 16.50 | 9.04 | 19.10 | 17.68 | 19.85 | 15.30 |
| Nebraska..... | 10.37 | 18.00 | 9.25 | 12.16 | 6.00 | 8.33 | 16.17 | 18.40 | 13.75 | 31.35 | 20.00 | 13.06 | 12.00 | 15.20 | 23.10 | 15.75 | 20.70 |
| Kansas..... | 7.70 | 17.22 | 5.70 | 6.96 | 6.96 | 7.50 | 13.57 | 13.57 | 20.30 | 16.50 | 23.94 | 12.42 | 9.04 | 11.16 | 15.83 | 13.98 | 13.60 |
| Montana..... | 19.20 | 16.80 | 13.86 | 13.44 | 10.35 | 9.60 | 17.85 | 23.56 | 8.85 | 10.14 | 5.72 | 4.55 | 7.00 | 14.18 | 15.83 | 19.25 | 9.90 |
| United States..... | 14.45 | 11.95 | 12.79 | 11.29 | 9.34 | 10.53 | 17.60 | 24.11 | 13.70 | 23.81 | 20.94 | 10.81 | 10.51 | 19.71 | 17.91 | 20.78 | 16.55 |

Division of Crop and Livestock Estimates.

TABLE 659.—Buckwheat: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 19.60 | 22.10 | 21.00 | 20.58 | 17.92 | 17.40 | 18.30 | 22.80 | 32.25 | 30.00 | 42.00 | 41.31 | 27.00 | 20.70 | 21.85 | 22.80 | 28.00 |
| New Hampshire..... | 16.72 | 19.22 | 22.11 | 22.32 | 20.46 | 17.50 | 24.30 | 20.00 | 29.28 | 34.00 | 28.08 | 24.40 | 18.48 | 31.25 | 22.00 | 25.30 | 21.60 |
| Vermont..... | 16.72 | 16.80 | 20.66 | 21.60 | 20.00 | 22.96 | 22.14 | 18.38 | 30.00 | 33.60 | 37.40 | 28.35 | 19.80 | 22.08 | 18.00 | 23.10 | 19.80 |
| Massachusetts..... | 14.48 | 18.70 | 18.99 | 17.85 | 13.60 | 15.54 | 15.20 | 22.40 | 24.90 | 31.36 | 32.00 | 26.60 | 22.50 | 28.98 | 23.00 | 23.75 | 20.30 |
| Connecticut..... | 19.50 | 16.18 | 18.06 | 18.04 | 16.15 | 17.58 | 19.20 | 22.80 | 34.60 | 39.90 | 36.00 | 27.20 | 24.32 | 25.20 | 17.60 | 20.71 | 23.50 |
| New York..... | 16.56 | 14.95 | 15.55 | 15.23 | 11.58 | 17.48 | 15.20 | 14.64 | 28.80 | 26.25 | 31.90 | 28.00 | 17.84 | 21.00 | 18.24 | 21.21 | 16.34 |
| New Jersey..... | 16.13 | 14.84 | 15.00 | 15.84 | 16.72 | 17.43 | 17.43 | 20.82 | 28.44 | 30.60 | 27.00 | 27.00 | 21.00 | 25.30 | 19.65 | 22.23 | 21.00 |
| Pennsylvania..... | 13.26 | 12.09 | 15.11 | 15.40 | 13.40 | 15.58 | 16.38 | 15.54 | 29.34 | 28.80 | 30.24 | 21.60 | 17.25 | 16.80 | 19.56 | 19.57 | 20.93 |
| Ohio..... | 16.54 | 13.50 | 16.38 | 13.65 | 13.68 | 15.24 | 17.71 | 19.47 | 58.82 | 51.66 | 35.96 | 21.94 | 26.25 | 16.00 | 18.80 | 16.48 | 16.94 |
| Indiana..... | 13.32 | 12.39 | 13.54 | 13.87 | 13.88 | 13.65 | 11.20 | 20.16 | 23.25 | 24.00 | 24.75 | 24.00 | 19.00 | 15.00 | 16.15 | 14.42 | 11.22 |
| Illinois..... | 14.56 | 18.00 | 17.20 | 17.60 | 12.60 | 16.82 | 15.20 | 22.10 | 32.30 | 32.04 | 32.40 | 24.48 | 19.14 | 11.90 | 15.15 | 16.80 | 14.00 |
| Michigan..... | 9.44 | 9.49 | 12.78 | 11.05 | 10.50 | 13.14 | 10.44 | 12.65 | 13.23 | 17.00 | 18.01 | 15.80 | 12.45 | 11.20 | 11.93 | 13.44 | 12.33 |
| Wisconsin..... | 9.59 | 10.50 | 13.12 | 11.22 | 11.38 | 13.30 | 10.73 | 14.24 | 21.23 | 26.34 | 24.20 | 19.20 | 11.15 | 12.53 | 12.46 | 13.39 | 12.64 |
| Minnesota..... | 10.79 | 11.52 | 13.68 | 13.65 | 10.86 | 11.90 | 13.12 | 16.50 | 18.90 | 25.60 | 21.70 | 16.96 | 11.20 | 11.20 | 11.70 | 12.24 | 10.50 |
| Iowa..... | 12.75 | 12.37 | 13.75 | 14.25 | 11.34 | 14.09 | 10.40 | 18.75 | 24.00 | 27.00 | 23.66 | 22.75 | 12.00 | 17.50 | 14.10 | 15.45 | 15.75 |
| Missouri..... | 18.90 | 14.36 | 10.50 | 14.25 | 9.35 | 14.42 | 13.50 | 18.62 | 21.60 | 23.40 | 27.60 | 24.80 | 21.00 | 16.25 | 15.34 | 13.65 | 12.60 |
| South Dakota..... | 14.40 | 18.00 | 15.20 | 16.20 | 13.80 | 18.54 | 19.00 | 18.70 | 24.00 | 28.10 | 26.50 | 16.00 | 11.20 | 5.60 | 12.04 | 15.84 | 8.40 |
| Nebraska..... | 11.38 | 13.32 | 12.38 | 10.56 | 11.73 | 14.44 | 13.88 | 22.42 | 23.00 | 29.32 | 28.80 | 21.60 | 10.80 | 13.60 | 15.30 | 15.00 | 14.00 |
| Delaware..... | 12.28 | 12.21 | 13.40 | 12.42 | 12.38 | 14.98 | 14.40 | 20.90 | 34.63 | 33.00 | 35.66 | 26.60 | 16.13 | 17.72 | 22.10 | 19.25 | 24.00 |
| Maryland..... | 13.68 | 13.86 | 11.20 | 16.12 | 18.48 | 16.30 | 16.00 | 18.24 | 31.65 | 34.23 | 39.48 | 29.24 | 17.22 | 15.90 | 18.34 | 18.34 | 17.60 |
| Virginia..... | 17.25 | 17.71 | 20.40 | 18.00 | 16.38 | 17.84 | 17.90 | 18.48 | 24.00 | 33.74 | 25.70 | 27.20 | 18.04 | 17.63 | 19.20 | 19.04 | 18.00 |
| West Virginia..... | 15.84 | 13.20 | 15.20 | 14.88 | 15.06 | 15.77 | 14.35 | 14.88 | 26.00 | 30.00 | 23.90 | 22.00 | 14.45 | 19.40 | 23.76 | 17.42 | 15.40 |
| North Carolina..... | 11.88 | 12.90 | 12.64 | 14.04 | 11.25 | 17.39 | 13.68 | 18.00 | 25.50 | 28.20 | 23.25 | 21.45 | 17.10 | 11.60 | 20.71 | 16.66 | 12.50 |
| Kentucky..... | 11.88 | 12.90 | 12.64 | 14.04 | 11.25 | 17.39 | 13.68 | 18.00 | 25.50 | 28.20 | 23.25 | 21.45 | 17.10 | 11.60 | 20.71 | 16.66 | 12.50 |
| Tennessee..... | 11.88 | 12.90 | 12.64 | 14.04 | 11.25 | 17.39 | 13.68 | 18.00 | 25.50 | 28.20 | 23.25 | 21.45 | 17.10 | 11.60 | 20.71 | 16.66 | 12.50 |
| United States..... | 14.35 | 13.53 | 15.29 | 15.12 | 12.98 | 16.28 | 15.40 | 15.88 | 27.74 | 27.40 | 30.03 | 24.06 | 16.97 | 16.87 | 17.63 | 18.53 | 16.83 |

Division of Crop and Livestock Estimates.

TABLE 660.—Rice: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| South Carolina..... | 23.30 | 15.75 | 8.78 | 23.25 | 27.00 | 23.92 | 21.87 | 12.60 | 48.75 | 44.85 | 72.00 | 72.50 | 24.25 | 29.90 | 30.00 | 19.60 | 20.00 |
| Georgia..... | 20.79 | 16.50 | 20.64 | 27.00 | 26.56 | 24.92 | 25.78 | 17.40 | 58.50 | 45.50 | 66.00 | 58.50 | 23.92 | 28.20 | 29.96 | 23.80 | 24.65 |
| Florida..... | 20.00 | 15.12 | 18.75 | 22.50 | 15.00 | 17.30 | 18.75 | 13.75 | 50.70 | 33.60 | 68.38 | 42.00 | 21.34 | 32.50 | 31.08 | 13.60 | 19.80 |
| Mississippi..... | 24.00 | 21.72 | 31.50 | 19.60 | 25.50 | 22.00 | 22.40 | 57.00 | 65.29 | 62.00 | 43.60 | 62.00 | 23.60 | 20.90 | 20.70 | 13.60 | 66.30 |
| Arkansas..... | 36.00 | 28.00 | 31.98 | 35.25 | 32.40 | 35.82 | 45.98 | 48.48 | 77.90 | 68.22 | 110.40 | 64.19 | 49.22 | 42.24 | 44.24 | 58.93 | 66.30 |
| Louisiana..... | 26.70 | 23.05 | 24.88 | 31.16 | 24.36 | 29.85 | 30.78 | 41.40 | 58.90 | 56.16 | 95.39 | 39.60 | 30.96 | 32.04 | 35.84 | 47.06 | 50.95 |
| Texas..... | 26.52 | 22.44 | 27.44 | 33.37 | 27.52 | 31.10 | 27.14 | 38.70 | 60.00 | 63.04 | 59.60 | 42.50 | 36.46 | 28.06 | 46.00 | 55.88 | 53.64 |
| California..... | 21.45 | 30.00 | 45.50 | 45.50 | 48.00 | 53.30 | 60.03 | 46.02 | 119.40 | 124.45 | 160.20 | 61.71 | 62.10 | 60.50 | 59.92 | 80.51 | 78.20 |
| United States..... | 26.87 | 22.99 | 26.26 | 32.40 | 26.71 | 31.43 | 32.64 | 41.78 | 67.16 | 66.19 | 105.28 | 46.43 | 38.87 | 36.55 | 41.51 | 54.07 | 57.79 |

Division of Crop and Livestock Estimates.

TABLE 661.—Potatoes: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 105.75 | 92.40 | 133.60 | 108.90 | 116.60 | 85.80 | 125.30 | 288.68 | 162.50 | 240.00 | 322.00 | 221.25 | 233.30 | 84.13 | 180.60 | 135.43 | 510.00 |
| New Hampshire..... | 83.20 | 78.00 | 108.75 | 85.40 | 101.26 | 95.40 | 90.25 | 199.20 | 178.69 | 203.00 | 178.50 | 196.85 | 216.00 | 105.00 | 218.50 | 162.80 | 340.75 |
| Vermont..... | 68.20 | 58.50 | 82.95 | 77.00 | 91.44 | 78.96 | 87.48 | 155.68 | 140.00 | 178.40 | 137.00 | 162.50 | 156.00 | 111.60 | 200.00 | 136.00 | 268.75 |
| Massachusetts..... | 98.76 | 87.50 | 88.28 | 97.50 | 89.25 | 110.65 | 112.50 | 139.25 | 201.25 | 224.10 | 171.00 | 187.50 | 174.80 | 85.50 | 243.00 | 144.00 | 343.00 |
| Rhode Island..... | 100.00 | 93.84 | 116.60 | 87.01 | 117.00 | 115.50 | 101.20 | 136.90 | 236.25 | 229.90 | 180.00 | 176.00 | 184.00 | 81.00 | 214.50 | 133.00 | 343.00 |
| Connecticut..... | 99.60 | 87.50 | 89.25 | 83.46 | 80.04 | 91.00 | 91.20 | 166.25 | 180.40 | 165.75 | 146.25 | 172.50 | 154.50 | 140.00 | 235.20 | 130.00 | 337.50 |
| New York..... | 48.96 | 48.96 | 66.60 | 61.48 | 59.20 | 63.80 | 50.84 | 110.60 | 123.50 | 119.56 | 138.05 | 147.50 | 111.24 | 116.85 | 78.80 | 78.80 | 184.90 |
| New Jersey..... | 73.80 | 68.25 | 76.65 | 71.28 | 77.90 | 65.83 | 97.50 | 189.10 | 180.74 | 156.40 | 162.24 | 165.00 | 134.00 | 124.58 | 104.50 | 100.50 | 242.80 |
| Pennsylvania..... | 50.70 | 45.76 | 52.08 | 62.13 | 70.40 | 60.90 | 54.00 | 103.60 | 124.20 | 120.80 | 154.00 | 142.60 | 114.38 | 81.00 | 110.25 | 94.40 | 238.62 |
| Ohio..... | 62.08 | 41.82 | 54.60 | 59.36 | 54.40 | 50.35 | 57.40 | 81.90 | 143.00 | 103.50 | 117.12 | 135.00 | 89.90 | 80.10 | 98.00 | 78.32 | 212.00 |
| Indiana..... | 49.40 | 42.00 | 50.46 | 57.00 | 44.32 | 44.80 | 53.20 | 77.88 | 127.88 | 108.00 | 85.80 | 127.68 | 73.95 | 63.84 | 90.30 | 79.20 | 179.28 |
| Illinois..... | 35.51 | 44.25 | 43.00 | 60.60 | 40.94 | 36.60 | 64.60 | 103.82 | 136.90 | 106.05 | 101.92 | 94.25 | 74.20 | 56.70 | 80.96 | 82.50 | 141.00 |
| Michigan..... | 36.76 | 32.55 | 66.74 | 43.05 | 60.88 | 36.30 | 33.00 | 76.80 | 99.75 | 74.76 | 121.50 | 96.60 | 76.00 | 36.04 | 50.16 | 46.80 | 166.86 |
| Wisconsin..... | 38.76 | 37.20 | 71.92 | 40.80 | 58.86 | 39.15 | 69.09 | 102.60 | 102.60 | 88.00 | 131.60 | 92.88 | 64.60 | 40.92 | 45.12 | 46.80 | 160.40 |
| Minnesota..... | 40.25 | 39.04 | 69.70 | 37.80 | 57.20 | 36.48 | 41.84 | 78.00 | 101.92 | 78.75 | 133.11 | 79.20 | 67.50 | 31.50 | 39.78 | 35.64 | 146.38 |

| | | | | | | | | | | | | | | | | | |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Iowa..... | 48.95 | 43.20 | 54.02 | 50.14 | 39.36 | 50.74 | 56.70 | 73.20 | 124.45 | 95.76 | 88.32 | 134.20 | 60.20 | 70.35 | 64.68 | 74.50 | 148.05 |
| Maine..... | 56.95 | 58.45 | 27.54 | 57.96 | 35.34 | 32.85 | 58.80 | 108.00 | 119.19 | 93.33 | 138.00 | 123.82 | 78.30 | 27.90 | 88.00 | 80.36 | 128.25 |
| Massachusetts..... | 49.50 | 37.31 | 66.00 | 35.84 | 47.60 | 42.30 | 36.90 | 106.95 | 55.90 | 72.27 | 101.80 | 77.42 | 67.20 | 27.90 | 28.05 | 35.88 | 105.00 |
| Michigan..... | 50.40 | 37.40 | 50.40 | 37.80 | 49.14 | 43.70 | 40.25 | 90.42 | 99.90 | 84.63 | 95.00 | 102.52 | 63.27 | 34.32 | 38.72 | 39.36 | 117.00 |
| Minnesota..... | 46.80 | 50.40 | 47.84 | 40.80 | 37.44 | 43.20 | 44.10 | 100.50 | 90.95 | 101.46 | 104.50 | 118.80 | 96.00 | 39.48 | 55.00 | 53.94 | 135.00 |
| Nebraska..... | 62.41 | 51.30 | 23.32 | 59.58 | 36.40 | 47.74 | 61.42 | 117.15 | 86.64 | 76.32 | 144.40 | 127.50 | 86.40 | 58.58 | 85.14 | 86.45 | 157.45 |
| Nevada..... | 69.12 | 61.80 | 57.60 | 65.25 | 56.00 | 56.00 | 71.25 | 112.50 | 103.75 | 103.75 | 106.00 | 106.00 | 55.00 | 67.20 | 81.60 | 72.00 | 128.00 |
| New Hampshire..... | 52.60 | 51.30 | 40.95 | 64.98 | 58.20 | 46.80 | 60.14 | 126.35 | 119.00 | 112.00 | 122.20 | 96.90 | 71.50 | 60.60 | 80.00 | 76.95 | 141.62 |
| New Jersey..... | 64.40 | 58.84 | 43.20 | 56.55 | 78.20 | 50.05 | 76.25 | 178.10 | 123.75 | 112.80 | 178.96 | 114.00 | 118.80 | 60.65 | 80.91 | 107.42 | 175.50 |
| New Mexico..... | 65.64 | 61.64 | 46.80 | 68.44 | 74.70 | 43.74 | 78.05 | 139.04 | 151.80 | 139.20 | 157.50 | 162.00 | 138.55 | 86.13 | 126.10 | 93.10 | 167.91 |
| New York..... | 59.94 | 64.97 | 51.84 | 64.90 | 65.60 | 47.84 | 65.70 | 133.00 | 128.70 | 128.25 | 130.40 | 129.22 | 125.84 | 94.94 | 103.20 | 117.60 | 140.40 |
| North Carolina..... | 97.75 | 84.50 | 85.40 | 100.80 | 124.00 | 87.50 | 92.00 | 131.25 | 201.60 | 196.66 | 170.00 | 180.00 | 127.50 | 97.28 | 164.80 | 160.95 | 182.70 |
| Ohio..... | 81.00 | 86.10 | 78.20 | 67.86 | 64.35 | 63.00 | 64.35 | 105.00 | 163.80 | 129.50 | 151.90 | 153.92 | 123.75 | 95.20 | 112.00 | 108.00 | 102.90 |
| Oklahoma..... | 114.00 | 90.00 | 130.60 | 97.80 | 88.82 | 90.40 | 92.00 | 148.00 | 186.55 | 200.00 | 159.60 | 210.00 | 174.80 | 192.50 | 174.80 | 145.20 | 260.80 |
| Oregon..... | 18.88 | 57.04 | 41.75 | 67.67 | 49.36 | 37.80 | 68.50 | 119.28 | 134.40 | 123.75 | 147.00 | 148.50 | 107.25 | 80.00 | 102.00 | 102.00 | 120.00 |
| Pennsylvania..... | 53.25 | 52.00 | 44.28 | 61.60 | 62.08 | 39.13 | 55.44 | 122.18 | 118.44 | 115.50 | 115.24 | 132.30 | 85.80 | 88.00 | 100.80 | 86.60 | 109.20 |
| Rhode Island..... | 73.40 | 73.20 | 92.04 | 72.90 | 88.20 | 78.79 | 72.60 | 132.10 | 131.04 | 144.50 | 172.60 | 124.00 | 127.50 | 120.00 | 120.00 | 134.50 | 125.40 |
| South Carolina..... | 82.65 | 79.40 | 93.45 | 80.10 | 80.00 | 76.00 | 107.00 | 107.00 | 132.04 | 132.04 | 157.25 | 174.00 | 136.00 | 136.00 | 113.96 | 132.84 | 134.00 |
| Tennessee..... | 64.40 | 71.40 | 63.25 | 64.40 | 72.00 | 58.20 | 68.40 | 121.50 | 125.60 | 132.00 | 140.65 | 139.50 | 99.00 | 88.40 | 80.24 | 94.72 | 126.00 |
| Texas..... | 83.25 | 49.50 | 68.00 | 60.59 | 67.20 | 67.90 | 48.45 | 108.55 | 117.76 | 118.50 | 140.80 | 131.95 | 120.60 | 97.50 | 94.50 | 102.00 | 126.00 |
| Utah..... | 66.50 | 60.00 | 22.33 | 55.90 | 63.00 | 63.00 | 71.40 | 103.35 | 124.20 | 66.20 | 153.75 | 133.20 | 107.20 | 83.64 | 84.48 | 91.00 | 162.00 |
| Vermont..... | 53.00 | 54.10 | 71.82 | 66.15 | 38.24 | 62.44 | 68.25 | 93.00 | 126.00 | 110.00 | 133.30 | 114.40 | 108.40 | 90.20 | 88.00 | 113.90 | 127.20 |
| Virginia..... | 91.80 | 102.00 | 111.00 | 96.00 | 93.80 | 89.60 | 77.50 | 150.00 | 96.90 | 108.00 | 130.00 | 115.50 | 92.00 | 50.40 | 71.50 | 73.58 | 172.80 |
| Washington..... | 96.00 | 92.30 | 117.00 | 83.65 | 85.00 | 74.40 | 70.00 | 180.30 | 123.24 | 139.85 | 230.65 | 122.40 | 142.42 | 57.35 | 90.00 | 91.80 | 284.20 |
| West Virginia..... | 100.50 | 52.00 | 58.50 | 84.00 | 91.60 | 75.60 | 90.00 | 166.40 | 161.20 | 127.50 | 132.00 | 150.00 | 127.44 | 55.00 | 93.00 | 82.65 | 192.00 |
| Wisconsin..... | 91.20 | 55.00 | 34.65 | 38.95 | 74.75 | 60.00 | 74.25 | 186.30 | 145.60 | 158.40 | 195.50 | 104.00 | 96.36 | 48.10 | 65.19 | 90.00 | 255.75 |
| Wyoming..... | 86.00 | 48.88 | 80.00 | 166.25 | 95.50 | 95.00 | 95.00 | 277.50 | 191.40 | 160.00 | 157.50 | 108.00 | 108.00 | 72.50 | 54.08 | 156.00 | 150.00 |
| Arizona..... | 117.00 | 113.92 | 133.00 | 136.25 | 101.25 | 132.00 | 95.00 | 180.00 | 137.40 | 174.25 | 171.00 | 161.00 | 92.00 | 76.50 | 81.00 | 81.00 | 131.10 |
| California..... | 77.40 | 83.78 | 119.00 | 90.65 | 104.40 | 78.75 | 274.00 | 247.00 | 177.42 | 174.60 | 185.32 | 151.20 | 136.85 | 78.90 | 110.00 | 100.64 | 238.40 |
| Colorado..... | 153.00 | 120.00 | 148.80 | 106.80 | 108.50 | 91.00 | 120.40 | 231.00 | 248.40 | 210.33 | 202.50 | 210.60 | 177.60 | 104.40 | 182.70 | 159.00 | 427.50 |
| Idaho..... | 79.90 | 95.63 | 108.80 | 60.12 | 73.80 | 70.40 | 71.55 | 161.70 | 115.00 | 133.32 | 181.25 | 147.25 | 133.65 | 65.25 | 68.50 | 127.50 | 238.25 |
| Montana..... | 100.10 | 110.50 | 121.50 | 84.90 | 83.90 | 96.60 | 69.00 | 137.00 | 217.90 | 110.00 | 104.00 | 104.00 | 98.10 | 51.60 | 91.20 | 156.00 | 156.00 |
| Nebraska..... | 58.24 | 52.30 | 64.60 | 57.28 | 62.13 | 53.75 | 59.45 | 117.62 | 123.81 | 114.44 | 145.36 | 126.27 | 101.08 | 61.15 | 85.13 | 79.46 | 194.45 |
| United States..... | | | | | | | | | | | | | | | | | |

Division of Crop and Livestock Estimates.

TABLE 662.—Cotton: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Missouri..... | 28.57 | 33.76 | 33.02 | 30.55 | 34.45 | 18.33 | 27.50 | 44.79 | 54.67 | 58.70 | 57.08 | 39.14 | 50.92 | 80.90 | 58.01 | 44.99 | 32.03 |
| Virginia..... | 26.55 | 30.96 | 31.26 | 31.15 | 32.72 | 20.46 | 26.49 | 62.63 | 52.20 | 74.93 | 81.86 | 38.10 | 30.47 | 53.44 | 109.36 | 43.69 | 49.48 |
| North Carolina..... | 30.72 | 33.68 | 29.15 | 34.15 | 31.08 | 21.03 | 30.56 | 43.76 | 56.50 | 74.06 | 88.14 | 42.25 | 45.37 | 64.22 | 93.57 | 46.51 | 50.78 |
| South Carolina..... | 31.12 | 32.60 | 25.91 | 27.20 | 31.36 | 18.50 | 25.46 | 32.85 | 61.91 | 72.19 | 88.79 | 39.70 | 23.18 | 31.20 | 62.71 | 37.08 | 29.95 |
| Georgia..... | 27.40 | 25.75 | 22.38 | 20.55 | 27.88 | 17.26 | 22.55 | 34.33 | 32.22 | 54.64 | 53.91 | 22.69 | 13.65 | 23.00 | 27.51 | 36.84 | 30.45 |
| Florida..... | 21.99 | 24.08 | 16.24 | 18.49 | 26.54 | 22.43 | 18.34 | 33.64 | 52.24 | 37.87 | 32.47 | 13.40 | 13.09 | 24.38 | 12.09 | 30.54 | 35.47 |
| Tennessee..... | 22.82 | 29.59 | 23.64 | 22.21 | 27.86 | 13.41 | 22.21 | 42.04 | 37.22 | 48.80 | 63.51 | 23.16 | 33.10 | 43.63 | 30.53 | 41.27 | 38.55 |
| Alabama..... | 20.65 | 23.82 | 18.90 | 21.77 | 26.26 | 14.04 | 16.96 | 16.13 | 36.67 | 42.06 | 44.47 | 17.39 | 20.77 | 33.66 | 30.30 | 34.58 | 35.59 |
| Mississippi..... | 23.53 | 27.41 | 16.38 | 22.26 | 26.36 | 13.87 | 20.06 | 26.76 | 45.28 | 54.31 | 63.26 | 23.22 | 23.68 | 39.55 | 30.91 | 43.67 | 44.06 |
| Arkansas..... | 22.52 | 25.42 | 17.69 | 24.47 | 24.87 | 13.52 | 21.81 | 42.74 | 50.11 | 45.83 | 59.07 | 27.10 | 26.93 | 42.64 | 32.77 | 40.32 | 32.50 |
| Louisiana..... | 18.67 | 18.14 | 15.92 | 23.26 | 20.87 | 11.94 | 19.29 | 33.86 | 58.55 | 48.02 | 34.12 | 18.72 | 17.91 | 36.13 | 39.67 | 34.14 | 43.93 |
| Oklahoma..... | 20.05 | 27.55 | 13.40 | 21.65 | 13.41 | 14.41 | 19.07 | 30.54 | 73.78 | 73.25 | 73.25 | 23.52 | 16.90 | 24.75 | 30.53 | 43.42 | 23.42 |
| Texas..... | 17.76 | 21.22 | 16.73 | 24.75 | 13.01 | 13.09 | 17.04 | 31.70 | 37.62 | 33.55 | 51.77 | 24.10 | 16.47 | 31.88 | 46.65 | 32.27 | 21.83 |
| New Mexico..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 48.44 | 54.86 | 75.63 | 70.66 | 64.36 |
| Arizona..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 73.43 | 140.47 | 142.63 | 67.25 | 67.96 | 69.43 | 103.76 | 78.91 | 64.36 |
| California..... | ..... | 44.23 | 30.39 | 57.05 | 65.90 | 37.11 | 41.00 | 83.88 | 59.53 | 81.00 | 115.24 | 75.19 | 52.71 | 41.22 | 104.82 | 71.53 | 80.58 |
| United States..... | 22.55 | 25.32 | 19.06 | 23.83 | 23.26 | 14.91 | 20.10 | 32.08 | 46.28 | 46.20 | 60.62 | 26.02 | 21.11 | 35.03 | 42.34 | 37.26 | 30.90 |

Division of Crop and Livestock Estimates.

Value per acre obtained by dividing the value of the total gross pounds of lint by the harvested acreage of cotton. This does not include the value of the cottonseed.

TABLE 663.—Hay, tame: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 13.96 | 16.00 | 15.81 | 15.89 | 13.90 | 15.06 | 17.14 | 17.98 | 14.98 | 15.98 | 22.90 | 23.37 | 16.20 | 16.38 | 17.28 | 14.43 | 14.52 |
| New Hampshire..... | 17.39 | 18.90 | 18.06 | 18.75 | 17.20 | 19.55 | 17.40 | 21.02 | 16.20 | 21.62 | 28.25 | 28.25 | 26.88 | 23.98 | 23.10 | 20.54 | 22.57 |
| Vermont..... | 18.38 | 16.74 | 18.20 | 21.00 | 18.36 | 17.52 | 20.92 | 21.42 | 19.63 | 21.19 | 30.53 | 30.82 | 22.66 | 24.32 | 23.62 | 24.15 | 20.72 |
| Massachusetts..... | 21.74 | 24.45 | 24.84 | 26.88 | 25.52 | 28.38 | 33.00 | 29.64 | 28.85 | 31.20 | 36.72 | 39.20 | 34.02 | 30.36 | 30.72 | 30.59 | 30.59 |
| Rhode Island..... | 20.46 | 23.13 | 24.10 | 25.09 | 24.80 | 23.63 | 27.90 | 27.00 | 30.45 | 33.15 | 44.48 | 43.49 | 34.53 | 34.18 | 33.23 | 31.68 | 31.49 |
| Connecticut..... | 22.20 | 25.65 | 25.85 | 25.88 | 22.91 | 24.38 | 27.00 | 28.68 | 29.25 | 31.20 | 40.17 | 35.60 | 33.28 | 35.10 | 31.65 | 31.25 | 31.12 |
| New York..... | 14.91 | 18.08 | 18.36 | 18.62 | 17.41 | 17.52 | 20.01 | 19.28 | 22.05 | 25.50 | 28.70 | 19.74 | 19.18 | 19.74 | 22.03 | 21.02 | 20.15 |
| New Jersey..... | 20.62 | 27.30 | 23.10 | 22.80 | 24.70 | 26.32 | 27.55 | 28.16 | 29.00 | 42.00 | 43.65 | 45.10 | 23.94 | 29.14 | 28.24 | 34.58 | 31.40 |
| Pennsylvania..... | 17.52 | 20.70 | 20.03 | 22.81 | 19.67 | 18.56 | 21.84 | 22.08 | 24.68 | 33.42 | 33.37 | 20.40 | 22.45 | 22.45 | 22.53 | 25.76 | 23.63 |
| Ohio..... | 15.59 | 17.38 | 18.52 | 17.68 | 16.64 | 15.14 | 18.29 | 16.94 | 26.96 | 31.08 | 29.21 | 26.32 | 14.60 | 16.20 | 20.01 | 20.35 | 16.57 |

| | | | | | | | | | | | | | | | | |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Indiana..... | 15.47 | 15.70 | 15.62 | 14.10 | 14.10 | 16.50 | 15.70 | 27.12 | 28.71 | 26.78 | 25.28 | 14.17 | 15.34 | 19.34 | 18.38 | 15.66 |
| Illinois..... | 14.36 | 15.96 | 13.94 | 13.82 | 12.24 | 16.63 | 16.38 | 23.00 | 28.35 | 28.89 | 25.75 | 15.93 | 18.12 | 19.27 | 20.88 | 17.01 |
| Michigan..... | 14.82 | 16.69 | 16.69 | 13.76 | 17.08 | 15.36 | 17.10 | 25.80 | 24.20 | 28.06 | 25.20 | 13.00 | 14.64 | 18.24 | 18.96 | 16.50 |
| Wisconsin..... | 14.69 | 15.10 | 18.72 | 9.36 | 16.28 | 17.32 | 16.72 | 18.76 | 30.24 | 26.82 | 19.38 | 20.79 | 20.91 | 21.28 | 24.87 | 22.26 |
| Minnesota..... | 10.50 | 11.90 | 9.79 | 9.90 | 11.53 | 12.22 | 12.95 | 18.76 | 19.74 | 26.12 | 19.38 | 13.42 | 16.91 | 14.12 | 19.55 | 19.25 |
| Iowa..... | 11.64 | 10.08 | 10.00 | 13.30 | 13.94 | 15.66 | 14.40 | 20.66 | 23.66 | 28.54 | 24.66 | 13.76 | 14.70 | 19.00 | 20.29 | 18.00 |
| Missouri..... | 11.20 | 11.96 | 7.98 | 12.74 | 9.52 | 12.92 | 12.09 | 20.12 | 18.45 | 26.52 | 20.72 | 11.76 | 12.65 | 14.64 | 16.68 | 14.08 |
| North Dakota..... | 6.85 | 4.18 | 7.70 | 6.61 | 7.54 | 8.55 | 10.20 | 10.12 | 16.06 | 15.93 | 12.26 | 10.47 | 11.78 | 10.13 | 11.93 | 11.66 |
| South Dakota..... | 7.65 | 5.65 | 8.91 | 7.50 | 9.60 | 10.60 | 10.26 | 15.90 | 16.00 | 24.03 | 15.81 | 10.24 | 13.58 | 14.27 | 14.68 | 14.32 |
| Nebraska..... | 9.00 | 8.90 | 8.24 | 11.66 | 11.66 | 15.08 | 14.91 | 24.32 | 21.08 | 31.78 | 21.78 | 15.19 | 21.84 | 24.58 | 21.41 | 26.26 |
| Kansas..... | 8.70 | 8.97 | 8.42 | 11.40 | 11.25 | 12.38 | 11.78 | 36.19 | 33.56 | 32.71 | 21.22 | 14.24 | 21.00 | 23.32 | 24.19 | 24.44 |
| Delaware..... | 21.00 | 19.60 | 19.95 | 20.41 | 18.70 | 20.40 | 23.05 | 23.83 | 33.00 | 33.26 | 31.60 | 21.35 | 28.69 | 24.78 | 25.47 | 27.40 |
| Maryland..... | 17.28 | 20.79 | 16.13 | 21.24 | 19.15 | 17.60 | 20.72 | 24.88 | 30.18 | 34.84 | 38.00 | 19.33 | 20.97 | 24.73 | 28.37 | 22.40 |
| Virginia..... | 17.26 | 17.26 | 13.12 | 18.74 | 18.68 | 12.58 | 20.30 | 24.71 | 31.65 | 29.39 | 30.55 | 17.35 | 20.16 | 20.00 | 24.21 | 15.96 |
| West Virginia..... | 16.62 | 18.00 | 13.20 | 20.70 | 18.62 | 22.50 | 22.53 | 26.39 | 30.53 | 31.74 | 31.94 | 21.18 | 22.51 | 23.88 | 26.73 | 24.30 |
| North Carolina..... | 19.87 | 21.90 | 17.85 | 21.62 | 19.55 | 30.52 | 22.75 | 22.26 | 23.20 | 24.68 | 34.84 | 23.56 | 21.84 | 24.40 | 20.16 | 14.74 |
| South Carolina..... | 19.06 | 20.79 | 18.36 | 21.70 | 19.53 | 20.28 | 21.71 | 22.25 | 28.71 | 27.89 | 33.50 | 15.60 | 17.32 | 14.40 | 10.34 | 5.00 |
| Georgia..... | 21.33 | 22.96 | 22.85 | 23.04 | 21.87 | 17.36 | 18.63 | 20.60 | 23.14 | 22.25 | 24.08 | 14.06 | 14.28 | 12.47 | 10.60 | 4.03 |
| Florida..... | 20.70 | 22.61 | 24.03 | 24.57 | 23.22 | 19.20 | 20.00 | 20.02 | 21.09 | 17.94 | 18.30 | 13.14 | 17.00 | 20.16 | 18.04 | 15.87 |
| Kentucky..... | 16.18 | 16.90 | 16.44 | 15.36 | 15.20 | 17.50 | 17.64 | 22.58 | 27.56 | 32.43 | 21.92 | 18.06 | 17.69 | 21.60 | 22.96 | 21.52 |
| Tennessee..... | 19.20 | 18.76 | 16.70 | 19.60 | 20.40 | 20.43 | 20.70 | 23.16 | 32.40 | 31.05 | 26.04 | 17.98 | 21.81 | 21.28 | 20.80 | 20.24 |
| Alabama..... | 20.25 | 18.88 | 17.92 | 18.25 | 19.31 | 18.08 | 17.36 | 12.96 | 16.44 | 20.74 | 17.36 | 14.20 | 15.16 | 14.80 | 13.68 | 13.90 |
| Mississippi..... | 18.30 | 17.32 | 16.50 | 15.50 | 17.96 | 17.40 | 15.40 | 22.13 | 22.20 | 27.88 | 22.86 | 16.53 | 17.69 | 18.38 | 18.43 | 17.70 |
| Arkansas..... | 13.50 | 14.85 | 14.76 | 16.20 | 13.54 | 16.43 | 13.62 | 22.64 | 23.53 | 26.04 | 21.28 | 13.75 | 17.00 | 20.16 | 18.04 | 17.40 |
| Louisiana..... | 16.06 | 20.12 | 13.60 | 20.96 | 22.80 | 18.62 | 18.70 | 22.58 | 27.56 | 32.43 | 21.92 | 18.06 | 17.69 | 21.60 | 22.96 | 17.10 |
| Oklahoma..... | 6.57 | 8.82 | 6.40 | 8.84 | 8.93 | 12.98 | 13.30 | 24.64 | 23.40 | 27.48 | 13.16 | 13.28 | 20.88 | 24.45 | 21.15 | 21.48 |
| Texas..... | 11.30 | 13.80 | 11.90 | 13.69 | 17.15 | 13.43 | 12.60 | 20.01 | 23.90 | 28.44 | 19.70 | 13.56 | 17.94 | 26.24 | 19.66 | 12.25 |
| Montana..... | 17.50 | 20.00 | 15.77 | 21.75 | 15.00 | 18.70 | 26.04 | 31.36 | 22.77 | 20.25 | 15.57 | 17.01 | 16.73 | 17.30 | 18.50 | 12.50 |
| Idaho..... | 22.94 | 27.00 | 23.56 | 20.68 | 19.34 | 20.79 | 30.25 | 48.00 | 52.80 | 49.50 | 33.75 | 18.96 | 22.25 | 22.25 | 26.47 | 27.88 |
| Wyoming..... | 21.36 | 21.63 | 16.34 | 12.73 | 17.25 | 17.16 | 21.50 | 28.90 | 29.40 | 32.89 | 23.76 | 13.50 | 16.15 | 18.53 | 17.64 | 17.27 |
| Colorado..... | 25.00 | 31.60 | 18.40 | 19.05 | 20.50 | 17.76 | 22.55 | 40.67 | 34.41 | 38.11 | 28.80 | 14.90 | 21.39 | 23.16 | 22.21 | 25.80 |
| New Mexico..... | 28.86 | 24.15 | 33.80 | 20.57 | 23.25 | 19.31 | 28.00 | 39.90 | 44.03 | 41.68 | 39.44 | 23.06 | 33.10 | 33.11 | 35.11 | 33.80 |
| Arizona..... | 42.24 | 27.90 | 45.32 | 40.50 | 28.16 | 30.74 | 33.10 | 89.80 | 76.80 | 73.20 | 33.09 | 40.17 | 59.22 | 53.40 | 60.15 | 58.96 |
| Utah..... | 26.10 | 27.00 | 22.50 | 21.20 | 21.18 | 20.00 | 43.50 | 43.50 | 43.50 | 43.50 | 43.50 | 13.69 | 22.55 | 23.94 | 24.24 | 28.70 |
| Nevada..... | 34.68 | 33.75 | 32.30 | 30.25 | 26.98 | 22.50 | 23.64 | 46.11 | 51.74 | 45.06 | 37.60 | 24.30 | 33.28 | 29.57 | 24.85 | 27.45 |
| Washington..... | 20.40 | 22.97 | 25.80 | 22.22 | 25.07 | 24.20 | 32.12 | 44.00 | 43.72 | 46.46 | 36.92 | 23.31 | 32.08 | 62.20 | 28.83 | 33.40 |
| Oregon..... | 23.98 | 25.41 | 20.16 | 18.25 | 18.90 | 20.90 | 34.12 | 25.07 | 34.12 | 36.00 | 31.14 | 20.58 | 27.20 | 24.64 | 24.01 | 24.01 |
| California..... | 19.55 | 17.57 | 19.08 | 20.25 | 15.99 | 15.99 | 22.65 | 38.10 | 23.00 | 35.70 | 45.60 | 25.63 | 37.05 | 33.70 | 50.56 | 42.56 |
| United States..... | 13.41 | 16.51 | 16.27 | 17.30 | 16.28 | 17.88 | 15.36 | 25.73 | 27.65 | 30.67 | 27.29 | 16.66 | 12.65 | 21.07 | 21.96 | 20.36 |

Division of Crop and Livestock Estimates.

TABLE 664.—Sweet potatoes: Value per acre based on December 1 price, 1909-1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| New Jersey..... | 97.17 | 85.40 | 130.00 | 100.80 | 107.64 | 93.00 | 108.50 | 120.00 | 192.00 | 218.50 | 278.00 | 221.68 | 187.00 | 198.00 | 176.90 | 217.00 | 280.80 |
| Pennsylvania..... | 78.83 | 72.08 | 92.00 | 99.00 | 99.00 | 90.30 | 78.75 | 135.00 | 154.00 | 222.00 | 232.00 | 213.90 | 223.20 | 155.40 | 182.00 | 175.60 | 241.50 |
| Ohio..... | 92.40 | 84.28 | 113.00 | 102.66 | 95.40 | 103.60 | 93.10 | 148.50 | 166.25 | 168.00 | 180.25 | 180.25 | 180.46 | 160.00 | 168.00 | 182.46 | 241.50 |
| Indiana..... | 84.84 | 83.23 | 109.44 | 103.24 | 90.34 | 96.00 | 130.00 | 174.50 | 210.60 | 225.75 | 192.00 | 192.00 | 198.00 | 130.00 | 147.50 | 163.30 | 205.20 |
| Illinois..... | 92.40 | 97.90 | 97.90 | 93.10 | 74.20 | 79.80 | 90.30 | 112.50 | 145.50 | 143.50 | 166.25 | 130.95 | 99.00 | 99.75 | 121.00 | 103.12 | 161.20 |
| Iowa..... | 101.20 | 102.90 | 115.60 | 97.20 | 120.00 | 127.00 | 102.60 | 174.72 | 189.00 | 185.30 | 167.50 | 255.88 | 182.00 | 109.20 | 105.00 | 132.00 | 250.70 |
| Missouri..... | 79.20 | 84.66 | 95.55 | 83.60 | 58.50 | 80.64 | 82.00 | 103.00 | 157.92 | 169.25 | 194.48 | 170.50 | 100.00 | 99.75 | 116.64 | 125.00 | 186.75 |
| Kansas..... | 102.72 | 104.03 | 97.50 | 101.97 | 55.00 | 116.60 | 110.00 | 138.00 | 147.20 | 177.60 | 201.65 | 216.00 | 143.75 | 109.20 | 133.75 | 152.55 | 197.20 |
| Delaware..... | 75.00 | 63.25 | 98.00 | 81.60 | 81.00 | 84.00 | 83.70 | 101.25 | 134.40 | 150.00 | 151.80 | 128.00 | 110.00 | 78.00 | 128.80 | 163.80 | 209.00 |
| Maryland..... | 78.20 | 63.80 | 86.25 | 78.75 | 84.60 | 87.50 | 91.00 | 110.88 | 118.00 | 185.00 | 186.20 | 144.90 | 140.00 | 76.50 | 149.50 | 177.80 | 219.30 |
| Virginia..... | 70.00 | 63.00 | 66.60 | 67.50 | 75.60 | 69.92 | 71.50 | 117.00 | 114.40 | 174.00 | 217.00 | 120.65 | 118.75 | 117.45 | 126.00 | 132.00 | 140.40 |
| West Virginia..... | 83.00 | 88.88 | 110.00 | 103.50 | 91.00 | 90.16 | 101.20 | 176.40 | 196.00 | 216.24 | 241.50 | 178.50 | 207.00 | 187.60 | 192.40 | 155.10 | 184.00 |
| North Carolina..... | 58.43 | 57.75 | 54.18 | 55.80 | 61.00 | 58.50 | 68.80 | 80.25 | 99.75 | 145.20 | 147.66 | 118.56 | 97.97 | 90.40 | 102.90 | 95.68 | 105.60 |
| South Carolina..... | 59.85 | 58.24 | 60.48 | 71.40 | 69.00 | 59.50 | 68.25 | 73.10 | 98.50 | 134.90 | 133.20 | 122.55 | 85.50 | 65.32 | 83.42 | 70.72 | 80.85 |
| Georgia..... | 57.68 | 53.93 | 59.13 | 59.40 | 59.16 | 58.65 | 51.53 | 64.80 | 97.55 | 115.00 | 101.20 | 90.21 | 53.55 | 50.63 | 63.84 | 70.00 | 58.75 |
| Florida..... | 74.55 | 81.00 | 89.64 | 81.75 | 82.40 | 94.00 | 78.16 | 85.00 | 109.25 | 137.50 | 140.00 | 114.00 | 81.60 | 79.90 | 113.68 | 109.20 | 119.00 |
| Kentucky..... | 64.24 | 63.75 | 64.58 | 76.50 | 70.50 | 80.85 | 73.50 | 90.00 | 118.75 | 166.25 | 168.00 | 157.40 | 119.60 | 111.10 | 123.64 | 102.40 | 137.70 |
| Tennessee..... | 69.18 | 58.65 | 63.75 | 64.80 | 64.00 | 69.00 | 61.95 | 87.00 | 99.75 | 133.28 | 131.64 | 125.46 | 95.00 | 74.10 | 110.00 | 133.00 | 126.00 |
| Alabama..... | 54.40 | 53.23 | 63.99 | 63.65 | 63.65 | 60.45 | 54.78 | 82.80 | 110.40 | 106.20 | 106.20 | 97.00 | 65.70 | 71.25 | 86.32 | 91.26 | 87.50 |
| Mississippi..... | 55.58 | 50.40 | 52.70 | 60.14 | 60.76 | 56.70 | 60.50 | 54.94 | 68.80 | 98.80 | 117.60 | 113.50 | 59.20 | 72.45 | 89.18 | 88.23 | 96.00 |
| Arkansas..... | 52.20 | 71.54 | 75.44 | 79.20 | 72.00 | 73.15 | 79.20 | 81.90 | 105.60 | 124.20 | 115.00 | 110.25 | 86.10 | 71.20 | 87.40 | 102.87 | 104.25 |
| Louisiana..... | 53.10 | 60.45 | 54.00 | 54.60 | 59.60 | 53.68 | 46.00 | 59.40 | 52.16 | 93.00 | 103.50 | 93.93 | 61.63 | 56.13 | 83.50 | 79.00 | 122.90 |
| Oklahoma..... | 78.80 | 77.00 | 93.75 | 66.56 | 66.56 | 90.75 | 99.90 | 144.00 | 143.00 | 196.00 | 151.90 | 161.88 | 103.88 | 101.10 | 110.00 | 130.50 | 126.00 |
| Texas..... | 49.50 | 60.45 | 73.94 | 78.00 | 76.00 | 87.87 | 68.60 | 80.10 | 109.20 | 101.50 | 163.00 | 136.50 | 69.70 | 70.55 | 91.20 | 90.06 | 103.66 |
| New Mexico..... | 216.00 | 216.00 | 148.05 | 162.90 | 162.90 | 161.59 | 192.00 | 225.00 | 241.90 | 312.50 | 270.00 | 259.60 | 312.00 | 224.00 | 268.00 | 306.00 | 231.00 |
| Arizona..... | 228.50 | 168.00 | 220.00 | 210.00 | 229.50 | 300.00 | 298.00 | 340.50 | 357.00 | 375.00 | 357.00 | 357.00 | 357.00 | 357.00 | 357.00 | 357.00 | 273.00 |
| California..... | 144.00 | 152.00 | 154.00 | 146.94 | 170.00 | 140.07 | 108.00 | 160.00 | 250.50 | 255.00 | 232.70 | 203.20 | 150.00 | 73.70 | 189.76 | 246.34 | 269.10 |
| United States..... | 64.04 | 62.74 | 68.10 | 69.06 | 68.61 | 68.48 | 64.27 | 77.70 | 101.11 | 126.45 | 138.70 | 118.78 | 81.51 | 75.47 | 95.76 | 102.03 | 109.97 |

Division of Crop and Livestock Estimates.

TABLE 665.—Tobacco: Value per acre based on December 1 price, 1909–1925

| State | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Massachusetts..... | 224.00 | 259.50 | 330.00 | 406.30 | 325.50 | 300.75 | 159.50 | 415.00 | 537.60 | 600.00 | 713.02 | 659.30 | 493.20 | 403.70 | 617.58 | 359.12 | 220.80 |
| Connecticut..... | 272.25 | 285.45 | 323.12 | 409.70 | 325.50 | 327.45 | 229.50 | 440.10 | 537.60 | 660.00 | 721.60 | 518.00 | 396.14 | 421.14 | 646.42 | 442.51 | 270.75 |
| New York..... | 94.00 | 106.25 | 138.32 | 163.80 | 124.44 | 156.00 | 114.00 | 139.90 | 275.00 | 225.00 | 290.25 | 345.00 | 241.25 | 410.70 | 225.00 | 262.02 | 242.00 |
| Pennsylvania..... | 88.65 | 139.50 | 134.90 | 123.25 | 90.00 | 123.25 | 124.20 | 193.12 | 294.00 | 196.80 | 224.40 | 302.00 | 210.24 | 211.20 | 237.11 | 195.25 | 210.00 |
| Ohio..... | 97.12 | 68.85 | 70.30 | 83.72 | 85.50 | 79.20 | 81.00 | 123.50 | 240.00 | 191.10 | 289.32 | 124.80 | 138.00 | 171.00 | 131.04 | 136.77 | 147.00 |
| Indiana..... | 104.50 | 83.60 | 70.98 | 72.00 | 82.80 | 81.00 | 61.32 | 120.90 | 190.00 | 192.51 | 281.60 | 176.00 | 131.25 | 153.00 | 125.96 | 148.24 | 156.78 |
| Wisconsin..... | 108.50 | 78.75 | 125.00 | 141.90 | 141.90 | 129.50 | 54.00 | 138.75 | 175.00 | 202.60 | 281.04 | 323.23 | 160.12 | 228.00 | 120.23 | 122.20 | 226.88 |
| Missouri..... | 115.05 | 126.00 | 94.00 | 120.00 | 82.55 | 156.00 | 108.00 | 142.50 | 190.28 | 225.00 | 360.00 | 370.00 | 185.00 | 201.00 | 308.00 | 275.00 | 220.05 |
| Maryland..... | 58.93 | 58.13 | 55.12 | 52.80 | 68.82 | 64.00 | 62.90 | 123.20 | 158.00 | 240.00 | 202.50 | 233.75 | 135.65 | 134.75 | 222.55 | 139.38 | 156.37 |
| Virginia..... | 65.88 | 70.20 | 76.90 | 72.00 | 107.03 | 58.50 | 70.50 | 99.28 | 185.50 | 207.90 | 251.22 | 175.20 | 112.75 | 180.00 | 145.04 | 139.10 | 110.88 |
| West Virginia..... | 115.50 | 65.92 | 60.00 | 83.60 | 81.60 | 90.20 | 87.00 | 155.00 | 308.00 | 263.52 | 350.00 | 170.00 | 180.00 | 181.50 | 189.20 | 165.85 | 141.05 |
| North Carolina..... | 57.00 | 63.60 | 82.36 | 93.20 | 123.65 | 74.75 | 69.44 | 110.00 | 198.45 | 247.45 | 330.18 | 275.58 | 145.86 | 151.50 | 161.70 | 144.48 | 151.80 |
| South Carolina..... | 58.40 | 54.18 | 102.05 | 76.30 | 104.88 | 70.81 | 40.60 | 72.80 | 164.01 | 223.92 | 164.02 | 97.50 | 66.30 | 147.20 | 138.70 | 82.45 | 125.80 |
| Georgia..... | 238.00 | 136.00 | 252.00 | 249.00 | 310.00 | 200.00 | 202.40 | 318.00 | 570.00 | 568.00 | 113.95 | 222.00 | 141.00 | 140.40 | 204.91 | 206.68 | 107.55 |
| Florida..... | 241.40 | 156.40 | 263.20 | 232.00 | 310.00 | 300.00 | 209.30 | 363.00 | 627.00 | 441.60 | 517.75 | 504.00 | 360.00 | 617.00 | 546.16 | 282.00 | 241.80 |
| Kentucky..... | 88.51 | 70.47 | 67.76 | 67.86 | 76.00 | 76.44 | 63.18 | 114.30 | 180.00 | 232.48 | 305.60 | 127.50 | 131.13 | 165.00 | 141.83 | 142.96 | 129.60 |
| Tennessee..... | 56.94 | 63.84 | 68.55 | 66.45 | 61.50 | 47.25 | 80.80 | 137.75 | 171.20 | 273.00 | 308.31 | 146.00 | 60.00 | 169.80 | 107.25 | 147.87 | 128.25 |
| Louisiana..... | 203.50 | 137.50 | 139.50 | 90.00 | 112.60 | 140.00 | 126.00 | 126.00 | 122.50 | 273.00 | 282.10 | 200.00 | 247.50 | 247.60 | 232.50 | 230.00 | 277.20 |
| United States..... | 82.14 | 74.77 | 84.12 | 84.88 | 100.72 | 82.85 | 70.28 | 120.06 | 197.92 | 244.23 | 262.60 | 171.26 | 149.07 | 170.65 | 164.55 | 180.55 | 141.62 |

Division of Crop and Livestock Estimates.

TABLE 666.—Wheat: Cost of production, by States, 1924

| State | Num-ber of re-ports | Aver-age acre-age in wheat per farm | Aver-age yield per acre | Gross cost per acre | | | | | | | | Net cost | | | | |
|---------------------|---------------------|-------------------------------------|-------------------------|---------------------|--------------------|---------|---------------------|-------------------------|---------|---------|-----------|---------------------|---------|-------------------------|----------|------------|
| | | | | Prepare and plant | Harvest and thresh | Market | Miscellaneous labor | Com-mercial ferti-lizer | Manure | Seed | Land rent | Miscellaneous costs | Total | Credit per acre (straw) | Per acre | Per bushel |
| | | | | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| New York..... | 126 | 12 | 22 | 6.73 | 5.81 | 1.58 | 0.20 | 3.14 | 2.89 | 3.09 | 6.29 | 3.22 | 32.95 | 5.02 | 27.93 | 1.27 |
| New Jersey..... | 18 | 8 | 20 | 5.66 | 7.48 | 1.38 | .06 | 4.43 | 4.92 | 2.92 | 6.81 | 3.03 | 36.69 | 5.17 | 31.52 | 1.43 |
| Pennsylvania..... | 274 | 15 | 20 | 6.29 | 5.93 | 1.94 | .11 | 3.11 | 4.11 | 2.78 | 6.00 | 3.85 | 34.12 | 5.89 | 28.23 | 1.41 |
| Maryland..... | 67 | 36 | 19 | 6.01 | 5.64 | 1.65 | .07 | 4.46 | 1.84 | 2.56 | 6.18 | 3.04 | 31.45 | 4.52 | 26.93 | 1.42 |
| Virginia..... | 155 | 20 | 15 | 4.78 | 4.63 | 1.48 | .18 | 3.25 | 1.89 | 2.19 | 5.71 | 2.38 | 26.69 | 2.46 | 24.23 | 1.62 |
| West Virginia..... | 72 | 16 | 16 | 5.66 | 4.79 | 1.71 | .13 | 2.59 | 1.98 | 2.56 | 6.37 | 2.33 | 28.12 | 2.84 | 25.28 | 1.58 |
| North Carolina..... | 104 | 8 | 13 | 4.79 | 4.43 | 1.68 | .11 | 2.77 | 1.47 | 1.98 | 5.82 | 2.34 | 25.39 | 1.74 | 23.65 | 1.82 |
| South Carolina..... | 20 | 13 | 12 | 3.48 | 4.19 | 1.79 | ..... | 2.51 | 1.78 | 1.89 | 5.27 | 2.34 | 22.25 | 1.34 | 20.91 | 1.74 |
| Georgia..... | 45 | 12 | 11 | 2.66 | 3.95 | 1.34 | .17 | 2.72 | 1.31 | 2.02 | 4.20 | 1.95 | 20.32 | 1.56 | 18.76 | 1.71 |
| Ohio..... | 318 | 20 | 21 | 4.76 | 5.16 | 1.28 | .16 | 2.65 | 1.60 | 2.59 | 6.25 | 2.87 | 27.30 | 2.56 | 24.74 | 1.18 |
| Indiana..... | 325 | 26 | 19 | 3.97 | 4.49 | 1.03 | .10 | 2.10 | 1.44 | 2.24 | 6.25 | 2.27 | 23.89 | 1.86 | 22.03 | 1.16 |
| Illinois..... | 281 | 38 | 18 | 3.66 | 4.08 | 1.11 | .23 | .53 | 1.07 | 1.89 | 6.67 | 2.02 | 21.28 | .96 | 20.30 | 1.13 |
| Michigan..... | 174 | 13 | 26 | 5.75 | 5.74 | 1.70 | .11 | 2.24 | 2.62 | 2.45 | 5.68 | 2.37 | 23.86 | 2.64 | 21.22 | 1.01 |
| Wisconsin..... | 85 | 7 | 23 | 4.19 | 4.93 | 1.94 | .16 | .21 | 2.95 | 2.63 | 5.83 | 2.66 | 23.55 | 2.48 | 21.07 | 1.00 |
| Minnesota..... | 175 | 35 | 22 | 3.61 | 4.40 | 1.29 | .22 | .07 | 1.28 | 2.12 | 4.96 | 2.22 | 23.19 | .77 | 22.42 | .88 |
| Iowa..... | 116 | 20 | 22 | 2.93 | 4.45 | 1.12 | .18 | .03 | 1.14 | 2.07 | 7.83 | 2.18 | 21.93 | .96 | 20.97 | .95 |
| Missouri..... | 198 | 30 | 15 | 3.93 | 3.90 | 1.18 | .19 | 1.16 | 1.09 | 1.66 | 5.05 | 2.21 | 20.37 | .94 | 19.43 | 1.30 |
| North Dakota..... | 269 | 147 | 16 | 3.35 | 3.81 | 1.06 | .13 | ..... | .20 | 1.49 | 2.62 | 1.99 | 14.65 | .28 | 14.37 | .90 |
| South Dakota..... | 249 | 63 | 15 | 2.63 | 3.51 | 1.20 | .16 | .02 | .33 | 1.39 | 3.22 | 2.14 | 14.80 | .35 | 14.45 | .96 |
| Nebraska..... | 167 | 62 | 21 | 3.15 | 4.50 | 1.10 | .16 | .02 | .82 | 1.59 | 5.57 | 2.26 | 19.30 | .34 | 18.96 | .90 |
| Kansas..... | 350 | 128 | 17 | 3.23 | 4.81 | .91 | .08 | .06 | .38 | 1.35 | 4.39 | 1.89 | 17.10 | .31 | 16.79 | .99 |
| Kentucky..... | 90 | 22 | 12 | 3.47 | 4.26 | 1.20 | .25 | 1.79 | .94 | 1.95 | 5.45 | 2.74 | 22.05 | 2.26 | 19.77 | 1.45 |
| Tennessee..... | 95 | 18 | 13 | 4.10 | 3.59 | 1.17 | .25 | 1.62 | 1.34 | 1.81 | 6.42 | 1.90 | 20.35 | 2.07 | 20.26 | 1.56 |
| Texas..... | 70 | 122 | 19 | 3.31 | 4.84 | 1.33 | .33 | .04 | .03 | 1.27 | 3.83 | 2.20 | 17.21 | .51 | 16.70 | .88 |
| Oklahoma..... | 128 | 87 | 17 | 3.09 | 4.90 | 1.08 | .09 | .03 | .28 | 1.25 | 3.37 | 1.87 | 15.96 | .38 | 15.58 | .92 |
| Arkansas..... | 18 | 15 | 13 | 3.37 | 3.32 | .99 | .11 | .51 | .07 | 1.57 | 3.88 | 1.61 | 15.43 | 1.32 | 14.11 | 1.09 |
| Montana..... | 147 | 140 | 16 | 4.43 | 3.92 | 1.68 | .50 | ..... | .31 | 1.11 | 3.62 | 1.77 | 17.34 | .61 | 16.73 | 1.05 |
| Wyoming..... | 45 | 42 | 17 | 4.29 | 4.11 | 2.13 | .76 | ..... | .37 | 1.44 | 3.20 | 2.34 | 18.94 | 1.11 | 17.78 | 1.64 |
| Colorado..... | 98 | 92 | 21 | 3.86 | 5.10 | 1.31 | 1.51 | ..... | .96 | 1.32 | 3.72 | 2.51 | 22.22 | 1.26 | 20.71 | 1.01 |
| New Mexico..... | 16 | 107 | 16 | 3.19 | 5.10 | 2.58 | 1.35 | ..... | 1.16 | 1.36 | 3.86 | 3.63 | 21.79 | .91 | 20.83 | 1.26 |

| | | | | | | | | | | | | | | | |
|--------------------------|-------|-----|----|------|------|------|------|------|------|-------|------|-------|------|-------|------|
| Utah..... | 47 | 43 | 28 | 6.10 | 7.69 | 2.23 | 2.81 | 3.21 | 2.20 | 16.57 | 2.97 | 43.78 | 1.30 | 42.48 | 1.52 |
| Idaho..... | 88 | 111 | 23 | 4.57 | 5.27 | 1.51 | 1.86 | .53 | 1.67 | 11.00 | 2.96 | 29.38 | .92 | 28.46 | 1.24 |
| Washington..... | 68 | 252 | 19 | 4.79 | 4.70 | 1.35 | .56 | 1.42 | 1.58 | 10.63 | 2.45 | 27.57 | 1.40 | 26.17 | 1.38 |
| Oregon..... | 55 | 151 | 21 | 5.07 | 4.91 | 1.21 | .34 | 1.03 | 1.91 | 10.75 | 2.43 | 27.74 | 1.20 | 26.54 | 1.26 |
| California..... | 30 | 57 | 20 | 4.91 | 4.86 | 1.83 | .67 | .75 | 2.14 | 9.12 | 2.77 | 27.38 | .64 | 26.74 | 1.34 |
| Total ¹ | 4,616 | 56 | 18 | 4.19 | 4.66 | 1.31 | .27 | 1.21 | 1.35 | 6.19 | 2.42 | 23.57 | 1.09 | 21.98 | 1.22 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ Includes miscellaneous labor, irrigating and water, seed treatment, and material.

² Seeds and twine, crop insurance, use of implements, use of storage buildings, and overhead.

³ The total includes 24 records from the following States in which there were not enough reports to show State averages: Maine, Vermont, Delaware, Alabama, and Arizona.

TABLE 667.—Wheat: Cost of production, by yield groups, 1924

| Yield group (bushels per acre) | Num- ber of reports | Aver- age acreage in wheat per farm | Aver- age yield per acre | Gross cost per acre | | | | | | | Credit per acre (straw) | Net cost | | |
|---------------------------------|---------------------------|---|--------------------------------------|-------------------------|-------------------------------|--------|--|----------------------------------|------|--------------|----------------------------------|--|-------|------------------------|
| | | | | Prepare and plant | Har- vest and thresh | Market | Miscel- laneous labor ¹ | Fer- tilizer and manure | Seed | Land rent | | Miscel- laneous costs ² | Total | Dollars per acre | Dollars per bushel |
| Winter-wheat belt: ³ | | | | | | | | | | | | | | |
| 3 and under..... | 10 | 68 | 2 | 2.44 | 1.71 | 0.31 | 0.05 | 0.52 | 1.13 | 2.00 | 1.02 | 9.15 | 8.80 | 4.44 |
| 4 to 6..... | 29 | 70 | 5 | 3.00 | 2.77 | .54 | .03 | .82 | 1.24 | 3.98 | 1.76 | 14.14 | 13.60 | 2.72 |
| 7 to 9..... | 47 | 45 | 8 | 3.27 | 3.46 | .78 | .11 | 1.30 | 1.32 | 3.63 | 1.79 | 15.69 | 15.12 | 1.89 |
| 10 to 12..... | 147 | 61 | 11 | 3.37 | 3.97 | 1.00 | .17 | 1.18 | 1.46 | 3.67 | 1.76 | 16.58 | 15.93 | 1.45 |
| 13 to 15..... | 135 | 91 | 15 | 3.31 | 4.01 | 1.00 | .14 | .94 | 1.48 | 3.77 | 1.94 | 16.39 | 16.11 | 1.07 |
| 16 to 18..... | 116 | 101 | 17 | 3.19 | 4.57 | 1.03 | .10 | .88 | 1.49 | 4.85 | 2.11 | 18.22 | 17.70 | 1.04 |
| 19 to 21..... | 160 | 121 | 20 | 3.47 | 4.53 | 1.12 | .12 | .94 | 1.52 | 5.19 | 2.39 | 19.62 | 19.23 | .96 |
| 22 to 24..... | 69 | 98 | 23 | 3.60 | 5.32 | 1.14 | .08 | .60 | 1.43 | 5.18 | 2.16 | 19.71 | 19.24 | .84 |
| 25 to 27..... | 65 | 85 | 25 | 3.41 | 5.69 | 1.08 | .19 | .51 | 1.40 | 6.00 | 2.40 | 20.71 | 20.41 | .82 |
| 28 to 30..... | 37 | 54 | 29 | 3.43 | 5.95 | 1.15 | .07 | .79 | 1.59 | 6.42 | 1.93 | 21.33 | 21.00 | .72 |
| 31 and over..... | 28 | 65 | 35 | 3.54 | 6.53 | 1.31 | .02 | 1.22 | 1.88 | 6.62 | 2.43 | 23.05 | 22.88 | .65 |
| Spring-wheat belt: ⁴ | | | | | | | | | | | | | | |
| 3 and under..... | 27 | 83 | 8 | 3.17 | 3.02 | .75 | .12 | .07 | 1.37 | 2.14 | 1.85 | 12.49 | 12.37 | 1.55 |
| 4 to 6..... | 95 | 106 | 11 | 3.03 | 3.16 | 1.07 | .10 | .20 | 1.03 | 2.54 | 1.98 | 13.71 | 13.37 | 1.22 |
| 7 to 9..... | 130 | 133 | 15 | 3.21 | 3.68 | 1.05 | .18 | .30 | 1.55 | 3.03 | 1.96 | 14.96 | 14.72 | .86 |
| 10 to 12..... | 115 | 134 | 17 | 3.18 | 3.83 | 1.24 | .14 | .27 | 1.53 | 3.00 | 2.18 | 15.39 | 15.11 | .89 |
| 13 to 15..... | 114 | 88 | 20 | 3.42 | 4.09 | 1.18 | .11 | .41 | 1.64 | 3.77 | 2.12 | 16.74 | 16.40 | .82 |
| 16 to 18..... | 44 | 92 | 23 | 3.61 | 4.77 | 1.31 | .43 | 1.01 | 1.59 | 3.77 | 2.72 | 19.21 | 18.75 | .82 |
| 19 to 21..... | 19 | 60 | 25 | 3.30 | 4.31 | 1.10 | .16 | .61 | 2.05 | 4.17 | 1.46 | 17.18 | 16.92 | .68 |
| 22 to 24..... | 14 | 52 | 31 | 3.34 | 4.91 | 1.39 | .03 | .92 | 1.82 | 6.13 | 2.59 | 21.13 | 20.33 | .66 |
| 25 to 27..... | | | | | | | | | | | | | | |
| 28 and over..... | | | | | | | | | | | | | | |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ Includes miscellaneous labor, irrigating and water, seed treatment and material.² Includes sacks and twine, crop insurance, use of implements, use of storage buildings, and overhead.³ "Winter-wheat belt," as used here, includes Kansas, Nebraska, Missouri, and Oklahoma.⁴ "Spring-wheat belt," as used here, includes western Minnesota, North Dakota, eastern South Dakota, and eastern Montana.

TABLE 668.—Wheat: Comparative production costs and yields by States, 1923 and 1924

| State | Averages for farms reporting | | | | | | Average yields per acre ¹ | | |
|---------------------|------------------------------|----------------|-------------------|----------------|----------------|----------------|--------------------------------------|----------------|----------------|
| | Net cost per bushel | | Net cost per acre | | Yield per acre | | 1923 | 1924 | 7-year average |
| | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | | | |
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> |
| New York..... | 1.21 | 1.27 | 30.26 | 27.93 | 25 | 22 | 20 | 18 | 22 |
| New Jersey..... | 1.23 | 1.43 | 29.22 | 31.53 | 24 | 22 | 20 | 18 | 18 |
| Pennsylvania..... | 1.24 | 1.41 | 27.26 | 28.23 | 22 | 20 | 19 | 16 | 18 |
| Maryland..... | 1.28 | 1.42 | 25.53 | 26.93 | 20 | 19 | 19 | 16 | 17 |
| Virginia..... | 1.50 | 1.62 | 22.46 | 24.23 | 15 | 15 | 13 | 13 | 13 |
| West Virginia..... | 1.57 | 1.58 | 23.60 | 25.28 | 15 | 16 | 13 | 13 | 14 |
| North Carolina..... | 1.79 | 1.82 | 23.32 | 23.65 | 13 | 13 | 11 | 12 | 10 |
| South Carolina..... | 1.67 | 1.74 | 21.68 | 20.91 | 13 | 12 | 11 | 12 | 11 |
| Georgia..... | 1.92 | 1.71 | 19.22 | 18.76 | 10 | 11 | 9 | 10 | 10 |
| Ohio..... | 1.13 | 1.18 | 23.74 | 24.71 | 21 | 21 | 18 | 17 | 18 |
| Indiana..... | 1.10 | 1.16 | 21.96 | 22.03 | 20 | 19 | 16 | 17 | 16 |
| Illinois..... | .96 | 1.13 | 19.16 | 20.30 | 20 | 18 | 18 | 15 | 17 |
| Michigan..... | 1.18 | 1.01 | 23.66 | 26.22 | 20 | 26 | 17 | 22 | 18 |
| Wisconsin..... | 1.23 | 1.00 | 20.86 | 23.07 | 17 | 23 | 17 | 22 | 19 |
| Minnesota..... | 1.19 | .88 | 17.85 | 19.42 | 15 | 22 | 13 | 22 | 13 |
| Iowa..... | 1.03 | .95 | 19.65 | 20.97 | 19 | 22 | 18 | 20 | 18 |
| Missouri..... | 1.24 | 1.30 | 18.66 | 19.43 | 15 | 15 | 13 | 13 | 14 |
| North Dakota..... | 1.41 | .90 | 12.66 | 14.37 | 9 | 16 | 7 | 16 | 10 |
| South Dakota..... | 1.13 | .96 | 13.57 | 14.45 | 12 | 15 | 10 | 15 | 12 |
| Nebraska..... | 1.27 | .90 | 16.55 | 18.96 | 13 | 21 | 10 | 19 | 16 |
| Kansas..... | 1.21 | .99 | 15.69 | 16.79 | 13 | 17 | 10 | 16 | 14 |
| Kentucky..... | 1.37 | 1.65 | 20.57 | 19.77 | 15 | 12 | 12 | 10 | 12 |
| Tennessee..... | 1.48 | 1.56 | 19.26 | 20.28 | 13 | 13 | 10 | 10 | 10 |
| Texas..... | 1.28 | .88 | 15.35 | 16.70 | 12 | 19 | 10 | 18 | 13 |
| Oklahoma..... | 1.13 | .92 | 13.53 | 15.58 | 12 | 17 | 11 | 16 | 14 |
| Arkansas..... | 1.61 | 1.09 | 19.31 | 14.11 | 12 | 13 | 11 | 12 | 12 |
| Montana..... | 1.09 | 1.05 | 17.48 | 16.73 | 16 | 16 | 15 | 16 | 15 |
| Wyoming..... | .98 | 1.04 | 17.59 | 17.73 | 18 | 17 | 16 | 15 | 22 |
| Colorado..... | 1.07 | 1.01 | 22.57 | 21.31 | 21 | 21 | 13 | 14 | 19 |
| New Mexico..... | .97 | 1.28 | 16.45 | 20.53 | 17 | 16 | 12 | 16 | 19 |
| Utah..... | 1.19 | 1.52 | 38.10 | 42.48 | 32 | 28 | 24 | 17 | 21 |
| Idaho..... | 1.04 | 1.24 | 29.12 | 28.46 | 28 | 23 | 29 | 19 | 23 |
| Washington..... | .97 | 1.38 | 27.06 | 29.17 | 28 | 19 | 25 | 12 | 19 |
| Oregon..... | 1.12 | 1.26 | 26.94 | 26.54 | 24 | 21 | 24 | 14 | 19 |
| California..... | 1.09 | 1.34 | 24.06 | 26.74 | 22 | 20 | 22 | 15 | 10 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ State average yields obtained by the Division of Crop and Livestock estimates and published in the Yearbooks of the United States Department of Agriculture, carried to nearest whole number. Seven-year average yields for 1914 to 1920.

TABLE 669.—*Corn: Cost of production, by States, 1924*

| State | Num-ber of reports | Aver-age acre-age in corn per farm | Aver-age yield per acre | Gross cost per acre | | | | | | | | Net cost | | | | | | | |
|---------------------|--------------------|------------------------------------|-------------------------|---------------------|-------------|-----------|---------|------------------------------------|---------------------------|----------|---------|-----------|------------------------------------|---------|-------------------------------------|---------|---------|----------|------------|
| | | | | Pre- pare and plant | Culti- vate | Har- vest | Market | Miscel- laneous labor ¹ | Com- mercial fertil- izer | Ma- nure | Seed | Land rent | Miscel- laneous costs ² | Total | Credit per acre (stover and fodder) | Dollars | Dollars | Per acre | Per bushel |
| | | | | | | | | | | | | | | | | | | | |
| Acres | Bushels | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Vermont..... | 20 | 4 | 41 | 9.13 | 5.48 | 8.39 | 3.25 | 0.03 | 4.92 | 17.40 | 0.89 | 7.78 | 4.22 | 61.49 | 10.60 | 50.89 | 1.24 | 50.89 | 1.24 |
| Connecticut..... | 16 | 5 | 47 | 12.71 | 9.00 | 14.53 | 3.50 | | 12.55 | 17.50 | .81 | 11.20 | 8.03 | 90.43 | 11.56 | 78.87 | 1.68 | 78.87 | 1.68 |
| New York..... | 171 | 7 | 40 | 7.86 | 4.59 | 7.21 | 3.15 | .15 | 3.23 | 8.44 | .78 | 7.02 | 3.69 | 46.12 | 7.04 | 38.18 | .95 | 38.18 | .95 |
| New Jersey..... | 32 | 11 | 41 | 6.74 | 4.95 | 9.49 | 2.79 | .09 | 5.18 | 9.57 | .46 | 8.23 | 3.53 | 51.03 | 7.02 | 44.01 | 1.07 | 44.01 | 1.07 |
| Pennsylvania..... | 295 | 12 | 39 | 6.72 | 3.71 | 7.08 | 3.16 | .07 | 2.36 | 7.72 | .57 | 6.17 | 3.56 | 41.12 | 5.73 | 35.39 | .91 | 35.39 | .91 |
| Delaware..... | 9 | 25 | 34 | 6.66 | 3.78 | 7.11 | 2.40 | | 2.36 | 7.11 | .30 | 5.94 | 2.66 | 38.32 | 6.13 | 32.19 | .95 | 32.19 | .95 |
| Maryland..... | 77 | 25 | 41 | 6.08 | 3.18 | 6.98 | 3.04 | .21 | 1.97 | 7.27 | .53 | 6.70 | 2.59 | 38.62 | 5.64 | 32.98 | .80 | 32.98 | .80 |
| Virginia..... | 196 | 24 | 33 | 5.51 | 3.55 | 4.77 | 2.72 | .07 | 1.95 | 2.94 | .46 | 7.06 | 2.42 | 31.75 | 4.22 | 27.53 | .83 | 27.53 | .83 |
| West Virginia..... | 133 | 10 | 34 | 7.09 | 3.41 | 5.12 | 2.59 | .02 | 1.90 | 3.20 | .49 | 6.65 | 2.17 | 35.34 | 4.43 | 30.91 | .91 | 30.91 | .91 |
| North Carolina..... | 205 | 21 | 25 | 5.19 | 4.53 | 3.03 | 2.53 | .07 | 3.86 | 2.65 | .43 | 7.63 | 2.41 | 32.47 | 2.85 | 29.52 | 1.13 | 29.52 | 1.13 |
| South Carolina..... | 80 | 44 | 21 | 4.00 | 3.65 | 2.03 | 2.14 | .09 | 4.84 | .68 | .41 | 6.51 | 2.81 | 27.16 | 2.88 | 24.35 | 1.17 | 24.35 | 1.17 |
| Georgia..... | 157 | 39 | 18 | 3.18 | 3.16 | 1.66 | 1.52 | .16 | 2.72 | .83 | .39 | 4.54 | 2.03 | 20.19 | 1.74 | 18.45 | 1.02 | 18.45 | 1.02 |
| Florida..... | 24 | 32 | 24 | 4.56 | 4.22 | 2.69 | 1.75 | .34 | 4.10 | 1.67 | .44 | 4.35 | 2.65 | 26.67 | 1.67 | 25.00 | 1.04 | 25.00 | 1.04 |
| Ohio..... | 361 | 23 | 36 | 5.59 | 3.52 | 6.73 | 2.25 | .07 | 1.34 | 4.00 | .46 | 6.64 | 2.68 | 33.88 | 3.55 | 30.33 | .84 | 30.33 | .84 |
| Indiana..... | 405 | 35 | 33 | 3.43 | 3.10 | 3.70 | 1.97 | .08 | .99 | 2.64 | .42 | 6.61 | 2.09 | 26.03 | 1.68 | 24.35 | .74 | 24.35 | .74 |
| Illinois..... | 476 | 60 | 38 | 3.78 | 2.69 | 2.99 | 1.78 | .06 | .27 | 1.94 | .47 | 7.23 | 1.86 | 23.07 | 1.19 | 21.98 | .58 | 21.98 | .58 |
| Michigan..... | 213 | 14 | 30 | 5.72 | 3.46 | 5.62 | 2.46 | .06 | .67 | 5.10 | .57 | 5.61 | 2.49 | 31.76 | 4.76 | 27.02 | .90 | 27.02 | .90 |
| Wisconsin..... | 224 | 19 | 26 | 4.76 | 3.33 | 4.85 | 2.84 | .05 | .43 | 6.59 | .82 | 6.21 | 2.61 | 32.80 | 5.76 | 27.04 | 1.04 | 27.04 | 1.04 |
| Minnesota..... | 267 | 38 | 29 | 3.63 | 3.08 | 3.63 | 1.96 | .07 | .10 | 3.84 | .61 | 5.27 | 2.25 | 24.86 | 2.37 | 22.49 | .78 | 22.49 | .78 |
| Iowa..... | 478 | 65 | 33 | 3.98 | 2.94 | 3.07 | 1.90 | .05 | .04 | 2.33 | .53 | 8.71 | 2.23 | 25.78 | .91 | 24.87 | .75 | 24.87 | .75 |
| Missouri..... | 340 | 37 | 30 | 3.79 | 3.02 | 2.56 | 2.24 | .07 | .24 | 1.94 | .37 | 5.73 | 1.87 | 21.53 | 1.32 | 20.51 | .68 | 20.51 | .68 |
| North Dakota..... | 153 | 40 | 16 | 3.56 | 2.15 | 2.35 | 1.43 | .05 | | .89 | .53 | 2.24 | 1.70 | 14.99 | 3.29 | 11.70 | .73 | 11.70 | .73 |
| South Dakota..... | 356 | 80 | 23 | 3.38 | 2.24 | 2.82 | 1.87 | .08 | .03 | 1.12 | .40 | 3.51 | 1.03 | 17.38 | 1.02 | 16.86 | .66 | 16.86 | .66 |
| Nebraska..... | 362 | 84 | 25 | 2.88 | 2.10 | 2.59 | 1.48 | .10 | .02 | 1.21 | .31 | 3.13 | 1.77 | 17.89 | .53 | 17.06 | .66 | 17.06 | .66 |
| Kansas..... | 381 | 57 | 26 | 2.45 | 2.12 | 2.16 | 1.31 | .06 | .02 | .74 | .25 | 4.27 | 1.32 | 14.70 | .71 | 13.99 | .54 | 13.99 | .54 |
| Kentucky..... | 215 | 30 | 32 | 4.55 | 3.77 | 3.12 | 2.53 | .05 | 1.05 | 1.64 | .41 | 7.96 | 2.36 | 27.44 | 1.94 | 25.50 | .80 | 25.50 | .80 |
| Tennessee..... | 208 | 28 | 31 | 4.76 | 3.64 | 2.44 | 2.93 | .05 | .90 | 1.75 | .36 | 7.51 | 2.19 | 26.74 | 1.65 | 25.09 | .81 | 25.09 | .81 |
| Alabama..... | 228 | 31 | 19 | 3.82 | 4.24 | 1.91 | 2.25 | .13 | 2.26 | .88 | .40 | 4.79 | 2.42 | 23.10 | 1.53 | 21.57 | 1.14 | 21.57 | 1.14 |
| Mississippi..... | 152 | 41 | 19 | 4.18 | 4.56 | 1.99 | 1.97 | .04 | 2.12 | .91 | .49 | 4.87 | 2.48 | 23.61 | 1.32 | 22.29 | 1.17 | 22.29 | 1.17 |
| Louisiana..... | 48 | 40 | 18 | 4.51 | 5.17 | 2.08 | 1.85 | .05 | 2.12 | 1.42 | .56 | 4.86 | 1.90 | 24.73 | .41 | 24.32 | 1.35 | 24.32 | 1.35 |

| | | | | | | | | | | | | | | | | |
|--------------------------|-------|----|------|------|------|------|------|-------|------|------|------|------|-------|------|-------|------|
| Texas..... | 260 | 32 | 3.36 | 3.16 | 1.76 | 2.22 | .21 | .52 | .51 | .39 | 4.91 | 1.82 | 18.86 | .84 | 18.02 | .86 |
| Oklahoma..... | 184 | 30 | 2.87 | 2.66 | 1.98 | 1.75 | .07 | .03 | .36 | .31 | 3.87 | 1.35 | 15.28 | .49 | 14.79 | .70 |
| Arkansas..... | 161 | 23 | 3.86 | 4.16 | 1.68 | 2.00 | .03 | .46 | .98 | .35 | 5.74 | 2.07 | 21.33 | .90 | 20.43 | .93 |
| Montana..... | 66 | 29 | 4.45 | 2.00 | 2.72 | 2.31 | .22 | ----- | .28 | .48 | 2.20 | 1.48 | 16.14 | 2.69 | 13.45 | .90 |
| Wyoming..... | 36 | 43 | 4.53 | 2.04 | 2.49 | 1.41 | .32 | ----- | .86 | .40 | 2.43 | 1.33 | 16.01 | 1.63 | 14.38 | .85 |
| Colorado..... | 82 | 56 | 3.22 | 2.01 | 2.20 | 1.20 | 1.00 | .07 | .94 | .34 | 4.19 | 1.78 | 16.95 | 1.45 | 15.50 | .86 |
| New Mexico..... | 36 | 19 | 2.64 | 1.65 | 1.60 | 1.95 | .66 | .14 | 1.12 | .39 | 2.83 | 1.29 | 14.47 | 2.04 | 12.43 | .78 |
| Idaho..... | 23 | 10 | 4.93 | 3.05 | 3.57 | 2.21 | 2.84 | ----- | 2.57 | .53 | 9.58 | 2.52 | 32.10 | 1.55 | 30.55 | 1.02 |
| Oregon..... | 16 | 5 | 6.88 | 4.42 | 4.76 | 2.25 | .47 | .76 | 5.44 | .53 | 8.06 | 2.17 | 35.74 | 1.91 | 33.83 | .89 |
| Total ¹ | 7,153 | 33 | 29 | 4.45 | 3.29 | 3.64 | 2.11 | .12 | 1.09 | 2.83 | 5.97 | 2.22 | 26.20 | 2.43 | 23.77 | .82 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ Includes miscellaneous labor, irrigating and water.

² Sacks and twine, crop insurance, use of implements, use of storage buildings, and overhead.

³ The total includes 91 records from the following States in which there were not enough reports to show State averages: Maine, New Hampshire, Massachusetts, Rhode Island, Utah, Washington, and California.

TABLE 670.—*Corn: Cost of production, by yield groups, 1924*

| Yield group (bushels per acre) | Num- ber of reports | Aver- age acreage in corn per farm | Aver- age yield per acre | Gross cost per acre | | | | | | | | Credit per acre (stover and fodder) | Net cost | | | |
|--------------------------------|---------------------------|---|--------------------------------------|-------------------------|----------------|---------|---------|-----------------------------|-------------------------------|---------|--------------|---|-----------------------------|---------|-------------|---------------|
| | | | | Prepare and plant | Culti- vate | Harvest | Market | Miscel- laneous labor | Fertili- zer and manure | Seed | Land rent | | Miscel- laneous costs | Total | Per acre | Per bushel |
| | | | | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| All States: | | | | | | | | | | | | | | | | |
| 7 and under | 363 | 35 | 2 | 4.25 | 2.89 | 2.30 | 0.29 | 0.11 | 2.59 | 0.55 | 4.01 | 2.11 | 19.50 | 3.95 | 15.55 | 7.78 |
| 8 to 17 | 1,055 | 41 | 13 | 3.62 | 3.00 | 2.37 | 1.48 | .11 | 2.38 | .39 | 4.01 | 1.84 | 19.20 | 1.58 | 17.62 | 1.96 |
| 18 to 27 | 2,044 | 39 | 22 | 4.09 | 3.22 | 2.92 | 1.92 | .68 | 3.13 | .43 | 5.10 | 2.05 | 22.95 | 1.85 | 21.10 | .96 |
| 28 to 37 | 1,686 | 41 | 32 | 4.41 | 3.25 | 3.68 | 2.16 | .13 | 3.38 | .45 | 6.30 | 2.23 | 25.96 | 2.20 | 23.76 | .74 |
| 38 to 47 | 1,180 | 38 | 41 | 4.87 | 3.42 | 4.52 | 2.19 | .13 | 4.93 | .51 | 7.35 | 2.44 | 30.36 | 2.79 | 27.57 | .67 |
| 48 to 57 | 576 | 34 | 51 | 5.79 | 3.71 | 5.90 | 2.89 | .21 | 7.26 | .55 | 8.47 | 2.85 | 37.63 | 3.99 | 33.64 | .66 |
| 58 to 67 | 147 | 36 | 61 | 5.69 | 3.97 | 6.43 | 3.00 | .21 | 8.18 | .55 | 9.35 | 2.91 | 40.29 | 3.76 | 36.53 | .60 |
| 68 to 77 | 69 | 17 | 72 | 6.66 | 4.10 | 6.62 | 3.45 | .20 | 11.31 | .61 | 9.32 | 3.14 | 45.51 | 5.37 | 40.14 | .56 |
| 78 and over | 33 | 13 | 90 | 9.13 | 5.08 | 10.59 | 3.21 | .61 | 16.05 | .69 | 10.30 | 3.47 | 59.13 | 8.84 | 50.29 | .56 |
| Corn Belt: | | | | | | | | | | | | | | | | |
| 7 and under | 26 | 50 | 2 | 3.52 | 2.28 | 3.00 | .89 | .15 | 2.32 | .49 | 5.32 | 1.86 | 19.83 | 2.25 | 17.58 | 8.79 |
| 8 to 17 | 125 | 41 | 13 | 3.78 | 2.98 | 2.85 | 1.43 | .09 | 2.55 | .40 | 4.94 | 1.99 | 20.61 | 1.45 | 19.16 | 1.47 |
| 18 to 27 | 472 | 52 | 23 | 3.80 | 2.75 | 2.87 | 1.68 | .05 | 2.17 | .41 | 6.12 | 1.89 | 21.74 | 1.08 | 20.66 | .90 |
| 28 to 37 | 652 | 55 | 32 | 3.95 | 2.92 | 3.18 | 1.89 | .09 | 2.27 | .43 | 6.91 | 2.13 | 23.77 | 1.32 | 22.45 | .70 |
| 38 to 47 | 540 | 58 | 41 | 3.93 | 2.86 | 3.44 | 1.83 | .05 | 2.58 | .46 | 7.72 | 2.06 | 24.93 | 1.30 | 23.63 | .68 |
| 48 to 57 | 212 | 57 | 51 | 4.18 | 2.73 | 3.87 | 2.27 | .06 | 2.60 | .47 | 8.54 | 2.04 | 26.76 | 1.24 | 25.52 | .50 |
| 58 to 67 | 60 | 53 | 61 | 4.02 | 2.81 | 4.58 | 2.22 | .09 | 3.59 | .53 | 9.61 | 2.02 | 28.47 | 1.52 | 27.95 | .46 |
| 68 and over | 13 | 39 | 73 | 4.44 | 2.78 | 4.22 | 2.35 | ----- | 3.84 | .53 | 9.31 | 2.70 | 30.17 | 2.08 | 28.09 | .38 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters

1 Includes miscellaneous labor, irrigating and water, seed treatment and material

2 Includes sacks and twine, crop insurance, use of implements, use of storage buildings, and overhead.

3 "Corn Belt" as used here includes Indiana, Illinois, Iowa, western Ohio, southeast corner of South Dakota, eastern Nebraska, northeast corner of Kansas, and the northern three-fourths of Missouri.

TABLE 671.—Corn: Comparative production costs and yields, by States, 1923 and 1924

| State | Averages for farms reporting | | | | | | Average yields per acre ¹ | | |
|---------------------|------------------------------|---------|-------------------|---------|----------------|---------|--------------------------------------|---------|----------------|
| | Net cost per bushel | | Net cost per acre | | Yield per acre | | 1923 | 1924 | 7-year average |
| | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | | | |
| | Dollars | Dollars | Dollars | Dollars | Bushels | Bushels | Bushels | Bushels | Bushels |
| Vermont..... | 0.90 | 1.24 | 46.87 | 50.89 | 52 | 41 | 39 | 47 | 45 |
| Massachusetts..... | 1.30 | --- | 65.10 | --- | 50 | --- | 43 | 45 | 46 |
| Connecticut..... | 1.33 | 1.68 | 78.33 | 78.87 | 59 | 47 | 41 | 43 | 47 |
| New York..... | .91 | .95 | 35.43 | 38.18 | 39 | 40 | 32 | 33 | 37 |
| New Jersey..... | .79 | 1.07 | 41.31 | 44.01 | 52 | 41 | 40 | 34 | 40 |
| Pennsylvania..... | .78 | .91 | 38.03 | 35.30 | 49 | 39 | 40 | 36 | 42 |
| Delaware..... | .73 | .95 | 31.51 | 32.19 | 43 | 34 | 33 | 27 | 33 |
| Maryland..... | .68 | .80 | 31.80 | 32.98 | 47 | 41 | 30 | 31 | 36 |
| Virginia..... | .69 | .83 | 27.01 | 27.53 | 39 | 33 | 29 | 21 | 27 |
| West Virginia..... | .79 | .91 | 33.28 | 30.91 | 42 | 31 | 34 | 28 | 32 |
| North Carolina..... | .95 | 1.18 | 29.52 | 29.52 | 31 | 25 | 22 | 18 | 20 |
| South Carolina..... | 1.01 | 1.17 | 23.22 | 24.58 | 23 | 21 | 16 | 12 | 17 |
| Georgia..... | 1.05 | 1.02 | 18.88 | 18.45 | 18 | 18 | 12 | 12 | 15 |
| Florida..... | 1.12 | 1.04 | 21.37 | 25.00 | 19 | 24 | 12 | 14 | 15 |
| Ohio..... | .64 | .84 | 31.45 | 30.33 | 40 | 36 | 41 | 26 | 30 |
| Indiana..... | .55 | .74 | 24.57 | 24.35 | 45 | 33 | 38 | 25 | 36 |
| Illinois..... | .52 | .68 | 21.38 | 21.88 | 41 | 34 | 38 | 32 | 34 |
| Michigan..... | .74 | .90 | 28.99 | 27.12 | 39 | 30 | 34 | 29 | 32 |
| Wisconsin..... | .71 | 1.04 | 29.01 | 27.04 | 41 | 26 | 37 | 29 | 36 |
| Minnesota..... | .57 | .78 | 22.18 | 22.49 | 39 | 29 | 36 | 28 | 34 |
| Iowa..... | .52 | .75 | 24.09 | 24.87 | 46 | 33 | 41 | 28 | 38 |
| Missouri..... | .61 | .68 | 20.21 | 20.51 | 33 | 30 | 30 | 26 | 29 |
| North Dakota..... | .42 | .73 | 13.40 | 11.70 | 32 | 19 | 34 | 20 | 22 |
| South Dakota..... | .50 | .71 | 17.54 | 16.36 | 35 | 23 | 34 | 22 | 29 |
| Nebraska..... | .49 | .68 | 17.10 | 17.06 | 35 | 25 | 33 | 21 | 26 |
| Kansas..... | .53 | .54 | 13.71 | 13.99 | 26 | 26 | 22 | 22 | 17 |
| Kentucky..... | .80 | .80 | 28.01 | 25.50 | 35 | 32 | 28 | 25 | 28 |
| Tennessee..... | .77 | .81 | 24.77 | 25.09 | 32 | 31 | 24 | 22 | 26 |
| Alabama..... | .99 | 1.14 | 19.83 | 21.57 | 20 | 19 | 14 | 13 | 15 |
| Mississippi..... | 1.17 | 1.17 | 23.38 | 22.29 | 20 | 19 | 14 | 12 | 17 |
| Louisiana..... | 1.15 | 1.35 | 21.86 | 24.32 | 19 | 18 | 15 | 12 | 19 |
| Texas..... | .81 | .86 | 17.76 | 18.02 | 22 | 21 | 18 | 17 | 20 |
| Oklahoma..... | .86 | .70 | 13.71 | 14.79 | 16 | 21 | 12 | 20 | 18 |
| Arkansas..... | 1.06 | .93 | 22.30 | 20.43 | 21 | 22 | 20 | 16 | 20 |
| Montana..... | .65 | .90 | 15.49 | 13.45 | 24 | 15 | 26 | 18 | 19 |
| Wyoming..... | .49 | .85 | 14.15 | 14.38 | 20 | 17 | 27 | 14 | 22 |
| Colorado..... | .57 | .86 | 15.83 | 15.50 | 28 | 18 | 25 | 10 | 19 |
| New Mexico..... | .85 | .78 | 18.61 | 12.43 | 22 | 16 | 16 | 20 | 23 |
| Idaho..... | .66 | 1.02 | 28.91 | 30.55 | 44 | 30 | 42 | 35 | 34 |
| Washington..... | .70 | --- | 23.09 | --- | 33 | --- | 37 | 30 | 34 |
| Oregon..... | .83 | .89 | 33.32 | 33.83 | 40 | 38 | 35 | 30 | 31 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ State average yields obtained by the Division of Crop and Livestock estimates and published in the Yearbooks of the United States Department of Agriculture, carried to nearest whole number. Seven-year average yields for 1914 to 1920.

TABLE 672.—Oats: Cost of production, by States, 1924

| State | Num-ber of reports | Aver-age acre-age in oats per farm | Aver-age yield per acre | Gross cost per acre | | | | | | | | Credit per acre (straw) | Net cost | | |
|-------------------|--------------------|------------------------------------|-------------------------|---------------------|----------------------|----------|-----------------------|---------------------------|---------|---------|-----------|-------------------------|-----------------------|---------|----------|
| | | | | Pre- pare and plant | Har- vest and thresh | Mar- ket | Miscel- laneous labor | Com- mercial ferti- lizer | Manure | Seed | Land rent | | Miscel- laneous costs | Total | Per acre | Per bushel |
| | | | Bushels | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 31 | 7 | 42 | 7.41 | 9.23 | 2.67 | 0.11 | 2.25 | 9.45 | 3.27 | 6.45 | 4.39 | 45.23 | 5.50 | 39.73 |
| | 26 | 6 | 44 | 8.37 | 10.76 | 2.40 | .23 | 3.02 | 6.40 | 3.08 | 5.56 | 3.44 | 43.26 | 6.35 | 36.91 |
| | 261 | 12 | 41 | 6.67 | 6.70 | 1.91 | .17 | 2.43 | 1.82 | 2.18 | 5.60 | 3.14 | 38.62 | 4.98 | 23.69 |
| | 17 | 10 | 35 | 5.02 | 6.62 | 1.52 | .12 | 2.17 | 1.12 | 1.65 | 5.71 | 3.11 | 28.24 | 5.32 | 25.69 |
| | 291 | 12 | 41 | 5.94 | 5.72 | 1.92 | .14 | 2.10 | 1.04 | 1.88 | 5.40 | 3.39 | 27.53 | 4.83 | 22.70 |
| Maryland..... | 38 | 8 | 36 | 5.69 | 5.62 | 1.86 | .10 | 3.16 | 1.06 | 1.54 | 5.68 | 2.59 | 27.30 | 5.02 | 22.28 |
| | 8 | 9 | 28 | 4.63 | 3.92 | 1.38 | .13 | 2.15 | .98 | 1.52 | 4.70 | 2.02 | 21.43 | 2.83 | 18.60 |
| | 80 | 7 | 31 | 5.59 | 5.05 | 2.25 | .21 | 1.90 | .78 | 1.66 | 5.72 | 2.40 | 23.56 | 3.04 | 22.52 |
| | 83 | 7 | 24 | 3.87 | 4.12 | 1.71 | .04 | 2.23 | .80 | 1.81 | 6.15 | 2.07 | 22.80 | 1.83 | 20.97 |
| | 58 | 19 | 28 | 3.17 | 4.68 | 1.44 | .12 | 2.56 | .40 | 2.03 | 6.01 | 2.15 | 22.86 | 1.65 | 21.21 |
| Georgia..... | 78 | 16 | 22 | 2.49 | 3.95 | 1.26 | .09 | 1.82 | .82 | 1.90 | 3.85 | 1.99 | 18.17 | 1.54 | 16.63 |
| | 267 | 15 | 48 | 4.30 | 5.25 | 1.38 | .14 | 1.23 | .43 | 1.44 | 5.85 | 2.80 | 22.82 | 2.60 | 20.22 |
| | 276 | 22 | 41 | 2.71 | 4.49 | .99 | .09 | .64 | .69 | 1.28 | 6.05 | 2.16 | 19.10 | 2.03 | 17.07 |
| | 394 | 34 | 42 | 2.29 | 3.91 | 1.16 | .17 | .13 | .43 | 1.41 | 6.81 | 1.95 | 18.26 | 1.43 | 16.83 |
| | 222 | 15 | 46 | 4.97 | 5.39 | 1.83 | .11 | .92 | 1.24 | 1.25 | 5.45 | 2.51 | 23.70 | 2.88 | 20.82 |
| Wisconsin..... | 321 | 19 | 42 | 4.25 | 5.09 | 1.96 | .14 | .14 | 1.67 | 1.62 | 6.08 | 2.76 | 22.71 | 3.22 | 20.49 |
| | 301 | 39 | 46 | 3.51 | 4.66 | 1.46 | .14 | .07 | .92 | 1.40 | 5.05 | 2.39 | 19.60 | 1.34 | 18.26 |
| | 454 | 40 | 44 | 2.10 | 4.20 | 1.32 | .19 | .01 | .48 | 1.55 | 7.85 | 2.36 | 20.06 | 1.29 | 18.77 |
| | 215 | 20 | 28 | 2.65 | 3.83 | 1.26 | .09 | .30 | .62 | 1.41 | 4.47 | 2.01 | 16.64 | 1.16 | 15.48 |
| | 237 | 48 | 36 | 3.30 | 4.10 | 1.24 | .12 | ..... | .16 | .91 | 2.42 | 1.99 | 14.24 | .57 | 13.67 |
| South Dakota..... | 329 | 50 | 38 | 2.43 | 3.88 | 1.48 | .16 | ..... | .31 | 1.06 | 3.82 | 2.13 | 14.97 | .60 | 14.37 |
| | 207 | 31 | 32 | 2.40 | 3.93 | 1.28 | .10 | .01 | .48 | 1.20 | 5.26 | 2.21 | 16.87 | .75 | 16.12 |
| | 266 | 18 | 29 | 2.72 | 4.74 | 1.06 | .05 | .03 | .31 | 1.47 | 4.23 | 1.76 | 16.37 | .72 | 15.65 |
| | 64 | 12 | 25 | 3.18 | 4.87 | 1.61 | .51 | 1.05 | .75 | 1.21 | 4.55 | 2.00 | 19.73 | 2.16 | 17.57 |
| | 63 | 10 | 27 | 3.89 | 3.76 | 1.59 | .13 | .91 | .97 | 1.39 | 5.88 | 1.99 | 20.51 | 1.90 | 18.61 |
| Alabama..... | 62 | 10 | 23 | 2.96 | 4.16 | 1.38 | .20 | 1.07 | .55 | 1.63 | 4.55 | 1.65 | 18.35 | 1.98 | 16.42 |
| | 26 | 24 | 22 | 2.68 | 3.97 | 1.35 | .32 | 1.44 | .62 | 1.85 | 3.92 | 2.21 | 17.42 | 1.37 | 16.99 |
| | 113 | 42 | 33 | 2.93 | 4.94 | 1.46 | .20 | .07 | .07 | 1.31 | 4.22 | 2.22 | 17.42 | 1.01 | 16.41 |
| | 123 | 28 | 30 | 2.79 | 4.42 | 1.12 | .10 | ..... | .25 | 1.54 | 3.43 | 1.67 | 16.32 | .77 | 14.55 |
| | 50 | 13 | 26 | 2.84 | 3.63 | 1.70 | .04 | .38 | .35 | 1.44 | 4.23 | 1.63 | 16.29 | 1.72 | 14.57 |

| | | | | | | | | | | | | | | | | |
|--------------------------|-------|----|----|------|------|------|------|-----|------|------|-------|------|-------|------|-------|-----|
| Montana..... | 108 | 29 | 31 | 4.18 | 4.16 | 2.01 | .48 | --- | .23 | .89 | 2.84 | 1.86 | 16.65 | .90 | 15.75 | .51 |
| Wyoming..... | 50 | 31 | 30 | 4.35 | 4.06 | 2.22 | 1.01 | --- | .58 | 1.21 | 3.67 | 2.31 | 19.41 | 1.65 | 17.76 | .59 |
| Colorado..... | 62 | 19 | 33 | 4.11 | 5.05 | 1.67 | 1.69 | --- | 1.14 | 1.57 | 5.74 | 2.60 | 23.57 | 1.53 | 22.04 | .67 |
| Utah..... | 35 | 10 | 45 | 6.03 | 7.88 | 2.38 | 3.02 | --- | 2.94 | 2.33 | 10.17 | 3.23 | 37.98 | 2.20 | 35.78 | .80 |
| Idaho..... | 55 | 24 | 37 | 4.75 | 5.35 | 1.60 | 1.90 | --- | .44 | 1.60 | 7.73 | 2.93 | 26.30 | 1.32 | 24.98 | .68 |
| Washington..... | 40 | 37 | 39 | 4.93 | 5.54 | 1.47 | .54 | .10 | 2.53 | 1.63 | 9.14 | 2.71 | 28.59 | 2.22 | 26.37 | .68 |
| Oregon..... | 37 | 17 | 40 | 5.15 | 5.15 | 1.36 | .48 | .14 | 1.41 | 1.68 | 7.16 | 2.56 | 25.09 | 1.54 | 23.55 | .59 |
| Total ¹ | 5,509 | 26 | 38 | 3.66 | 4.77 | 1.46 | .23 | .65 | .85 | 1.49 | 5.47 | 2.36 | 20.94 | 2.01 | 18.93 | .50 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ Includes miscellaneous labor, irrigating and water, seed treatment and material.

² Seeds and twine, crop insurance, use of implements, use of storage buildings, and overhead.

³ The total includes 66 records from the following States in which there were not enough reports to show State averages: New Hampshire, Massachusetts, Connecticut, Florida, Louisiana, New Mexico, Arizona, and California.

TABLE 673.—Oats: Cost of production, by yield groups, 1924

| Yield group (bushels per acre) | Number of reports | Average acreage in oats per farm | Average yield per acre | Gross cost per acre | | | | | | | | Net cost | | | |
|--------------------------------|-------------------|----------------------------------|------------------------|---------------------|----------------------|---------------------|----------------------------------|-----------------------|---------|-----------|----------------------------------|----------|-------------------------|----------|------------|
| | | | | Prepare and plant | Harvest ¹ | Market ² | Miscellaneous labor ³ | Fertilizer and manure | Seed | Land rent | Miscellaneous costs ⁴ | Total | Credit per acre (straw) | Per acre | Per bushel |
| | | Acrea | Bushels | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| ALL States: | 343 | 20 | 11 | 3.21 | 3.30 | 1.07 | 0.16 | 0.93 | 1.35 | 3.49 | 1.77 | 15.28 | 0.87 | 14.41 | 1.31 |
| 17 and under..... | 481 | 21 | 20 | 3.22 | 3.87 | 1.20 | .17 | 1.31 | 1.37 | 3.90 | 1.88 | 16.92 | 1.48 | 15.44 | .77 |
| 18 to 22..... | 451 | 22 | 25 | 3.41 | 3.98 | 1.24 | .20 | 1.36 | 1.46 | 4.52 | 1.86 | 18.03 | 1.69 | 16.34 | .65 |
| 23 to 27..... | 963 | 25 | 30 | 3.68 | 4.39 | 1.33 | .22 | 1.46 | 1.44 | 4.87 | 2.32 | 19.71 | 1.92 | 17.79 | .59 |
| 28 to 32..... | 552 | 25 | 35 | 3.62 | 4.39 | 1.40 | .13 | 1.40 | 1.49 | 4.92 | 2.36 | 19.91 | 1.94 | 17.97 | .51 |
| 33 to 37..... | 1,053 | 28 | 40 | 3.88 | 4.96 | 1.52 | .25 | 1.71 | 1.56 | 5.59 | 2.54 | 22.01 | 2.39 | 19.62 | .49 |
| 38 to 42..... | 376 | 30 | 45 | 3.73 | 4.80 | 1.59 | .22 | 1.29 | 1.52 | 6.23 | 2.48 | 21.85 | 2.21 | 19.74 | .44 |
| 43 to 47..... | 684 | 29 | 50 | 3.71 | 5.35 | 1.61 | .26 | 1.59 | 1.55 | 6.78 | 2.66 | 23.51 | 2.13 | 20.80 | .38 |
| 48 to 52..... | 167 | 28 | 55 | 3.59 | 5.43 | 1.56 | .17 | 1.34 | 1.55 | 6.93 | 2.86 | 23.43 | 2.63 | 20.80 | .38 |
| 53 to 57..... | 288 | 29 | 60 | 3.92 | 5.91 | 1.60 | .29 | 2.15 | 1.54 | 7.07 | 2.32 | 24.77 | 2.31 | 22.46 | .37 |
| 58 to 62..... | 231 | 24 | 73 | 4.26 | 6.63 | 1.79 | .35 | 1.92 | 1.63 | 7.12 | 2.94 | 26.64 | 2.80 | 23.84 | .33 |
| 63 and over..... | | | | | | | | | | | | | | | |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ Threshing is included under Harvesting.

² Includes miscellaneous labor, irrigating and water, seed treatment and material.

³ Seeds and twine, crop insurance, use of implements, use of storage buildings, and overhead.

TABLE 674.—*Oats: Comparative production costs and yields, by States, 1923 and 1924*

| State | Averages for farms reporting | | | | | | Average yields per acre ¹ | | |
|---------------------|------------------------------|----------------|-------------------|----------------|----------------|----------------|--------------------------------------|----------------|----------------|
| | Net cost per bushel | | Net cost per acre | | Yield per acre | | 1923 | 1924 | 7-year average |
| | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | | | |
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> | <i>Bushels</i> |
| Maine..... | 0.82 | 0.95 | 39.20 | 39.73 | 48 | 42 | 37 | 37 | 37 |
| Vermont..... | .81 | .84 | 36.67 | 36.91 | 46 | 44 | 35 | 38 | 37 |
| New York..... | .63 | .63 | 25.23 | 25.69 | 40 | 41 | 32 | 36 | 34 |
| New Jersey..... | .65 | .65 | 20.04 | 22.92 | 31 | 35 | 24 | 32 | 32 |
| Pennsylvania..... | .65 | .55 | 22.20 | 22.70 | 34 | 41 | 29 | 36 | 35 |
| Maryland..... | .58 | .62 | 20.38 | 22.28 | 35 | 36 | 30 | 34 | 31 |
| Virginia..... | .70 | .66 | 13.62 | 18.60 | 28 | 28 | 22 | 24 | 22 |
| West Virginia..... | .83 | .73 | 22.31 | 22.52 | 27 | 31 | 24 | 26 | 25 |
| North Carolina..... | .79 | .87 | 21.28 | 20.97 | 27 | 24 | 22 | 18 | 18 |
| South Carolina..... | .68 | .76 | 19.79 | 21.21 | 29 | 28 | 24 | 21 | 20 |
| Georgia..... | .72 | .76 | 16.53 | 16.63 | 23 | 22 | 18 | 17 | 19 |
| Ohio..... | .51 | .42 | 19.95 | 20.22 | 39 | 48 | 34 | 41 | 38 |
| Indiana..... | .49 | .42 | 16.04 | 17.07 | 33 | 41 | 28 | 38 | 36 |
| Illinois..... | .41 | .40 | 15.88 | 16.83 | 39 | 42 | 35 | 40 | 40 |
| Michigan..... | .50 | .45 | 19.68 | 20.82 | 39 | 46 | 32 | 42 | 35 |
| Wisconsin..... | .51 | .49 | 19.99 | 20.49 | 39 | 42 | 36 | 40 | 40 |
| Minnesota..... | .42 | .40 | 17.14 | 18.26 | 41 | 46 | 37 | 43 | 34 |
| Iowa..... | .43 | .43 | 17.23 | 18.77 | 40 | 41 | 36 | 43 | 39 |
| Missouri..... | .55 | .55 | 14.84 | 15.48 | 27 | 28 | 25 | 28 | 28 |
| North Dakota..... | .44 | .38 | 11.55 | 13.67 | 26 | 36 | 23 | 34 | 24 |
| South Dakota..... | .41 | .38 | 15.01 | 14.37 | 37 | 38 | 34 | 37 | 34 |
| Nebraska..... | .41 | .50 | 14.90 | 16.12 | 36 | 32 | 33 | 31 | 32 |
| Kansas..... | .47 | .54 | 14.57 | 15.65 | 31 | 29 | 26 | 26 | 28 |
| Kentucky..... | .81 | .70 | 17.90 | 17.67 | 22 | 25 | 21 | 23 | 23 |
| Tennessee..... | .75 | .69 | 17.21 | 18.61 | 23 | 27 | 21 | 22 | 22 |
| Alabama..... | .72 | .71 | 15.05 | 16.42 | 21 | 23 | 17 | 15 | 19 |
| Mississippi..... | .80 | .77 | 16.75 | 16.99 | 21 | 22 | 19 | 18 | 19 |
| Texas..... | .48 | .50 | 15.84 | 16.41 | 33 | 33 | 32 | 34 | 28 |
| Oklahoma..... | .57 | .48 | 13.12 | 14.55 | 23 | 30 | 20 | 27 | 26 |
| Arkansas..... | .67 | .66 | 16.87 | 14.57 | 25 | 26 | 23 | 20 | 25 |
| Montana..... | .51 | .51 | 16.44 | 15.75 | 32 | 31 | 33 | 30 | 29 |
| Wyoming..... | .48 | .50 | 17.74 | 17.70 | 37 | 30 | 34 | 31 | 34 |
| Colorado..... | .57 | .67 | 22.68 | 22.04 | 40 | 33 | 32 | 25 | 34 |
| New Mexico..... | .63 | ..... | 18.82 | ..... | 30 | ..... | 20 | 24 | 31 |
| Utah..... | .74 | .80 | 37.11 | 35.78 | 50 | 45 | 38 | 40 | 42 |
| Idaho..... | .56 | .68 | 23.07 | 24.96 | 50 | 37 | 45 | 36 | 40 |
| Washington..... | .51 | .68 | 29.49 | 26.37 | 58 | 39 | 57 | 40 | 43 |
| Oregon..... | .54 | .59 | 25.97 | 23.55 | 48 | 40 | 39 | 31 | 35 |
| California..... | .57 | ..... | 19.84 | ..... | 35 | ..... | 32 | 24 | 32 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ State average yields obtained by the Division of Crop and Livestock estimates and published in the Yearbooks of the United States Department of Agriculture, carried to nearest whole number. Seven-year average yields for 1914-1920.

TABLE 675.—Wheat, corn, and oats: Comparative production costs in 1922, 1923, and 1924

| Crops and geographical divisions ¹ | Number of reports | | | Net cost per acre | | | Net cost per bushel | | | Yield per acre | | |
|---|-------------------|--------|-------|-------------------|---------------|---------------|---------------------|---------------|---------------|----------------|--------------|--------------|
| | 1922 | 1923 | 1924 | 1922 | 1923 | 1924 | 1922 | 1923 | 1924 | 1922 | 1923 | 1924 |
| WHEAT | | | | | | | | | | | | |
| North Atlantic..... | 168 | 642 | 437 | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Dolls.</i> | <i>Bush.</i> | <i>Bush.</i> | <i>Bush.</i> |
| South Atlantic..... | 355 | 961 | 478 | 28.42 | 28.43 | 28.46 | 1.35 | 1.24 | 1.42 | 21 | 23 | 20 |
| East North Central.. | 551 | 2,028 | 1,183 | 22.45 | 22.42 | 23.92 | 1.60 | 1.60 | 1.60 | 14 | 14 | 15 |
| West North Central.. | 748 | 2,479 | 1,524 | 21.08 | 22.13 | 23.05 | 1.17 | 1.11 | 1.15 | 18 | 20 | 20 |
| South Central..... | 310 | 745 | 408 | 15.42 | 16.17 | 17.38 | 1.03 | 1.24 | .97 | 15 | 13 | 18 |
| Western..... | 285 | 997 | 596 | 17.23 | 17.16 | 17.74 | 1.44 | 1.32 | 1.18 | 12 | 13 | 15 |
| United States.. | 2,417 | 7,852 | 4,616 | 22.90 | 23.95 | 24.05 | 1.09 | 1.09 | 1.20 | 21 | 22 | 20 |
| CORN | | | | | | | | | | | | |
| North Atlantic..... | 256 | 815 | 585 | 43.09 | 40.73 | 41.99 | .83 | .87 | 1.02 | 52 | 47 | 41 |
| South Atlantic..... | 557 | 1,655 | 841 | 25.01 | 25.57 | 27.07 | .83 | .85 | .97 | 30 | 30 | 24 |
| East North Central.. | 669 | 2,714 | 1,690 | 25.83 | 26.77 | 25.60 | .56 | .61 | .75 | 46 | 41 | 34 |
| West North Central.. | 881 | 3,312 | 2,242 | 17.89 | 18.81 | 18.96 | .53 | .54 | .70 | 34 | 35 | 27 |
| South Central..... | 881 | 2,285 | 1,456 | 19.38 | 21.18 | 21.18 | .75 | .88 | .88 | 26 | 24 | 24 |
| Western..... | 119 | 457 | 299 | 20.14 | 19.02 | 18.58 | .67 | .66 | .88 | 30 | 29 | 21 |
| United States.. | 3,363 | 11,218 | 7,153 | 23.01 | 23.75 | 23.77 | .66 | .68 | .82 | 35 | 35 | 29 |
| OATS | | | | | | | | | | | | |
| North Atlantic..... | 260 | 877 | 647 | 25.80 | 24.89 | 25.76 | .68 | .67 | .63 | 38 | 37 | 41 |
| South Atlantic..... | 326 | 834 | 421 | 18.82 | 19.14 | 20.12 | .72 | .74 | .75 | 26 | 26 | 27 |
| East North Central.. | 578 | 2,227 | 1,480 | 17.08 | 18.21 | 18.84 | .47 | .48 | .44 | 36 | 38 | 43 |
| West North Central.. | 835 | 2,974 | 2,029 | 14.37 | 15.31 | 16.43 | .44 | .45 | .44 | 33 | 34 | 37 |
| South Central..... | 388 | 865 | 510 | 15.65 | 15.84 | 16.23 | .65 | .63 | .58 | 24 | 25 | 23 |
| Western..... | 214 | 704 | 422 | 21.50 | 22.74 | 22.62 | .58 | .55 | .45 | 37 | 41 | 35 |
| United States.. | 2,601 | 8,481 | 5,509 | 17.40 | 18.08 | 18.93 | .53 | .52 | .50 | 33 | 35 | 38 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ North Atlantic includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania; South Atlantic includes Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida; East North Central includes Ohio, Indiana, Illinois, Michigan, and Wisconsin; West North Central includes Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; South Central includes Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas; Western includes Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon, and California.

TABLE 676.—Potatoes: Cost of production, 1924

| State groups | Num-ber of reports | Aver-age acreage yield in pota-toes farm | Aver-age yield per acre | Gross cost per acre | | | | | | | | | | Credit per acre (culls) | | Net cost | |
|---------------------------------|--------------------|--|-------------------------|----------------------|------------|----------|---------|------------------------------------|------------------------|---------|-----------|------------------------------------|---------|-------------------------|------------|----------|--|
| | | | | Pre-paring and plant | Culti-vate | Har-vest | Mar-ket | Miscel-lane-ous labor ¹ | Ferti-lizer and manure | Seed | Land rent | Miscel-lane-ous costs ² | Total | Dollars per acre | Per bushel | | |
| | | | | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | |
| Northeastern ¹ | 431 | 7 | 171 | 11.63 | 6.28 | 14.18 | 12.63 | 4.12 | 24.20 | 13.16 | 7.97 | 5.81 | 99.98 | 0.44 | 99.54 | 0.58 | |
| Eastern ¹ | 167 | 8 | 123 | 9.09 | 5.20 | 10.10 | 9.10 | 1.70 | 16.63 | 13.01 | 11.24 | 6.27 | 82.34 | .28 | 82.06 | .67 | |
| Southeastern ¹ | 53 | 9 | 98 | 7.55 | 4.29 | 8.82 | 8.46 | 2.47 | 21.19 | 15.26 | 7.04 | 6.26 | 81.34 | 1.33 | 80.01 | .82 | |
| Central ¹ | 212 | 4 | 111 | 7.23 | 4.22 | 8.39 | 6.94 | 1.87 | 6.57 | 10.62 | 7.26 | 3.13 | 56.23 | .14 | 56.09 | .51 | |
| North Central ¹ | 508 | 6 | 125 | 6.71 | 3.48 | 8.45 | 6.85 | 2.42 | 5.11 | 5.90 | 6.12 | 3.31 | 47.38 | .28 | 47.10 | .38 | |
| West South Central ¹ | 37 | 11 | 76 | 6.96 | 3.32 | 6.24 | 4.53 | 1.37 | 6.83 | 12.30 | 6.59 | 3.44 | 51.58 | --- | 51.58 | .68 | |
| Western ¹ | 181 | 9 | 144 | 8.48 | 4.31 | 12.46 | 8.63 | 2.87 | 4.39 | 10.49 | 8.71 | 8.65 | 68.99 | 1.16 | 67.83 | .47 | |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ Includes miscellaneous labor, irrigating and water, spraying, and spray material.² Sacks and twine, crop insurance, use of implements, use of storage buildings, and overhead.³ Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.⁴ Maryland, Virginia, West Virginia, North Carolina, Kentucky, and Tennessee.⁵ South Carolina, Georgia, Florida, Alabama, and Mississippi.⁶ Ohio, Indiana, Illinois, Iowa, Missouri, Kansas, and Nebraska.⁷ Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.⁸ Louisiana, Texas, Oklahoma, and Arkansas.⁹ Montana, Wyoming, Colorado, Arizona, Utah, Idaho, Washington, Oregon, and California.

TABLE 677.—Potatoes: Comparative production costs in 1923 and 1924

| State groups | Number of reports | | Net cost per acre | | Net cost per bushel | | Yield per acre | |
|---------------------------------------|-------------------|------|-------------------|------------------|---------------------|-----------------|----------------|----------------|
| | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 |
| | | | | | | | | |
| Northeastern ¹ | 574 | 431 | Dollars 105.50 | Dollars 98.34 | Dollars 0.62 | Dollars 0.58 | Bushels 170 | Bushels 171 |
| Eastern ² | 231 | 167 | 80.46 | 82.06 | .99 | .67 | 116 | 123 |
| Southeastern ³ | 112 | 53 | 75.66 | 80.01 | .78 | .83 | 97 | 98 |
| Central ⁴ | 407 | 212 | 52.48 | 56.09 | .52 | .51 | 101 | 111 |
| North Central ⁵ | 964 | 508 | 51.34 | 47.10 | .44 | .38 | 116 | 125 |
| West South Central ⁶ | 85 | 37 | 54.76 | 51.53 | .67 | .68 | 82 | 76 |
| Western ⁷ | 321 | 181 | 68.83 | 67.53 | .46 | .47 | 149 | 141 |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.² Maryland, Virginia, West Virginia, North Carolina, Kentucky, and Tennessee.³ South Carolina, Georgia, Florida, Alabama, and Mississippi.⁴ Ohio, Indiana, Illinois, Iowa, Missouri, Kansas, and Nebraska.⁵ Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.⁶ Louisiana, Texas, Oklahoma, and Arkansas.⁷ Montana, Wyoming, Colorado, Arizona, Utah, Idaho, Washington, Oregon, and California.

TABLE 678.—*Cotton: Cost of production, by yield groups, 1924*

| Yield group (pounds of lint per acre) | Num- ber of reports | Aver- age acreage in cot- ton per farm | Aver- age yield of lint per acre | Gross cost per acre | | | | | | | | Credit per acre (cot- ton seed) | Net cost of lint | | | | |
|---------------------------------------|---------------------------|---|---|------------------------------|----------------|-------------------------------|---|----------------------------------|---------|--------------|--------------|--|---|---------|---------|---------|-------------|
| | | | | Pre- pare and plant | Culti- vate | Har- vest and market | Miscel- lane- ous labor ¹ | Fertil- izer and manure | Seed | Gin- ning | Land rent | | Miscel- lane- ous costs ² | Total | Dollars | Dollars | Per acre | Per pound |
| | | Acres | Pounds | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| 60 and under | 24 | 57 | 36 | 4.36 | 3.99 | 3.33 | 0.43 | 1.73 | 0.97 | 0.71 | 3.67 | 1.18 | 19.94 | 1.61 | 18.33 | 0.51 | |
| 61 to 100 | 107 | 54 | 93 | 4.15 | 3.55 | 5.76 | 0.49 | 3.52 | 1.07 | 1.26 | 3.98 | 2.07 | 27.85 | 3.13 | 24.72 | .27 | |
| 101 to 140 | 186 | 58 | 125 | 3.57 | 3.76 | 6.38 | .46 | 3.12 | 1.16 | 1.56 | 4.56 | 2.22 | 28.79 | 4.24 | 24.55 | .20 | |
| 141 to 180 | 284 | 54 | 161 | 4.05 | 6.18 | 7.76 | .67 | 3.74 | 1.24 | 1.88 | 5.49 | 2.59 | 33.60 | 4.98 | 28.62 | .18 | |
| 181 to 220 | 221 | 47 | 200 | 4.43 | 6.94 | 9.04 | .97 | 4.80 | 1.35 | 2.29 | 6.03 | 2.83 | 38.68 | 6.96 | 32.02 | .16 | |
| 221 to 260 | 288 | 58 | 246 | 4.62 | 6.69 | 10.05 | .96 | 4.82 | 1.41 | 2.75 | 6.27 | 2.70 | 40.27 | 8.54 | 31.73 | .13 | |
| 261 to 300 | 156 | 33 | 293 | 5.01 | 6.71 | 11.57 | 1.30 | 6.81 | 1.48 | 3.01 | 7.81 | 3.22 | 46.92 | 10.19 | 36.73 | .13 | |
| 301 to 340 | 39 | 21 | 324 | 4.78 | 7.01 | 12.24 | .82 | 6.95 | 1.53 | 3.39 | 7.28 | 3.37 | 47.47 | 11.64 | 35.83 | .11 | |
| 341 to 380 | 46 | 35 | 361 | 5.27 | 7.39 | 12.20 | 2.10 | 7.45 | 1.50 | 3.65 | 7.73 | 4.13 | 51.42 | 11.62 | 39.80 | .11 | |
| 381 to 420 | 60 | 41 | 400 | 5.49 | 6.77 | 12.61 | 1.83 | 7.06 | 1.44 | 4.42 | 8.84 | 3.67 | 52.13 | 11.45 | 40.68 | .10 | |
| 421 to 460 | 21 | 17 | 448 | 5.87 | 6.96 | 14.47 | 1.98 | 9.40 | 1.98 | 4.70 | 8.94 | 4.35 | 57.48 | 13.62 | 43.86 | .10 | |
| 461 to 500 | 33 | 33 | 493 | 5.55 | 7.00 | 15.46 | 1.15 | 7.43 | 1.67 | 5.13 | 8.82 | 3.61 | 55.82 | 14.30 | 41.52 | .08 | |
| 501 and over | 6 | 17 | 637 | 5.75 | 7.28 | 16.42 | 2.86 | 7.73 | 1.92 | 7.64 | 12.00 | 4.38 | 63.96 | 20.08 | 43.90 | .07 | |

Cost of Production Division. From returns to mail inquiry sent to crop reporters.

¹ Includes miscellaneous labor, irrigating and water, dusting, and dusting material.² Includes picking sacks and sheets, crop insurance, use of implements, use of storage buildings, and overhead.

TABLE 679.—Crops: Value per acre of 10 crops combined, 1866-1925

| Year | Value per acre | Year | Value per acre | Year | Value per acre | Year | Value per acre |
|-----------|----------------------|-----------|----------------------|-----------|----------------------|-----------|----------------------|
| | <i>Dols.</i> | | <i>Dols.</i> | | <i>Dols.</i> | | <i>Dols.</i> |
| 1866..... | 14. 17 | 1861..... | 13. 10 | 1896..... | 7. 94 | 1911..... | 15. 36 |
| 1867..... | 15. 09 | 1862..... | 12. 93 | 1897..... | 9. 07 | 1912..... | 16. 09 |
| 1868..... | 14. 17 | 1863..... | 10. 93 | 1898..... | 9. 00 | 1913..... | 16. 49 |
| 1869..... | 14. 67 | 1864..... | 9. 95 | 1899..... | 9. 13 | 1914..... | 16. 44 |
| 1870..... | 15. 40 | 1865..... | 9. 72 | 1900..... | 10. 31 | 1915..... | 17. 18 |
| 1871..... | 15. 74 | 1866..... | 9. 41 | 1901..... | 11. 43 | 1916..... | 22. 58 |
| 1872..... | 14. 86 | 1867..... | 10. 14 | 1902..... | 12. 07 | 1917..... | 33. 27 |
| 1873..... | 14. 19 | 1868..... | 10. 30 | 1903..... | 12. 62 | 1918..... | 33. 73 |
| 1874..... | 13. 25 | 1869..... | 8. 99 | 1904..... | 13. 26 | 1919..... | 35. 74 |
| 1875..... | 12. 20 | 1890..... | 11. 03 | 1905..... | 13. 28 | 1920..... | 23. 26 |
| 1876..... | 10. 80 | 1891..... | 11. 76 | 1906..... | 13. 46 | 1921..... | 14. 45 |
| 1877..... | 12. 00 | 1892..... | 10. 10 | 1907..... | 14. 74 | 1922..... | 19. 23 |
| 1878..... | 10. 37 | 1893..... | 9. 50 | 1908..... | 15. 32 | 1923..... | 21. 52 |
| 1879..... | 13. 26 | 1894..... | 9. 06 | 1909..... | 16. 00 | 1924..... | 23. 77 |
| 1880..... | 13. 01 | 1895..... | 8. 12 | 1910..... | 15. 53 | 1925..... | 21. 50 |

Division of Crop and Livestock Estimates. Corn, wheat, oats, barley, rye, buckwheat, potatoes, all hay, tobacco, and cotton, which comprise nearly 90 per cent of the area in all field crops, the average value of which closely approximates the value per acre of the aggregate of all crops.

FARM RETURNS

TABLE 680.—Returns from farming, 1923 and 1924

| | North Atlantic | | South Atlantic | | East North Central | | West North Central | | South Central | | Western | | United States | |
|--|----------------|---------|----------------|----------|--------------------|----------|--------------------|----------|---------------|----------|----------|----------|---------------|----------|
| | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 |
| Number of reports..... | 1,800 | 1,761 | 2,131 | 1,900 | 3,395 | 2,808 | 3,817 | 3,398 | 3,320 | 3,412 | 1,720 | 1,734 | 16,183 | 15,103 |
| Size of farm—acres..... | 143 | 144 | 215 | 219 | 152 | 155 | 334 | 315 | 373 | 342 | 649 | 616 | 300 | 308 |
| Value of farm real estate..... | \$9,200 | \$9,300 | \$9,810 | \$10,169 | \$15,070 | \$15,027 | \$21,820 | \$20,760 | \$10,300 | \$10,537 | \$17,400 | \$17,861 | \$14,520 | \$14,323 |
| Value of farm personalty, Jan. 1..... | 3,020 | 3,142 | 1,700 | 1,751 | 2,730 | 2,754 | 3,810 | 3,872 | 2,140 | 2,016 | 4,400 | 4,329 | 2,960 | 2,937 |
| Receipts: | | | | | | | | | | | | | | |
| Crop sales..... | 810 | 893 | 1,010 | 1,005 | 600 | 635 | 640 | 928 | 1,070 | 1,238 | 1,210 | 1,468 | 850 | 1,012 |
| Sales of livestock..... | 370 | 360 | 350 | 341 | 820 | 828 | 1,330 | 1,497 | 400 | 384 | 800 | 888 | 760 | 780 |
| Sales of livestock products..... | 1,300 | 1,474 | 270 | 287 | 710 | 728 | 430 | 462 | 220 | 208 | 620 | 643 | 550 | 570 |
| Miscellaneous sales..... | 120 | 129 | 69 | 55 | 70 | 71 | 80 | 74 | 50 | 46 | 80 | 80 | 80 | 72 |
| Total..... | 2,600 | 2,856 | 1,709 | 1,689 | 2,200 | 2,275 | 2,480 | 2,961 | 1,760 | 1,876 | 2,870 | 3,179 | 2,240 | 2,434 |
| Cash outlay: | | | | | | | | | | | | | | |
| Hired labor..... | 470 | 555 | 340 | 349 | 270 | 283 | 300 | 336 | 280 | 312 | 610 | 651 | 350 | 394 |
| Livestock bought..... | 170 | 164 | 160 | 142 | 240 | 206 | 390 | 387 | 150 | 122 | 250 | 270 | 210 | 223 |
| Feed bought..... | 460 | 559 | 109 | 124 | 190 | 237 | 220 | 277 | 110 | 131 | 220 | 266 | 210 | 248 |
| Fertilizer..... | 130 | 134 | 210 | 202 | 40 | 44 | 10 | 6 | 50 | 52 | 10 | 14 | 60 | 66 |
| Seed..... | 60 | 60 | 40 | 38 | 50 | 47 | 40 | 44 | 30 | 37 | 50 | 44 | 60 | 44 |
| Taxes on farm property..... | 160 | 167 | 110 | 122 | 220 | 230 | 240 | 259 | 140 | 158 | 270 | 254 | 180 | 182 |
| Machinery and tools..... | 140 | 129 | 70 | 69 | 101 | 101 | 120 | 126 | 70 | 80 | 140 | 119 | 110 | 103 |
| Miscellaneous other..... | 180 | 181 | 80 | 91 | 160 | 144 | 170 | 155 | 100 | 86 | 280 | 303 | 150 | 151 |
| Total..... | 1,900 | 1,949 | 1,110 | 1,137 | 1,200 | 1,292 | 1,490 | 1,550 | 980 | 953 | 1,830 | 1,921 | 1,320 | 1,410 |
| Receipts less expense..... | 800 | 907 | 599 | 552 | 910 | 983 | 990 | 1,381 | 830 | 918 | 1,040 | 1,258 | 890 | 1,024 |
| Change in inventory..... | 180 | 111 | 150 | 104 | 125 | 172 | 120 | 273 | 60 | 151 | 270 | 248 | 130 | 181 |
| Net result..... | 1,070 | 1,022 | 749 | 656 | 1,080 | 1,155 | 1,110 | 1,654 | 880 | 1,050 | 1,310 | 1,506 | 1,020 | 1,205 |
| Interest paid..... | 90 | 97 | 100 | 110 | 150 | 155 | 350 | 287 | 170 | 177 | 380 | 371 | 220 | 230 |
| Spent for farm improvements..... | 160 | 185 | 120 | 124 | 140 | 127 | 170 | 139 | 110 | 133 | 140 | 132 | 140 | 133 |
| Non cash estimated items: | | | | | | | | | | | | | | |
| Value of food produced and used on farm ¹ | 260 | 229 | 310 | 303 | 299 | 267 | 260 | 265 | 290 | 268 | 250 | 247 | 265 | 266 |
| Value of family labor, including owner ¹ | 970 | 912 | 670 | 500 | 880 | 822 | 980 | 1,081 | 690 | 516 | 1,020 | 969 | 870 | 798 |
| Change in value of real estate during year (— shows decrease)..... | +22 | +105 | +52 | +138 | —105 | +113 | —211 | +200 | +17 | +168 | —69 | +90 | —66 | +145 |

Division of Farm Management and Costs.

Computed from reports of individual farms operated by their owners.

¹ Averages of farms reporting the item.

TABLE 681.—Returns from farming: Returns to labor and to capital, 1923 and 1924

| Item | North Atlantic | | South Atlantic | | East North Central | | West North Central | | South Central | | Western | | United States | |
|---|------------------|------------------|----------------|----------------|--------------------|------------------|--------------------|------------------|----------------|------------------|------------------|------------------|------------------|------------------|
| | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 | 1923 | 1924 |
| Net results as given..... | Dollars 1,070 | Dollars 1,022 | Dollars 740 | Dollars 656 | Dollars 1,030 | Dollars 1,155 | Dollars 1,110 | Dollars 1,654 | Dollars 890 | Dollars 1,059 | Dollars 1,310 | Dollars 1,506 | Dollars 1,020 | Dollars 1,205 |
| Add food and fuel ¹ | 260 | 239 | 310 | 303 | 260 | 267 | 260 | 265 | 250 | 266 | 250 | 247 | 265 | 266 |
| Total..... | 1,330 | 1,261 | 1,050 | 959 | 1,290 | 1,422 | 1,370 | 1,919 | 1,140 | 1,325 | 1,560 | 1,753 | 1,285 | 1,471 |
| Less unpaid labor ² | 970 | 912 | 670 | 500 | 880 | 822 | 930 | 1,061 | 680 | 516 | 1,020 | 969 | 870 | 789 |
| Return to capital..... | 360 | 349 | 380 | 459 | 400 | 600 | 440 | 828 | 470 | 809 | 540 | 784 | 415 | 682 |
| Return to operator, per cent ³ | 2.9 | 2.8 | 3.3 | 3.8 | 2.2 | 3.4 | 1.7 | 3.4 | 3.8 | 6.4 | 2.5 | 3.5 | 2.3 | 4.0 |
| Interest, assuming rate of 6 per cent ⁴ | 730 | 747 | 600 | 718 | 1,070 | 1,067 | 1,540 | 1,478 | 750 | 733 | 1,320 | 1,331 | 1,050 | 1,036 |
| Return to all unpaid labor..... | 600 | 514 | 360 | 241 | 220 | 335 | 170 | 441 | 400 | 572 | 240 | 422 | 235 | 435 |
| Return to operator (prorated) ⁵ | 470 | 448 | 380 | 216 | 159 | 279 | 115 | 247 | 245 | 473 | 205 | 372 | 154 | 313 |
| Return to operator (family labor at hired labor rates) ⁶ | 390 | 306 | 117 | 162 | 27 | 178 | 472 | 39 | 134 | 483 | 94 | 308 | 71 | 215 |

Division of Farm Management and Costs. Computed from reports of owner operators (16,183 in 1923 and 15,103 in 1924) and other information. In computing this table certain arbitrary assumptions are explicitly or implicitly made.

¹ Averages of estimates made by 15,025 farmers for 1923; by 13,753 farmers for 1924.

² Averages of estimates made by 11,832 farmers for 1923; by 12,133 farmers for 1924.

³ Based on the reported value of farm property Jan. 1.

⁴ Many recall paying more than 6 per cent.

⁵ Assumes that all unpaid family labor shared the reduced amount according to the amount of its claim established: (1) For the operator, as 12 times the monthly wages of hired help without board, and (2) for the rest of the family the difference between operator's labor so figured and the reported value of unpaid labor.

⁶ The assumption is that the operator bears all the burden of failure to earn common hired labor wages, and attributes such wages to his family before computing his remainder or wages.

TABLE 682.—*Plow lands: Value per acre, by States, 1920-1925*

| State | Average of poor plow lands | | | | | | Average of good plow lands | | | | | | Average of all plow lands | | | | | |
|---------------------|----------------------------|------|------|------|------|------|----------------------------|------|------|------|------|------|---------------------------|------|------|------|------|------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Maine..... | \$30 | \$25 | \$22 | \$22 | \$22 | \$21 | \$56 | \$50 | \$47 | \$48 | \$50 | \$49 | \$42 | \$36 | \$35 | \$36 | \$37 | \$36 |
| New Hampshire..... | 24 | 24 | 25 | 24 | 23 | 23 | 64 | 63 | 64 | 58 | 59 | 60 | 42 | 41 | 41 | 40 | 40 | 41 |
| Vermont..... | 30 | 29 | 27 | 24 | 24 | 23 | 69 | 67 | 63 | 56 | 55 | 53 | 48 | 47 | 45 | 40 | 40 | 36 |
| Massachusetts..... | 40 | 40 | 30 | 30 | 39 | 41 | 103 | 98 | 105 | 100 | 106 | 107 | 72 | 69 | 69 | 70 | 69 | 70 |
| Rhode Island..... | 50 | 50 | 50 | 51 | 52 | 56 | 105 | 105 | 106 | 106 | 110 | 115 | 85 | 85 | 86 | 87 | 88 | 91 |
| Connecticut..... | 35 | 34 | 32 | 32 | 33 | 34 | 100 | 90 | 90 | 88 | 88 | 90 | 60 | 58 | 58 | 57 | 58 | 60 |
| New York..... | 39 | 40 | 38 | 35 | 33 | 32 | 84 | 84 | 83 | 80 | 75 | 74 | 64 | 65 | 62 | 59 | 54 | 53 |
| New Jersey..... | 50 | 55 | 48 | 49 | 47 | 49 | 104 | 125 | 109 | 109 | 105 | 108 | 80 | 92 | 84 | 83 | 82 | 84 |
| Pennsylvania..... | 40 | 39 | 33 | 35 | 32 | 32 | 86 | 81 | 73 | 73 | 68 | 69 | 66 | 62 | 54 | 54 | 53 | 53 |
| Ohio..... | 69 | 60 | 52 | 52 | 51 | 48 | 132 | 110 | 100 | 100 | 98 | 91 | 105 | 88 | 78 | 78 | 75 | 70 |
| Indiana..... | 80 | 71 | 56 | 54 | 51 | 49 | 150 | 137 | 108 | 105 | 101 | 96 | 119 | 109 | 85 | 82 | 78 | 74 |
| Illinois..... | 115 | 105 | 91 | 86 | 81 | 82 | 213 | 195 | 160 | 155 | 148 | 153 | 170 | 157 | 131 | 120 | 120 | 123 |
| Michigan..... | 41 | 41 | 39 | 36 | 35 | 35 | 83 | 77 | 74 | 73 | 75 | 64 | 65 | 60 | 57 | 56 | 57 | 57 |
| Wisconsin..... | 66 | 65 | 58 | 60 | 57 | 49 | 125 | 122 | 110 | 108 | 105 | 91 | 100 | 98 | 87 | 86 | 82 | 72 |
| Minnesota..... | 73 | 74 | 67 | 59 | 55 | 54 | 120 | 121 | 102 | 96 | 89 | 86 | 100 | 101 | 87 | 80 | 75 | 73 |
| Iowa..... | 157 | 145 | 119 | 115 | 107 | 100 | 257 | 238 | 193 | 181 | 169 | 162 | 219 | 200 | 163 | 153 | 143 | 135 |
| Missouri..... | 60 | 58 | 44 | 45 | 44 | 42 | 110 | 100 | 84 | 85 | 83 | 81 | 87 | 83 | 65 | 66 | 65 | 63 |
| North Dakota..... | 31 | 30 | 25 | 24 | 22 | 22 | 49 | 49 | 44 | 40 | 37 | 37 | 43 | 42 | 37 | 33 | 31 | 31 |
| South Dakota..... | 67 | 66 | 52 | 43 | 41 | 44 | 108 | 102 | 80 | 73 | 64 | 68 | 90 | 85 | 72 | 58 | 54 | 58 |
| Nebraska..... | 85 | 80 | 72 | 65 | 64 | 64 | 150 | 140 | 123 | 116 | 113 | 108 | 125 | 115 | 101 | 96 | 90 | 90 |
| Kansas..... | 50 | 50 | 43 | 41 | 38 | 37 | 90 | 90 | 77 | 74 | 69 | 69 | 70 | 70 | 60 | 58 | 54 | 54 |
| Delaware..... | 44 | 38 | 31 | 28 | 30 | 28 | 86 | 72 | 67 | 70 | 68 | 66 | 66 | 65 | 50 | 51 | 50 | 48 |
| Maryland..... | 40 | 31 | 31 | 32 | 33 | 31 | 82 | 70 | 67 | 67 | 67 | 66 | 60 | 51 | 49 | 50 | 52 | 50 |
| Virginia..... | 34 | 32 | 27 | 31 | 32 | 28 | 73 | 70 | 60 | 64 | 63 | 66 | 63 | 50 | 43 | 47 | 48 | 42 |
| West Virginia..... | 32 | 31 | 27 | 28 | 27 | 24 | 75 | 70 | 62 | 67 | 66 | 55 | 61 | 48 | 42 | 45 | 44 | 38 |
| North Carolina..... | 42 | 36 | 33 | 35 | 35 | 33 | 87 | 76 | 67 | 70 | 75 | 70 | 63 | 55 | 49 | 52 | 54 | 52 |
| South Carolina..... | 41 | 32 | 23 | 21 | 22 | 24 | 82 | 68 | 46 | 45 | 48 | 52 | 61 | 50 | 35 | 35 | 38 | 38 |
| Georgia..... | 30 | 23 | 18 | 17 | 16 | 17 | 63 | 50 | 38 | 36 | 34 | 36 | 46 | 36 | 28 | 26 | 24 | 25 |
| Florida..... | 23 | 25 | 21 | 20 | 20 | 18 | 53 | 55 | 56 | 43 | 46 | 48 | 36 | 40 | 37 | 31 | 33 | 33 |
| Kentucky..... | 42 | 33 | 28 | 27 | 26 | 26 | 95 | 75 | 67 | 66 | 63 | 60 | 70 | 53 | 47 | 46 | 43 | 44 |
| Tennessee..... | 40 | 35 | 28 | 30 | 30 | 27 | 90 | 81 | 68 | 70 | 70 | 65 | 60 | 55 | 47 | 50 | 50 | 40 |
| Alabama..... | 20 | 17 | 14 | 16 | 16 | 18 | 43 | 38 | 32 | 34 | 35 | 37 | 30 | 26 | 23 | 26 | 26 | 28 |
| Mississippi..... | 23 | 16 | 16 | 17 | 17 | 16 | 49 | 36 | 34 | 36 | 36 | 34 | 35 | 26 | 25 | 26 | 26 | 24 |
| Arkansas..... | 26 | 24 | 20 | 21 | 20 | 20 | 65 | 54 | 46 | 47 | 45 | 44 | 45 | 38 | 33 | 34 | 33 | 32 |
| Louisiana..... | 34 | 24 | 21 | 24 | 25 | 22 | 65 | 50 | 47 | 45 | 40 | 45 | 50 | 38 | 31 | 34 | 35 | 35 |
| Oklahoma..... | 30 | 29 | 26 | 24 | 23 | 24 | 63 | 58 | 52 | 52 | 53 | 47 | 46 | 41 | 37 | 37 | 38 | 38 |
| Texas..... | 36 | 33 | 29 | 28 | 29 | 32 | 72 | 70 | 60 | 57 | 59 | 64 | 56 | 52 | 47 | 44 | 45 | 50 |
| Montana..... | 21 | 19 | 15 | 14 | 13 | 12 | 48 | 41 | 35 | 31 | 30 | 28 | 36 | 30 | 23 | 22 | 21 | 19 |
| Idaho..... | 60 | 58 | 50 | 46 | 42 | 44 | 135 | 128 | 110 | 93 | 88 | 90 | 105 | 99 | 85 | 76 | 68 | 68 |
| Wyoming..... | 34 | 25 | 23 | 21 | 15 | 13 | 70 | 60 | 54 | 48 | 38 | 37 | 53 | 44 | 37 | 35 | 27 | 25 |
| Colorado..... | 40 | 35 | 35 | 30 | 29 | 24 | 88 | 86 | 84 | 75 | 72 | 68 | 66 | 67 | 61 | 56 | 52 | 48 |
| New Mexico..... | 30 | 30 | 23 | 21 | 23 | 23 | 60 | 57 | 53 | 56 | 55 | 45 | 45 | 41 | 37 | 37 | 38 | 38 |
| Arizona..... | 90 | 75 | 70 | 70 | 75 | 70 | 180 | 140 | 130 | 132 | 140 | 140 | 130 | 120 | 115 | 116 | 120 | 116 |
| Utah..... | 60 | 50 | 42 | 42 | 40 | 40 | 135 | 140 | 125 | 122 | 119 | 122 | 103 | 100 | 90 | 88 | 86 | 90 |
| Nevada..... | 46 | 45 | 40 | 30 | 42 | 45 | 110 | 90 | 80 | 80 | 85 | 90 | 80 | 75 | 70 | 65 | 73 | 78 |
| Washington..... | 68 | 63 | 52 | 50 | 49 | 45 | 150 | 140 | 120 | 110 | 108 | 102 | 115 | 105 | 90 | 88 | 86 | 80 |
| Oregon..... | 60 | 60 | 55 | 52 | 50 | 46 | 130 | 135 | 110 | 106 | 104 | 100 | 100 | 100 | 90 | 84 | 82 | 78 |
| California..... | 70 | 75 | 69 | 63 | 51 | 51 | 175 | 200 | 195 | 166 | 166 | 164 | 130 | 135 | 128 | 113 | 112 | 111 |
| United States..... | 61 | 57 | 47 | 45 | 43 | 42 | 113 | 106 | 89 | 85 | 82 | 80 | 90 | 84 | 70 | 67 | 64 | 63 |

Division of Crop and Livestock Estimates. From reports of crop reporters on Mar. 1 on average values in their localities.

TABLE 683.—*Average prevailing farm wage rates, by geographic divisions*¹

| Basis of rate, year, and month | North Atlantic States | North Central States | South Atlantic States | South Central States | Western States | United States |
|--------------------------------|-----------------------|----------------------|-----------------------|----------------------|----------------|----------------|
| Per month, with board: | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| 1910..... | 21.47 | 24.11 | 13.76 | 15.56 | 32.41 | 19.58 |
| 1915..... | 23.85 | 26.23 | 14.70 | 16.13 | 33.51 | 21.08 |
| 1920..... | 52.37 | 56.44 | 34.88 | 36.60 | 73.36 | 47.24 |
| 1921..... | 38.36 | 35.53 | 21.64 | 22.75 | 47.75 | 30.25 |
| 1922..... | 37.57 | 33.73 | 21.36 | 22.35 | 46.22 | 29.31 |
| 1923..... | 43.52 | 38.63 | 24.39 | 24.55 | 51.02 | 33.09 |
| 1924..... | 44.57 | 38.41 | 25.42 | 25.16 | 49.18 | 33.34 |
| 1925..... | 44.97 | 39.23 | 25.78 | 25.28 | 50.71 | 33.88 |

¹ Yearly averages are from reports by crop reporters, giving average wages for the year in their localities.

TABLE 683.—Average prevailing farm wage rates, by geographic division¹—Con.

| Basis of rate, year, and month | North Atlantic States | North Central States | South Atlantic States | South Central States | Western States | United States |
|---|-----------------------|----------------------|-----------------------|----------------------|----------------|---------------|
| Per month, with board—Continued. | | | | | | |
| Oct. 1, 1922 | 37.41 | 34.49 | 20.53 | 21.48 | 45.61 | 29.03 |
| Jan. 1, 1923 | 36.85 | 31.61 | 20.23 | 21.48 | 43.55 | 27.87 |
| Apr. 1, 1923 | 41.77 | 37.04 | 22.07 | 22.52 | 46.43 | 30.90 |
| July 1, 1923 | 49.06 | 40.97 | 24.14 | 24.49 | 58.11 | 34.64 |
| Oct. 1, 1923 | 47.55 | 40.14 | 24.68 | 25.26 | 54.66 | 34.56 |
| Nov. 1, 1923 | 46.62 | 39.84 | 24.91 | 25.21 | 50.07 | 34.54 |
| Jan. 1, 1924 | 42.51 | 35.51 | 24.09 | 23.78 | 48.77 | 31.55 |
| Mar. 1, 1924 | 43.91 | 37.47 | 24.41 | 24.37 | 48.81 | 32.52 |
| Apr. 1, 1924 | 45.35 | 39.68 | 25.04 | 24.52 | 49.66 | 33.57 |
| July 1, 1924 | 46.04 | 39.71 | 26.28 | 25.85 | 50.00 | 34.34 |
| Oct. 1, 1924 | 45.50 | 40.04 | 25.46 | 26.24 | 50.40 | 34.38 |
| Jan. 1, 1925 | 41.38 | 34.20 | 24.89 | 24.01 | 46.64 | 31.07 |
| Apr. 1, 1925 | 45.03 | 40.18 | 25.39 | 24.79 | 49.85 | 33.86 |
| July 1, 1925 | 46.35 | 40.72 | 26.38 | 25.75 | 52.02 | 34.94 |
| Oct. 1, 1925 | 45.29 | 40.80 | 26.20 | 26.32 | 52.02 | 34.91 |
| Jan. 1, 1926 | 43.20 | 35.21 | 25.17 | 24.27 | 48.05 | 31.82 |
| Per month, without board: | | | | | | |
| 1910 | 32.95 | 33.82 | 19.77 | 22.27 | 46.03 | 28.04 |
| 1915 | 35.66 | 36.25 | 21.06 | 23.06 | 48.37 | 29.97 |
| 1920 | 76.18 | 75.50 | 47.37 | 52.07 | 90.81 | 65.05 |
| 1921 | 57.92 | 49.77 | 31.31 | 33.21 | 68.82 | 45.58 |
| 1922 | 56.51 | 47.31 | 30.71 | 32.10 | 66.98 | 42.09 |
| 1923 | 63.54 | 53.23 | 34.75 | 35.06 | 72.24 | 46.74 |
| 1924 | 65.58 | 52.48 | 36.06 | 36.19 | 71.25 | 47.22 |
| 1925 | 65.58 | 52.48 | 36.06 | 36.19 | 71.25 | 47.22 |
| Oct. 1, 1922 | 55.41 | 48.29 | 30.00 | 30.99 | 67.21 | 41.70 |
| Jan. 1, 1923 | 54.74 | 45.27 | 29.62 | 31.06 | 64.10 | 40.50 |
| Apr. 1, 1923 | 61.32 | 51.34 | 32.32 | 32.97 | 67.46 | 44.41 |
| July 1, 1923 | 70.63 | 56.37 | 34.12 | 34.91 | 78.08 | 48.61 |
| Oct. 1, 1923 | 67.00 | 55.06 | 34.72 | 36.38 | 76.45 | 48.42 |
| Nov. 1, 1923 | 67.18 | 54.53 | 35.18 | 36.32 | 77.42 | 48.45 |
| Jan. 1, 1924 | 63.66 | 50.10 | 34.52 | 34.75 | 70.83 | 45.53 |
| Mar. 1, 1924 | 65.52 | 51.50 | 35.17 | 34.73 | 69.82 | 46.16 |
| Apr. 1, 1924 | 66.91 | 53.69 | 35.21 | 35.43 | 71.99 | 47.38 |
| July 1, 1924 | 66.64 | 53.39 | 36.56 | 37.04 | 71.83 | 48.02 |
| Oct. 1, 1924 | 66.36 | 54.69 | 37.08 | 37.05 | 71.91 | 48.46 |
| Jan. 1, 1925 | 62.42 | 48.26 | 35.37 | 35.25 | 69.29 | 45.04 |
| Apr. 1, 1925 | 66.30 | 53.48 | 36.03 | 35.55 | 71.42 | 47.40 |
| July 1, 1925 | 67.34 | 54.30 | 37.41 | 36.56 | 73.74 | 48.55 |
| Oct. 1, 1925 | 66.88 | 55.10 | 36.84 | 37.25 | 75.10 | 48.90 |
| Jan. 1, 1926 | 65.09 | 50.54 | 36.32 | 35.16 | 70.63 | 46.26 |
| Per day, with board: | | | | | | |
| Oct. 1, 1922 | 2.16 | 1.96 | 1.04 | 1.07 | 2.32 | 1.56 |
| Jan. 1, 1923 | 2.14 | 1.75 | 1.02 | 1.05 | 2.10 | 1.46 |
| Apr. 1, 1923 | 2.28 | 1.88 | 1.10 | 1.10 | 2.20 | 1.55 |
| July 1, 1923 | 2.80 | 2.25 | 1.28 | 1.27 | 2.67 | 1.84 |
| Oct. 1, 1923 | 2.96 | 2.56 | 1.36 | 1.39 | 2.81 | 2.02 |
| Nov. 1, 1923 | 2.81 | 2.53 | 1.37 | 1.38 | 2.76 | 1.99 |
| Jan. 1, 1924 | 2.60 | 2.20 | 1.26 | 1.26 | 2.47 | 1.79 |
| Mar. 1, 1924 | 2.60 | 2.19 | 1.29 | 1.26 | 2.36 | 1.78 |
| Apr. 1, 1924 | 2.64 | 2.17 | 1.30 | 1.25 | 2.31 | 1.77 |
| July 1, 1924 | 2.69 | 2.24 | 1.38 | 1.41 | 2.33 | 1.87 |
| Oct. 1, 1924 | 2.80 | 2.44 | 1.36 | 1.39 | 2.40 | 1.93 |
| Jan. 1, 1925 | 2.50 | 2.04 | 1.41 | 1.20 | 2.23 | 1.71 |
| Apr. 1, 1925 | 2.63 | 2.16 | 1.35 | 1.26 | 2.22 | 1.77 |
| July 1, 1925 | 2.73 | 2.27 | 1.41 | 1.38 | 2.49 | 1.89 |
| Oct. 1, 1925 | 2.78 | 2.45 | 1.42 | 1.40 | 2.49 | 1.95 |
| Jan. 1, 1926 | 2.59 | 2.08 | 1.37 | 1.28 | 2.33 | 1.76 |
| Per day, without board: | | | | | | |
| Oct. 1, 1922 | 2.88 | 2.58 | 1.40 | 1.46 | 3.03 | 2.07 |
| Jan. 1, 1923 | 2.84 | 2.37 | 1.36 | 1.43 | 2.84 | 1.97 |
| Apr. 1, 1923 | 3.06 | 2.53 | 1.47 | 1.49 | 2.93 | 2.09 |
| July 1, 1923 | 3.65 | 3.00 | 1.70 | 1.68 | 3.52 | 2.44 |
| Oct. 1, 1923 | 3.79 | 3.27 | 1.72 | 1.77 | 3.58 | 2.58 |
| Nov. 1, 1923 | 3.76 | 3.28 | 1.75 | 1.80 | 3.51 | 2.58 |
| Jan. 1, 1924 | 3.47 | 2.91 | 1.70 | 1.67 | 3.31 | 2.38 |
| Mar. 1, 1924 | 3.47 | 2.90 | 1.72 | 1.65 | 3.20 | 2.36 |
| Apr. 1, 1924 | 3.48 | 2.88 | 1.71 | 1.63 | 3.13 | 2.34 |
| July 1, 1924 | 3.51 | 2.94 | 1.77 | 1.80 | 3.16 | 2.43 |
| Oct. 1, 1924 | 3.57 | 3.12 | 1.77 | 1.86 | 3.25 | 2.51 |
| Jan. 1, 1925 | 3.24 | 2.75 | 1.80 | 1.69 | 3.02 | 2.31 |
| Apr. 1, 1925 | 3.43 | 2.83 | 1.76 | 1.64 | 3.05 | 2.33 |
| July 1, 1925 | 3.54 | 2.97 | 1.84 | 1.71 | 3.25 | 2.44 |
| Oct. 1, 1925 | 3.58 | 3.14 | 1.84 | 1.83 | 3.33 | 2.53 |
| Jan. 1, 1926 | 3.42 | 2.80 | 1.78 | 1.64 | 3.14 | 2.33 |

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¹ Yearly averages are from reports by crop reporters, giving average wages for the year in their localities.

TABLE 684.—*Farm wage rates and index numbers, 1866-1925*

[1910-1914=100]

| Year | Average yearly farm wage ¹ | | | | Weighted average wage rate per month ¹ | Index numbers of farm wages |
|---------------------------------|---------------------------------------|----------------|----------------|----------------|---|-----------------------------|
| | Per month— | | Per day— | | | |
| | With board | Without board | With board | Without board | | |
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | |
| 1866 ³ | 10.09 | 15.50 | 0.64 | 0.90 | 13.14 | 55 |
| 1869..... | 9.97 | 15.50 | .63 | .87 | 12.93 | 54 |
| 1874 or 1875..... | 11.16 | 17.10 | .68 | .94 | 14.19 | 59 |
| 1877 or 1879 ⁴ | 10.86 | 16.79 | .61 | .84 | 13.34 | 56 |
| 1879 or 1880..... | 11.70 | 17.53 | .64 | .89 | 14.14 | 59 |
| 1880 or 1881..... | 12.32 | 18.52 | .67 | .92 | 14.82 | 62 |
| 1881 or 1882..... | 12.88 | 19.11 | .70 | .97 | 15.48 | 65 |
| 1884 or 1885..... | 13.08 | 19.22 | .71 | .96 | 15.58 | 65 |
| 1887 or 1888..... | 13.29 | 19.67 | .72 | .98 | 15.87 | 66 |
| 1889 or 1890..... | 13.29 | 19.45 | .72 | .97 | 15.79 | 66 |
| 1891 or 1892..... | 13.48 | 20.02 | .73 | .98 | 16.06 | 67 |
| 1893..... | 13.85 | 19.97 | .72 | .92 | 15.93 | 67 |
| 1894..... | 12.70 | 18.57 | .65 | .84 | 14.00 | 61 |
| 1895..... | 12.75 | 18.74 | .65 | .85 | 14.69 | 62 |
| 1898..... | 13.29 | 19.16 | .71 | .94 | 15.58 | 65 |
| 1899..... | 13.90 | 19.97 | .75 | .99 | 16.34 | 68 |
| 1902..... | 15.51 | 22.12 | .83 | 1.09 | 18.12 | 76 |
| 1906..... | 18.73 | 26.19 | 1.03 | 1.32 | 21.92 | 92 |
| 1909..... | 20.48 | 28.00 | 1.04 | 1.31 | 23.00 | 96 |
| 1910..... | 19.58 | 28.04 | 1.07 | 1.40 | 23.08 | 97 |
| 1911..... | 19.85 | 28.33 | 1.07 | 1.40 | 23.25 | 97 |
| 1912..... | 20.46 | 29.14 | 1.12 | 1.44 | 24.01 | 101 |
| 1913..... | 21.27 | 30.21 | 1.15 | 1.48 | 24.83 | 104 |
| 1914..... | 20.90 | 29.72 | 1.11 | 1.44 | 24.20 | 101 |
| 1915..... | 21.08 | 29.97 | 1.12 | 1.45 | 24.40 | 102 |
| 1916..... | 23.04 | 32.58 | 1.24 | 1.60 | 26.83 | 112 |
| 1917..... | 28.64 | 40.19 | 1.56 | 2.00 | 33.42 | 140 |
| 1918..... | 35.12 | 49.13 | 2.05 | 2.61 | 42.12 | 176 |
| 1919..... | 40.14 | 56.77 | 2.44 | 3.10 | 49.11 | 206 |
| 1920..... | 47.24 | 65.05 | 2.84 | 3.56 | 57.01 | 239 |
| 1921..... | 30.25 | 43.58 | 1.66 | 2.17 | 35.77 | 150 |
| 1922..... | 29.31 | 42.09 | 1.64 | 2.14 | 34.91 | 146 |
| 1923..... | 33.09 | 46.74 | 1.91 | 2.45 | 39.64 | 166 |
| 1924 ⁵ | 33.34 | 47.22 | 1.88 | 2.44 | 39.67 | 166 |
| 1925 ⁵ | 33.88 | 47.80 | 1.89 | 2.46 | 40.20 | 168 |
| 1923—January..... | 27.87 | 40.50 | 1.46 | 1.97 | 32.61 | 137 |
| April..... | 30.90 | 44.41 | 1.55 | 2.09 | 35.42 | 148 |
| July..... | 34.64 | 48.61 | 1.84 | 2.44 | 40.30 | 169 |
| October..... | 34.56 | 48.42 | 2.02 | 2.58 | 41.52 | 174 |
| 1924—January..... | 31.55 | 45.53 | 1.79 | 2.38 | 38.01 | 159 |
| April..... | 33.57 | 47.38 | 1.77 | 2.34 | 38.95 | 163 |
| July..... | 34.34 | 48.02 | 1.87 | 2.43 | 40.15 | 168 |
| October..... | 34.38 | 48.46 | 1.93 | 2.51 | 40.81 | 171 |
| 1925—January..... | 31.07 | 45.04 | 1.74 | 2.31 | 37.24 | 156 |
| April..... | 33.80 | 47.40 | 1.77 | 2.33 | 39.04 | 163 |
| July..... | 34.94 | 48.55 | 1.89 | 2.44 | 40.62 | 170 |
| October..... | 34.91 | 48.99 | 1.95 | 2.53 | 41.28 | 173 |
| 1926—January..... | 31.82 | 46.26 | 1.76 | 2.33 | 37.94 | 159 |

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¹ Yearly averages are from reports by crop reporters, giving average wages for the year in their localities.² This column has significance only as an essential step in computing the wage index.³ Years 1866 to 1876 in gold.⁴ 1877 or 1878, 1878 or 1879 (combined).⁵ Weighted average quarterly, April (weight 1), July (weight 5), October (weight 5), and January, 1925 (weight 1).

TABLE 685.—Wages: Male farm labor, by States, quarterly, 1923-1926

PER DAY, WITH BOARD

| State and division | 1923 | | | | 1924 ¹ | | | | 1925 ¹ | | | | 1926 ¹ |
|---------------------|-------|-------|-------|-------------------|-------------------|-------|-------|-------|-------------------|-------|-------|-------|-------------------|
| | Jan. | Apr. | July | Oct. ¹ | Jan. | Apr. | July | Oct. | Jan. | Apr. | July | Oct. | Jan. |
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| Maine..... | 2.15 | 2.15 | 2.56 | 2.80 | 2.45 | 2.40 | 2.54 | 2.53 | 2.18 | 2.45 | 2.35 | 2.50 | 2.60 |
| New Hampshire..... | 2.25 | 2.00 | 2.50 | 2.78 | 2.65 | 2.65 | 2.54 | 2.65 | 2.30 | 2.55 | 2.60 | 2.60 | 2.45 |
| Vermont..... | 1.90 | 2.25 | 2.90 | 2.54 | 2.40 | 2.45 | 2.61 | 2.48 | 2.35 | 2.45 | 2.60 | 2.50 | 2.35 |
| Massachusetts..... | 2.20 | 2.60 | 3.00 | 2.99 | 2.70 | 2.68 | 2.71 | 2.98 | 2.70 | 3.00 | 2.85 | 2.90 | 2.60 |
| Rhode Island..... | 2.25 | 2.50 | — | 2.60 | 2.80 | 2.75 | 3.08 | 2.90 | 2.75 | 3.00 | 2.90 | 2.80 | 2.90 |
| Connecticut..... | 2.10 | 2.15 | 3.00 | 2.50 | 2.50 | 2.40 | 2.80 | 2.93 | 2.56 | 2.70 | 2.75 | 2.70 | 2.45 |
| New York..... | 2.20 | 2.45 | 3.21 | 3.25 | 2.70 | 2.85 | 2.90 | 3.05 | 2.60 | 2.75 | 2.95 | 3.05 | 2.70 |
| New Jersey..... | 2.20 | 2.00 | 2.61 | 2.85 | 2.70 | 2.65 | 2.70 | 2.75 | 2.45 | 2.65 | 2.75 | 2.65 | 2.65 |
| Pennsylvania..... | 2.05 | 2.15 | 2.32 | 2.85 | 2.50 | 2.50 | 2.45 | 2.55 | 2.45 | 2.45 | 2.55 | 2.60 | 2.50 |
| North Atlantic..... | 2.14 | 2.28 | 2.80 | 2.96 | 2.60 | 2.64 | 2.69 | 2.80 | 2.50 | 2.63 | 2.73 | 2.78 | 2.59 |
| Ohio..... | 1.90 | 2.00 | 2.29 | 2.68 | 2.40 | 2.40 | 2.34 | 2.37 | 2.23 | 2.25 | 2.30 | 2.55 | 2.30 |
| Indiana..... | 1.70 | 1.80 | 1.99 | 2.45 | 2.25 | 2.10 | 2.15 | 2.22 | 2.00 | 2.00 | 2.05 | 2.20 | 2.00 |
| Illinois..... | 1.80 | 1.80 | 2.27 | 2.50 | 2.30 | 2.35 | 2.35 | 2.35 | 2.15 | 2.35 | 2.40 | 2.35 | 2.20 |
| Michigan..... | 1.85 | 2.00 | 2.56 | 2.82 | 2.60 | 2.55 | 2.50 | 2.50 | 2.30 | 2.35 | 2.50 | 2.65 | 2.40 |
| Wisconsin..... | 1.80 | 2.00 | 2.54 | 2.65 | 2.10 | 2.20 | 2.30 | 2.50 | 2.00 | 2.20 | 2.30 | 2.50 | 2.10 |
| Minnesota..... | 1.75 | 2.05 | 2.33 | 2.80 | 2.10 | 2.11 | 2.25 | 2.80 | 1.98 | 2.15 | 2.30 | 2.85 | 2.05 |
| Iowa..... | 1.95 | 2.10 | 2.45 | 2.60 | 2.40 | 2.39 | 2.40 | 2.56 | 2.20 | 2.35 | 2.40 | 2.50 | 2.15 |
| Missouri..... | 1.25 | 1.40 | 1.58 | 1.70 | 1.60 | 1.55 | 1.70 | 1.70 | 1.60 | 1.60 | 1.70 | 1.75 | 1.60 |
| North Dakota..... | 1.75 | 2.15 | 2.22 | 3.60 | 1.95 | 2.00 | 2.00 | 4.00 | 1.90 | 2.00 | 2.30 | 3.80 | 1.70 |
| South Dakota..... | 1.80 | 2.07 | 2.62 | 3.05 | 2.54 | 2.30 | 2.35 | 3.05 | 2.34 | 2.40 | 2.40 | 2.85 | 2.15 |
| Nebraska..... | 1.85 | 1.80 | 2.57 | 2.60 | 2.35 | 2.30 | 2.30 | 2.40 | 1.85 | 2.30 | 2.40 | 2.35 | 2.30 |
| Kansas..... | 1.70 | 1.75 | 2.01 | 2.40 | 2.10 | 2.00 | 2.40 | 2.40 | 2.10 | 2.10 | 2.60 | 2.20 | 2.00 |
| North Central..... | 1.75 | 1.88 | 2.25 | 2.56 | 2.20 | 2.17 | 2.24 | 2.44 | 2.04 | 2.16 | 2.27 | 2.45 | 2.08 |
| Delaware..... | 1.40 | 1.75 | — | 2.72 | 2.25 | 2.10 | 2.15 | 2.30 | 2.00 | 2.15 | 2.15 | 2.75 | 2.35 |
| Maryland..... | 1.40 | 1.45 | 1.70 | 2.25 | 2.00 | 1.90 | 2.00 | 2.05 | 1.98 | 1.95 | 2.15 | 2.35 | 2.05 |
| Virginia..... | 1.20 | 1.28 | 1.51 | 1.73 | 1.60 | 1.60 | 1.62 | 1.65 | 1.60 | 1.55 | 1.65 | 1.60 | 1.55 |
| West Virginia..... | 1.55 | 1.75 | 1.89 | 2.00 | 1.85 | 1.85 | 1.90 | 1.85 | 1.60 | 1.75 | 1.80 | 1.95 | 1.75 |
| North Carolina..... | 1.20 | 1.30 | 1.54 | 1.43 | 1.25 | 1.45 | 1.53 | 1.46 | 1.90 | 1.50 | 1.55 | 1.50 | 1.50 |
| South Carolina..... | .75 | .74 | .89 | 1.00 | 1.00 | 1.00 | 1.05 | 1.05 | 1.06 | 1.05 | 1.10 | 1.05 | 1.05 |
| Georgia..... | .75 | .83 | .96 | .93 | .90 | .94 | 1.05 | 1.00 | .98 | 1.05 | 1.10 | 1.10 | 1.05 |
| Florida..... | 1.00 | 1.00 | 1.22 | 1.25 | 1.15 | 1.15 | 1.25 | 1.30 | 1.18 | 1.25 | 1.30 | 1.35 | 1.45 |
| South Atlantic..... | 1.02 | 1.10 | 1.28 | 1.36 | 1.26 | 1.30 | 1.38 | 1.36 | 1.41 | 1.35 | 1.41 | 1.42 | 1.37 |
| Kentucky..... | 1.10 | 1.15 | 1.46 | 1.65 | 1.40 | 1.40 | 1.45 | 1.50 | 1.30 | 1.25 | 1.45 | 1.45 | 1.30 |
| Tennessee..... | 1.00 | 1.10 | 1.14 | 1.30 | 1.20 | 1.22 | 1.25 | 1.25 | 1.20 | 1.20 | 1.25 | 1.20 | 1.15 |
| Alabama..... | .90 | .94 | 1.00 | 1.10 | 1.10 | 1.05 | 1.15 | 1.20 | 1.10 | 1.15 | 1.30 | 1.20 | 1.10 |
| Mississippi..... | .95 | 1.00 | 1.12 | 1.10 | 1.10 | 1.15 | 1.20 | 1.15 | 1.15 | 1.10 | 1.15 | 1.25 | 1.20 |
| Arkansas..... | 1.01 | 1.03 | 1.19 | 1.20 | 1.15 | 1.20 | 1.25 | 1.20 | 1.18 | 1.25 | 1.25 | 1.25 | 1.15 |
| Louisiana..... | 1.00 | .92 | 1.12 | 1.25 | 1.10 | 1.11 | 1.25 | 1.20 | 1.20 | 1.15 | 1.15 | 1.40 | 1.30 |
| Oklahoma..... | 1.20 | 1.35 | 1.66 | 1.60 | 1.50 | 1.35 | 1.80 | 1.75 | 1.60 | 1.40 | 1.90 | 1.80 | 1.60 |
| Texas..... | 1.15 | 1.20 | 1.42 | 1.65 | 1.40 | 1.40 | 1.70 | 1.60 | 1.45 | 1.40 | 1.50 | 1.65 | 1.40 |
| South Central..... | 1.05 | 1.10 | 1.27 | 1.39 | 1.26 | 1.25 | 1.41 | 1.39 | 1.25 | 1.26 | 1.38 | 1.40 | 1.28 |
| Montana..... | 2.05 | 2.30 | 2.41 | 3.40 | 2.70 | 2.50 | 2.60 | 3.25 | 2.25 | 2.60 | 2.70 | 3.25 | 2.50 |
| Idaho..... | 2.05 | 2.05 | 2.72 | 2.95 | 2.60 | 2.37 | 2.50 | 2.60 | 2.35 | 2.30 | 2.70 | 2.85 | 2.40 |
| Wyoming..... | 1.95 | 2.20 | 2.62 | 2.75 | 2.40 | 2.40 | 2.35 | 2.35 | 2.25 | 2.25 | 2.25 | 2.65 | 2.30 |
| Colorado..... | 1.75 | 1.80 | 2.28 | 2.40 | 2.12 | 2.10 | 2.20 | 2.30 | 2.00 | 2.05 | 2.15 | 2.20 | 2.15 |
| New Mexico..... | 1.30 | 1.30 | 1.42 | 1.50 | 1.50 | 1.50 | 1.50 | 1.70 | 1.50 | 1.50 | 1.60 | 1.60 | 1.55 |
| Arizona..... | 1.80 | 2.25 | — | 1.75 | 1.75 | 2.03 | 1.80 | 2.03 | 1.80 | 1.80 | 2.10 | 1.95 | 1.55 |
| Utah..... | 1.90 | 1.95 | 2.00 | 2.62 | 2.30 | 2.40 | 2.60 | 2.50 | 2.50 | 2.35 | 2.55 | 2.65 | 2.30 |
| Nevada..... | 2.00 | — | 3.00 | 2.81 | 2.60 | 2.47 | 2.70 | 2.50 | 2.40 | 2.30 | 2.60 | 2.40 | 2.10 |
| Washington..... | 2.10 | 2.30 | 2.80 | 3.66 | 2.80 | 2.53 | 2.47 | 2.36 | 2.30 | 2.30 | 2.75 | 2.80 | 2.50 |
| Oregon..... | 2.10 | 2.25 | 2.60 | 3.30 | 2.50 | 2.49 | 2.50 | 2.50 | 2.23 | 2.25 | 2.50 | 2.40 | 2.20 |
| California..... | 2.45 | 2.50 | 3.12 | 2.90 | 2.65 | 2.40 | 2.40 | 2.40 | 2.40 | 2.35 | 2.70 | 2.55 | 2.60 |
| Western..... | 2.10 | 2.20 | 2.67 | 2.81 | 2.47 | 2.31 | 2.33 | 2.40 | 2.23 | 2.25 | 2.49 | 2.49 | 2.33 |
| United States..... | 1.46 | 1.55 | 1.84 | 2.02 | 1.79 | 1.77 | 1.87 | 1.93 | 1.74 | 1.77 | 1.89 | 1.96 | 1.76 |

¹ Includes piecework.

TABLE 685.—*Wages: Male farm labor, by States, quarterly, 1923-1926—Contd.*

PER DAY, WITHOUT BOARD

| State and division | 1923 | | | | 1924 ¹ | | | | 1925 ¹ | | | | 1926 ¹ |
|---------------------|--------------|--------------|--------------|--------------|-------------------|--------------|--------------|--------------|-------------------|--------------|--------------|--------------|-------------------|
| | Jan. | Apr. | July | Oct. | Jan. | Apr. | July | Oct. | Jan. | Apr. | July | Oct. | Jan. |
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Maine..... | 2.80 | 2.80 | 3.12 | 3.47 | 3.10 | 3.11 | 3.16 | 3.12 | 2.90 | 3.00 | 3.00 | 3.30 | 2.90 |
| New Hampshire..... | 3.00 | 3.00 | 3.80 | 3.71 | 3.30 | 3.40 | 3.60 | 3.48 | 3.15 | 3.35 | 3.35 | 3.30 | 3.30 |
| Vermont..... | 2.50 | 2.75 | 3.20 | 3.33 | 3.15 | 3.20 | 3.22 | 3.17 | 3.08 | 3.10 | 3.25 | 3.20 | 3.10 |
| Massachusetts..... | 3.20 | 3.60 | 4.00 | 3.70 | 3.80 | 3.65 | 3.79 | 3.72 | 3.60 | 3.65 | 3.80 | 3.65 | 3.70 |
| Rhode Island..... | 3.00 | 3.50 | | 3.77 | 3.75 | 3.65 | 3.95 | 3.70 | 3.55 | 3.75 | 3.80 | 3.65 | 3.65 |
| Connecticut..... | 3.00 | 2.85 | 4.17 | 3.71 | 3.55 | 3.55 | 3.50 | 3.78 | 3.48 | 3.65 | 3.55 | 3.70 | 3.60 |
| New York..... | 2.85 | 3.25 | 4.07 | 4.10 | 3.60 | 3.65 | 3.75 | 3.75 | 3.40 | 3.60 | 3.75 | 3.80 | 3.60 |
| New Jersey..... | 3.00 | 2.75 | 3.34 | 3.90 | 3.70 | 3.65 | 3.65 | 3.70 | 3.40 | 3.50 | 3.70 | 3.65 | 3.45 |
| Pennsylvania..... | 2.70 | 2.90 | 3.21 | 3.00 | 3.30 | 3.30 | 3.20 | 3.40 | 2.95 | 3.25 | 3.35 | 3.40 | 3.25 |
| North Atlantic..... | 2.84 | 3.06 | 3.65 | 3.79 | 3.47 | 3.48 | 3.51 | 3.57 | 3.24 | 3.43 | 3.54 | 3.58 | 3.42 |
| Ohio..... | 2.50 | 2.60 | 3.03 | 3.33 | 3.15 | 3.09 | 3.07 | 3.08 | 2.94 | 2.90 | 3.00 | 3.25 | 3.10 |
| Indiana..... | 2.25 | 2.40 | 2.63 | 3.14 | 3.00 | 2.75 | 2.80 | 2.87 | 2.68 | 2.60 | 2.65 | 2.85 | 2.65 |
| Illinois..... | 2.40 | 2.40 | 2.94 | 3.25 | 3.10 | 3.10 | 3.00 | 3.10 | 2.88 | 3.10 | 3.10 | 3.05 | 2.85 |
| Michigan..... | 2.50 | 2.65 | 3.38 | 3.67 | 3.40 | 3.30 | 3.25 | 3.25 | 3.10 | 3.00 | 3.20 | 3.35 | 3.10 |
| Wisconsin..... | 2.50 | 2.80 | 3.42 | 3.30 | 2.80 | 2.90 | 3.05 | 3.10 | 2.70 | 2.85 | 3.00 | 3.25 | 2.80 |
| Minnesota..... | 2.45 | 2.70 | 3.24 | 3.50 | 2.90 | 2.89 | 3.05 | 3.20 | 2.70 | 2.95 | 3.10 | 3.60 | 2.85 |
| Iowa..... | 2.55 | 2.75 | 3.11 | 3.35 | 3.00 | 3.00 | 3.05 | 3.10 | 2.85 | 3.00 | 3.05 | 3.15 | 2.80 |
| Missouri..... | 1.75 | 1.85 | 2.18 | 2.20 | 2.00 | 2.05 | 2.20 | 2.15 | 2.05 | 2.05 | 2.25 | 2.30 | 2.20 |
| North Dakota..... | 2.30 | 3.00 | 3.12 | 4.40 | 2.80 | 2.85 | 3.00 | 5.00 | 2.85 | 3.85 | 4.50 | 2.75 | |
| South Dakota..... | 2.50 | 2.88 | 3.37 | 4.00 | 3.30 | 3.30 | 3.55 | 4.00 | 3.20 | 3.40 | 3.40 | 3.75 | 3.10 |
| Nebraska..... | 2.55 | 2.55 | 3.29 | 3.30 | 3.15 | 3.05 | 3.00 | 3.00 | 3.05 | 3.05 | 3.15 | 3.15 | 3.05 |
| Kansas..... | 2.40 | 2.40 | 2.85 | 3.30 | 2.80 | 2.70 | 3.00 | 3.10 | 2.75 | 2.75 | 3.15 | 2.90 | 2.70 |
| North Central..... | 2.37 | 2.53 | 3.00 | 3.27 | 2.91 | 2.88 | 2.94 | 3.12 | 2.73 | 2.83 | 2.97 | 3.14 | 2.80 |
| Delaware..... | | 2.25 | | 3.15 | 2.75 | 2.75 | 2.80 | 3.00 | 2.68 | 2.55 | 2.85 | 3.30 | 2.90 |
| Maryland..... | 1.90 | 2.00 | 2.30 | 3.00 | 2.70 | 2.50 | 2.65 | 2.75 | 2.67 | 2.60 | 2.80 | 3.10 | 2.85 |
| Virginia..... | 1.60 | 1.75 | 2.01 | 2.18 | 2.05 | 2.05 | 2.12 | 2.20 | 2.00 | 2.05 | 2.10 | 2.10 | 2.05 |
| West Virginia..... | 2.00 | 2.30 | 2.52 | 2.50 | 2.65 | 2.50 | 2.50 | 2.50 | 2.40 | 2.50 | 2.30 | 2.55 | 2.40 |
| North Carolina..... | 1.55 | 1.70 | 1.97 | 1.75 | 1.80 | 1.88 | 1.98 | 1.85 | 2.25 | 1.90 | 2.20 | 2.00 | 1.90 |
| South Carolina..... | 1.00 | .99 | 1.21 | 1.25 | 1.25 | 1.35 | 1.35 | 1.35 | 1.40 | 1.40 | 1.40 | 1.35 | 1.30 |
| Georgia..... | 1.00 | 1.08 | 1.27 | 1.20 | 1.20 | 1.22 | 1.30 | 1.30 | 1.25 | 1.30 | 1.35 | 1.35 | 1.35 |
| Florida..... | 1.50 | 1.60 | 1.82 | 1.60 | 1.70 | 1.65 | 1.65 | 1.70 | 1.72 | 1.75 | 1.75 | 1.85 | 2.05 |
| South Atlantic..... | 1.36 | 1.47 | 1.70 | 1.72 | 1.70 | 1.71 | 1.77 | 1.77 | 1.80 | 1.76 | 1.84 | 1.84 | 1.78 |
| Kentucky..... | 1.55 | 1.55 | 1.99 | 2.20 | 1.90 | 1.85 | 1.90 | 2.00 | 1.70 | 1.75 | 1.85 | 1.95 | 1.65 |
| Tennessee..... | 1.35 | 1.45 | 1.58 | 1.68 | 1.55 | 1.60 | 1.60 | 1.60 | 1.55 | 1.50 | 1.55 | 1.50 | 1.45 |
| Alabama..... | 1.25 | 1.28 | 1.31 | 1.40 | 1.40 | 1.35 | 1.50 | 1.45 | 1.40 | 1.35 | 1.45 | 1.55 | 1.30 |
| Mississippi..... | 1.25 | 1.35 | 1.51 | 1.50 | 1.45 | 1.50 | 1.55 | 1.50 | 1.50 | 1.50 | 1.60 | 1.70 | 1.55 |
| Arkansas..... | 1.40 | 1.40 | 1.68 | 1.60 | 1.60 | 1.55 | 1.65 | 1.68 | 1.65 | 1.65 | 1.65 | 1.75 | 1.55 |
| Louisiana..... | 1.35 | 1.30 | 1.46 | 1.57 | 1.50 | 1.43 | 1.55 | 1.55 | 1.57 | 1.50 | 1.50 | 1.65 | 1.70 |
| Oklahoma..... | 1.65 | 1.80 | 1.97 | 2.05 | 2.10 | 1.90 | 2.20 | 2.25 | 2.10 | 1.95 | 2.25 | 2.35 | 2.10 |
| Texas..... | 1.55 | 1.65 | 1.86 | 2.10 | 1.80 | 1.80 | 2.15 | 2.30 | 1.90 | 1.80 | 1.85 | 2.05 | 1.80 |
| South Central..... | 1.43 | 1.49 | 1.68 | 1.77 | 1.67 | 1.63 | 1.80 | 1.85 | 1.69 | 1.64 | 1.71 | 1.83 | 1.64 |
| Montana..... | 2.80 | 2.90 | 3.38 | 4.20 | 3.80 | 3.40 | 3.50 | 3.80 | 3.25 | 3.50 | 3.50 | 3.85 | 3.30 |
| Idaho..... | 2.75 | 2.70 | 3.72 | 3.45 | 3.40 | 3.15 | 3.20 | 3.35 | 3.05 | 3.30 | 3.30 | 3.70 | 3.10 |
| Wyoming..... | 2.60 | 2.85 | 3.62 | 3.65 | 3.20 | 3.25 | 3.00 | 3.15 | 3.05 | 2.75 | 3.25 | 3.40 | 3.15 |
| Colorado..... | 2.40 | 2.50 | 3.14 | 3.10 | 3.05 | 2.89 | 2.95 | 3.30 | 2.75 | 2.80 | 3.00 | 3.00 | 2.85 |
| New Mexico..... | 1.80 | 1.80 | 2.00 | 2.20 | 2.00 | 2.00 | 2.00 | 2.25 | 2.00 | 2.00 | 2.00 | 2.15 | 2.10 |
| Arizona..... | 2.75 | 3.15 | | 2.50 | 2.50 | 2.42 | 2.25 | 2.67 | 2.54 | 2.50 | 2.60 | 2.65 | 2.50 |
| Utah..... | 2.45 | 2.55 | 2.50 | 3.20 | 3.00 | 3.01 | 3.20 | 3.50 | 3.10 | 2.85 | 3.15 | 2.90 | 3.10 |
| Nevada..... | 2.75 | | 4.00 | 3.25 | 3.00 | 3.42 | 3.50 | 3.50 | 3.20 | 3.20 | 3.30 | 3.15 | 3.10 |
| Washington..... | 2.90 | 3.00 | 3.70 | 4.38 | 3.60 | 3.47 | 3.28 | 3.17 | 3.05 | 3.40 | 3.55 | 3.70 | 3.40 |
| Oregon..... | 2.70 | 3.00 | 3.45 | 4.00 | 3.50 | 3.31 | 3.50 | 3.25 | 3.01 | 2.75 | 2.95 | 3.10 | 2.70 |
| California..... | 3.30 | 3.40 | 4.00 | 3.80 | 3.60 | 3.35 | 3.40 | 3.40 | 3.30 | 3.30 | 3.60 | 3.60 | 3.50 |
| Western..... | 2.84 | 2.93 | 3.52 | 3.58 | 3.31 | 3.13 | 3.16 | 3.25 | 3.02 | 3.05 | 3.25 | 3.33 | 3.14 |
| United States..... | 1.97 | 2.09 | 2.44 | 2.58 | 2.38 | 2.34 | 2.43 | 2.51 | 2.31 | 2.33 | 2.44 | 2.53 | 2.33 |

¹ Includes piecework.

TABLE 685.—Wages: Male farm labor, by States, quarterly, 1923-1926—Contd.

PER MONTH, WITH BOARD

| State and division | 1923 | | | | 1924 | | | | 1925 | | | | 1926 |
|---------------------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Jan. | Apr. | July | Oct. 1 | Jan. | Apr. | July | Oct. | Jan. | Apr. | July | Oct. | Jan. |
| | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. | Dols. |
| Maine..... | 38.00 | 37.00 | 46.67 | 44.00 | 43.00 | 43.00 | 45.00 | 43.00 | 41.00 | 39.00 | 42.00 | 43.00 | 42.00 |
| New Hampshire..... | 35.00 | 33.00 | 60.00 | 49.00 | 45.00 | 46.00 | 47.00 | 47.00 | 44.00 | 45.00 | 48.00 | 46.00 | 44.00 |
| Vermont..... | 33.00 | 40.00 | 44.64 | 42.00 | 42.00 | 44.00 | 46.00 | 45.00 | 42.00 | 45.00 | 47.00 | 46.00 | 40.50 |
| Massachusetts..... | 40.00 | 54.00 | 47.50 | 54.00 | 51.00 | 51.00 | 48.00 | 48.00 | 47.00 | 49.00 | 44.00 | 50.00 | 46.50 |
| Rhode Island..... | 41.00 | 42.50 | ..... | 53.00 | 50.00 | 47.00 | 54.00 | 51.00 | 45.00 | 46.00 | 50.00 | 50.00 | 52.50 |
| Connecticut..... | 41.00 | 46.00 | 58.33 | 54.00 | 48.00 | 50.00 | 55.00 | 53.00 | 49.00 | 51.00 | 51.00 | 51.00 | 52.50 |
| New York..... | 38.00 | 45.00 | 53.71 | 49.00 | 42.50 | 48.50 | 49.00 | 48.00 | 41.25 | 48.00 | 51.00 | 48.00 | 44.25 |
| New Jersey..... | 38.00 | 42.00 | 49.14 | 52.00 | 45.00 | 46.00 | 48.00 | 48.00 | 44.00 | 50.00 | 49.00 | 46.00 | 47.00 |
| Pennsylvania..... | 34.00 | 36.00 | 38.38 | 43.00 | 38.00 | 39.50 | 39.40 | 39.85 | 37.45 | 39.00 | 40.00 | 39.50 | 38.50 |
| North Atlantic..... | 36.85 | 41.77 | 49.06 | 47.55 | 42.51 | 45.35 | 46.04 | 45.50 | 41.38 | 45.03 | 46.35 | 45.29 | 43.20 |
| Ohio..... | 31.50 | 34.00 | 38.70 | 39.00 | 37.00 | 37.00 | 37.00 | 37.00 | 35.00 | 37.00 | 37.00 | 38.00 | 37.00 |
| Indiana..... | 31.50 | 33.00 | 36.64 | 36.00 | 35.00 | 37.00 | 36.00 | 35.00 | 33.00 | 36.00 | 35.00 | 35.00 | 34.00 |
| Illinois..... | 33.00 | 37.50 | 41.91 | 41.00 | 38.00 | 42.00 | 42.00 | 40.00 | 38.00 | 43.00 | 43.00 | 42.00 | 39.50 |
| Michigan..... | 31.00 | 38.00 | 43.05 | 43.00 | 38.50 | 43.00 | 40.00 | 40.00 | 36.50 | 40.00 | 41.00 | 41.00 | 37.00 |
| Wisconsin..... | 35.00 | 44.00 | 47.12 | 46.00 | 37.70 | 45.60 | 45.70 | 45.00 | 34.00 | 45.00 | 45.00 | 46.50 | 38.00 |
| Minnesota..... | 30.00 | 39.00 | 43.88 | 43.00 | 32.00 | 39.00 | 41.00 | 43.00 | 30.00 | 42.00 | 44.00 | 45.00 | 32.50 |
| Iowa..... | 35.50 | 42.00 | 46.24 | 44.00 | 39.50 | 45.10 | 45.80 | 44.20 | 37.00 | 47.00 | 46.25 | 45.50 | 37.00 |
| Missouri..... | 27.00 | 30.00 | 31.87 | 32.00 | 31.00 | 32.00 | 32.00 | 33.00 | 31.00 | 32.00 | 33.00 | 32.00 | 30.00 |
| North Dakota..... | 28.50 | 39.00 | 43.00 | 45.90 | 29.30 | 39.50 | 41.00 | 50.00 | 30.00 | 40.75 | 40.00 | 49.50 | 27.25 |
| South Dakota..... | 32.00 | 43.00 | 48.45 | 45.00 | 35.20 | 43.00 | 42.00 | 45.25 | 35.25 | 45.75 | 45.75 | 46.50 | 33.75 |
| Nebraska..... | 32.30 | 36.00 | 42.23 | 40.00 | 37.00 | 40.00 | 40.00 | 33.00 | 30.00 | 41.00 | 42.00 | 40.00 | 37.75 |
| Kansas..... | 30.50 | 32.00 | 33.64 | 36.00 | 32.00 | 33.00 | 35.00 | 37.00 | 33.00 | 35.00 | 36.00 | 36.00 | 33.50 |
| North Central..... | 31.61 | 37.04 | 40.97 | 40.14 | 35.51 | 39.68 | 39.71 | 40.04 | 34.20 | 40.18 | 40.72 | 40.80 | 35.23 |
| Delaware..... | ..... | 35.00 | ..... | 32.60 | 31.00 | 33.00 | 34.60 | 34.65 | 31.20 | 33.25 | 34.60 | 32.00 | 32.50 |
| Maryland..... | 25.50 | 27.00 | 30.00 | 32.40 | 32.40 | 34.00 | 33.00 | 33.25 | 32.00 | 33.25 | 34.50 | 34.50 | 34.25 |
| Virginia..... | 24.50 | 26.00 | 28.46 | 30.00 | 28.00 | 30.00 | 30.00 | 30.00 | 30.00 | 29.00 | 32.00 | 30.00 | 28.50 |
| West Virginia..... | 33.50 | 36.00 | 34.80 | 40.00 | 36.00 | 36.00 | 42.50 | 36.50 | 33.00 | 47.25 | 36.75 | 36.50 | 32.25 |
| North Carolina..... | 22.00 | 25.70 | 27.29 | 28.00 | 27.00 | 27.20 | 30.00 | 29.00 | 29.00 | 28.00 | 28.00 | 29.00 | 28.00 |
| South Carolina..... | 16.00 | 16.00 | 19.60 | 20.00 | 20.00 | 21.00 | 20.00 | 20.00 | 20.00 | 20.00 | 21.00 | 21.25 | 20.00 |
| Georgia..... | 14.70 | 16.25 | 18.54 | 16.60 | 17.50 | 18.80 | 19.00 | 19.20 | 18.50 | 20.00 | 20.75 | 20.50 | 19.50 |
| Florida..... | 21.00 | 21.00 | 21.83 | 24.00 | 23.00 | 22.00 | 25.00 | 24.00 | 23.00 | 25.00 | 26.00 | 26.00 | 28.50 |
| South Atlantic..... | 20.23 | 22.07 | 24.14 | 24.68 | 24.09 | 25.04 | 26.28 | 25.46 | 24.80 | 25.39 | 26.38 | 26.20 | 25.17 |
| Kentucky..... | 25.50 | 25.50 | 28.48 | 31.20 | 27.00 | 28.50 | 28.50 | 28.25 | 28.00 | 27.00 | 28.00 | 27.25 | 25.75 |
| Tennessee..... | 21.50 | 23.00 | 25.13 | 26.00 | 23.60 | 25.00 | 25.00 | 25.00 | 24.00 | 24.00 | 25.25 | 25.50 | 24.25 |
| Alabama..... | 17.00 | 18.50 | 19.49 | 21.00 | 20.00 | 21.00 | 22.60 | 22.00 | 21.00 | 22.00 | 22.75 | 20.00 | 21.25 |
| Mississippi..... | 18.10 | 19.50 | 20.73 | 20.00 | 20.75 | 20.80 | 22.50 | 21.85 | 21.00 | 21.75 | 22.00 | 22.00 | 22.00 |
| Arkansas..... | 20.20 | 21.90 | 24.98 | 23.80 | 22.40 | 23.50 | 24.00 | 23.21 | 22.00 | 24.75 | 25.00 | 25.00 | 24.25 |
| Louisiana..... | 19.90 | 19.00 | 20.85 | 21.20 | 23.30 | 22.40 | 22.00 | 23.75 | 21.80 | 22.25 | 22.75 | 23.00 | 23.00 |
| Oklahoma..... | 23.90 | 27.00 | 25.71 | 27.60 | 25.20 | 25.00 | 28.00 | 30.00 | 26.00 | 27.00 | 30.25 | 29.50 | 27.70 |
| Texas..... | 23.75 | 24.30 | 27.35 | 28.00 | 26.00 | 27.00 | 30.00 | 31.00 | 27.00 | 27.00 | 28.00 | 29.00 | 25.50 |
| South Central..... | 21.48 | 22.52 | 24.40 | 25.26 | 23.78 | 24.52 | 25.85 | 26.24 | 24.01 | 24.79 | 25.75 | 26.32 | 24.27 |
| Montana..... | 37.50 | 46.50 | 47.56 | 54.00 | 47.00 | 47.00 | 49.00 | 51.80 | 42.00 | 48.00 | 50.00 | 50.50 | 42.75 |
| Idaho..... | 42.00 | 43.00 | 53.12 | 56.00 | 46.70 | 51.00 | 51.00 | 51.00 | 46.00 | 51.00 | 54.25 | 54.50 | 44.75 |
| Wyoming..... | 36.00 | 41.00 | 47.50 | 50.00 | 42.00 | 42.00 | 45.00 | 48.00 | 42.00 | 38.00 | 45.00 | 47.00 | 42.00 |
| Colorado..... | 32.40 | 35.00 | 39.72 | 40.60 | 33.25 | 37.00 | 41.00 | 40.80 | 37.00 | 38.00 | 39.25 | 40.00 | 36.75 |
| New Mexico..... | 31.80 | 33.50 | 31.33 | 36.00 | 32.00 | 33.00 | 33.00 | 36.00 | 34.00 | 32.00 | 33.00 | 33.00 | 32.00 |
| Arizona..... | 45.00 | 50.00 | ..... | 45.00 | 50.00 | 42.00 | 47.20 | 50.00 | 44.30 | 48.75 | 54.50 | 44.50 | 49.00 |
| Utah..... | 41.50 | 40.00 | 40.00 | 54.00 | 51.40 | 51.00 | 51.00 | 52.00 | 51.00 | 51.25 | 56.00 | 56.50 | 51.50 |
| Nevada..... | 50.00 | ..... | 45.00 | 61.00 | 52.20 | 58.00 | 59.00 | 55.00 | 51.00 | 54.00 | 47.00 | 55.50 | 54.00 |
| Washington..... | 43.40 | 45.00 | 52.00 | 60.60 | 46.40 | 49.60 | 48.00 | 47.70 | 43.00 | 49.50 | 51.25 | 52.00 | 42.75 |
| Oregon..... | 39.50 | 43.00 | 58.75 | 55.00 | 46.00 | 48.00 | 48.00 | 40.00 | 39.60 | 53.00 | 44.75 | 45.00 | 42.25 |
| California..... | 51.50 | 55.00 | 70.96 | 62.00 | 58.00 | 58.00 | 57.00 | 57.00 | 55.00 | 57.00 | 63.00 | 60.00 | 58.00 |
| Western..... | 43.55 | 46.43 | 56.11 | 54.66 | 48.77 | 49.66 | 50.00 | 50.40 | 46.64 | 49.85 | 52.92 | 52.02 | 48.05 |
| United States..... | 27.87 | 30.90 | 34.64 | 34.56 | 31.55 | 33.57 | 34.24 | 34.38 | 31.07 | 33.86 | 34.94 | 34.91 | 31.82 |

TABLE 685.—*Wages: Male farm labor, by States, quarterly, 1923-1926—Contd.*

PER MONTH, WITHOUT BOARD

| State and division | 1923 | | | | 1924 ¹ | | | | 1925 ¹ | | | | 1926 |
|---------------------|-------------|-------------|-------------|-------------------|-------------------|-------------|-------------|-------------|-------------------|-------------|-------------|-------------|-------------|
| | Jan. | Apr. | July | Oct. ¹ | Jan. | Apr. | July | Oct. | Jan. | Apr. | July | Oct. | Jan. |
| Maine..... | Dols. 54.00 | Dols. 53.00 | Dols. 60.00 | Dols. 67.00 | Dols. 62.00 | Dols. 61.00 | Dols. 65.00 | Dols. 62.00 | Dols. 58.00 | Dols. 55.00 | Dols. 60.00 | Dols. 63.00 | Dols. 63.00 |
| New Hampshire..... | 60.00 | 55.00 | 85.00 | 74.00 | 70.00 | 72.00 | 73.00 | 71.00 | 65.00 | 70.00 | 74.00 | 71.00 | 71.50 |
| Vermont..... | 47.00 | 55.00 | 62.00 | 59.00 | 62.00 | 64.00 | 64.00 | 66.00 | 62.00 | 65.00 | 60.00 | 66.00 | 61.00 |
| Massachusetts..... | 62.00 | 77.00 | 77.50 | 78.00 | 82.00 | 81.00 | 80.00 | 79.00 | 79.00 | 80.00 | 77.00 | 78.00 | 74.50 |
| Rhode Island..... | 65.00 | 75.00 | | 77.00 | 75.00 | 72.00 | 77.00 | 77.00 | 73.00 | 72.00 | 70.00 | 72.00 | 81.00 |
| Connecticut..... | 61.00 | 70.00 | 81.67 | 76.00 | 74.00 | 75.00 | 77.00 | 76.00 | 75.00 | 80.00 | 75.00 | 76.00 | 80.00 |
| New York..... | 54.00 | 64.00 | 77.96 | 66.00 | 61.00 | 69.00 | 67.50 | 67.50 | 61.50 | 68.25 | 69.50 | 69.00 | 64.50 |
| New Jersey..... | 59.00 | 63.00 | 76.86 | 74.00 | 70.00 | 71.00 | 72.00 | 70.00 | 65.00 | 71.00 | 74.00 | 72.00 | 72.00 |
| Pennsylvania..... | 52.00 | 55.00 | 50.76 | 62.00 | 58.00 | 59.00 | 58.35 | 58.90 | 56.95 | 58.50 | 59.00 | 58.50 | 58.50 |
| North Atlantic..... | 54.74 | 61.32 | 70.63 | 67.00 | 63.66 | 66.91 | 66.64 | 66.36 | 62.42 | 66.30 | 67.34 | 66.88 | 65.00 |
| Ohio..... | 45.00 | 48.00 | 53.47 | 55.00 | 52.00 | 52.00 | 52.00 | 52.00 | 49.00 | 53.00 | 52.00 | 53.00 | 52.00 |
| Indiana..... | 45.00 | 47.50 | 50.92 | 50.10 | 48.00 | 50.00 | 48.00 | 48.00 | 47.00 | 48.00 | 47.00 | 48.00 | 47.00 |
| Illinois..... | 45.00 | 50.00 | 54.88 | 53.00 | 50.00 | 56.00 | 55.00 | 53.00 | 52.00 | 56.00 | 56.00 | 55.00 | 52.50 |
| Michigan..... | 44.50 | 53.50 | 58.34 | 61.00 | 56.50 | 58.00 | 57.00 | 57.00 | 54.00 | 53.00 | 56.00 | 58.00 | 54.00 |
| Wisconsin..... | 51.00 | 62.50 | 66.27 | 63.50 | 55.00 | 61.00 | 62.50 | 62.00 | 50.00 | 50.00 | 60.00 | 64.00 | 58.00 |
| Minnesota..... | 44.00 | 51.00 | 62.78 | 59.00 | 50.00 | 55.00 | 53.00 | 60.00 | 47.00 | 57.00 | 60.00 | 61.00 | 49.75 |
| Iowa..... | 49.00 | 55.50 | 58.98 | 57.00 | 51.30 | 57.30 | 57.15 | 55.20 | 50.00 | 58.25 | 57.50 | 57.00 | 51.00 |
| Missouri..... | 37.90 | 41.50 | 44.12 | 43.00 | 42.00 | 42.00 | 43.00 | 43.00 | 41.00 | 42.00 | 43.00 | 43.00 | 42.00 |
| North Dakota..... | 43.00 | 53.00 | 59.92 | 62.30 | 48.30 | 55.80 | 59.00 | 60.00 | 50.00 | 55.00 | 60.00 | 68.50 | 46.25 |
| South Dakota..... | 49.50 | 62.50 | 67.14 | 63.00 | 51.30 | 60.00 | 59.00 | 68.50 | 45.25 | 62.50 | 62.00 | 61.00 | 52.25 |
| Nebraska..... | 48.50 | 53.50 | 61.08 | 54.00 | 52.00 | 54.00 | 52.00 | 53.00 | 40.00 | 55.00 | 55.00 | 54.50 | 53.75 |
| Kansas..... | 44.60 | 48.00 | 49.68 | 51.00 | 47.00 | 48.00 | 50.00 | 51.00 | 47.00 | 49.00 | 51.00 | 50.00 | 48.50 |
| North Central..... | 45.27 | 51.34 | 56.37 | 55.00 | 50.10 | 53.69 | 53.39 | 54.60 | 48.26 | 53.48 | 54.30 | 55.10 | 50.54 |
| Delaware..... | | 55.00 | | 50.70 | 46.00 | 50.80 | 53.00 | 51.60 | 47.35 | 51.75 | 49.00 | 48.00 | 50.50 |
| Maryland..... | 39.00 | 43.50 | 43.33 | 48.40 | 48.00 | 49.80 | 49.90 | 49.90 | 47.00 | 49.25 | 49.75 | 50.75 | 51.00 |
| Virginia..... | 35.10 | 37.20 | 39.72 | 43.00 | 40.00 | 41.00 | 41.00 | 42.00 | 40.00 | 40.00 | 44.00 | 42.00 | 40.50 |
| West Virginia..... | 48.00 | 52.50 | 47.50 | 55.00 | 52.50 | 52.00 | 52.00 | 53.25 | 48.00 | 48.75 | 53.00 | 52.25 | 48.75 |
| North Carolina..... | 32.00 | 37.00 | 37.67 | 37.00 | 37.00 | 38.50 | 42.00 | 42.00 | 33.00 | 40.00 | 40.00 | 40.00 | 40.00 |
| South Carolina..... | 23.50 | 22.80 | 27.46 | 26.00 | 26.00 | 28.00 | 29.00 | 30.00 | 30.00 | 28.00 | 30.00 | 30.00 | 28.00 |
| Georgia..... | 21.70 | 24.00 | 26.51 | 24.80 | 26.40 | 26.30 | 27.25 | 27.50 | 20.60 | 28.50 | 29.00 | 28.75 | 27.75 |
| Florida..... | 34.50 | 34.00 | 37.00 | 30.70 | 38.00 | 34.00 | 37.00 | 38.00 | 38.00 | 39.00 | 39.00 | 38.00 | 44.00 |
| South Atlantic..... | 29.62 | 32.32 | 34.12 | 34.72 | 34.52 | 35.21 | 36.56 | 37.08 | 35.37 | 36.03 | 37.41 | 36.84 | 36.32 |
| Kentucky..... | 35.40 | 36.50 | 39.99 | 42.00 | 38.50 | 41.00 | 39.50 | 39.50 | 37.00 | 36.75 | 39.00 | 38.25 | 37.50 |
| Tennessee..... | 30.50 | 32.60 | 35.70 | 36.00 | 32.60 | 34.50 | 35.00 | 35.00 | 33.00 | 33.25 | 34.25 | 35.25 | 32.70 |
| Alabama..... | 25.50 | 26.50 | 27.59 | 31.00 | 29.00 | 30.00 | 32.00 | 30.00 | 29.00 | 30.00 | 31.75 | 34.00 | 30.50 |
| Mississippi..... | 25.50 | 28.00 | 29.06 | 29.50 | 30.25 | 30.00 | 31.50 | 31.00 | 30.50 | 30.75 | 30.75 | 32.00 | 31.00 |
| Arkansas..... | 29.80 | 32.10 | 33.61 | 34.25 | 32.00 | 34.00 | 35.00 | 34.44 | 32.50 | 37.00 | 36.00 | 35.00 | 34.75 |
| Louisiana..... | 29.00 | 28.50 | 32.46 | 34.55 | 37.80 | 31.73 | 33.25 | 33.50 | 33.50 | 33.75 | 34.00 | 34.75 | 35.00 |
| Oklahoma..... | 36.00 | 41.70 | 37.45 | 40.35 | 38.00 | 37.00 | 38.00 | 42.00 | 43.00 | 39.00 | 41.75 | 42.00 | 40.25 |
| Texas..... | 34.25 | 36.00 | 39.22 | 40.00 | 38.00 | 40.00 | 44.00 | 44.00 | 40.00 | 40.00 | 41.00 | 42.00 | 38.00 |
| South Central..... | 31.06 | 32.97 | 34.91 | 36.38 | 34.75 | 35.43 | 37.04 | 37.05 | 35.25 | 35.55 | 36.56 | 37.25 | 35.16 |
| Montana..... | 52.50 | 64.00 | 71.67 | 75.00 | 68.00 | 68.00 | 68.00 | 72.40 | 64.00 | 68.00 | 69.00 | 76.25 | 84.25 |
| Idaho..... | 60.20 | 65.00 | 75.71 | 77.00 | 65.80 | 72.00 | 69.00 | 72.00 | 65.00 | 73.00 | 74.00 | 78.00 | 62.00 |
| Wyoming..... | 60.00 | 68.00 | 70.00 | 75.00 | 67.00 | 65.00 | 69.00 | 62.00 | 67.00 | 64.00 | 64.00 | 69.00 | 62.00 |
| Colorado..... | 50.50 | 54.00 | 59.25 | 60.60 | 56.50 | 58.00 | 61.00 | 60.30 | 55.00 | 58.50 | 59.25 | 50.00 | 54.45 |
| New Mexico..... | 47.00 | 48.50 | 44.17 | 50.00 | 48.00 | 47.00 | 50.00 | 50.00 | 51.00 | 45.00 | 48.00 | 49.00 | 47.50 |
| Arizona..... | 70.00 | 75.00 | | 65.00 | 65.00 | 60.00 | 65.50 | 66.20 | 66.15 | 68.25 | 65.50 | 73.50 | 71.00 |
| Utah..... | 59.50 | 55.00 | 60.00 | 71.00 | 71.40 | 72.00 | 73.00 | 73.00 | 68.40 | 69.50 | 75.00 | 76.50 | 70.75 |
| Nevada..... | 65.00 | | 75.00 | 80.00 | 63.75 | 90.00 | 86.00 | 75.00 | 75.00 | 82.25 | 72.00 | 71.75 | 73.00 |
| Washington..... | 65.00 | 68.00 | 77.00 | 82.70 | 68.70 | 72.40 | 63.90 | 68.50 | 67.00 | 74.50 | 76.50 | 76.00 | 70.50 |
| Oregon..... | 52.50 | 60.00 | 64.50 | 71.00 | 68.00 | 72.00 | 65.00 | 64.00 | 58.00 | 60.00 | 67.50 | 65.00 | 60.50 |
| California..... | 76.50 | 80.00 | 93.33 | 87.00 | 83.00 | 82.00 | 83.00 | 83.00 | 82.00 | 83.00 | 88.00 | 87.00 | 85.00 |
| Western..... | 64.19 | 67.46 | 78.08 | 76.45 | 70.83 | 71.99 | 71.83 | 71.91 | 69.29 | 71.42 | 73.74 | 75.19 | 70.63 |
| United States..... | 40.50 | 44.41 | 48.61 | 48.42 | 45.53 | 47.38 | 48.02 | 48.46 | 45.04 | 47.40 | 48.55 | 48.99 | 46.26 |

Division of Crop and Livestock Estimates. Wages reported being paid about 1st of month.

TABLE 686.—Farm labor: Supply and demand, 1918–1925

| Division | Farm labor supply, per cent of normal | | | | | | | |
|---------------------|---------------------------------------|------|------|-------|-------|------|------|-------|
| | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| North Atlantic..... | 62.9 | 84.2 | 62.4 | 92.0 | 99.3 | 73.5 | 79.9 | 87.0 |
| North Central..... | 74.5 | 86.2 | 73.4 | 96.0 | 101.4 | 83.1 | 85.9 | 92.8 |
| South Atlantic..... | 73.8 | 81.9 | 72.8 | 94.4 | 97.3 | 82.5 | 77.1 | 83.0 |
| South Central..... | 74.2 | 83.2 | 72.7 | 94.7 | 97.5 | 87.3 | 83.8 | 89.5 |
| Far Western..... | 76.9 | 90.4 | 82.4 | 102.6 | 107.4 | 92.0 | 97.4 | 100.0 |
| United States..... | 73.4 | 84.6 | 72.9 | 95.5 | 99.7 | 84.2 | 84.1 | 90.0 |

| Division | Farm labor demand, per cent of normal | | | | | | | |
|---------------------|---------------------------------------|-------|-------|------|------|------|------|------|
| | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| North Atlantic..... | 9.88 | 101.1 | 107.4 | 92.8 | 94.8 | 95.3 | 90.2 | 88.8 |
| North Central..... | 99.6 | 101.2 | 105.2 | 90.3 | 90.2 | 95.6 | 89.5 | 92.1 |
| South Atlantic..... | 104.5 | 103.9 | 107.6 | 86.2 | 88.0 | 94.1 | 92.5 | 91.1 |
| South Central..... | 102.7 | 100.8 | 103.8 | 83.0 | 85.9 | 90.6 | 91.2 | 89.4 |
| Far Western..... | 99.6 | 102.6 | 102.8 | 88.6 | 80.8 | 94.0 | 88.5 | 89.0 |
| United States..... | 101.4 | 101.7 | 105.2 | 87.3 | 88.8 | 93.6 | 90.6 | 90.4 |

| Division | Supply as a percentage of demand | | | | | | | |
|---------------------|----------------------------------|------|------|-------|-------|------|-------|-------|
| | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| North Atlantic..... | 63.6 | 83.3 | 58.1 | 99.1 | 104.7 | 77.1 | 88.6 | 97.0 |
| North Central..... | 74.8 | 85.2 | 69.8 | 106.3 | 112.3 | 87.0 | 95.0 | 100.7 |
| South Atlantic..... | 70.6 | 78.8 | 67.7 | 109.5 | 110.6 | 87.7 | 83.4 | 91.2 |
| South Central..... | 72.2 | 82.6 | 70.0 | 114.1 | 113.5 | 93.0 | 91.9 | 100.1 |
| Far Western..... | 77.3 | 88.1 | 80.1 | 118.8 | 119.6 | 97.9 | 110.0 | 112.4 |
| United States..... | 72.3 | 83.2 | 69.3 | 109.4 | 112.3 | 90.0 | 92.8 | 99.5 |

Division of Crop and Livestock Estimates. Based upon reports of crop reporters of April 1.

TABLE 687.—*Family living from the farm, 1918-1922*

| Year and locality | Number of farms | Quantities and value of foods | | | | | | | | | | | | Value of house rent | | Total, all items | Adult units | Value per adult unit |
|--------------------------------------|-----------------|-------------------------------|-------|----------|-------|----------------------|--------|------|---------------|---------------|---------|------|------------|---------------------|----------------------------|------------------|-------------|----------------------|
| | | Corn | Wheat | Potatoes | Strap | Fruit and vegetables | Butter | Milk | Beef, dressed | Pork, dressed | Poultry | Eggs | Other food | Total | Quantity and value of wood | | | |
| | | Bu. | Bu. | Bu. | Gal. | Lbs. | Gal. | Lbs. | Lbs. | No. | Doz. | | | Cords | No. | | | |
| 1918 | | | | | | | | | | | | | | | | | | |
| New Hampshire, Hillsboro County | 136 | 1 | \$3 | 25 | \$11 | 2 | \$3 | \$61 | 37 | \$21 | 976 | \$68 | 4 | \$1 | 182 | \$78,156 | | |
| Virginia, Frederick County | 125 | 3 | \$5 | 12 | 13 | | 60 | 82 | 32 | 32 | 143 | 35 | 7 | 1 | 833 | 18,684 | | |
| North Carolina, Catawba County | 304 | 13 | 19 | 35 | 81 | 27 | 31 | 12 | 9 | 90 | 289 | 57 | 24 | 5 | 548 | 26,589 | | |
| Georgia, Sumter County | | | | | | | | | | | | | | | | | | |
| White, | 336 | 16 | 28 | 16 | 37 | 30 | 22 | 44 | 91 | 33 | 264 | 47 | 5 | 1 | 805 | 42,179 | | |
| Colored, | 214 | 28 | 49 | 8 | 18 | 29 | 25 | 29 | 65 | 20 | 204 | 35 | 9 | 2 | 74 | 33,589 | | |
| Florida, Hillsboro County | 100 | | | 17 | 25 | 26 | 21 | 34 | 70 | 34 | 276 | 41 | | 4 | 469 | 18,118 | | |
| Ohio, Washington County | 47 | | | 21 | 43 | 20 | 3 | 59 | 145 | 65 | 237 | 71 | 13 | 6 | 429 | 18,331 | | |
| Indiana, Clinton County | 100 | 1 | 2 | 6 | 13 | 10 | 12 | 3 | 5 | 43 | 166 | 42 | 35 | 4 | 711 | 18,831 | | |
| Iowa, | | | | | | | | | | | | | | | | | | |
| Tama County | 209 | | | 23 | 29 | 1 | 1 | 32 | 158 | 63 | 249 | 62 | 62 | 16 | 665 | 14,285 | | |
| Warren County | 183 | 1 | 2 | 11 | 14 | 2 | 1 | 37 | 135 | 54 | 262 | 66 | 26 | 7 | 524 | 19,144 | | |
| Total and averages | 1,754 | 9 | 15 | 12 | 27 | 23 | 11 | 44 | 96 | 37 | 300 | 52 | 19 | 5 | 642 | 10,337 | | |
| 1919 | | | | | | | | | | | | | | | | | | |
| New York, Niagara County | 157 | | 4 | 11 | 28 | | | | | | | | | | | | | |
| Virginia, Frederick County | 125 | 2 | 3 | 10 | 24 | 10 | 17 | | | | | | | | | | | |
| Florida, | | | | | | | | | | | | | | | | | | |
| Hillsboro County | 100 | 1 | 1 | 19 | 29 | 27 | 30 | 49 | 74 | 41 | 223 | 44 | 3 | 1 | 531 | 19,128 | | |
| Polk County | 154 | 14 | 25 | 49 | 42 | 43 | 50 | 87 | 156 | 79 | 341 | 92 | | | 58 | 13,520 | | |
| Mississippi, Jones County | 51 | 1 | 23 | 40 | 40 | 1 | 2 | 63 | 145 | 65 | 244 | 69 | 64 | 13 | 396 | 27,885 | | |
| Ohio, Washington County | 100 | | 7 | 14 | 3 | 8 | 1 | 3 | 41 | 94 | 37 | 155 | 39 | 8 | 716 | 120,900 | | |
| Indiana, Clinton County | 200 | | | 8 | 8 | | | 78 | 108 | 60 | 296 | 80 | 38 | 6 | 215 | 38,126 | | |
| Idaho, Twin Falls County | | | | | | | | | | | | | | | | | | |
| Idaho and Washington, Palouse County | 226 | | | 14 | 20 | | | 63 | 131 | 74 | 276 | 62 | 37 | 11 | 607 | 174,516 | | |
| Total and averages | 1,213 | 2 | 4 | 3 | 7 | 18 | 24 | 8 | 9 | 63 | 111 | 56 | 220 | 57 | 21 | 453 | | |
| 1920 | | | | | | | | | | | | | | | | | | |
| Rhode Island | 51 | 3 | 3 | | | | | | | | | | | | | | | |
| Virginia, Frederick County | 125 | 1 | 9 | 17 | 10 | 11 | 34 | 25 | 31 | 44 | 75 | 37 | 162 | 36 | 6 | 821 | | |
| Florida, Hillsboro County | 100 | | | 17 | 17 | 11 | 21 | 32 | 60 | 36 | 254 | 64 | | | 1 | 1,061 | | |
| Ohio, Washington County | 59 | | 11 | 16 | 11 | 6 | 11 | 40 | 209 | 59 | 394 | 61 | 66 | 9 | 394 | 487 | | |
| Wisconsin, Walworth County | 262 | | 4 | 6 | 21 | 19 | 19 | 23 | 43 | 114 | 40 | 273 | 39 | 39 | 4 | 245 | | |
| Total and averages | 1,213 | 2 | 4 | 3 | 7 | 18 | 24 | 8 | 9 | 63 | 111 | 56 | 220 | 57 | 21 | 453 | | |

TABLE 687.—*Family living from the farm, 1918-1922—Continued*

| Year and locality | Number of farms | Quantities and value of foods | | | | | | | | | | | | | Quantity and value of wood | Value of house rent | Total, all items | Adult units | Value per adult unit | | | | | | |
|--|-----------------|-------------------------------|-------|-----------------------|-------|----------------------|--------|------|------|---------------|---------------|---------|-----|------|----------------------------|---------------------|------------------|-------------|----------------------|------------|-------|------|-----|-----|-----|
| | | Corn | Wheat | Potatoes ¹ | Syrup | Fruit and vegetables | Butter | | Milk | Beef, dressed | Pork, dressed | Poultry | | Eggs | | | | | | Other food | Total | | | | |
| | | | | | | | Bu. | Lbs. | Gal. | | | Lbs. | No. | | | | | | | | | Doz. | | | |
| Colorado, Washington and Lincoln Counties ¹ | 159 | — | 1 | 11 | 7 | 39 | 124 | 40 | 318 | 65 | 202 | 30 | 69 | 35 | 211 | 45 | 303 | 237 | 540 | 4.3 | 126 | | | | |
| Idaho, Twin Falls County ¹ | 87 | — | — | — | — | 78 | 96 | 35 | 283 | 65 | 102 | 8 | 200 | 21 | 38 | 24 | 128 | 32 | 232 | 507 | 3.6 | 133 | | | |
| Washington, Yakima County ¹ | 130 | — | — | 2 | — | 39 | 116 | 44 | 335 | 71 | 47 | 5 | 256 | 26 | 33 | 17 | 172 | 41 | 181 | 428 | 3.6 | 112 | | | |
| Oregon, Sherman County ¹ | 152 | — | — | — | — | 36 | 115 | 39 | 316 | 76 | 102 | 8 | 453 | 45 | 46 | 25 | 180 | 45 | 238 | 513 | 3.8 | 135 | | | |
| Total and averages..... | 1,493 | — | 2 | 11 | 8 | 1 | 37 | 115 | 40 | 279 | 56 | 100 | 10 | 394 | 42 | 40 | 25 | 146 | 33 | 4 | 212 | 470 | 3.8 | 121 | |
| Grand total and averages..... | 7,738 | 2 | 4 | 9 | 16 | 5 | 48 | 103 | 42 | 284 | 59 | 56 | 6 | 471 | 71 | 33 | 23 | 118 | 36 | 4 | 14 | 184 | 518 | 4.1 | 130 |

Division of Farm Management and Costs. Data from 30 farming localities in 21 States.

¹In cooperation with the State college or agricultural experiment station.

TABLE 688.—*Clothing: Average expenditure per person for one year by sex and age; 1,337 farm families*

| Sex and age group | Persons | Average expenditure for clothing | | | | | | Percentage of total expenditures | | | | | | Relative cost (average for hus- band =100) | |
|--------------------------------------|-----------------|----------------------------------|------------------------|------------------------|------------------|------------------|-------------------------|----------------------------------|-----------------|------------------------|------------------------|------------------|------------------|--|-------------------------|
| | | Head- wear | Outer gar- ments | Under gar- ments | Foot- wear | Access- ories | Upkeep and repair | Total | Head- wear | Outer gar- ments | Under gar- ments | Foot- wear | Access- ories | | Upkeep and repair |
| | | | | | | | | | | | | | | | |
| Husbands..... | Number 1,252 | Dollars 3.12 | Dollars 29.50 | Dollars 4.41 | Dollars 14.98 | Dollars 3.51 | Dollars 0.94 | Dollars 56.76 | Per cent 3.5 | Per cent 52.5 | Per cent 7.8 | Per cent 26.4 | Per cent 5.2 | Per cent 1.7 | Per cent 100 |
| Sons: | | | | | | | | | | | | | | | |
| Over 24 years..... | 100 | 4.66 | 42.17 | 4.63 | 15.99 | 5.44 | 1.04 | 73.96 | 6.3 | 57.0 | 6.3 | 21.6 | 7.4 | 1.4 | 130 |
| 19-24 years..... | 165 | 5.37 | 52.13 | 4.89 | 15.67 | 6.08 | 1.86 | 89.00 | 6.0 | 58.6 | 5.5 | 21.0 | 6.8 | 2.1 | 157 |
| 15-18 years..... | 250 | 3.49 | 41.50 | 4.11 | 16.79 | 4.37 | 1.12 | 71.78 | 4.9 | 58.3 | 5.7 | 23.4 | 6.1 | 1.6 | 126 |
| 12-14 years..... | 176 | 2.02 | 24.26 | 3.04 | 14.26 | 1.85 | .75 | 46.18 | 4.4 | 52.5 | 6.6 | 30.9 | 4.0 | 1.6 | 81 |
| 6-11 years..... | 344 | 1.52 | 18.01 | 2.84 | 11.55 | 1.24 | .57 | 36.03 | 5.0 | 56.0 | 7.9 | 32.1 | 3.4 | 1.6 | 63 |
| 1-5 years..... | 225 | .98 | 8.09 | 2.08 | 6.45 | .48 | .11 | 13.22 | 3.4 | 44.4 | 11.4 | 35.6 | 2.6 | .6 | 32 |
| Wives..... | 1,270 | 4.19 | 32.92 | 7.33 | 13.94 | 1.58 | 1.85 | 61.81 | 6.8 | 33.3 | 11.8 | 22.6 | 2.5 | 3.0 | 109 |
| Daughters: | | | | | | | | | | | | | | | |
| Over 24 years..... | 85 | 7.40 | 52.53 | 7.13 | 18.04 | 1.62 | 1.82 | 83.84 | 8.3 | 59.5 | 8.0 | 20.3 | 1.8 | 2.1 | 157 |
| 19-24 years..... | 117 | 8.03 | 59.36 | 9.71 | 21.97 | 2.67 | 1.62 | 103.35 | 7.8 | 57.4 | 9.4 | 21.2 | 2.6 | 1.6 | 182 |
| 15-18 years..... | 202 | 5.05 | 44.74 | 7.48 | 20.76 | 2.03 | 2.00 | 82.06 | 6.2 | 54.5 | 9.1 | 25.3 | 2.5 | 2.4 | 145 |
| 12-14 years..... | 195 | 2.95 | 24.54 | 5.47 | 16.30 | 1.84 | 1.13 | 52.23 | 5.6 | 47.0 | 10.5 | 31.2 | 3.5 | 2.2 | 92 |
| 6-11 years..... | 373 | 1.57 | 13.95 | 3.95 | 10.88 | 1.05 | .66 | 32.03 | 4.9 | 43.5 | 12.3 | 33.9 | 3.3 | 2.1 | 56 |
| 1-5 years..... | 227 | .75 | 7.70 | 2.86 | 6.28 | .45 | .30 | 17.94 | 4.2 | 43.2 | 13.2 | 35.2 | 2.5 | 1.7 | 31 |
| Sons and daughters below 1 year..... | 24 | .30 | 4.89 | 1.60 | 1.68 | 2.14 | ..... | 10.61 | 2.8 | 46.1 | 13.1 | 15.9 | 20.2 | ..... | 19 |

Division of Economics, Bureau of Home Economics, and Division of Farm Population and Rural Life, Bureau of Agricultural Economics.
Compiled from cost of living studies of 1,337 farm families in selected localities in Ohio, Kentucky, Missouri, and Kansas, 1922-23, made in cooperation with Ohio Wesleyan University, University of Kentucky, University of Missouri, Kansas State Agricultural College, and the Farmer's Wife, St. Paul, Minn.

MISCELLANEOUS AGRICULTURAL STATISTICS

CROP SUMMARY

TABLE 689.—Acreage, production, and farm value, 1924 and 1925

| Crop and year | Acreage | Production | | | Farm value Dec. 1 ¹ | |
|--|-------------------------|-------------|--------------------|---------------|--------------------------------|----------------|
| | | Unit | Per acre | Total | Per unit | Total |
| | | | | | <i>Dollars</i> | <i>Dollars</i> |
| Corn.....1924..... | 101,070,000 | Bushel..... | 22.9 | 2,312,745,000 | .982 | 2,270,564,000 |
|1925..... | 101,631,000 | do..... | 28.5 | 2,900,581,000 | .674 | 1,956,329,000 |
| Winter wheat.....1924..... | 35,489,000 | do..... | 10.6 | 589,632,000 | 1.316 | 770,227,000 |
|1925..... | 31,289,000 | do..... | 12.7 | 398,486,000 | 1.479 | 589,594,000 |
| Spring wheat.....1924..... | 10,875,000 | do..... | 16.2 | 272,995,000 | 1.262 | 344,560,000 |
|1925..... | 20,931,000 | do..... | 12.9 | 270,879,000 | 1.323 | 358,489,000 |
| All wheat.....1924..... | 52,804,000 | do..... | 16.5 | 862,627,000 | 1.200 | 1,120,787,000 |
|1925..... | 52,200,000 | do..... | 12.8 | 669,365,000 | 1.416 | 947,993,000 |
| Oats.....1924..... | 42,756,000 | do..... | 35.6 | 1,522,665,000 | .478 | 727,171,000 |
|1925..... | 45,160,000 | do..... | 33.3 | 1,501,909,000 | .381 | 571,768,000 |
| Barley.....1924..... | 6,858,000 | do..... | 26.0 | 178,822,000 | .739 | 131,704,000 |
|1925..... | 8,243,000 | do..... | 26.4 | 218,022,000 | .566 | 127,653,000 |
| Rye.....1924..... | 4,019,000 | do..... | 15.9 | 61,038,000 | 1.066 | 68,280,000 |
|1925..... | 4,088,000 | do..... | 11.9 | 48,696,000 | .781 | 38,026,000 |
| Buckwheat.....1924..... | 738,000 | do..... | 18.0 | 13,277,000 | 1.030 | 13,673,000 |
|1925..... | 776,000 | do..... | 18.9 | 14,647,000 | .892 | 13,058,000 |
| Flaxseed.....1924..... | 3,469,000 | do..... | 9.2 | 31,711,000 | 2.273 | 72,094,000 |
|1925..... | 3,012,000 | do..... | 7.3 | 22,007,000 | 2.265 | 49,842,000 |
| Rice.....1924..... | 849,000 | do..... | 89.2 | 33,249,000 | 1.382 | 45,956,000 |
|1925..... | 904,000 | do..... | 87.6 | 33,939,000 | 1.539 | 52,246,000 |
| Grain sorghums ².....1924..... | 3,813,000 | do..... | 21.1 | 80,443,000 | .852 | 68,501,000 |
|1925..... | 4,120,000 | do..... | 17.2 | 71,050,000 | .757 | 53,801,000 |
| Cotton lint.....1924..... | 41,360,000 | Bale..... | ³ 157.4 | 13,628,000 | ¹ 226 | 1,540,894,000 |
|1925..... | 45,945,000 | do..... | ³ 162.3 | 15,808,000 | ¹ 182 | 1,419,898,000 |
| Cottonseed.....1924..... | ..... | Ton..... | ..... | 6,051,000 | ⁴ 33.57 | 203,132,000 |
|1925..... | ..... | do..... | ..... | 6,928,000 | ⁴ 27.04 | 191,400,000 |
| Hay, tame.....1924..... | 61,451,000 | do..... | 1.60 | 98,086,000 | 13.75 | 1,349,528,000 |
|1925..... | 59,398,000 | do..... | 1.46 | 86,474,000 | 13.99 | 1,209,496,000 |
| Hay, wild.....1924..... | 16,080,000 | do..... | .98 | 14,731,000 | 7.83 | 115,365,000 |
|1925..... | 14,740,000 | do..... | .88 | 13,040,000 | 8.46 | 110,334,000 |
| All hay.....1924..... | 76,531,000 | do..... | 1.47 | 112,817,000 | 12.98 | 1,464,893,000 |
|1925..... | 74,144,000 | do..... | 1.34 | 90,523,000 | 13.26 | 1,319,830,000 |
| Clover seed ².....1924..... | 809,000 | Bushel..... | 1.1 | 927,000 | 14.51 | 13,455,000 |
|1925..... | 789,000 | do..... | 1.3 | 1,020,000 | 14.86 | 15,288,000 |
| Beans, dry, edible ².....1924..... | 1,545,000 | do..... | 9.6 | 14,856,000 | 3.72 | 55,239,000 |
|1925..... | 1,579,000 | do..... | 12.1 | 19,104,000 | 3.27 | 62,388,000 |
| Peanuts.....1924..... | 1,207,000 | Pound..... | 620.5 | 748,925,000 | .046 | 34,481,000 |
|1925..... | 882,000 | do..... | 706.8 | 694,076,000 | .036 | 25,225,000 |
| Potatoes, white.....1924..... | 3,818,000 | Bushel..... | 127.0 | 425,283,000 | .620 | 266,047,000 |
|1925..... | 3,119,000 | do..... | 103.8 | 322,244,000 | 1.872 | 605,327,000 |
| Sweet potatoes.....1924..... | 691,000 | do..... | 79.0 | 54,594,000 | 1.292 | 70,500,000 |
|1925..... | 778,000 | do..... | 80.3 | 62,494,000 | 1.369 | 85,554,000 |
| Tobacco.....1924..... | 1,700,000 | Pound..... | 728.3 | 1,242,456,000 | .207 | 250,834,000 |
|1925..... | 1,747,000 | do..... | 722.6 | 1,349,660,000 | .183 | 247,413,000 |
| Sugar cane (La.).....1924..... | 301,000 | Ton..... | 7.6 | 2,288,000 | ..... | ..... |
|1925..... | 294,000 | do..... | 16.5 | 4,851,000 | ..... | ..... |
| Cane sugar (La.).....1924..... | 163,000 | do..... | .54 | .88,000 | ..... | ..... |
|1925..... | 221,000 | do..... | .89 | 196,000 | ..... | ..... |
| Cane sirup.....1924..... | 145,000 | Gallon..... | 141.8 | 20,558,000 | 1.020 | 20,904,000 |
|1925..... | 122,000 | do..... | 158.9 | 19,390,000 | .991 | 19,210,000 |
| Sugar beets ².....1924..... | 817,000 | Ton..... | 8.66 | 7,075,000 | ..... | ..... |
|1925..... | 667,000 | do..... | 10.39 | 6,932,000 | ..... | ..... |
| Beet sugar ².....1924..... | 817,000 | do..... | 1.33 | 1,090,000 | ..... | ..... |
|1925..... | 667,000 | do..... | 1.34 | 895,000 | ..... | ..... |
| Sorghum sirup.....1924..... | 885,000 | Gallon..... | 68.3 | 20,284,000 | .944 | 24,821,000 |
|1925..... | 877,000 | do..... | 67.6 | 25,492,000 | .948 | 24,168,000 |
| Maple sugar and sirup as sugar.....1924..... | ⁵ 15,407,000 | Pound..... | ⁶ 2.29 | 35,302,000 | ..... | ..... |
|1925..... | ⁵ 15,313,000 | do..... | ⁶ 1.82 | 27,946,000 | ..... | ..... |
| Broomcorn ².....1924..... | 451,000 | Ton..... | ³ 346.8 | 78,200 | 95.63 | 7,478,000 |
|1925..... | 300,000 | do..... | ³ 289.0 | 28,900 | 140.17 | 4,051,000 |
| Hops ².....1924..... | 20,350 | Pound..... | 1,360 | 27,670,000 | .103 | 2,888,000 |
|1925..... | 20,390 | do..... | 1,404 | 28,578,000 | .218 | 6,232,000 |

¹ See detailed crop tables for date to which prices refer.² Principal producing States.³ Pounds or per pound.⁴ Price per ton is of Nov. 15.⁵ Including beets grown in Canada for factories in the United States.⁶ Trees tapped or per tree.

TABLE 689.—*Acreage, production, and farm value, 1924 and 1925—Continued*

| Crop and year | Acreage | Production | | | Farm value Dec. 1 | |
|--|-----------|-------------|----------|-------------|--------------------|--------------------------|
| | | Unit | Per acre | Total | Per unit | Total |
| FRUIT CROPS | | | | | | |
| Apples, total..... | 1924..... | Bushel..... | | 171,250,000 | <i>Dols.</i> 1.181 | <i>Dols.</i> 202,326,000 |
| | 1925..... | do..... | | 164,616,000 | 1.262 | 207,820,000 |
| Apples, commercial..... | 1924..... | Barrel..... | | 28,063,000 | 3.66 | 102,828,000 |
| | 1925..... | do..... | | 31,909,000 | 3.68 | 117,284,000 |
| Peaches..... | 1924..... | Bushel..... | | 54,119,000 | 1.269 | 68,679,000 |
| | 1925..... | do..... | | 46,565,000 | 1.398 | 65,080,000 |
| Pears..... | 1924..... | do..... | | 18,868,000 | 1.415 | 26,693,000 |
| | 1925..... | do..... | | 19,820,000 | 1.410 | 27,944,000 |
| Grapes..... | 1924..... | Ton..... | | 1,763,742 | 41.52 | 73,228,000 |
| | 1925..... | do..... | | 1,967,160 | 34.04 | 66,969,000 |
| Oranges (2 States)..... | 1924..... | Box..... | | 32,200,000 | 1.771 | 57,045,000 |
| | 1925..... | do..... | | 34,500,000 | 3.116 | 107,505,000 |
| Cranberries ¹ | 1924..... | Barrel..... | | 562,000 | 9.86 | 5,544,000 |
| | 1925..... | do..... | | 530,000 | 9.88 | 5,238,000 |
| COMMERCIAL TRUCK CROPS | | | | | | |
| Asparagus..... | 1924..... | Crate..... | 129 | 6,241,000 | 1.88 | 11,750,000 |
| | 1925..... | do..... | 114 | 6,442,000 | 1.74 | 11,222,000 |
| Beans, snap..... | 1924..... | Ton..... | 1.3 | 113,564 | 120.62 | 13,698,000 |
| | 1925..... | do..... | 1.4 | 136,812 | 110.85 | 15,166,000 |
| Cabbage..... | 1924..... | do..... | 8.8 | 961,700 | 17.00 | 16,349,000 |
| | 1925..... | do..... | 8.1 | 869,200 | 20.20 | 17,590,000 |
| Cantaloupes..... | 1924..... | Crate..... | 148 | 13,432,000 | 1.48 | 19,865,000 |
| | 1925..... | do..... | 151 | 14,013,000 | 1.32 | 18,483,000 |
| Carrots..... | 1924..... | Bushel..... | 352 | 4,392,000 | .95 | 4,068,000 |
| | 1925..... | do..... | 279 | 4,727,000 | .63 | 2,928,000 |
| Cauliflower..... | 1924..... | Crate..... | 212 | 2,755,000 | 1.18 | 3,218,000 |
| | 1925..... | do..... | 228 | 3,452,000 | 1.18 | 4,081,000 |
| Celery..... | 1924..... | do..... | 207 | 6,741,000 | 1.85 | 12,463,000 |
| | 1925..... | do..... | 209 | 6,757,000 | 1.85 | 12,491,000 |
| Corn, sweet..... | 1924..... | Ton..... | 1.8 | 589,500 | 18.10 | 10,672,000 |
| | 1925..... | do..... | 2.5 | 993,000 | 16.00 | 15,890,000 |
| Cucumbers..... | 1924..... | Bushel..... | 62 | 7,473,000 | 1.49 | 11,145,000 |
| | 1925..... | do..... | 87 | 11,886,000 | 1.21 | 14,414,000 |
| Eggplant..... | 1924..... | do..... | 296 | 787,000 | 1.57 | 1,233,000 |
| | 1925..... | do..... | 279 | 694,000 | 1.57 | 1,090,000 |
| Lettuce..... | 1924..... | Crate..... | 191 | 12,161,000 | 1.54 | 18,671,000 |
| | 1925..... | do..... | 187 | 16,171,000 | 1.63 | 24,767,000 |
| Onions..... | 1924..... | Bushel..... | 296 | 17,852,000 | .94 | 16,829,000 |
| | 1925..... | do..... | 302 | 17,173,000 | 1.15 | 19,702,000 |
| Peas, green..... | 1924..... | Ton..... | 1.1 | 268,500 | 64.67 | 17,364,000 |
| | 1925..... | do..... | .9 | 242,300 | 68.04 | 16,486,000 |
| Peppers..... | 1924..... | Bushel..... | 330 | 3,613,000 | 1.13 | 4,085,000 |
| | 1925..... | do..... | 257 | 3,172,000 | 1.29 | 4,083,000 |
| Potatoes, early Irish ¹ | 1924..... | do..... | 131 | 41,833,000 | .99 | 41,528,000 |
| | 1925..... | do..... | 103 | 29,594,000 | 1.41 | 41,649,000 |
| Spinach..... | 1924..... | Ton..... | 8.1 | 107,900 | 68.52 | 7,392,000 |
| | 1925..... | do..... | 2.4 | 101,100 | 74.02 | 7,483,000 |
| Strawberries..... | 1924..... | Quart..... | 1,829 | 276,592,000 | .13 | 37,320,000 |
| | 1925..... | do..... | 1,564 | 209,586,000 | .17 | 36,105,000 |
| Tomatoes..... | 1924..... | Ton..... | 3.7 | 1,606,700 | 33.21 | 53,352,000 |
| | 1925..... | do..... | 4.8 | 2,198,200 | 27.72 | 60,656,000 |
| Watermelons..... | 1924..... | Car..... | * 318 | 53,498 | 172.00 | 9,181,000 |
| | 1925..... | do..... | * 326 | 60,838 | 232.00 | 11,802,000 |
| Total of above..... | 1924..... | | | | | 9,182,501,000 |
| | 1925..... | | | | | 8,611,839,000 |

Division of Crop and Livestock Estimates.

¹ Principal producing States.² Included in potatoes, white.

* Number.

TABLE 690.—Crop acreages, aggregates, by States, 1924 and 1925

| State | Acreage of 19 crops | | Per cent of total acreage in specified crops ¹ | Total acreage of all crops (theoretical) | | State | Acreage of 19 crops | | Per cent of total acreage in specified crops ¹ | Total acreage of all crops (theoretical) | |
|--------------|---------------------|--------------------|---|--|--------------------|---------------------------|---------------------|--------------------|---|--|--------------------|
| | 1924 | 1925 | | 1924 | 1925 | | 1924 | 1925 | | 1924 | 1925 |
| | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>Per cent</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>Per cent</i> | <i>1,000 acres</i> | <i>1,000 acres</i> |
| Mo..... | 1,562 | 1,581 | 90 | 1,627 | 1,647 | N. C..... | 6,763 | 6,784 | 94 | 7,195 | 7,217 |
| N. H..... | 521 | 523 | 94 | 554 | 556 | S. C..... | 5,088 | 5,203 | 92 | 5,476 | 5,655 |
| Vt..... | 1,128 | 1,140 | 93 | 1,213 | 1,226 | Ga..... | 8,737 | 9,070 | 94 | 9,285 | 9,649 |
| Mass..... | 560 | 561 | 86 | 651 | 652 | Fla..... | 890 | 881 | 89 | 1,000 | 990 |
| R. I..... | 60 | 61 | 84 | 71 | 73 | Ky..... | 5,227 | 5,322 | 95 | 5,502 | 5,602 |
| Conn..... | 481 | 486 | 88 | 547 | 552 | Tenn..... | 6,266 | 6,546 | 91 | 6,886 | 7,103 |
| N. Y..... | 7,859 | 7,836 | 91 | 8,636 | 8,611 | Ala..... | 7,063 | 7,364 | 93 | 7,616 | 7,918 |
| N. J..... | 735 | 744 | 86 | 855 | 865 | Miss..... | 5,777 | 6,060 | 96 | 6,018 | 6,312 |
| Pa..... | 7,244 | 7,465 | 97 | 7,468 | 7,696 | Ark..... | 6,458 | 7,022 | 93 | 6,944 | 7,551 |
| Ohio..... | 10,615 | 10,788 | 97 | 10,943 | 11,122 | La..... | 3,711 | 3,931 | 91 | 4,078 | 4,320 |
| Indiana..... | 10,671 | 11,026 | 96 | 11,116 | 11,485 | Okla..... | 14,065 | 14,613 | 93 | 15,124 | 15,713 |
| Ill..... | 10,876 | 20,228 | 97 | 20,491 | 20,854 | Tex..... | 26,803 | 25,663 | 92 | 29,134 | 27,786 |
| Mich..... | 8,420 | 8,424 | 93 | 9,054 | 9,058 | Mont..... | 6,530 | 6,754 | 87 | 7,506 | 7,763 |
| Wis..... | 9,452 | 9,503 | 90 | 10,502 | 10,559 | Idaho..... | 2,472 | 2,573 | 91 | 2,716 | 2,827 |
| Minn..... | 17,983 | 18,526 | 96 | 18,732 | 19,298 | Wyo..... | 1,564 | 1,622 | 90 | 1,738 | 1,802 |
| Iowa..... | 21,180 | 21,409 | 97 | 21,835 | 22,071 | Colo..... | 5,526 | 5,441 | 85 | 6,501 | 6,401 |
| Mo..... | 14,038 | 14,595 | 96 | 14,623 | 15,203 | N. Mex..... | 1,166 | 835 | 78 | 1,495 | 1,071 |
| N. Dak..... | 20,250 | 20,662 | 96 | 21,103 | 21,523 | Ariz..... | 475 | 465 | 85 | 550 | 547 |
| S. Dak..... | 15,808 | 16,171 | 98 | 16,131 | 16,501 | Utah..... | 922 | 1,002 | 88 | 1,048 | 1,139 |
| Nebr..... | 19,735 | 19,672 | 97 | 20,345 | 20,280 | Nev..... | 360 | 428 | 98 | 367 | 437 |
| Kans..... | 21,560 | 21,241 | 93 | 23,183 | 22,840 | Wash..... | 3,198 | 3,489 | 86 | 3,719 | 4,057 |
| Del..... | 359 | 365 | 80 | 403 | 410 | Oreg..... | 2,434 | 2,597 | 80 | 3,042 | 3,246 |
| Md..... | 1,641 | 1,692 | 91 | 1,803 | 1,859 | Calif. ² | 3,892 | 4,466 | 75 | 5,189 | 5,955 |
| Va..... | 4,060 | 4,198 | 93 | 4,366 | 4,514 | U. S..... | 342,812 | 348,657 | 93.8 | 366,135 | 372,426 |
| W. Va..... | 1,648 | 1,729 | 95 | 1,735 | 1,820 | | | | | | |

Division of Crop and Livestock Estimates. Estimated total acreage of 19 crops—corn, wheat, oats, barley, rye, buckwheat, potatoes, sweet potatoes, tobacco, flax, rice, all hay, cotton, peanuts, kafirs, beans, broomcorn, hops, and cranberries.

¹ Based on census proportions in 1919.

² Not including cotton grown in Lower California, Mexico.

TABLE 691.—Index numbers of the mass of crop production

[Average of 1910–1914=100]

| Year and period | Production index | | Year and period | Production index | |
|-----------------|------------------|------------|-----------------|------------------|------------|
| | Total | Per capita | | Total | Per capita |
| 1909..... | 94 | 99 | 1921..... | 100 | 88 |
| 1910..... | 97 | 101 | 1922..... | 110 | 96 |
| 1911..... | 91 | 92 | 1923..... | 110 | 94 |
| 1912..... | 110 | 109 | 1924..... | 111 | 94 |
| 1913..... | 95 | 95 | 1925..... | 112 | 94 |
| 1914..... | 107 | 104 | | | |
| 1915..... | 116 | 109 | 1905–1909..... | 94.0 | 102.8 |
| 1916..... | 100 | 93 | 1910–1914..... | 100.0 | 100.0 |
| 1917..... | 108 | 100 | 1915–1919..... | 108.0 | 99.6 |
| 1918..... | 107 | 98 | 1920–1924..... | 108.6 | 95.2 |
| 1919..... | 108 | 98 | 1921–1925..... | 108.6 | 93.2 |
| 1920..... | 117 | 104 | | | |

Division of Crop and Livestock Estimates. Production of wheat, corn, oats, barley, rye, buckwheat, potatoes, hay, tobacco, and cotton, each crop each year multiplied by constant price and divided by average aggregate of base years.

TABLE 692.—Crops: Index numbers of all crop yields, 1913-1925

| State and division | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maine..... | 101.6 | 118.4 | 86.8 | 116.2 | 99.7 | 99.6 | 105.9 | 89.6 | 95.4 | 84.0 | 120.8 | 121.8 | 111.8 |
| New Hampshire..... | 89.2 | 113.8 | 84.5 | 121.8 | 110.3 | 105.7 | 104.7 | 104.2 | 93.8 | 104.5 | 107.8 | 109.4 | 112.9 |
| Vermont..... | 97.7 | 102.7 | 97.6 | 118.8 | 110.3 | 97.0 | 104.1 | 104.0 | 87.0 | 98.4 | 107.4 | 108.5 | 105.5 |
| Massachusetts..... | 95.9 | 116.3 | 96.5 | 108.9 | 105.0 | 97.7 | 102.6 | 107.1 | 92.6 | 92.9 | 108.5 | 101.3 | 103.9 |
| Rhode Island..... | 101.4 | 113.4 | 92.3 | 92.4 | 114.3 | 103.4 | 100.6 | 97.9 | 95.3 | 88.5 | 114.6 | 106.3 | 103.9 |
| Connecticut..... | 95.9 | 111.7 | 101.7 | 110.5 | 107.3 | 97.8 | 100.0 | 103.6 | 102.4 | 91.8 | 107.1 | 96.5 | 101.1 |
| New York..... | 90.8 | 110.7 | 100.4 | 107.7 | 107.8 | 102.4 | 106.9 | 110.5 | 83.9 | 108.7 | 103.7 | 109.4 | 99.9 |
| New Jersey..... | 98.2 | 104.9 | 107.1 | 107.2 | 102.5 | 100.0 | 96.7 | 120.8 | 91.7 | 117.5 | 88.2 | 111.5 | 98.9 |
| Pennsylvania..... | 98.0 | 105.5 | 100.8 | 106.0 | 100.8 | 101.6 | 104.9 | 108.3 | 94.0 | 104.8 | 92.3 | 102.5 | 107.9 |
| N. Atlantic..... | 95.5 | 109.3 | 98.9 | 108.9 | 104.6 | 101.2 | 104.8 | 107.9 | 90.3 | 104.1 | 100.3 | 107.3 | 104.3 |
| Ohio..... | 97.2 | 100.1 | 111.9 | 89.2 | 111.1 | 101.9 | 104.7 | 100.7 | 88.7 | 97.3 | 104.7 | 89.7 | 101.9 |
| Indiana..... | 95.4 | 92.7 | 113.0 | 92.4 | 108.8 | 100.8 | 96.2 | 105.7 | 88.3 | 97.7 | 103.2 | 91.3 | 99.9 |
| Illinois..... | 80.3 | 85.3 | 118.5 | 95.7 | 120.0 | 111.0 | 96.6 | 101.2 | 94.1 | 102.5 | 107.1 | 98.4 | 102.8 |
| Michigan..... | 93.6 | 111.4 | 99.6 | 93.3 | 97.8 | 90.0 | 99.8 | 109.0 | 85.3 | 107.4 | 104.5 | 109.2 | 95.6 |
| Wisconsin..... | 109.7 | 106.3 | 103.4 | 103.8 | 103.4 | 113.5 | 107.3 | 112.3 | 89.4 | 110.5 | 92.6 | 103.3 | 111.9 |
| Minnesota..... | 114.6 | 91.7 | 116.1 | 79.2 | 110.8 | 123.2 | 88.6 | 96.9 | 84.5 | 98.4 | 97.3 | 118.8 | 104.8 |
| Iowa..... | 102.4 | 104.9 | 103.3 | 107.2 | 110.8 | 103.8 | 107.4 | 112.6 | 98.8 | 110.2 | 100.5 | 93.2 | 104.2 |
| Missouri..... | 71.1 | 84.6 | 108.8 | 78.8 | 124.0 | 84.4 | 105.7 | 114.2 | 101.8 | 101.3 | 107.8 | 100.0 | 98.6 |
| North Dakota..... | 98.2 | 99.2 | 137.3 | 72.6 | 64.9 | 108.1 | 69.2 | 91.1 | 82.3 | 127.0 | 81.3 | 135.5 | 102.9 |
| South Dakota..... | 81.8 | 93.6 | 137.2 | 88.8 | 115.1 | 138.9 | 87.8 | 104.0 | 87.0 | 103.1 | 101.0 | 98.6 | 79.5 |
| Nebraska..... | 78.0 | 102.9 | 125.4 | 113.9 | 102.7 | 78.0 | 114.3 | 137.3 | 104.4 | 89.1 | 109.4 | 102.2 | 86.1 |
| Kansas..... | 61.4 | 124.2 | 124.9 | 81.7 | 92.2 | 82.2 | 110.8 | 120.1 | 102.0 | 100.8 | 87.7 | 118.6 | 79.0 |
| N. Central..... | 90.7 | 99.4 | 114.4 | 92.6 | 107.3 | 103.6 | 100.4 | 160.8 | 92.9 | 103.0 | 101.0 | 102.7 | 97.8 |
| Delaware..... | 97.1 | 109.3 | 99.1 | 100.6 | 104.1 | 91.1 | 90.8 | 111.2 | 87.8 | 107.4 | 104.5 | 99.4 | 103.9 |
| Maryland..... | 93.3 | 112.9 | 99.6 | 106.0 | 106.0 | 99.9 | 98.2 | 112.0 | 90.2 | 104.6 | 102.3 | 95.9 | 99.9 |
| Virginia..... | 106.6 | 89.9 | 114.5 | 112.7 | 108.2 | 105.1 | 101.8 | 109.2 | 85.6 | 105.4 | 104.1 | 94.8 | 83.8 |
| West Virginia..... | 93.3 | 94.7 | 113.0 | 110.4 | 103.1 | 99.1 | 102.4 | 109.1 | 91.0 | 101.4 | 103.9 | 101.2 | 93.0 |
| North Carolina..... | 103.5 | 108.1 | 103.3 | 95.0 | 97.3 | 105.9 | 92.3 | 106.6 | 85.0 | 93.4 | 107.9 | 82.2 | 95.0 |
| South Carolina..... | 105.9 | 103.7 | 92.3 | 80.3 | 102.0 | 98.3 | 94.3 | 90.1 | 74.0 | 68.4 | 89.9 | 72.3 | 70.5 |
| Georgia..... | 103.9 | 111.2 | 92.0 | 91.5 | 97.2 | 96.8 | 85.1 | 87.9 | 73.3 | 66.8 | 59.7 | 95.5 | 87.1 |
| Florida..... | 111.1 | 112.0 | 100.5 | 95.4 | 94.5 | 98.8 | 92.3 | 96.5 | 90.5 | 110.2 | 100.6 | 102.0 | 101.4 |
| S. Atlantic..... | 103.5 | 105.1 | 99.6 | 102.9 | 100.7 | 100.3 | 93.1 | 100.4 | 80.8 | 84.4 | 90.6 | 88.4 | 91.9 |
| Kentucky..... | 82.9 | 101.0 | 108.0 | 102.8 | 108.9 | 100.5 | 95.0 | 106.2 | 93.2 | 100.4 | 100.5 | 94.5 | 90.4 |
| Tennessee..... | 88.1 | 98.5 | 103.7 | 101.0 | 105.1 | 95.5 | 95.6 | 104.9 | 96.6 | 92.3 | 89.1 | 92.2 | 85.5 |
| Alabama..... | 101.0 | 110.1 | 91.8 | 64.3 | 90.2 | 101.1 | 82.1 | 96.9 | 82.0 | 92.7 | 76.7 | 101.6 | 115.3 |
| Mississippi..... | 98.0 | 103.1 | 98.3 | 67.4 | 103.0 | 102.2 | 92.5 | 89.8 | 86.4 | 90.5 | 66.1 | 93.2 | 145.2 |
| Arkansas..... | 94.5 | 96.9 | 103.5 | 92.4 | 110.0 | 75.6 | 98.0 | 106.7 | 91.7 | 92.2 | 66.4 | 94.9 | 102.2 |
| Louisiana..... | 101.5 | 103.7 | 96.2 | 102.1 | 94.6 | 85.3 | 87.4 | 97.2 | 94.6 | 96.7 | 84.8 | 72.5 | 116.5 |
| Oklahoma..... | 61.7 | 105.6 | 122.2 | 70.2 | 86.8 | 66.3 | 138.7 | 139.6 | 104.9 | 76.7 | 74.5 | 113.4 | 79.2 |
| Texas..... | 103.2 | 103.7 | 102.6 | 95.5 | 73.9 | 65.4 | 124.2 | 113.5 | 92.4 | 86.4 | 97.1 | 98.9 | 75.5 |
| S. Central..... | 92.3 | 103.1 | 103.8 | 88.0 | 93.0 | 83.6 | 105.5 | 107.4 | 92.9 | 89.9 | 82.8 | 97.0 | 92.4 |
| Montana..... | 93.9 | 90.2 | 106.7 | 85.9 | 55.3 | 68.9 | 40.4 | 82.6 | 84.5 | 100.1 | 103.9 | 101.7 | 88.5 |
| Idaho..... | 101.6 | 95.4 | 97.9 | 88.8 | 90.7 | 89.0 | 81.5 | 98.2 | 98.2 | 94.7 | 105.3 | 79.4 | 117.5 |
| Wyoming..... | 91.9 | 97.9 | 99.4 | 86.9 | 88.3 | 104.7 | 65.1 | 113.2 | 86.5 | 94.3 | 94.4 | 87.4 | 96.5 |
| Colorado..... | 88.8 | 106.6 | 99.2 | 91.9 | 102.9 | 96.3 | 90.1 | 105.1 | 98.7 | 87.2 | 93.5 | 89.1 | 83.6 |
| New Mexico..... | 83.6 | 110.0 | 100.3 | 86.0 | 84.6 | 96.2 | 104.3 | 107.1 | 95.6 | 59.4 | 87.7 | 97.1 | 84.2 |
| Arizona..... | 116.0 | 97.9 | 94.0 | 108.0 | 99.5 | 94.0 | 112.0 | 96.8 | 110.5 | 93.9 | 106.8 | 102.8 | 111.1 |
| Utah..... | 92.2 | 110.2 | 91.5 | 88.4 | 108.7 | 94.0 | 78.2 | 102.7 | 107.7 | 90.2 | 105.9 | 87.8 | 124.0 |
| Nevada..... | 104.7 | 118.6 | 97.4 | 94.0 | 106.2 | 92.2 | 88.1 | 90.5 | 99.7 | 108.2 | 103.5 | 82.5 | 120.7 |
| Washington..... | 101.0 | 101.4 | 104.3 | 105.0 | 83.1 | 74.8 | 94.4 | 92.5 | 108.0 | 79.3 | 118.4 | 68.4 | 100.7 |
| Oregon..... | 104.5 | 95.0 | 100.4 | 107.0 | 82.4 | 80.2 | 98.0 | 102.3 | 103.9 | 87.5 | 111.0 | 76.5 | 112.7 |
| California..... | 88.4 | 100.9 | 103.8 | 101.7 | 103.2 | 88.5 | 99.4 | 90.3 | 95.2 | 105.4 | 107.7 | 90.9 | 100.9 |
| Western..... | 95.1 | 102.6 | 102.1 | 97.7 | 91.2 | 85.3 | 88.5 | 96.9 | 98.3 | 95.5 | 106.8 | 86.2 | 103.9 |
| United States..... | 93.3 | 102.3 | 108.0 | 95.1 | 102.0 | 97.6 | 99.8 | 106.0 | 91.7 | 96.7 | 96.1 | 98.1 | 99.6 |

Division of Crop and Livestock Estimates. Index numbers of individual crops relative to a 10-year moving average yield, weighted by States, according to crop values in 1919.

TABLE 693.—Crops: Value of 22 crops and of all crops,¹ with rank

| State | Value all crops, 1919 census | Ratio value 22 crops to all crops in census 1919 | Value 22 crops ² | | | Hypothetical value all crops ³ | | | Rank | |
|---------------|------------------------------|--|-----------------------------|-------------|-------------|---|--------------|-------------|----------|-----------|
| | | | 1919 census | 1924 | 1925 | 1919-1923 average | 1924 | 1925 | 1925 | |
| | | | | | | | | | 22 crops | All crops |
| | 1,000 dols. | P. ct. | 1,000 dols. | 1,000 dols. | 1,000 dols. | 1,000 dols. | 1,000 dols. | 1,000 dols. | | |
| Me..... | 100, 152 | 92 | 91, 982 | 44, 744 | 94, 981 | 62, 987 | 48, 635 | 103, 240 | 32 | 33 |
| N. H..... | 23, 510 | 79 | 18, 479 | 14, 279 | 17, 014 | 22, 637 | 18, 075 | 21, 537 | 45 | 45 |
| Vt..... | 48, 000 | 77 | 36, 835 | 33, 699 | 32, 941 | 47, 317 | 43, 765 | 42, 781 | 39 | 40 |
| Mass..... | 53, 701 | 68 | 36, 601 | 29, 500 | 32, 416 | 54, 553 | 43, 382 | 47, 671 | 40 | 39 |
| R. I..... | 5, 340 | 69 | 3, 680 | 2, 710 | 3, 219 | 4, 788 | 3, 928 | 4, 665 | 48 | 48 |
| Conn..... | 44, 473 | 81 | 36, 006 | 31, 301 | 29, 722 | 48, 486 | 38, 643 | 36, 694 | 41 | 41 |
| N. Y..... | 417, 047 | 77 | 321, 598 | 228, 939 | 248, 862 | 351, 088 | 297, 323 | 323, 197 | 14 | 8 |
| N. J..... | 87, 484 | 70 | 61, 273 | 37, 365 | 44, 170 | 66, 696 | 53, 379 | 63, 100 | 37 | 37 |
| Pa..... | 409, 969 | 86 | 350, 991 | 233, 957 | 262, 173 | 308, 040 | 272, 043 | 304, 852 | 11 | 12 |
| Ohio..... | 607, 038 | 87 | 526, 943 | 275, 473 | 270, 901 | 354, 617 | 316, 636 | 311, 380 | 10 | 11 |
| Indiana..... | 497, 230 | 90 | 449, 079 | 240, 390 | 228, 930 | 284, 739 | 267, 100 | 252, 144 | 17 | 18 |
| Illinois..... | 864, 738 | 92 | 707, 893 | 513, 265 | 422, 112 | 496, 616 | 557, 897 | 459, 904 | 3 | 4 |
| Mich..... | 404, 015 | 82 | 329, 651 | 211, 776 | 221, 364 | 270, 422 | 258, 263 | 269, 956 | 18 | 17 |
| Wis..... | 445, 348 | 81 | 360, 404 | 236, 176 | 271, 670 | 323, 153 | 291, 575 | 335, 395 | 9 | 6 |
| Minn..... | 506, 020 | 89 | 450, 327 | 375, 122 | 340, 075 | 325, 421 | 421, 485 | 382, 107 | 4 | 5 |
| Iowa..... | 890, 301 | 92 | 820, 126 | 490, 767 | 438, 844 | 508, 600 | 533, 442 | 477, 004 | 2 | 3 |
| Mo..... | 559, 048 | 89 | 496, 261 | 296, 321 | 278, 891 | 339, 716 | 332, 945 | 313, 361 | 7 | 10 |
| N. Dak..... | 301, 783 | 92 | 278, 315 | 227, 659 | 256, 424 | 216, 389 | 355, 727 | 78, 722 | 13 | 15 |
| S. Dak..... | 311, 007 | 93 | 288, 376 | 230, 669 | 178, 504 | 210, 972 | 218, 031 | 191, 940 | 22 | 25 |
| Nebr..... | 519, 730 | 95 | 491, 338 | 351, 892 | 300, 657 | 315, 240 | 370, 413 | 316, 376 | 6 | 9 |
| Kans..... | 548, 023 | 91 | 536, 408 | 415, 165 | 274, 506 | 368, 980 | 456, 225 | 301, 655 | 8 | 13 |
| Del..... | 23, 059 | 72 | 16, 516 | 12, 661 | 13, 545 | 17, 894 | 17, 585 | 18, 812 | 46 | 46 |
| Md..... | 110, 166 | 80 | 88, 066 | 56, 636 | 62, 505 | 79, 151 | 70, 795 | 78, 131 | 35 | 35 |
| Va..... | 232, 824 | 85 | 217, 463 | 152, 338 | 139, 420 | 208, 969 | 179, 221 | 164, 024 | 27 | 27 |
| W. Va..... | 96, 537 | 81 | 78, 143 | 54, 796 | 59, 709 | 85, 206 | 67, 048 | 73, 715 | 36 | 36 |
| N. C..... | 503, 229 | 87 | 438, 892 | 277, 296 | 287, 523 | 389, 090 | 318, 731 | 330, 486 | 6 | 7 |
| S. C..... | 437, 122 | 82 | 390, 025 | 142, 916 | 134, 326 | 256, 776 | 174, 288 | 165, 812 | 26 | 28 |
| Ga..... | 546, 614 | 80 | 430, 270 | 200, 106 | 184, 418 | 301, 669 | 257, 632 | 230, 522 | 21 | 20 |
| Fla..... | 80, 257 | 62 | 49, 521 | 42, 083 | 64, 793 | 74, 477 | 67, 876 | 107, 731 | 34 | 32 |
| Ky..... | 347, 339 | 89 | 310, 224 | 195, 284 | 174, 017 | 262, 391 | 219, 420 | 195, 525 | 23 | 24 |
| Tenn..... | 318, 285 | 83 | 263, 797 | 182, 537 | 162, 694 | 227, 484 | 219, 924 | 196, 017 | 24 | 23 |
| Ala..... | 304, 349 | 81 | 246, 271 | 183, 058 | 187, 142 | 230, 873 | 225, 908 | 231, 040 | 19 | 19 |
| Miss..... | 336, 207 | 83 | 278, 539 | 178, 192 | 238, 214 | 221, 224 | 214, 669 | 287, 005 | 16 | 14 |
| Ark..... | 340, 813 | 83 | 283, 175 | 195, 686 | 186, 096 | 232, 904 | 235, 766 | 224, 212 | 20 | 21 |
| La..... | 206, 182 | 71 | 147, 290 | 104, 510 | 140, 890 | 158, 494 | 147, 197 | 198, 437 | 25 | 22 |
| Okla..... | 550, 085 | 87 | 470, 314 | 349, 116 | 240, 788 | 317, 375 | 401, 283 | 276, 768 | 15 | 16 |
| Tex..... | 1, 071, 542 | 83 | 885, 955 | 752, 963 | 488, 383 | 834, 234 | 907, 220 | 588, 413 | 1 | 1 |
| Mont..... | 69, 975 | 86 | 60, 058 | 117, 806 | 101, 503 | 89, 872 | 136, 984 | 118, 027 | 30 | 30 |
| Idaho..... | 126, 495 | 88 | 111, 940 | 73, 009 | 101, 284 | 90, 890 | 82, 965 | 115, 065 | 31 | 31 |
| Wyo..... | 30, 271 | 88 | 26, 528 | 23, 817 | 27, 728 | 33, 182 | 27, 065 | 31, 509 | 42 | 42 |
| Colo..... | 181, 065 | 76 | 137, 660 | 92, 615 | 111, 526 | 135, 161 | 121, 862 | 146, 745 | 29 | 29 |
| N. Mex..... | 40, 630 | 77 | 31, 083 | 30, 796 | 20, 939 | 36, 108 | 39, 982 | 27, 194 | 44 | 44 |
| Ariz..... | 42, 481 | 84 | 35, 478 | 28, 138 | 24, 519 | 33, 481 | 33, 498 | 29, 189 | 43 | 43 |
| Utah..... | 88, 067 | 40 | 40, 901 | 22, 482 | 33, 448 | 39, 466 | 32, 117 | 47, 783 | 38 | 38 |
| Nev..... | 13, 980 | 96 | 13, 439 | 8, 022 | 10, 723 | 10, 767 | 8, 356 | 11, 170 | 47 | 47 |
| Wash..... | 227, 212 | 82 | 185, 667 | 107, 149 | 140, 776 | 173, 410 | 130, 670 | 171, 678 | 26 | 26 |
| Oreg..... | 131, 885 | 75 | 99, 006 | 50, 539 | 76, 037 | 108, 080 | 79, 385 | 102, 183 | 33 | 34 |
| Calif..... | 589, 757 | 54 | 315, 091 | 224, 389 | 258, 015 | 452, 872 | 415, 535 | 477, 606 | 12 | 2 |
| U. S..... | 14, 755, 365 | 84.3 | 12, 442, 977 | 8, 494, 738 | 7, 920, 837 | 10, 083, 017 | 10, 062, 604 | 9, 480, 710 | ----- | ----- |

Division of Crop and Livestock Estimates.

¹ Does not include nursery or greenhouse products or forest products of the farm.² The crops included are corn, wheat, oats, barley, rye, buckwheat, flaxseed, rice, potatoes, sweet potatoes, all hay, tobacco, lint cotton, beans, broomcorn, grain sorghums, hops, oranges, cloverseed, peanuts, cranberries, and apples.³ Based upon the relation of the value of all crops to that of the 22 crops shown by the census in 1919.

TABLE 694.—*Crops: Average weight in pounds per measured bushel of wheat, oats and barley, United States, 1909-1925*

| Year | Weight per measured bushel ¹ | | | Year | Weight per measured bushel ¹ | | |
|-----------|---|---------------|---------------|-----------|---|---------------|---------------|
| | Wheat | Oats | Barley | | Wheat | Oats | Barley |
| | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> | | <i>Pounds</i> | <i>Pounds</i> | <i>Pounds</i> |
| 1909..... | 57.9 | 32.7 | 46.9 | 1918..... | 58.8 | 33.2 | 46.9 |
| 1910..... | 58.5 | 32.7 | 46.9 | 1919..... | 58.3 | 33.1 | 45.2 |
| 1911..... | 57.8 | 31.1 | 46.0 | 1920..... | 57.4 | 33.1 | 46.0 |
| 1912..... | 58.3 | 33.0 | 46.8 | 1921..... | 57.0 | 28.3 | 41.4 |
| 1913..... | 58.7 | 32.1 | 46.6 | 1922..... | 57.7 | 32.0 | 46.2 |
| 1914..... | 58.0 | 31.5 | 46.2 | 1923..... | 57.4 | 32.1 | 45.3 |
| 1915..... | 57.9 | 33.0 | 47.4 | 1924..... | 59.0 | 33.4 | 47.0 |
| 1916..... | 57.1 | 31.2 | 45.2 | 1925..... | 58.3 | 32.9 | 45.9 |
| 1917..... | 58.5 | 33.4 | 46.6 | | | | |

Division of Crop and Livestock Estimates. As reported by crop reporters on Nov. 1.

¹ Standard weights: Wheat, 60 lbs.; oats, 32 lbs.; barley, 48 lbs.

TABLE 695.—Prices of articles bought by farmers, quarterly, January, 1923–October, 1925

| Article | | Unit | United States | | | | | | | | | | | | | | |
|----------------------------|---|-----------------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | | 1923 | | | | 1924 | | | | 1925 | | | | | | |
| | | | Jan. 15 | Apr. 15 | July 15 | Oct. 15 | Jan. 15 | Apr. 15 | July 15 | Oct. 15 | Jan. 15 | Apr. 15 | July 15 | Oct. 15 | | | |
| Food: | | | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| | Beacon, smoked..... | Pound | 0.279 | 0.270 | 0.272 | 0.259 | 0.247 | 0.249 | 0.289 | 0.300 | 0.347 | 0.366 | 0.380 | 0.390 | 0.380 | 0.380 | 0.380 |
| | Beans, dry, edible..... | do. | 0.104 | 0.111 | 0.109 | 0.096 | 0.095 | 0.093 | 0.099 | 0.102 | 0.103 | 0.102 | 0.098 | 0.098 | 0.098 | 0.098 | 0.098 |
| | Coffee..... | do. | 0.317 | 0.226 | 0.322 | 0.328 | 0.303 | 0.308 | 0.403 | 0.466 | 0.473 | 0.460 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| | Flour, wheat, 24 pounds..... | Sack | 1.10 | 1.10 | 1.05 | 0.90 | 1.00 | 1.04 | 1.17 | 1.34 | 1.37 | 1.37 | 1.32 | 1.32 | 1.32 | 1.32 | 1.32 |
| | Lard..... | Pound | 0.173 | 0.173 | 0.172 | 0.179 | 0.171 | 0.170 | 0.212 | 0.216 | 0.225 | 0.226 | 0.223 | 0.223 | 0.223 | 0.223 | 0.223 |
| | Rice..... | do. | 0.09 | 0.09 | 0.089 | 0.09 | 0.092 | 0.083 | 0.095 | 0.094 | 0.102 | 0.103 | 0.105 | 0.107 | 0.107 | 0.107 | 0.107 |
| | Sugar..... | do. | 0.088 | 0.11 | 0.112 | 0.11 | 0.107 | 0.106 | 0.091 | 0.094 | 0.089 | 0.081 | 0.078 | 0.073 | 0.073 | 0.073 | 0.073 |
| | Salmon, canned..... | 16-ounce | 0.223 | 0.225 | 0.223 | 0.238 | 0.237 | 0.232 | 0.242 | 0.244 | 0.242 | 0.246 | 0.240 | 0.240 | 0.240 | 0.240 | 0.240 |
| | Tomatoes, canned..... | 34-ounce | 0.189 | 0.187 | 0.188 | 0.193 | 0.191 | 0.192 | 0.196 | 0.200 | 0.201 | 0.203 | 0.203 | 0.203 | 0.203 | 0.203 | 0.203 |
| Clothing: | | | | | | | | | | | | | | | | | |
| | Boots, knee, rubber..... | Pair | 4.28 | 4.33 | 4.26 | 4.35 | 4.37 | 4.37 | 4.41 | 4.38 | 4.38 | 4.40 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 |
| | Gingham, apron, domestic..... | Yard | 0.189 | 0.203 | 0.201 | 0.205 | 0.208 | 0.202 | 0.207 | 0.203 | 0.202 | 0.197 | 0.196 | 0.196 | 0.196 | 0.196 | 0.196 |
| | Overalls..... | Pair | 1.62 | 1.73 | 1.77 | 1.81 | 1.87 | 1.83 | 1.85 | 1.77 | 1.82 | 1.78 | 1.77 | 1.77 | 1.77 | 1.77 | 1.77 |
| | Sheeting, 80 inches wide..... | Yard | 0.573 | 0.609 | 0.619 | 0.619 | 0.63 | 0.612 | 0.624 | 0.613 | 0.616 | 0.597 | 0.595 | 0.595 | 0.595 | 0.595 | 0.595 |
| | Shoes, work..... | Pair | 3.48 | 3.50 | 3.43 | 3.63 | 3.64 | 3.52 | 3.39 | 3.52 | 3.56 | 3.63 | 3.44 | 3.50 | 3.50 | 3.50 | 3.50 |
| | Socks, work, cotton..... | do. | 0.17 | 0.174 | 0.173 | 0.182 | 0.187 | 0.182 | 0.191 | 0.194 | 0.191 | 0.184 | 0.188 | 0.188 | 0.188 | 0.188 | 0.188 |
| | Suits, wool-serge, ready-made..... | Suit | 25.83 | 25.95 | 26.12 | 26.95 | 27.35 | 26.98 | 26.18 | 26.76 | 27.04 | 27.24 | 27.64 | 27.64 | 27.64 | 27.64 | 27.64 |
| Household articles: | | | | | | | | | | | | | | | | | |
| | Blankets, cotton..... | Pair | 2.71 | 2.64 | 2.69 | 2.79 | 2.84 | 2.84 | 2.85 | 3.00 | 3.03 | 2.95 | 2.88 | 2.96 | 2.96 | 2.96 | 2.96 |
| | Brooms, for sweeping..... | Each | 0.74 | 0.82 | 0.87 | 0.90 | 0.87 | 0.85 | 0.83 | 0.84 | 0.84 | 0.82 | 0.80 | 0.79 | 0.79 | 0.79 | 0.79 |
| | Dinner plates, plain..... | 1/2 dozen | 1.19 | 1.19 | 1.16 | 1.17 | 1.21 | 1.19 | 1.17 | 1.20 | 1.19 | 1.19 | 1.15 | 1.13 | 1.13 | 1.13 | 1.13 |
| | Fruit jars, Mason, 1-quart..... | 1 dozen | 1.11 | 1.10 | 1.08 | 1.04 | 1.06 | 1.09 | 1.05 | 1.03 | 1.05 | 1.06 | 1.04 | 1.02 | 1.02 | 1.02 | 1.02 |
| | Frying pan, cast iron, 10-inch..... | Each | 0.67 | 0.70 | 0.65 | 0.66 | 0.70 | 0.72 | 0.70 | 0.72 | 0.72 | 0.80 | 0.76 | 0.80 | 0.80 | 0.80 | 0.80 |
| | Kitchen chair, plain..... | do. | 1.59 | 1.59 | 1.67 | 1.60 | 1.71 | 1.68 | 1.75 | 1.80 | 1.82 | 1.78 | 1.76 | 1.77 | 1.77 | 1.77 | 1.77 |
| | Oil lamp, glass body..... | do. | 0.82 | 0.84 | 0.80 | 0.83 | 0.85 | 0.82 | 0.83 | 0.85 | 0.86 | 0.84 | 0.83 | 0.84 | 0.84 | 0.84 | 0.84 |
| | Rugs, 9 by 12, tapestry..... | do. | 23.06 | 25.85 | 25.31 | 25.68 | 25.50 | 23.84 | 24.26 | 25.53 | 25.11 | 24.95 | 24.95 | 24.56 | 24.56 | 24.56 | 24.56 |
| | Rugs, 9 by 12, brussels..... | do. | 36.48 | 38.56 | 38.60 | 36.94 | 39.54 | 38.56 | 37.01 | 38.07 | 37.52 | 36.36 | 36.84 | 38.90 | 38.90 | 38.90 | 38.90 |
| | Washtubs, heavy galvanized..... | do. | 1.26 | 1.25 | 1.24 | 1.24 | 1.32 | 1.23 | 1.19 | 1.23 | 1.25 | 1.21 | 1.21 | 1.21 | 1.21 | 1.21 | 1.21 |
| Building material: | | | | | | | | | | | | | | | | | |
| | Bricks, common..... | 1,000 | 20.18 | 20.36 | 20.43 | 20.79 | 21.76 | 20.94 | 21.44 | 21.37 | 21.60 | 22.38 | 21.80 | 22.04 | 22.04 | 22.04 | 22.04 |
| | Boards, rough, 1-inch, feet b. m..... | 1,000 | 35.53 | 37.69 | 37.44 | 37.39 | 37.52 | 36.49 | 36.36 | 36.29 | 37.21 | 36.84 | 36.84 | 38.82 | 38.82 | 38.82 | 38.82 |
| | Flooring, clear, 1-inch tongue and groove, feet b. m..... | 1,000 | 64.70 | 67.32 | 67.32 | 64.19 | 64.91 | 64.30 | 66.30 | 63.45 | 66.50 | 65.98 | 65.21 | 68.15 | 68.15 | 68.15 | 68.15 |
| | 2-inch framing lumber, feet b. m..... | 1,000 | 37.37 | 39.73 | 40.17 | 38.71 | 37.51 | 37.67 | 37.44 | 38.19 | 38.77 | 38.41 | 40.42 | 40.28 | 40.28 | 40.28 | 40.28 |
| | House paint, ready-mixed..... | Gallon | 3.16 | 3.29 | 3.34 | 3.32 | 3.37 | 3.41 | 3.45 | 3.38 | 3.50 | 3.57 | 3.61 | 3.56 | 3.56 | 3.56 | 3.56 |
| | Lime, common, lump..... | 100 pounds | 1.71 | 1.79 | 1.75 | 1.76 | 1.86 | 1.67 | 1.75 | 1.72 | 1.68 | 1.63 | 1.63 | 1.39 | 1.39 | 1.39 | 1.39 |
| | Portland cement..... | 94 pounds | 1.05 | 1.01 | 1.06 | 1.02 | 1.02 | 0.98 | 0.96 | 0.95 | 0.96 | 0.96 | 0.96 | 0.92 | 0.92 | 0.92 | 0.92 |
| | Roofing, composition, 3-ply..... | 108 square feet | 3.03 | 3.50 | 3.61 | 3.00 | 2.97 | 2.99 | 2.91 | 2.95 | 2.95 | 2.93 | 2.93 | 2.86 | 2.86 | 2.86 | 2.86 |
| | Roofing, steel, galvanized, 24-inch corrugated, 29 gauge..... | 100 square feet | 4.53 | 5.01 | 5.02 | 4.61 | 5.09 | 5.03 | 5.03 | 5.02 | 5.02 | 5.02 | 5.02 | 5.06 | 5.06 | 5.06 | 5.06 |

FARM EQUIPMENT

TABLE 696.—*Farm equipment manufactured and sold in the United States, 1920-1924*

| Type of equipment and year | Quantity | | | Value | | |
|--|-------------------|----------------------------|------------------|-------------------|----------------------------|-------------------|
| | Manu- factured | Sold | | Manu- factured | Sold | |
| | | In the United States | For export | | In the United States | For export |
| Planting machinery: | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>1,000 dol.</i> | <i>1,000 dol.</i> | <i>1,000 dol.</i> |
| 1920..... | 472,248 | 498,853 | 16,822 | 20,097 | 21,612 | 1,458 |
| 1921..... | 310,855 | 209,572 | 9,689 | 8,441 | 5,870 | 466 |
| 1922..... | 189,230 | 192,415 | 8,613 | 4,214 | 5,241 | 449 |
| 1923..... | | | | 9,588 | 9,251 | 855 |
| 1924..... | | | | 9,699 | 8,659 | 1,536 |
| Plows and listers: | | | | | | |
| 1920..... | 1,361,578 | 1,215,979 | 221,077 | 43,222 | 37,699 | 7,200 |
| 1921..... | 566,209 | 407,760 | 102,382 | 13,007 | 9,071 | 2,648 |
| 1922..... | 441,800 | 455,836 | 58,133 | 9,680 | 11,215 | 1,401 |
| 1923..... | | | | 24,252 | 20,086 | 4,673 |
| 1924..... | | | | 21,030 | 17,651 | 5,581 |
| Tillage implements: | | | | | | |
| 1920..... | | | | 22,919 | 20,636 | 1,665 |
| 1921..... | | | | 10,436 | 7,488 | 980 |
| 1922..... | | | | 4,777 | 5,472 | 325 |
| 1923..... | | | | 11,483 | 10,435 | 727 |
| 1924..... | | | | 9,577 | 8,418 | 1,012 |
| Cultivators: | | | | | | |
| 1920..... | 580,179 | 589,830 | 45,863 | 15,186 | 17,296 | 670 |
| 1921..... | 447,627 | 368,365 | 41,939 | 8,265 | 6,545 | 282 |
| 1922..... | 259,535 | 306,773 | 12,723 | 4,272 | 5,571 | 226 |
| 1923..... | | | | 13,347 | 13,086 | 500 |
| 1924..... | | | | 14,681 | 13,467 | 682 |
| Haying machinery: | | | | | | |
| 1920..... | 411,556 | 338,112 | 94,011 | 24,703 | 19,667 | 6,230 |
| 1921..... | 219,429 | 130,412 | 39,908 | 10,230 | 6,776 | 1,807 |
| 1922..... | 154,367 | 189,567 | 14,320 | 7,625 | 8,831 | 734 |
| 1923..... | 241,320 | 212,408 | 30,631 | 15,503 | 14,018 | 2,085 |
| 1924..... | | | | 15,767 | 12,158 | 3,000 |
| Harvesting machinery: | | | | | | |
| 1920..... | 232,177 | 168,829 | 41,334 | 41,015 | 30,626 | 7,339 |
| 1921..... | 119,111 | 60,667 | 33,933 | 18,028 | 8,977 | 5,840 |
| 1922..... | 80,565 | 80,357 | 16,512 | 11,822 | 11,242 | 2,747 |
| 1923..... | 109,937 | 81,037 | 39,913 | 26,278 | 17,033 | 10,792 |
| 1924..... | | | | 29,752 | 14,849 | 12,709 |
| Machines for preparing crops for market or use: | | | | | | |
| 1920..... | 196,772 | 159,918 | 30,220 | 35,612 | 34,749 | 3,010 |
| 1921..... | 87,938 | 64,459 | 9,670 | 21,436 | 15,032 | 1,968 |
| 1922..... | 172,258 | 146,938 | 39,024 | 18,294 | 19,873 | 3,457 |
| 1923..... | | | | 30,761 | 22,918 | 5,838 |
| 1924..... | | | | 23,695 | 19,532 | 2,834 |
| Tractors: | | | | | | |
| Gas— | | | | | | |
| 1920..... | 203,207 | 162,988 | 29,143 | 193,563 | 161,896 | 30,860 |
| 1921..... | 73,198 | (¹) | (¹) | 50,295 | (¹) | (¹) |
| 1922..... | 99,092 | 101,192 | 10,232 | 52,178 | 52,440 | 6,458 |
| 1923..... | 134,590 | 117,701 | 16,643 | 91,889 | 76,240 | 14,317 |
| 1924..... | 119,305 | 99,011 | 25,622 | 82,275 | 73,855 | 16,623 |
| Steam— | | | | | | |
| 1920..... | 1,766 | 1,401 | 121 | 4,661 | 3,903 | 370 |
| 1921..... | 1,168 | 724 | 72 | 2,874 | 1,737 | 188 |
| 1922..... | 396 | 519 | 56 | 1,065 | 1,421 | 223 |
| 1923..... | 620 | 424 | 79 | 1,893 | 1,179 | 365 |
| 1924..... | 1,518 | 1,486 | 83 | 6,306 | 6,070 | 3,378 |
| Horse-drawn vehicles: | | | | | | |
| 1920..... | 449,095 | 430,459 | 3,810 | 42,423 | 40,929 | 339 |
| 1921..... | 92,816 | (¹) | (¹) | 8,861 | (¹) | (¹) |
| 1922..... | 143,548 | 158,207 | 2,028 | 11,953 | 13,410 | 116 |
| 1923..... | 254,303 | 247,519 | 4,728 | 24,553 | 23,167 | 1,041 |
| 1924..... | | | | 15,537 | 15,406 | 135 |

¹ The sales statistics for 1921 relate exclusively to complete machines and were compiled almost wholly from returns made by 427 establishments classified in the "agricultural implements" industry. No sales data were collected for that year from establishments manufacturing gas tractors, horse-drawn vehicles, barn equipment, and miscellaneous farm equipment.

TABLE 696.—*Farm equipment manufactured and sold in the United States, 1920-1924*—Continued

| Type of equipment and year | Quantity | | | Value | | |
|-----------------------------------|-------------------|----------------------------|---------------|--------------------|----------------------------|--------------------|
| | Manu- factured | Sold | | Manu- factured | Sold | |
| | | In the United States | For export | | In the United States | For export |
| | <i>Number</i> | <i>Number</i> | <i>Number</i> | <i>1,000 dols.</i> | <i>1,000 dols.</i> | <i>1,000 dols.</i> |
| Barn and barnyard equip- ment: | | | | | | |
| 1921..... | ----- | ----- | ----- | ¹ 430 | ¹ 437 | ----- |
| 1922..... | ----- | ----- | ----- | 4, 536 | 4, 306 | 3 |
| 1923..... | ----- | ----- | ----- | 9, 910 | 9, 636 | 100 |
| 1924..... | ----- | ----- | ----- | 6, 440 | 6, 360 | 70 |
| Miscellaneous: | | | | | | |
| 1920..... | ----- | ----- | ----- | 93, 544 | 82, 429 | 7, 495 |
| 1921..... | ----- | ----- | ----- | 175, 738 | (1) | (1) |
| 1922..... | ----- | ----- | ----- | 79, 224 | 83, 886 | 5, 494 |
| 1923..... | ----- | ----- | ----- | 105, 397 | 94, 937 | 8, 056 |
| 1924..... | ----- | ----- | ----- | 94, 411 | 86, 978 | 7, 699 |
| Grand total: | | | | | | |
| 1920..... | ----- | ----- | ----- | 536, 945 | 471, 442 | 60, 620 |
| 1921..... | ----- | ----- | ----- | 328, 041 | (1) | (1) |
| 1922..... | ----- | ----- | ----- | 209, 640 | 222, 908 | 21, 663 |
| 1923..... | ----- | ----- | ----- | 364, 854 | 311, 976 | 49, 349 |
| 1924..... | ----- | ----- | ----- | 329, 170 | 283, 414 | 55, 319 |

Division of Statistical and Historical Research. Data for 1920 compiled from reports of the Bureau of Public Roads. Data for 1921-1924 compiled from reports of the Bureau of the Census.

¹ The sales statistics for 1921 relate exclusively to complete machines and were compiled almost wholly from returns made by 427 establishments classified in the "agricultural implements" industry. No sales data were collected for that year from establishments manufacturing gas tractors, horse-drawn vehicles, barn equipment, and miscellaneous farm equipment.

² Figures for 1921 relate to barn equipment only. No data for 1920.

Fruits and vegetables

| Year | Apples | | Peaches | | Pears | | Potatoes | | Sweet potatoes | | Cabbage | | Onions | |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | Year be- ginning Jan. 1 | Year be- ginning June 1 | Year be- ginning June 1 | Year be- ginning Aug. 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 |
| 1908 | Cts. p. bu. | Cts. p. bu. | Cts. p. bu. | Cts. p. bu. | Cts. p. bu. | Cts. p. bu. | Cts. p. bu. | Cts. p. bu. | Cts. p. bu. | Cts. per 100 lbs. | Cts. p. bu. | Cts. per 100 lbs. | Cts. p. bu. | Cts. p. bu. |
| 1909 | 86.3 | 88.1 | 113.3 | 100.9 | 73.4 | 57.9 | 72.7 | 70.0 | 78.7 | 156.6 | 99.1 | 156.6 | 106.2 | 106.2 |
| 1910 | 80.2 | 78.6 | 113.3 | 100.9 | 73.4 | 57.9 | 72.7 | 70.0 | 78.7 | 156.6 | 99.1 | 156.6 | 106.2 | 106.2 |
| 1911 | 70.5 | 66.8 | 111.2 | 100.4 | 81.3 | 90.6 | 91.3 | 84.6 | 87.8 | 163.3 | 112.1 | 163.3 | 128.8 | 128.8 |
| 1912 | | | | | 77.9 | 55.6 | 77.9 | 55.6 | 58.9 | 196.5 | 130.5 | 196.5 | 85.2 | 85.2 |
| 1913 | 85.6 | 93.0 | 131.3 | 111.2 | 63.0 | 70.6 | 63.0 | 84.6 | 84.0 | 153.1 | 96.9 | 153.1 | 124.0 | 124.0 |
| 1914 | 71.2 | 62.7 | 108.7 | 93.7 | 66.1 | 55.0 | 66.1 | 84.6 | 84.6 | 176.9 | 126.2 | 176.9 | 106.1 | 106.1 |
| 1915 | 88.3 | 71.0 | 88.2 | 82.5 | 54.2 | 70.8 | 54.2 | 70.8 | 75.4 | 132.7 | 94.1 | 132.7 | 104.5 | 104.5 |
| 1916 | 88.9 | 90.7 | 115.0 | 104.8 | 112.1 | 166.3 | 112.1 | 166.3 | 52.9 | 195.3 | 131.5 | 195.3 | 241.7 | 241.7 |
| 1917 | 110.1 | 113.6 | 145.0 | 127.4 | 175.1 | 122.5 | 175.1 | 122.5 | 111.8 | 427.2 | 255.5 | 427.2 | 156.7 | 156.7 |
| 1918 | 131.9 | 137.5 | 176.6 | 161.1 | 118.8 | 125.6 | 118.8 | 125.6 | 156.0 | 269.6 | 283.4 | 269.6 | 171.3 | 171.3 |
| 1919 | 175.7 | 186.1 | 200.9 | 185.7 | 147.3 | 223.8 | 147.3 | 223.8 | 161.7 | 321.4 | 204.2 | 321.4 | 257.0 | 257.0 |
| 1920 | 151.0 | 134.4 | 228.9 | 194.1 | 221.9 | 131.5 | 221.9 | 131.5 | 139.2 | 384.3 | 231.9 | 384.3 | 148.6 | 148.6 |
| 1921 | 185.2 | 196.2 | 213.5 | 172.2 | 109.7 | 121.3 | 109.7 | 121.3 | 117.0 | 243.5 | 153.0 | 243.5 | 252.0 | 252.0 |
| 1922 | 117.1 | 107.5 | 182.3 | 139.7 | 88.0 | 73.9 | 88.0 | 73.9 | 101.2 | 248.9 | 244.0 | 248.9 | 160.7 | 160.7 |
| 1923 | 120.3 | 117.3 | 175.8 | 165.5 | 87.1 | 94.2 | 87.1 | 94.2 | 112.7 | 287.0 | 186.2 | 287.0 | 181.2 | 181.2 |
| 1924 | 119.2 | 122.1 | 153.7 | 165.4 | 83.2 | 76.5 | 83.2 | 76.5 | 138.1 | 268.2 | 168.7 | 268.2 | 184.0 | 184.0 |
| 1925 | 126.0 | 178.4 | | | 124.0 | 196.6 | 124.0 | 196.6 | | 292.9 | 207.4 | 292.9 | | |

TABLE 697.—Estimated prices of agricultural products received by producers, weighted by calendar and by crop years, 1908-1925.—Contd.

| Year | Hay crops | | | | | | Other commodities | | | |
|-----------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | Hay (all loose) | | Timothy hay | | Clover hay | | Alfalfa hay | | Prairie hay | |
| | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning Aug. 1 |
| | Dollars per ton | Dollars per ton | Dollars per ton | Dollars per ton | Dollars per ton | Dollars per ton | Dollars per ton | Dollars per ton | Cents per pound | Cents per pound |
| 1908..... | 9.94 | 9.46 | 13.87 | 12.83 | 11.97 | 11.29 | 8.95 | 7.34 | 12.1 | 9.0 |
| 1909..... | 9.93 | 10.61 | 13.32 | 13.09 | 11.97 | 11.29 | 8.95 | 7.34 | 12.1 | 13.6 |
| 1910..... | 11.26 | 11.54 | 13.32 | 13.09 | 11.97 | 11.29 | 8.95 | 7.34 | 14.0 | 14.0 |
| 1911..... | 12.90 | 14.36 | 13.32 | 13.09 | 11.97 | 11.29 | 8.95 | 7.34 | 11.0 | 9.7 |
| 1912..... | 13.16 | 11.17 | 13.32 | 13.09 | 11.97 | 11.29 | 8.95 | 7.34 | 11.0 | 11.5 |
| 1913..... | 11.06 | 11.49 | 13.32 | 13.09 | 11.97 | 11.29 | 8.95 | 7.34 | 12.3 | 12.5 |
| 1914..... | 11.23 | 10.92 | 13.32 | 13.09 | 11.97 | 11.29 | 8.95 | 7.34 | 8.7 | 7.4 |
| 1915..... | 10.41 | 10.40 | 13.32 | 13.09 | 11.97 | 11.29 | 8.95 | 7.34 | 10.0 | 11.2 |
| 1916..... | 10.47 | 11.22 | 12.81 | 12.83 | 11.00 | 11.33 | 10.59 | 7.31 | 13.5 | 17.7 |
| 1917..... | 13.81 | 16.30 | 16.43 | 18.67 | 14.10 | 17.21 | 16.51 | 11.32 | 13.31 | 23.8 |
| 1918..... | 18.23 | 19.42 | 21.22 | 22.66 | 19.62 | 20.93 | 19.58 | 14.61 | 16.03 | 20.6 |
| 1919..... | 20.42 | 21.77 | 22.95 | 26.13 | 22.26 | 23.69 | 21.33 | 17.02 | 16.78 | 31.9 |
| 1920..... | 20.55 | 16.65 | 26.03 | 20.64 | 23.70 | 19.48 | 21.24 | 15.96 | 14.61 | 25.4 |
| 1921..... | 12.59 | 11.74 | 16.70 | 14.82 | 15.14 | 14.15 | 11.07 | 10.38 | 8.07 | 7.62 |
| 1922..... | 11.57 | 11.67 | 14.43 | 14.18 | 13.39 | 13.03 | 11.66 | 7.96 | 8.79 | 20.6 |
| 1923..... | 12.57 | 12.98 | 15.33 | 16.33 | 14.06 | 15.14 | 13.36 | 8.92 | 23.0 | 23.5 |
| 1924..... | 13.22 | 12.68 | 15.93 | 14.30 | 14.82 | 13.43 | 13.72 | 8.37 | 24.9 | 23.0 |
| 1925..... | 12.60 | | 14.39 | | 13.39 | | 13.77 | 9.16 | 21.0 | 4.9 |

Division of Crop and Livestock Estimates.

TABLE 698.—Estimated prices of agricultural products received by producers, weighted by calendar and by crop years, 1910-1925

| Livestock and livestock products | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--|--|--|--|--|
| Year | Hogs | | Beef cattle | | Veal calves | Sheep | Lambs | | Horses | Chickens | | Eggs | Butter | Wool | | | | | | |
| | Year be- ginning Jan. 1 | Year be- ginning Nov. 1 | Year be- ginning Jan. 1 | Year be- ginning Aug. 1 | Year be- ginning Jan. 1 | Year be- ginning Jan. 1 | Year be- ginning Jan. 1 | Year be- ginning Jan. 1 | Year be- ginning Jan. 1 | Year be- ginning Jan. 1 | Year be- ginning July 1 | Year be- ginning Jan. 1 | Year be- ginning Apr. 1 | Year be- ginning Jan. 1 | Year be- ginning Jan. 1 | | | | | |
| | Dols. per 100 lbs. | Dols. per 100 lbs. | Dols. per 100 lbs. | Dols. per 100 lbs. | Dols. per 100 lbs. | Dols. per 100 lbs. | Dols. per 100 lbs. | Dols. per 100 lbs. | Dols. per head | Cts. per lb. | Cts. per lb. | Cts. per doz. | Cts. per doz. | Cts. per lb. | Cts. per lb. | | | | | |
| 1910..... | 8.10 | 6.61 | 4.78 | 4.55 | 6.42 | 5.24 | 5.79 | 5.79 | 146 | 11.3 | 11.0 | 20.5 | 19.3 | 23.5 | 20.5 | | | | | |
| 1911..... | 6.30 | 6.43 | 4.46 | 4.69 | 6.04 | 4.19 | 5.28 | 5.28 | 141 | 10.4 | 10.4 | 16.9 | 18.2 | 22.9 | 16.9 | | | | | |
| 1912..... | 6.66 | 7.39 | 5.14 | 5.60 | 6.45 | 4.24 | 5.62 | 5.96 | 140 | 10.9 | 11.2 | 19.8 | 18.9 | 25.7 | 18.1 | | | | | |
| 1913..... | 7.44 | 7.60 | 5.91 | 6.12 | 7.48 | 4.55 | 6.06 | 6.03 | 142 | 11.7 | 12.0 | 18.8 | 19.8 | 26.7 | 16.4 | | | | | |
| 1914..... | 7.52 | 6.69 | 6.24 | 6.12 | 7.83 | 4.79 | 6.34 | 6.49 | 135 | 11.8 | 11.6 | 20.1 | 19.3 | 26.1 | 17.7 | | | | | |
| 1915..... | 6.56 | 7.61 | 6.01 | 6.24 | 7.63 | 5.27 | 6.86 | 7.38 | 130 | 11.6 | 12.0 | 18.9 | 19.0 | 25.7 | 22.8 | | | | | |
| 1916..... | 8.13 | 12.10 | 6.48 | 7.31 | 8.35 | 6.29 | 8.22 | 9.50 | 130 | 13.4 | 14.6 | 21.4 | 23.3 | 28.0 | 27.9 | | | | | |
| 1917..... | 13.46 | 15.78 | 8.17 | 8.92 | 10.51 | 9.45 | 12.31 | 13.60 | 132 | 16.9 | 18.4 | 31.3 | 33.0 | 35.9 | 47.8 | | | | | |
| 1918..... | 18.85 | 16.60 | 9.46 | 9.00 | 11.91 | 10.93 | 13.65 | 13.65 | 130 | 21.6 | 23.0 | 35.2 | 34.9 | 42.7 | 57.9 | | | | | |
| 1919..... | 16.02 | 13.43 | 9.61 | 9.00 | 12.76 | 9.63 | 12.96 | 13.03 | 121 | 23.4 | 24.2 | 38.9 | 41.8 | 50.3 | 50.3 | | | | | |
| 1920..... | 12.86 | 8.52 | 8.38 | 6.76 | 11.80 | 8.51 | 11.85 | 9.41 | 119 | 24.3 | 22.8 | 42.3 | 39.3 | 54.3 | 39.1 | | | | | |
| 1921..... | 7.81 | 8.10 | 5.44 | 4.18 | 7.81 | 4.65 | 7.19 | 7.83 | 92 | 20.1 | 19.3 | 26.9 | 25.7 | 37.0 | 16.4 | | | | | |
| 1922..... | 8.32 | 7.34 | 6.43 | 5.55 | 7.68 | 5.96 | 6.76 | 10.30 | 84 | 18.4 | 18.2 | 23.9 | 24.7 | 35.3 | 28.8 | | | | | |
| 1923..... | 7.11 | 7.06 | 5.57 | 5.57 | 7.99 | 6.65 | 10.50 | 10.54 | 62 | 18.3 | 18.3 | 23.9 | 23.2 | 40.4 | 38.9 | | | | | |
| 1924..... | 7.46 | 10.46 | 5.59 | 5.88 | 8.12 | 6.81 | 10.75 | 11.45 | 76 | 18.8 | 19.2 | 25.6 | 26.1 | 39.4 | 36.9 | | | | | |
| 1925..... | 10.88 | ----- | 6.26 | ----- | 8.85 | 7.70 | 12.30 | ----- | 78 | 18.9 | ----- | 29.1 | ----- | 40.7 | 38.5 | | | | | |

Division of Crop and Livestock Estimates.

TABLE 699.—*Index numbers of farm prices of 30 commodities, 1910–1925*
[August, 1909–July, 1914=100]

| Year | Grains | Fruits and vegetables | Meat animals | Dairy and poultry products | Cotton and cotton seed | Unclassified | All groups |
|-----------|--------|-----------------------|--------------|----------------------------|------------------------|--------------|------------|
| 1910..... | 104 | 91 | 103 | 101 | 113 | 102 | 103 |
| 1911..... | 96 | 106 | 87 | 95 | 101 | 103 | 95 |
| 1912..... | 106 | 110 | 95 | 103 | 87 | 106 | 99 |
| 1913..... | 92 | 92 | 108 | 100 | 97 | 94 | 100 |
| 1914..... | 103 | 100 | 112 | 101 | 85 | 95 | 102 |
| 1915..... | 120 | 83 | 104 | 99 | 78 | 95 | 100 |
| 1916..... | 126 | 123 | 120 | 106 | 119 | 100 | 117 |
| 1917..... | 217 | 202 | 173 | 133 | 187 | 130 | 176 |
| 1918..... | 226 | 162 | 202 | 160 | 245 | 157 | 200 |
| 1919..... | 231 | 189 | 206 | 182 | 247 | 162 | 209 |
| 1920..... | 231 | 249 | 173 | 197 | 248 | 152 | 205 |
| 1921..... | 112 | 148 | 108 | 151 | 101 | 90 | 116 |
| 1922..... | 105 | 152 | 113 | 135 | 156 | 94 | 124 |
| 1923..... | 114 | 136 | 106 | 147 | 216 | 109 | 135 |
| 1924..... | 129 | 124 | 109 | 137 | 211 | 100 | 134 |
| 1925..... | 156 | 160 | 139 | 143 | 177 | 92 | 147 |

Division of Statistical and Historical Research. The commodities, by groups, are as follows: Grains—wheat, corn, oats, barley, rye, kafir; fruits and vegetables—apples, oranges, grapefruit, potatoes, sweet potatoes, beans, onions, cabbage; meat animals—beef cattle, calves, hogs, sheep, lambs; dairy and poultry products—chickens, eggs, butter (represents butter, butterfat, and cream), milk; cotton and cottonseed; unclassified—horses (represents horses and mules), hay, flax, tobacco, wool.

TABLE 700.—*Index numbers of farm prices of 30 commodities, by months, 1910–1925*

[August, 1909–July, 1914=100]

| Year and month | Grains | Fruits and vegetables | Meat animals | Dairy and poultry products | Cotton and cotton seed | Unclassified | All groups |
|----------------|--------|-----------------------|--------------|----------------------------|------------------------|--------------|------------|
| 1910 | | | | | | | |
| January..... | 110 | 90 | 99 | 112 | 116 | 101 | 106 |
| February..... | 112 | 93 | 100 | 106 | 113 | 105 | 105 |
| March..... | 112 | 92 | 109 | 98 | 113 | 107 | 107 |
| April..... | 109 | 92 | 115 | 99 | 113 | 105 | 108 |
| May..... | 107 | 96 | 110 | 95 | 114 | 102 | 105 |
| June..... | 106 | 93 | 109 | 94 | 113 | 100 | 104 |
| July..... | 107 | 90 | 103 | 93 | 113 | 99 | 102 |
| August..... | 106 | 94 | 98 | 95 | 115 | 100 | 102 |
| September..... | 102 | 94 | 102 | 100 | 112 | 100 | 102 |
| October..... | 97 | 88 | 101 | 103 | 111 | 100 | 101 |
| November..... | 92 | 84 | 96 | 108 | 113 | 101 | 99 |
| December..... | 90 | 87 | 93 | 111 | 115 | 102 | 99 |
| 1911 | | | | | | | |
| January..... | 91 | 92 | 96 | 107 | 117 | 101 | 100 |
| February..... | 90 | 94 | 93 | 96 | 114 | 101 | 97 |
| March..... | 86 | 97 | 92 | 91 | 113 | 100 | 95 |
| April..... | 89 | 106 | 88 | 89 | 114 | 100 | 94 |
| May..... | 92 | 108 | 84 | 87 | 116 | 101 | 94 |
| June..... | 94 | 121 | 82 | 86 | 116 | 104 | 95 |
| July..... | 97 | 129 | 83 | 87 | 110 | 105 | 95 |
| August..... | 99 | 125 | 88 | 91 | 100 | 107 | 96 |
| September..... | 101 | 109 | 88 | 95 | 88 | 106 | 95 |
| October..... | 104 | 94 | 84 | 98 | 77 | 105 | 92 |
| November..... | 103 | 93 | 83 | 104 | 72 | 105 | 92 |
| December..... | 102 | 102 | 82 | 109 | 70 | 105 | 92 |
| 1912 | | | | | | | |
| January..... | 104 | 109 | 83 | 112 | 71 | 106 | 94 |
| February..... | 107 | 118 | 85 | 110 | 76 | 109 | 97 |
| March..... | 110 | 130 | 87 | 104 | 81 | 113 | 99 |
| April..... | 116 | 144 | 96 | 98 | 85 | 117 | 104 |
| May..... | 123 | 150 | 96 | 97 | 89 | 119 | 107 |
| June..... | 122 | 135 | 96 | 95 | 89 | 116 | 104 |
| July..... | 115 | 116 | 95 | 95 | 93 | 107 | 101 |
| August..... | 106 | 104 | 100 | 97 | 92 | 100 | 100 |
| September..... | 100 | 86 | 103 | 100 | 89 | 97 | 98 |
| October..... | 95 | 74 | 104 | 106 | 88 | 95 | 97 |
| November..... | 87 | 78 | 99 | 108 | 91 | 97 | 95 |
| December..... | 82 | 78 | 99 | 108 | 97 | 97 | 95 |

TABLE 700.—Index numbers of farm prices of 30 commodities, by months, 1910–1925—Continued

[August, 1909–July, 1914=100]

| Year and month | Grains | Fruits and vegetables | Meat animals | Dairy and poultry products | Cotton and cotton-seed | Unclassified | All groups |
|----------------|--------|-----------------------|--------------|----------------------------|------------------------|--------------|------------|
| 1913 | | | | | | | |
| January..... | 84 | 79 | 99 | 104 | 97 | 95 | 98 |
| February..... | 86 | 81 | 103 | 99 | 96 | 95 | 98 |
| March..... | 86 | 81 | 109 | 97 | 95 | 94 | 97 |
| April..... | 88 | 83 | 113 | 94 | 95 | 94 | 98 |
| May..... | 91 | 92 | 109 | 94 | 94 | 92 | 98 |
| June..... | 94 | 99 | 110 | 93 | 94 | 92 | 99 |
| July..... | 93 | 103 | 111 | 93 | 94 | 92 | 99 |
| August..... | 95 | 102 | 110 | 99 | 93 | 92 | 101 |
| September..... | 98 | 96 | 109 | 105 | 101 | 94 | 103 |
| October..... | 97 | 97 | 110 | 105 | 106 | 94 | 104 |
| November..... | 96 | 96 | 108 | 112 | 102 | 96 | 104 |
| December..... | 97 | 97 | 107 | 113 | 98 | 96 | 103 |
| 1914 | | | | | | | |
| January..... | 97 | 101 | 109 | 112 | 96 | 95 | 104 |
| February..... | 98 | 106 | 112 | 107 | 99 | 96 | 105 |
| March..... | 99 | 110 | 114 | 100 | 99 | 96 | 104 |
| April..... | 100 | 115 | 114 | 95 | 98 | 96 | 104 |
| May..... | 101 | 117 | 113 | 93 | 100 | 97 | 104 |
| June..... | 100 | 119 | 112 | 93 | 101 | 96 | 104 |
| July..... | 97 | 113 | 114 | 94 | 100 | 95 | 103 |
| August..... | 104 | 102 | 118 | 98 | 88 | 94 | 104 |
| September..... | 111 | 92 | 117 | 102 | 66 | 94 | 102 |
| October..... | 110 | 79 | 111 | 104 | 58 | 92 | 98 |
| November..... | 108 | 71 | 106 | 108 | 54 | 92 | 96 |
| December..... | 111 | 72 | 104 | 110 | 57 | 92 | 97 |
| 1915 | | | | | | | |
| January..... | 123 | 75 | 103 | 110 | 60 | 92 | 100 |
| February..... | 134 | 78 | 101 | 105 | 65 | 95 | 101 |
| March..... | 136 | 77 | 101 | 96 | 67 | 97 | 100 |
| April..... | 138 | 82 | 103 | 94 | 73 | 98 | 102 |
| May..... | 139 | 90 | 106 | 94 | 71 | 98 | 104 |
| June..... | 127 | 91 | 107 | 91 | 72 | 98 | 101 |
| July..... | 118 | 89 | 106 | 91 | 70 | 97 | 99 |
| August..... | 115 | 85 | 105 | 93 | 70 | 94 | 97 |
| September..... | 106 | 70 | 106 | 96 | 81 | 93 | 97 |
| October..... | 101 | 79 | 108 | 101 | 99 | 92 | 101 |
| November..... | 99 | 84 | 101 | 107 | 99 | 92 | 99 |
| December..... | 102 | 89 | 98 | 110 | 100 | 93 | 100 |
| 1916 | | | | | | | |
| January..... | 112 | 99 | 101 | 108 | 100 | 95 | 104 |
| February..... | 115 | 108 | 108 | 102 | 100 | 98 | 106 |
| March..... | 111 | 112 | 116 | 98 | 99 | 100 | 108 |
| April..... | 111 | 114 | 121 | 96 | 102 | 102 | 110 |
| May..... | 113 | 117 | 123 | 97 | 104 | 104 | 111 |
| June..... | 110 | 124 | 124 | 97 | 107 | 103 | 112 |
| July..... | 113 | 125 | 124 | 97 | 109 | 100 | 113 |
| August..... | 127 | 123 | 123 | 101 | 115 | 98 | 117 |
| September..... | 138 | 121 | 127 | 106 | 128 | 97 | 123 |
| October..... | 147 | 129 | 122 | 114 | 144 | 98 | 128 |
| November..... | 158 | 117 | 123 | 124 | 163 | 101 | 137 |
| December..... | 157 | 156 | 125 | 129 | 160 | 104 | 139 |
| 1917 | | | | | | | |
| January..... | 161 | 167 | 131 | 127 | 148 | 107 | 140 |
| February..... | 169 | 208 | 144 | 127 | 144 | 109 | 148 |
| March..... | 179 | 241 | 162 | 122 | 149 | 115 | 159 |
| April..... | 217 | 265 | 177 | 123 | 160 | 123 | 176 |
| May..... | 251 | 283 | 179 | 128 | 169 | 132 | 188 |
| June..... | 246 | 270 | 177 | 125 | 189 | 136 | 188 |
| July..... | 250 | 219 | 173 | 124 | 204 | 135 | 185 |
| August..... | 248 | 165 | 178 | 129 | 199 | 133 | 183 |
| September..... | 233 | 146 | 180 | 138 | 197 | 135 | 184 |
| October..... | 223 | 150 | 194 | 147 | 214 | 139 | 187 |
| November..... | 213 | 155 | 186 | 153 | 232 | 145 | 187 |
| December..... | 213 | 156 | 190 | 159 | 237 | 152 | 191 |

TABLE 700.—Index numbers of farm prices of 30 commodities, by months, 1910-1925—Continued

[August, 1909-July, 1914=100]

| Year and month | Grains | Fruits and vegetables | Meat animals | Dairy and poultry products | Cotton and cotton-seed | Unclassified | All groups |
|----------------|--------|-----------------------|--------------|----------------------------|------------------------|--------------|------------|
| 1918 | | | | | | | |
| January..... | 218 | 158 | 187 | 165 | 244 | 158 | 194 |
| February..... | 227 | 162 | 188 | 163 | 249 | 160 | 197 |
| March..... | 234 | 157 | 194 | 153 | 257 | 164 | 199 |
| April..... | 235 | 156 | 204 | 146 | 251 | 162 | 200 |
| May..... | 231 | 160 | 210 | 144 | 235 | 157 | 198 |
| June..... | 227 | 160 | 207 | 144 | 234 | 152 | 196 |
| July..... | 228 | 172 | 205 | 146 | 235 | 150 | 197 |
| August..... | 230 | 177 | 211 | 153 | 246 | 152 | 203 |
| September..... | 229 | 166 | 214 | 161 | 264 | 157 | 207 |
| October..... | 222 | 160 | 204 | 174 | 253 | 159 | 204 |
| November..... | 216 | 158 | 198 | 184 | 236 | 158 | 200 |
| December..... | 217 | 155 | 199 | 192 | 235 | 159 | 201 |
| 1919 | | | | | | | |
| January..... | 217 | 154 | 201 | 180 | 225 | 159 | 200 |
| February..... | 214 | 156 | 204 | 172 | 208 | 156 | 194 |
| March..... | 220 | 167 | 211 | 164 | 206 | 169 | 197 |
| April..... | 234 | 179 | 234 | 168 | 213 | 162 | 207 |
| May..... | 245 | 197 | 227 | 171 | 232 | 169 | 215 |
| June..... | 245 | 205 | 221 | 171 | 249 | 171 | 216 |
| July..... | 248 | 216 | 228 | 172 | 260 | 167 | 222 |
| August..... | 246 | 219 | 227 | 176 | 259 | 166 | 222 |
| September..... | 233 | 194 | 197 | 182 | 252 | 162 | 209 |
| October..... | 222 | 186 | 185 | 192 | 277 | 155 | 206 |
| November..... | 220 | 187 | 177 | 207 | 295 | 155 | 209 |
| December..... | 229 | 206 | 173 | 217 | 292 | 158 | 212 |
| 1920 | | | | | | | |
| January..... | 241 | 226 | 181 | 215 | 293 | 166 | 219 |
| February..... | 242 | 252 | 184 | 205 | 295 | 171 | 221 |
| March..... | 246 | 279 | 184 | 193 | 298 | 173 | 222 |
| April..... | 261 | 323 | 186 | 191 | 304 | 177 | 230 |
| May..... | 277 | 373 | 181 | 187 | 303 | 180 | 235 |
| June..... | 283 | 366 | 182 | 183 | 301 | 169 | 234 |
| July..... | 266 | 314 | 181 | 184 | 297 | 152 | 224 |
| August..... | 242 | 239 | 177 | 190 | 286 | 141 | 209 |
| September..... | 222 | 180 | 177 | 196 | 218 | 136 | 194 |
| October..... | 193 | 150 | 169 | 203 | 175 | 128 | 178 |
| November..... | 157 | 141 | 150 | 209 | 132 | 118 | 158 |
| December..... | 138 | 144 | 124 | 205 | 101 | 111 | 140 |
| 1921 | | | | | | | |
| January..... | 138 | 136 | 123 | 190 | 93 | 105 | 135 |
| February..... | 136 | 127 | 119 | 170 | 89 | 102 | 128 |
| March..... | 131 | 125 | 125 | 152 | 80 | 99 | 126 |
| April..... | 118 | 124 | 114 | 144 | 76 | 95 | 115 |
| May..... | 116 | 132 | 111 | 133 | 78 | 91 | 112 |
| June..... | 117 | 140 | 105 | 127 | 78 | 90 | 110 |
| July..... | 109 | 156 | 109 | 131 | 79 | 87 | 111 |
| August..... | 103 | 178 | 112 | 139 | 91 | 86 | 116 |
| September..... | 100 | 171 | 101 | 144 | 130 | 84 | 118 |
| October..... | 94 | 162 | 98 | 155 | 150 | 82 | 120 |
| November..... | 88 | 162 | 92 | 164 | 137 | 80 | 116 |
| December..... | 88 | 165 | 91 | 163 | 131 | 82 | 115 |
| 1922 | | | | | | | |
| January..... | 91 | 159 | 95 | 149 | 120 | 83 | 114 |
| February..... | 102 | 173 | 108 | 136 | 128 | 84 | 118 |
| March..... | 111 | 181 | 118 | 129 | 131 | 80 | 120 |
| April..... | 114 | 190 | 117 | 125 | 135 | 80 | 123 |
| May..... | 115 | 206 | 119 | 123 | 144 | 86 | 127 |
| June..... | 111 | 197 | 121 | 124 | 160 | 84 | 128 |
| July..... | 105 | 174 | 120 | 123 | 166 | 85 | 126 |
| August..... | 100 | 129 | 114 | 125 | 166 | 88 | 119 |
| September..... | 97 | 109 | 112 | 132 | 160 | 90 | 119 |
| October..... | 101 | 101 | 113 | 142 | 168 | 97 | 123 |
| November..... | 106 | 101 | 108 | 152 | 186 | 94 | 126 |
| December..... | 111 | 104 | 107 | 161 | 195 | 103 | 131 |

TABLE 700.—Index numbers of farm prices of 30 commodities, by months, 1910-1925—Continued

[August, 1909-July, 1914=100]

| Year and month | Grains | Fruits and vegetables | Meat animals | Dairy and poultry products | Cotton and cottonseed | Unclassified | All groups |
|----------------|--------|-----------------------|--------------|----------------------------|-----------------------|--------------|------------|
| 1923 | | | | | | | |
| January..... | 113 | 117 | 110 | 157 | 203 | 104 | 134 |
| February..... | 114 | 122 | 110 | 151 | 215 | 108 | 136 |
| March..... | 117 | 130 | 110 | 144 | 224 | 105 | 130 |
| April..... | 121 | 146 | 110 | 139 | 222 | 101 | 137 |
| May..... | 123 | 157 | 108 | 136 | 211 | 102 | 135 |
| June..... | 119 | 161 | 103 | 135 | 207 | 107 | 133 |
| July..... | 112 | 165 | 105 | 133 | 199 | 99 | 130 |
| August..... | 109 | 151 | 104 | 138 | 190 | 101 | 128 |
| September..... | 111 | 131 | 112 | 144 | 204 | 100 | 122 |
| October..... | 113 | 123 | 106 | 156 | 221 | 94 | 134 |
| November..... | 110 | 114 | 100 | 166 | 238 | 96 | 126 |
| December..... | 108 | 114 | 98 | 166 | 253 | 98 | 137 |
| 1924 | | | | | | | |
| January..... | 110 | 118 | 101 | 155 | 255 | 99 | 137 |
| February..... | 113 | 123 | 102 | 152 | 247 | 98 | 136 |
| March..... | 114 | 123 | 104 | 136 | 219 | 99 | 131 |
| April..... | 113 | 128 | 106 | 126 | 226 | 98 | 130 |
| May..... | 114 | 132 | 107 | 123 | 222 | 94 | 129 |
| June..... | 116 | 146 | 105 | 123 | 219 | 96 | 130 |
| July..... | 130 | 142 | 103 | 122 | 215 | 101 | 132 |
| August..... | 141 | 138 | 116 | 123 | 219 | 103 | 139 |
| September..... | 140 | 113 | 115 | 133 | 175 | 100 | 132 |
| October..... | 150 | 109 | 121 | 142 | 182 | 102 | 138 |
| November..... | 147 | 108 | 115 | 150 | 179 | 106 | 137 |
| December..... | 155 | 110 | 113 | 158 | 176 | 102 | 139 |
| 1925 | | | | | | | |
| January..... | 172 | 122 | 123 | 154 | 182 | 94 | 146 |
| February..... | 178 | 131 | 126 | 142 | 183 | 96 | 146 |
| March..... | 172 | 138 | 145 | 134 | 195 | 94 | 151 |
| April..... | 152 | 146 | 140 | 131 | 189 | 94 | 147 |
| May..... | 159 | 162 | 139 | 132 | 184 | 87 | 146 |
| June..... | 164 | 184 | 139 | 132 | 183 | 86 | 148 |
| July..... | 152 | 178 | 148 | 134 | 186 | 88 | 149 |
| August..... | 157 | 178 | 149 | 139 | 186 | 96 | 152 |
| September..... | 148 | 142 | 143 | 141 | 178 | 90 | 144 |
| October..... | 135 | 152 | 141 | 154 | 171 | 90 | 143 |
| November..... | 138 | 194 | 136 | 162 | 144 | 95 | 144 |
| December..... | 140 | 194 | 136 | 163 | 139 | 92 | 143 |

Division of Statistical and Historical Research. The commodities, by groups, are as follows: **Grains**—wheat, corn, oats, barley, rye, kafir; **fruits and vegetables**—apples, oranges, grapefruit, potatoes, sweet potatoes, beans, onions, cabbage; **meat animals**—beef cattle, calves, hogs, sheep, lambs; **dairy and poultry products**—chickens, eggs, butter (represents butter, butterfat, and cream), milk; **cotton and cottonseed**; **unclassified**—horses (represents horses and mules), hay, flax, tobacco, wool.

PRICES, COST OF LIVING, AND WAGES

TABLE 701.—Index numbers of prices, cost of living, and wages, 1913–1925

(1910–1914=100)

| Calendar year | Farm prices, 30 commodities, August, 1909–July, 1914=100 ¹ | Wholesale prices all commodities ² | Retail prices, 22 articles of food ³ | Cost of living (32 cities) 1913=100 ³ | Farm labor ⁴ | Union wages per hour May 15, 1913=100 ⁵ | Earnings New York State factory workers, June, 1914=100 ⁶ |
|----------------|---|---|---|--|-------------------------|--|--|
| 1913..... | 100 | 102 | 103 | 100 | 104 | 100 | ----- |
| 1914..... | 102 | 100 | 106 | ^a 103 | 101 | 102 | ^a 100 |
| 1915..... | 100 | 103 | 104 | ^a 105 | 102 | 103 | 101 |
| 1916..... | 117 | 129 | 117 | ^a 118 | 112 | 107 | 114 |
| 1917..... | 176 | 180 | 151 | ^a 142 | 140 | 114 | 129 |
| 1918..... | 200 | 198 | 174 | ^a 174 | 176 | 133 | 160 |
| 1919..... | 209 | 210 | 192 | ^a 199 | 206 | 155 | 185 |
| 1920..... | 205 | 230 | 210 | ^a 200 | 239 | 199 | 222 |
| 1921..... | 116 | 150 | 158 | ^a 174 | 150 | 205 | 203 |
| 1922..... | 124 | 152 | 146 | ^a 170 | 146 | 103 | 197 |
| 1923..... | 135 | 156 | 151 | ^a 173 | 166 | 211 | 214 |
| 1924..... | 134 | 152 | 150 | ^a 172 | 168 | 228 | 218 |
| 1925..... | 147 | 162 | 160 | ^a 178 | 168 | 238 | 223 |
| 1925 | | | | | | | |
| January..... | 146 | 163 | 159 | ----- | 156 | ----- | 223 |
| February..... | 146 | 164 | 156 | ----- | ----- | ----- | 220 |
| March..... | 151 | 164 | 156 | ----- | ----- | ----- | 224 |
| April..... | 147 | 159 | 155 | ----- | 163 | ----- | 218 |
| May..... | 146 | 158 | 156 | ----- | ----- | ----- | 221 |
| June..... | 148 | 160 | 160 | 174 | ----- | ----- | 220 |
| July..... | 149 | 163 | 165 | ----- | 170 | ----- | 220 |
| August..... | 152 | 163 | 165 | ----- | ----- | ----- | 222 |
| September..... | 144 | 163 | 164 | ----- | ----- | ----- | 223 |
| October..... | 143 | 160 | 167 | ----- | 173 | ----- | 225 |
| November..... | 144 | 160 | 172 | ----- | ----- | ----- | 226 |
| December..... | 143 | 159 | 171 | 178 | ----- | ----- | 229 |

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¹ Bureau of Agricultural Economics.² Bureau of Labor Statistics.³ Bureau of Labor Statistics. Food (22 items prior to 1921; 43 from Jan. 1921); heat and light (5 items); clothing (about 75 items varying from time to time); rent (representative number of moderate-priced houses); furniture and household articles (28 items), and 42 miscellaneous articles.⁴ New York State Department of Labor.⁵ December.⁶ June.

TABLE 702.—Index numbers of wholesale prices, by groups of commodities, United States, 1909–1925

[Year 1913=100]

| Year | Farm products | Foods | Cloths and clothing | Fuel and lighting | Metals and metal products | Building materials | Chemicals and drugs | House-furnishing goods | Miscellaneous | All commodities |
|-----------|---------------|-------|---------------------|-------------------|---------------------------|--------------------|---------------------|------------------------|---------------|-----------------|
| 1909..... | 97 | 97 | 98 | 84 | 93 | 95 | 100 | 92 | 130 | 97 |
| 1910..... | 103 | 101 | 100 | 78 | 94 | 98 | 102 | 96 | 151 | 101 |
| 1911..... | 93 | 97 | 96 | 76 | 89 | 98 | 102 | 93 | 111 | 93 |
| 1912..... | 101 | 104 | 97 | 84 | 99 | 99 | 101 | 94 | 110 | 99 |
| 1913..... | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1914..... | 103 | 102 | 98 | 93 | 85 | 92 | 101 | 100 | 95 | 98 |
| 1915..... | 104 | 105 | 98 | 88 | 99 | 94 | 134 | 100 | 95 | 101 |
| 1916..... | 123 | 121 | 127 | 126 | 162 | 120 | 181 | 106 | 121 | 127 |
| 1917..... | 190 | 167 | 175 | 169 | 231 | 157 | 202 | 125 | 148 | 177 |
| 1918..... | 218 | 188 | 228 | 170 | 187 | 172 | 215 | 153 | 156 | 194 |
| 1919..... | 231 | 207 | 253 | 181 | 162 | 201 | 169 | 184 | 175 | 206 |
| 1920..... | 218 | 220 | 295 | 241 | 192 | 264 | 200 | 254 | 196 | 226 |
| 1921..... | 134 | 144 | 180 | 190 | 120 | 165 | 136 | 195 | 128 | 147 |
| 1922..... | 133 | 138 | 181 | 218 | 122 | 168 | 124 | 176 | 117 | 140 |
| 1923..... | 141 | 144 | 200 | 185 | 144 | 189 | 131 | 183 | 123 | 154 |
| 1924..... | 143 | 144 | 191 | 170 | 134 | 175 | 130 | 173 | 117 | 150 |
| 1925..... | 158 | 158 | 190 | 175 | 130 | 175 | 134 | 169 | 135 | 159 |

Division of Crop and Livestock Estimates. Compiled from Bureau of Labor Statistics reports.

TABLE 703.—Index numbers of wholesale prices of farm products, United States 1909–1925

[Year 1913=100]

| Calendar year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|---------------|------|------|------|------|-----|------|------|------|-------|------|------|------|---------|
| 1909..... | 91 | 93 | 93 | 96 | 99 | 99 | 99 | 97 | 99 | 101 | 104 | 107 | 97 |
| 1910..... | 106 | 106 | 108 | 105 | 103 | 102 | 104 | 105 | 103 | 101 | 97 | 97 | 103 |
| 1911..... | 96 | 91 | 89 | 88 | 88 | 90 | 93 | 95 | 95 | 95 | 96 | 96 | 93 |
| 1912..... | 96 | 97 | 99 | 103 | 105 | 101 | 101 | 103 | 104 | 104 | 103 | 101 | 101 |
| 1913..... | 98 | 98 | 98 | 99 | 97 | 98 | 99 | 100 | 103 | 103 | 103 | 103 | 100 |
| 1914..... | 103 | 103 | 102 | 102 | 101 | 101 | 103 | 106 | 106 | 101 | 102 | 101 | 103 |
| 1915..... | 104 | 105 | 104 | 104 | 105 | 101 | 104 | 103 | 101 | 106 | 104 | 105 | 104 |
| 1916..... | 110 | 110 | 111 | 113 | 115 | 114 | 117 | 125 | 131 | 136 | 147 | 146 | 123 |
| 1917..... | 152 | 157 | 166 | 184 | 196 | 195 | 196 | 202 | 202 | 207 | 212 | 207 | 190 |
| 1918..... | 211 | 211 | 211 | 213 | 209 | 210 | 217 | 227 | 234 | 225 | 225 | 227 | 218 |
| 1919..... | 224 | 216 | 224 | 230 | 234 | 226 | 241 | 242 | 225 | 227 | 237 | 242 | 231 |
| 1920..... | 247 | 237 | 237 | 243 | 241 | 237 | 233 | 218 | 210 | 187 | 173 | 152 | 218 |
| 1921..... | 143 | 133 | 127 | 117 | 118 | 114 | 119 | 123 | 124 | 124 | 121 | 120 | 124 |
| 1922..... | 122 | 131 | 130 | 129 | 132 | 131 | 135 | 131 | 133 | 138 | 143 | 145 | 133 |
| 1923..... | 143 | 142 | 143 | 141 | 139 | 138 | 135 | 139 | 144 | 144 | 146 | 145 | 141 |
| 1924..... | 144 | 143 | 137 | 139 | 136 | 134 | 141 | 145 | 143 | 149 | 150 | 157 | 143 |
| 1925..... | 163 | 162 | 161 | 153 | 152 | 155 | 162 | 163 | 160 | 155 | 154 | 152 | 158 |

Division of Crop and Livestock estimates. Compiled from Bureau of Labor Statistics reports.

TABLE 704.—Index numbers of wholesale prices of all commodities, United States, 1909-1925

[Year 1913=100]

| Calendar year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|---------------|------|------|------|------|-----|------|------|------|-------|------|------|------|---------|
| 1909..... | 93 | 93 | 94 | 95 | 97 | 97 | 97 | 98 | 99 | 101 | 102 | 103 | 97 |
| 1910..... | 102 | 102 | 105 | 105 | 103 | 102 | 102 | 102 | 100 | 97 | 95 | 96 | 101 |
| 1911..... | 95 | 92 | 93 | 91 | 90 | 90 | 92 | 94 | 95 | 95 | 95 | 94 | 93 |
| 1912..... | 95 | 96 | 97 | 100 | 100 | 99 | 99 | 100 | 101 | 101 | 101 | 101 | 99 |
| 1913..... | 100 | 100 | 100 | 100 | 99 | 99 | 100 | 100 | 102 | 101 | 100 | 99 | 100 |
| 1914..... | 98 | 99 | 98 | 96 | 97 | 97 | 97 | 101 | 102 | 97 | 97 | 97 | 98 |
| 1915..... | 98 | 99 | 99 | 99 | 100 | 99 | 100 | 100 | 100 | 102 | 104 | 108 | 101 |
| 1916..... | 113 | 115 | 119 | 121 | 122 | 123 | 123 | 126 | 130 | 136 | 146 | 149 | 127 |
| 1917..... | 153 | 157 | 162 | 173 | 183 | 185 | 188 | 189 | 187 | 183 | 183 | 182 | 177 |
| 1918..... | 184 | 186 | 187 | 190 | 190 | 191 | 196 | 200 | 204 | 202 | 203 | 202 | 194 |
| 1919..... | 190 | 193 | 196 | 199 | 202 | 203 | 212 | 216 | 210 | 211 | 217 | 222 | 206 |
| 1920..... | 223 | 232 | 234 | 245 | 247 | 243 | 241 | 231 | 226 | 211 | 196 | 179 | 226 |
| 1921..... | 170 | 180 | 155 | 148 | 145 | 142 | 141 | 142 | 141 | 142 | 141 | 140 | 147 |
| 1922..... | 128 | 141 | 142 | 143 | 148 | 150 | 155 | 155 | 153 | 154 | 156 | 156 | 149 |
| 1923..... | 156 | 157 | 159 | 169 | 156 | 153 | 151 | 150 | 154 | 153 | 152 | 151 | 154 |
| 1924..... | 151 | 152 | 150 | 148 | 147 | 145 | 147 | 150 | 149 | 152 | 153 | 157 | 150 |
| 1925..... | 160 | 161 | 161 | 156 | 155 | 157 | 160 | 160 | 160 | 158 | 158 | 156 | 159 |

Division of Crop and Livestock Estimates. Compiled from Bureau of Labor Statistics reports.

TABLE 705.—Index numbers of wholesale prices of agricultural commodities, United States, 1910-1925¹

[1910-1914=100]

| Calendar year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|---------------|------|------|------|------|-----|------|------|------|-------|------|------|------|---------|
| 1910..... | 105 | 104 | 108 | 106 | 104 | 103 | 104 | 105 | 103 | 100 | 97 | 97 | 103 |
| 1911..... | 96 | 92 | 90 | 88 | 89 | 90 | 92 | 96 | 97 | 98 | 98 | 98 | 94 |
| 1912..... | 93 | 98 | 99 | 103 | 104 | 101 | 101 | 102 | 103 | 103 | 102 | 100 | 101 |
| 1913..... | 97 | 97 | 98 | 99 | 97 | 98 | 100 | 101 | 103 | 102 | 102 | 100 | 99 |
| 1914..... | 101 | 101 | 100 | 99 | 99 | 100 | 101 | 109 | 109 | 103 | 103 | 102 | 102 |
| 1915..... | 104 | 107 | 105 | 106 | 107 | 103 | 105 | 103 | 100 | 104 | 103 | 105 | 104 |
| 1916..... | 108 | 109 | 110 | 113 | 114 | 114 | 116 | 123 | 128 | 134 | 142 | 138 | 121 |
| 1917..... | 143 | 148 | 156 | 174 | 187 | 184 | 184 | 191 | 192 | 196 | 199 | 197 | 179 |
| 1918..... | 198 | 200 | 200 | 203 | 200 | 201 | 206 | 213 | 220 | 215 | 217 | 218 | 208 |
| 1919..... | 216 | 209 | 217 | 224 | 227 | 219 | 227 | 228 | 216 | 216 | 223 | 231 | 221 |
| 1920..... | 239 | 230 | 231 | 244 | 248 | 245 | 240 | 223 | 216 | 194 | 180 | 158 | 221 |
| 1921..... | 151 | 142 | 141 | 132 | 129 | 126 | 130 | 133 | 133 | 130 | 127 | 125 | 133 |
| 1922..... | 124 | 132 | 135 | 135 | 138 | 137 | 140 | 135 | 135 | 139 | 142 | 144 | 136 |
| 1923..... | 141 | 142 | 144 | 144 | 142 | 141 | 138 | 139 | 146 | 147 | 146 | 146 | 143 |
| 1924..... | 144 | 143 | 140 | 139 | 138 | 135 | 141 | 147 | 145 | 151 | 150 | 156 | 144 |
| 1925..... | 161 | 159 | 162 | 156 | 154 | 157 | 161 | 162 | 162 | 156 | 155 | 153 | 156 |

Division of Crop and Livestock Estimates. Compiled from Bureau of Labor Statistics reports.

¹ Commodities originating on United States farms. Includes (1) farm products group, excepting hides and skins; (2) the food group, excepting cocoa beans, coffee, copra, fish, pepper, salt, tea, and coconut oil; (3) bran, cottonseed meal, linseed meal, and mill-feed middlings.

TABLE 706.—Index numbers of wholesale prices of nonagricultural commodities, United States, 1910-1925¹

[1910-1914=100]

| Calendar year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|---------------|------|------|------|------|-----|------|------|------|-------|------|------|------|---------|
| 1910..... | 103 | 103 | 104 | 107 | 106 | 104 | 103 | 102 | 100 | 98 | 97 | 98 | 102 |
| 1911..... | 97 | 97 | 99 | 97 | 96 | 94 | 94 | 95 | 95 | 94 | 94 | 94 | 96 |
| 1912..... | 95 | 96 | 97 | 100 | 100 | 100 | 100 | 101 | 102 | 103 | 103 | 101 | 100 |
| 1913..... | 107 | 107 | 106 | 106 | 105 | 104 | 104 | 104 | 104 | 104 | 103 | 101 | 104 |
| 1914..... | 100 | 100 | 101 | 100 | 98 | 97 | 96 | 96 | 97 | 95 | 94 | 95 | 97 |
| 1915..... | 96 | 96 | 96 | 96 | 97 | 98 | 100 | 101 | 103 | 105 | 109 | 115 | 101 |
| 1916..... | 122 | 126 | 132 | 134 | 136 | 137 | 136 | 135 | 137 | 143 | 155 | 166 | 138 |
| 1917..... | 170 | 173 | 176 | 179 | 185 | 195 | 199 | 196 | 189 | 175 | 173 | 174 | 182 |
| 1918..... | 177 | 178 | 180 | 183 | 186 | 188 | 192 | 193 | 195 | 196 | 196 | 193 | 188 |
| 1919..... | 188 | 184 | 181 | 179 | 183 | 194 | 204 | 211 | 213 | 215 | 219 | 224 | 199 |
| 1920..... | 236 | 244 | 247 | 254 | 254 | 250 | 251 | 249 | 246 | 237 | 221 | 208 | 241 |
| 1921..... | 196 | 185 | 177 | 171 | 168 | 164 | 159 | 156 | 156 | 159 | 161 | 161 | 167 |
| 1922..... | 158 | 156 | 155 | 156 | 164 | 168 | 177 | 182 | 179 | 176 | 175 | 175 | 168 |
| 1923..... | 177 | 178 | 179 | 180 | 176 | 172 | 169 | 167 | 167 | 165 | 163 | 162 | 171 |
| 1924..... | 164 | 166 | 166 | 164 | 162 | 159 | 158 | 159 | 158 | 158 | 160 | 163 | 162 |
| 1925..... | 165 | 167 | 165 | 162 | 161 | 163 | 164 | 164 | 163 | 164 | 166 | 165 | 165 |

Division of Crop and Livestock Estimates. Compiled from Bureau of Labor Statistics reports.

¹ Commodities not originating on United States farms. Includes all commodities other than those in Table 705.

TABLE 707.—Farms and farm land

| State and division | Number of farms | | Land in farms | | | | | |
|---------------------------|-----------------|-----------|---------------------|-------------|-------------|---------------------|----------------|------|
| | 1925 | 1920 | Change, per cent | Acreage | | Change, per cent | Acres per farm | |
| | | | | 1925 | 1920 | | 1925 | 1920 |
| Maine..... | 50,033 | 48,227 | 3.7 | 5,164,738 | 5,425,968 | -4.8 | 103 | 112 |
| New Hampshire..... | 21,065 | 20,523 | 2.6 | 2,282,064 | 2,403,806 | -13.1 | 107 | 127 |
| Vermont..... | 27,786 | 29,075 | -4.4 | 3,924,638 | 4,235,811 | -7.3 | 141 | 146 |
| Massachusetts..... | 33,454 | 32,001 | 4.5 | 2,367,629 | 2,494,477 | -5.1 | 71 | 78 |
| Rhode Island..... | 3,911 | 4,083 | -4.2 | 310,943 | 331,600 | -6.2 | 80 | 81 |
| Connecticut..... | 23,240 | 22,635 | 2.6 | 1,832,110 | 1,898,980 | -3.5 | 79 | 84 |
| New England..... | 159,489 | 156,584 | 1.9 | 15,862,172 | 16,980,642 | -6.6 | 99 | 109 |
| New York..... | 188,752 | 193,195 | -2.3 | 19,270,259 | 20,632,803 | -6.6 | 102 | 107 |
| New Jersey..... | 29,671 | 29,702 | -1 | 1,924,545 | 2,282,585 | -15.7 | 65 | 77 |
| Pennsylvania..... | 200,419 | 202,250 | -1 | 16,286,275 | 17,637,513 | -7.7 | 81 | 87 |
| Middle Atlantic..... | 418,942 | 425,147 | -1.5 | 37,493,079 | 40,572,901 | -7.6 | 90 | 95 |
| Ohio..... | 244,702 | 256,695 | -4.7 | 22,222,475 | 23,515,888 | -5.5 | 91 | 92 |
| Indiana..... | 195,787 | 205,126 | -4.6 | 19,917,780 | 21,063,332 | -5.4 | 102 | 103 |
| Illinois..... | 225,597 | 237,181 | -4.9 | 30,735,803 | 31,974,775 | -3.9 | 136 | 135 |
| Michigan..... | 192,326 | 196,447 | -2.1 | 18,036,700 | 19,032,901 | -5.2 | 94 | 97 |
| Wisconsin..... | 133,144 | 189,285 | 2.0 | 21,851,733 | 22,148,223 | -1.3 | 113 | 117 |
| East North Central..... | 1,051,556 | 1,084,744 | -3.1 | 112,764,491 | 117,735,179 | -4.2 | 107 | 109 |
| Minnesota..... | 195,227 | 178,478 | 5.5 | 30,040,933 | 30,221,758 | -6 | 160 | 169 |
| Iowa..... | 213,481 | 213,439 | (1) | 33,285,334 | 33,474,896 | -6 | 156 | 157 |
| Missouri..... | 230,484 | 293,004 | -1.0 | 32,637,043 | 34,774,679 | -6.1 | 125 | 132 |
| North Dakota..... | 75,969 | 77,690 | -2.2 | 34,326,905 | 36,214,751 | -5.2 | 452 | 466 |
| South Dakota..... | 79,535 | 74,637 | 6.6 | 32,006,838 | 34,636,491 | -7.6 | 402 | 464 |
| Nebraska..... | 127,727 | 124,417 | 2.7 | 42,024,129 | 42,225,475 | -5 | 329 | 339 |
| Kansas..... | 165,879 | 165,286 | .4 | 43,729,129 | 45,425,179 | -3.7 | 264 | 275 |
| West North Central..... | 1,111,302 | 1,096,951 | 1.3 | 248,050,571 | 256,973,229 | -3.5 | 223 | 234 |
| Delaware..... | 10,257 | 10,140 | 1.2 | 899,641 | 944,511 | -4.8 | 88 | 93 |
| Maryland..... | 49,001 | 47,903 | 2.3 | 4,439,648 | 4,757,999 | -6.7 | 91 | 99 |
| District of Columbia..... | 139 | 204 | -31.9 | 3,813 | 5,668 | -32.7 | 27 | 28 |
| Virginia..... | 193,716 | 186,242 | 4.0 | 17,212,589 | 18,561,112 | -7.3 | 89 | 100 |
| West Virginia..... | 90,377 | 87,289 | 3.5 | 8,984,455 | 9,569,760 | -6.1 | 99 | 110 |

| | | | | | | | | | |
|-------------------------|-----------|-----------|------------------|-------------|-------------|-------|-------|-----|-------|
| North Carolina..... | 283,492 | 269,763 | 5.1 | 18,597,795 | 20,021,736 | -7.1 | 66 | 74 | -10.8 |
| South Carolina..... | 276,766 | 192,693 | -10.3 | 10,644,126 | 12,426,675 | -14.3 | 62 | 64 | -3.1 |
| Georgia..... | 249,101 | 310,732 | -19.8 | 21,964,436 | 25,441,061 | -13.7 | 88 | 82 | 7.3 |
| Florida..... | 59,202 | 54,005 | 9.6 | 5,940,226 | 6,046,691 | -1.8 | 100 | 112 | -10.7 |
| South Atlantic..... | 1,108,051 | 1,158,976 | -4.4 | 88,686,732 | 97,775,243 | -9.3 | 80 | 84 | -4.8 |
| Kentucky..... | 238,511 | 270,626 | -4.5 | 19,915,166 | 21,612,772 | -7.9 | 77 | 80 | -3.8 |
| Tennessee..... | 252,669 | 252,774 | (^c) | 17,911,025 | 19,510,886 | -8.2 | 71 | 77 | -7.8 |
| Alabama..... | 237,564 | 236,099 | -7.2 | 16,742,572 | 19,576,856 | -14.5 | 70 | 76 | -7.9 |
| Mississippi..... | 257,227 | 272,101 | -5.5 | 16,053,456 | 18,196,979 | -11.8 | 62 | 67 | -7.5 |
| East South Central..... | 1,005,971 | 1,051,600 | -4.3 | 70,622,220 | 78,897,403 | -10.5 | 70 | 75 | -6.7 |
| Arkansas..... | 221,985 | 232,604 | -4.6 | 15,081,916 | 17,456,750 | -10.2 | 71 | 75 | -5.3 |
| Louisiana..... | 132,451 | 135,463 | -2.2 | 8,837,664 | 10,019,822 | -11.8 | 67 | 74 | -9.5 |
| Oklahoma..... | 197,215 | 191,988 | 2.7 | 30,833,593 | 31,951,934 | -3.2 | 157 | 166 | -5.4 |
| Texas..... | 465,642 | 436,033 | 6.8 | 108,788,217 | 114,020,621 | -3.7 | 236 | 262 | -9.9 |
| West South Central..... | 1,017,303 | 996,088 | 2.1 | 165,251,720 | 173,449,127 | -4.7 | 162 | 174 | -6.9 |
| Montana..... | 46,806 | 57,677 | -18.7 | 32,740,442 | 33,070,656 | -6.6 | 698 | 608 | 14.8 |
| Idaho..... | 40,582 | 42,106 | -3.6 | 8,140,456 | 8,375,873 | -2.8 | 201 | 199 | 1.0 |
| Wyoming..... | 15,509 | 15,748 | -1.5 | 18,637,024 | 11,809,351 | 57.8 | 1,202 | 750 | 60.3 |
| Colorado..... | 58,025 | 59,834 | -3.2 | 24,168,398 | 24,462,014 | -1.2 | 416 | 408 | 2.0 |
| New Mexico..... | 31,687 | 29,844 | 6.2 | 27,527,525 | 24,404,633 | 14.4 | 881 | 818 | 7.7 |
| Arizona..... | 10,798 | 9,975 | 8.3 | 11,065,130 | 5,852,126 | 90.7 | 1,025 | 582 | 76.1 |
| Utah..... | 25,968 | 25,662 | 1.3 | 4,996,599 | 5,050,410 | -1.1 | 192 | 197 | -2.5 |
| Nevada..... | 3,913 | 3,163 | 23.7 | 4,192,199 | 2,337,163 | 77.8 | 1,071 | 745 | 43.8 |
| Mountain..... | 233,408 | 244,109 | -4.4 | 131,868,335 | 117,337,226 | 12.4 | 565 | 481 | 17.5 |
| Washington..... | 73,266 | 66,288 | 10.5 | 12,008,234 | 13,514,720 | -4.8 | 172 | 200 | -14.3 |
| Oregon..... | 55,909 | 50,205 | 11.4 | 14,120,043 | 13,542,318 | 4.3 | 233 | 270 | -6.2 |
| California..... | 136,413 | 117,670 | 15.9 | 27,565,440 | 29,365,697 | -6.1 | 202 | 250 | -19.0 |
| Pacific..... | 265,588 | 234,164 | 13.4 | 54,293,717 | 56,132,705 | -3.3 | 204 | 240 | -15.0 |
| United States..... | 6,371,510 | 6,448,343 | -1.2 | 924,893,035 | 955,883,715 | -3.2 | 145 | 148 | -2.0 |

Division of Land Economics. Compiled from the Bureau of the Census reports; 1925 figures preliminary.

1 Less than one-tenth of 1 per cent.

| | | | | | | | | | | | |
|-------------------------|-------------|-----|-------------|-------------|-------|-----|-----|------------|-----|----|------------|
| West Virginia..... | 1,921,092 | 71 | 1,676,938 | 2,131,903 | -21.4 | 19 | 24 | 27,754 | (*) | 1 | 216,813 |
| North Carolina..... | 6,832,330 | 74 | 5,583,806 | 6,173,532 | -10.2 | 20 | 23 | 146,638 | 1 | 1 | 1,137,474 |
| South Carolina..... | 3,008,737 | 29 | 4,238,117 | 6,572,636 | -23.4 | 23 | 23 | 92,450 | 1 | 1 | 646,170 |
| Georgia..... | 10,696,685 | 43 | 8,118,631 | 11,413,650 | -28.9 | 33 | 37 | 111,907 | (*) | 1 | 2,406,087 |
| Florida..... | 2,022,284 | 34 | 1,369,650 | 1,535,615 | -11.9 | 23 | 29 | 35,443 | 1 | 1 | 467,791 |
| South Atlantic..... | 34,599,081 | 31 | 27,133,640 | 34,403,659 | -21.3 | 24 | 30 | 670,875 | 1 | 1 | 6,594,526 |
| Kentucky..... | 6,827,183 | 26 | 5,182,577 | 6,773,958 | -28.5 | 20 | 25 | 131,949 | 1 | 1 | 1,612,692 |
| Tennessee..... | 7,574,206 | 30 | 6,190,928 | 7,183,609 | -13.5 | 25 | 28 | 112,107 | (*) | 1 | 1,271,771 |
| Alabama..... | 7,718,765 | 32 | 6,630,831 | 7,836,084 | -13.4 | 28 | 31 | 113,310 | (*) | 1 | 1,672,684 |
| Mississippi..... | 6,657,079 | 26 | 5,604,838 | 6,603,072 | -13.1 | 22 | 24 | 158,282 | 1 | 1 | 885,980 |
| East South Central..... | 28,777,268 | 29 | 23,603,194 | 28,306,603 | -16.8 | 23 | 27 | 517,648 | 1 | 1 | 4,660,306 |
| Arkansas..... | 7,291,449 | 33 | 6,154,251 | 6,715,048 | -7.9 | 28 | 29 | 180,116 | 1 | 1 | 927,082 |
| Louisiana..... | 4,293,690 | 32 | 3,464,906 | 4,022,234 | -13.9 | 26 | 30 | 216,033 | 2 | 2 | 583,746 |
| Oklahoma..... | 15,811,578 | 80 | 14,601,461 | 15,339,040 | -5.5 | 74 | 80 | 765,067 | 4 | 4 | 545,080 |
| Texas..... | 29,512,202 | 63 | 27,112,168 | 23,467,351 | 6.5 | 38 | 58 | 1,353,660 | 3 | 3 | 1,064,384 |
| West South Central..... | 50,873,919 | 56 | 51,262,776 | 51,543,683 | -5 | 50 | 52 | 2,496,901 | 2 | 2 | 3,110,242 |
| Montana..... | 8,471,316 | 181 | 6,412,079 | 3,911,989 | 63.9 | 137 | 68 | 309,864 | 7 | 7 | 1,740,283 |
| Idaho..... | 3,716,060 | 92 | 2,531,617 | 2,784,908 | -7.3 | 64 | 66 | 371,960 | 9 | 9 | 733,469 |
| Wyoming..... | 1,890,269 | 121 | 1,575,025 | 1,183,225 | 32.0 | 102 | 78 | 150,861 | 10 | 10 | 154,293 |
| Colorado..... | 7,200,199 | 124 | 5,948,760 | 5,327,378 | 11.7 | 108 | 89 | 832,876 | 14 | 14 | 474,573 |
| New Mexico..... | 1,799,131 | 57 | 1,345,706 | 1,179,193 | 14.1 | 42 | 40 | 264,080 | 8 | 8 | 188,416 |
| Arizona..... | 578,573 | 54 | 467,260 | 458,672 | -3 | 42 | 46 | 26,330 | 3 | 3 | 34,678 |
| Utah..... | 1,428,138 | 55 | 1,024,523 | 1,059,729 | -3.3 | 39 | 41 | 100,640 | 4 | 4 | 296,976 |
| Nevada..... | 533,099 | 136 | 362,552 | 392,327 | -7.6 | 93 | 124 | 131,576 | 34 | 34 | 36,571 |
| Mountain..... | 25,604,416 | 110 | 19,707,581 | 16,307,321 | 20.9 | 84 | 67 | 2,191,867 | 9 | 9 | 3,765,496 |
| Washington..... | 6,083,649 | 83 | 3,262,824 | 4,228,606 | -22.8 | 45 | 64 | 491,268 | 7 | 7 | 2,329,537 |
| Oregon..... | 8,402,947 | 76 | 2,591,829 | 2,968,453 | -12.7 | 46 | 58 | 460,068 | 9 | 9 | 1,718,020 |
| California..... | 8,402,195 | 62 | 5,722,434 | 6,840,656 | -16.3 | 42 | 58 | 965,769 | 7 | 7 | 1,081,942 |
| Pacific..... | 18,715,791 | 70 | 11,577,107 | 14,037,750 | -17.5 | 44 | 60 | 1,937,165 | 7 | 7 | 5,201,519 |
| United States..... | 391,467,372 | 61 | 344,281,147 | 363,089,933 | -5.2 | 54 | 56 | 13,178,609 | 2 | 2 | 34,067,716 |

Division of Land Economics. Compiled from the Bureau of the Census reports; 1924 figures preliminary.

1 Acreage of harvested crops for 1919 is the total of the individual crops with allowance for duplication of corn for forage with corn for grain; for 1924 the figures are the results of a direct census inquiry.

2 Less than one acre.

TABLE 709.—*Pasture land: Acreage in farms, 1924*

| State and division | Total pasture | | Pasture land suitable for crops | | Woodland pasture | | Other pasture | |
|---------------------------|---------------|----------------|---------------------------------|----------------|------------------|----------------|---------------|----------------|
| | Acreage | Acres per farm | Acreage | Acres per farm | Acreage | Acres per farm | Acreage | Acres per farm |
| Maine | <i>Acres</i> | 35 | <i>Acres</i> | 4 | <i>Acres</i> | 19 | <i>Acres</i> | 11 |
| New Hampshire | 1,744,285 | | 133,768 | | 975,545 | | 572,972 | 10 |
| Vermont | 1,087,355 | 52 | 89,673 | 4 | 778,401 | 37 | 218,211 | 32 |
| Massachusetts | 2,175,633 | 78 | 233,015 | 9 | 1,030,810 | 37 | 891,828 | 39 |
| Rhode Island | 876,892 | 26 | 95,162 | 3 | 462,433 | 14 | 290,277 | 7 |
| Connecticut | 110,985 | 28 | 33,899 | 9 | 30,063 | 13 | 27,263 | 14 |
| | 784,779 | 43 | 104,987 | 5 | 356,652 | 15 | 321,140 | 15 |
| New England | 6,779,979 | 34 | 772,204 | 5 | 3,675,054 | 23 | 2,332,721 | 15 |
| New York | 7,402,578 | 39 | 2,080,744 | 11 | 2,023,332 | 11 | 3,296,502 | 17 |
| New Jersey | 335,057 | 11 | 185,477 | 6 | 43,610 | 1 | 93,970 | 4 |
| Pennsylvania | 4,583,860 | 23 | 1,701,866 | 8 | 1,397,597 | 7 | 1,484,397 | 7 |
| Middle Atlantic | 12,321,495 | 29 | 3,968,087 | 9 | 3,464,539 | 8 | 4,888,969 | 12 |
| Ohio | 8,138,585 | 33 | 3,997,087 | 16 | 1,854,319 | 8 | 2,267,179 | 9 |
| Indiana | 5,693,510 | 29 | 2,707,230 | 14 | 1,892,305 | 10 | 1,797,885 | 6 |
| Illinois | 7,282,964 | 32 | 4,008,137 | 18 | 1,897,166 | 8 | 1,177,641 | 6 |
| Michigan | 5,723,204 | 30 | 1,757,004 | 9 | 2,497,170 | 13 | 1,559,032 | 8 |
| Wisconsin | 8,671,506 | 45 | 1,703,243 | 9 | 4,431,416 | 23 | 2,536,897 | 13 |
| East North Central | 35,509,821 | 34 | 14,172,721 | 13 | 12,472,466 | 12 | 8,864,634 | 8 |
| Minnesota | 7,895,420 | 42 | 2,162,216 | 11 | 3,549,866 | 19 | 2,183,338 | 12 |
| Iowa | 9,496,036 | 44 | 5,156,570 | 24 | 1,970,588 | 9 | 2,538,878 | 11 |
| Missouri | 13,296,394 | 51 | 6,839,143 | 26 | 4,779,925 | 18 | 1,660,326 | 6 |
| North Dakota | 8,940,695 | 118 | 3,110,825 | 41 | 337,240 | 4 | 5,492,621 | 72 |
| South Dakota | 13,795,956 | 173 | 6,146,196 | 77 | 289,051 | 4 | 7,960,709 | 93 |
| Nebraska | 19,482,225 | 152 | 4,379,432 | 34 | 657,525 | 5 | 14,445,268 | 113 |
| Kansas | 17,890,528 | 108 | 7,799,091 | 47 | 652,047 | 4 | 9,426,390 | 56 |
| West North Central | 90,790,245 | 82 | 35,613,473 | 32 | 12,236,242 | 11 | 42,890,630 | 39 |
| Delaware | 101,633 | 10 | 78,868 | 8 | 10,386 | 1 | 12,379 | 1 |
| Maryland | 893,510 | 18 | 525,773 | 11 | 187,183 | 4 | 180,554 | 4 |
| District of Columbia | 503 | 4 | 262 | 2 | 96 | 1 | 145 | 1 |
| Virginia | 5,290,994 | 27 | 2,967,815 | 15 | 1,331,719 | 7 | 991,460 | 5 |
| West Virginia | 4,293,042 | 47 | 1,726,431 | 19 | 905,394 | 10 | 1,661,217 | 18 |
| North Carolina | 2,818,748 | 10 | 881,895 | 3 | 1,388,459 | 5 | 548,394 | 2 |
| South Carolina | 1,697,431 | 9 | 310,566 | 2 | 1,008,359 | 6 | 318,506 | 2 |

| | | | | | | | | |
|-------------------------|-------------|-------|-------------|-----|------------|----|-------------|-----|
| Georgia..... | 3,813,327 | 15 | 812,555 | 3 | 2,324,087 | 9 | 676,655 | 3 |
| Florida..... | 1,510,070 | 25 | 257,788 | 4 | 814,782 | 14 | 437,500 | 7 |
| South Atlantic..... | 20,359,258 | 18 | 7,561,953 | 7 | 7,970,465 | 7 | 4,826,940 | 4 |
| Kentucky..... | 7,748,283 | 30 | 5,501,740 | 21 | 1,207,842 | 5 | 1,038,705 | 4 |
| Tennessee..... | 4,692,667 | 19 | 2,591,199 | 10 | 1,356,867 | 5 | 744,601 | 3 |
| Alabama..... | 3,535,406 | 15 | 1,127,672 | 5 | 1,921,815 | 8 | 486,919 | 2 |
| Mississippi..... | 4,302,950 | 17 | 1,414,421 | 5 | 2,036,111 | 8 | 852,418 | 3 |
| East South Central..... | 20,260,311 | 20 | 10,635,032 | 11 | 6,522,635 | 6 | 3,122,644 | 3 |
| Arkansas..... | 3,065,008 | 14 | 956,162 | 4 | 1,676,965 | 8 | 431,881 | 2 |
| Louisiana..... | 1,713,731 | 13 | 786,003 | 6 | 677,327 | 5 | 250,401 | 2 |
| Oklahoma..... | 13,093,221 | 66 | 3,877,880 | 20 | 3,022,717 | 15 | 6,192,024 | 31 |
| Texas..... | 75,502,350 | 162 | 14,698,367 | 32 | 17,180,001 | 37 | 43,653,962 | 94 |
| West South Central..... | 93,374,310 | 92 | 20,288,412 | 20 | 22,557,010 | 22 | 50,528,888 | 50 |
| Montana..... | 22,723,333 | 464 | 4,124,850 | 85 | 1,311,615 | 28 | 17,295,868 | 59 |
| Idaho..... | 3,576,135 | 88 | 352,220 | 9 | 647,446 | 16 | 2,566,470 | 63 |
| Wyoming..... | 16,294,832 | 1,050 | 2,188,467 | 141 | 370,749 | 24 | 13,725,616 | 885 |
| Colorado..... | 15,310,024 | 264 | 5,113,475 | 85 | 1,145,647 | 20 | 9,046,902 | 156 |
| New Mexico..... | 24,104,890 | 761 | 5,358,041 | 169 | 2,144,857 | 68 | 16,601,462 | 524 |
| Arizona..... | 10,100,868 | 935 | 141,381 | 13 | 413,965 | 38 | 9,543,492 | 884 |
| Utah..... | 3,062,648 | 118 | 138,512 | 5 | 97,357 | 4 | 2,826,776 | 109 |
| Nevada..... | 3,070,899 | 785 | 82,079 | 21 | 77,371 | 20 | 2,911,449 | 744 |
| Mountain..... | 98,233,102 | 421 | 17,509,025 | 75 | 6,210,059 | 27 | 74,514,038 | 319 |
| Washington..... | 5,200,686 | 71 | 444,060 | 6 | 1,317,170 | 18 | 3,437,456 | 47 |
| Oregon..... | 8,740,656 | 157 | 590,767 | 11 | 2,144,263 | 38 | 6,046,666 | 108 |
| California..... | 16,807,167 | 124 | 3,098,845 | 22 | 4,227,435 | 31 | 9,142,887 | 71 |
| Pacific..... | 30,868,509 | 116 | 4,080,692 | 15 | 7,588,698 | 29 | 19,128,949 | 72 |
| United States..... | 408,857,030 | 64 | 114,661,599 | 18 | 82,797,316 | 13 | 211,136,113 | 33 |

Division of Land Economics. Compiled from the Bureau of the Census reports; 1924 figures preliminary.

| | | | | | | | | |
|-------------------------|-------------|-------------|-------|----|----|------|------------|-----|
| North Carolina..... | 8,479,138 | 10,290,547 | -17.7 | 30 | 38 | 16.4 | 1,856,048 | 7 |
| South Carolina..... | 3,692,365 | 5,302,575 | -32.3 | 91 | 28 | 28.1 | 1,412,652 | 8 |
| Georgia..... | 7,062,180 | 10,491,845 | -32.7 | 28 | 34 | 32.9 | 2,716,351 | 11 |
| Florida..... | 2,477,893 | 2,789,760 | -10.9 | 42 | 51 | 32.9 | 744,764 | 13 |
| South Atlantic..... | 32,970,563 | 41,802,263 | -21.1 | 30 | 36 | 24.2 | 8,728,325 | 8 |
| Kentucky..... | 4,853,708 | 5,018,280 | -19.6 | 19 | 22 | 25.0 | 1,711,764 | 7 |
| Tennessee..... | 7,580,047 | 7,980,169 | -21.2 | 22 | 28 | 24.3 | 1,420,973 | 6 |
| Alabama..... | 5,798,397 | 8,301,177 | -30.5 | 24 | 32 | 33.3 | 1,642,819 | 7 |
| Mississippi..... | 5,485,117 | 7,014,898 | -21.8 | 21 | 26 | 37.1 | 1,644,421 | 6 |
| East South Central..... | 21,697,329 | 28,414,524 | -23.7 | 22 | 27 | 30.1 | 6,419,977 | 6 |
| Arkansas..... | 5,468,563 | 7,366,028 | -26.1 | 25 | 32 | 30.7 | 1,533,831 | 7 |
| Louisiana..... | 2,417,719 | 3,614,040 | -33.1 | 18 | 27 | 28.0 | 1,119,851 | 8 |
| Oklahoma..... | 3,480,795 | 4,206,171 | -17.2 | 18 | 22 | 86.8 | 1,571,018 | 8 |
| Texas..... | 18,770,281 | 14,532,913 | -29.2 | 40 | 33 | 91.5 | 3,193,445 | 7 |
| West South Central..... | 30,137,358 | 29,749,152 | 1.3 | 30 | 30 | 74.8 | 7,418,143 | 7 |
| Montana..... | 1,545,368 | 1,646,462 | -6.1 | 33 | 29 | 64.9 | 1,812,040 | 28 |
| Idaho..... | 744,870 | 820,876 | -9.3 | 18 | 19 | 86.9 | 1,750,320 | 18 |
| Wyoming..... | 445,161 | 421,806 | 5.5 | 29 | 27 | 83.3 | 898,111 | 26 |
| Colorado..... | 1,385,163 | 1,415,420 | -2.1 | 24 | 24 | 82.8 | 1,413,649 | 24 |
| New Mexico..... | 2,814,065 | 1,817,460 | -27.4 | 73 | 61 | 92.7 | 1,853,876 | 58 |
| Arizona..... | 461,392 | 523,648 | -11.9 | 43 | 52 | 89.7 | 1,838,287 | 31 |
| Utah..... | 161,228 | 212,762 | -24.2 | 6 | 8 | 60.4 | 444,942 | 17 |
| Nevada..... | 85,584 | 28,637 | 302.4 | 22 | 9 | 89.4 | 578,358 | 148 |
| Mountain..... | 7,144,761 | 6,887,071 | 3.6 | 31 | 28 | 86.9 | 7,066,063 | 30 |
| Washington..... | 1,855,593 | 1,813,061 | 2.3 | 25 | 27 | 71.0 | 753,496 | 11 |
| Oregon..... | 2,083,904 | 2,309,596 | 15.3 | 48 | 46 | 80.6 | 578,769 | 10 |
| California..... | 4,674,924 | 4,232,287 | 9.9 | 34 | 36 | 90.4 | 1,808,589 | 13 |
| Pacific..... | 9,194,411 | 8,374,944 | 8.9 | 35 | 36 | 83.6 | 3,173,874 | 12 |
| United States..... | 150,398,022 | 167,730,794 | -10.3 | 24 | 26 | 55.1 | 57,267,929 | 9 |

Division of Land Economics. Compiled from the Bureau of the Census reports. 1924 figures preliminary.

TABLE 711.—*Bankruptcy among farmers: Cases concluded in fiscal years ended June 30, 1922-1925*

| State | 1922 | | | 1923 | | | 1924 | | | 1925 | | |
|---------------------|--------|---------|-----------------------|--------|---------|-----------------------|--------|---------|-----------------------|--------|---------|-----------------------|
| | Total | Farmers | | Total | Farmers | | Total | Farmers | | Total | Farmers | |
| | | Number | Per cent of all cases | | Number | Per cent of all cases | | Number | Per cent of all cases | | Number | Per cent of all cases |
| Maine..... | 431 | 51 | 11.8 | 658 | 94 | 14.3 | 904 | 136 | 15.0 | 871 | 103 | 11.8 |
| New Hampshire..... | 123 | 7 | 5.7 | 76 | 12 | 15.8 | 130 | 6 | 4.6 | 86 | 5 | 5.8 |
| Vermont..... | 166 | 21 | 12.7 | 100 | 20 | 20.0 | 101 | 27 | 26.7 | 205 | 39 | 19.0 |
| Massachusetts..... | 901 | 10 | 1.1 | 1,592 | 5 | .3 | 1,476 | 11 | .7 | 1,378 | 7 | .5 |
| Rhode Island..... | 72 | 1 | 1.4 | 166 | ----- | ----- | 123 | 1 | .8 | 132 | 2 | 1.5 |
| Connecticut..... | 201 | 2 | 1.0 | 399 | 15 | 3.8 | 660 | 15 | 2.3 | 600 | 13 | 2.2 |
| New York..... | 2,076 | 38 | 1.8 | 3,128 | 96 | 3.1 | 3,633 | 105 | 2.9 | 5,376 | 104 | 1.9 |
| New Jersey..... | 277 | 4 | 1.4 | 502 | 4 | .8 | 535 | 14 | 2.6 | 719 | 16 | 2.2 |
| Pennsylvania..... | 571 | 35 | 6.1 | 1,165 | 48 | 4.1 | 1,218 | 52 | 4.3 | 1,253 | 70 | 5.6 |
| Ohio..... | 680 | 64 | 9.4 | 1,279 | 156 | 12.2 | 1,531 | 209 | 13.7 | 1,813 | 214 | 11.8 |
| Indiana..... | 245 | 59 | 24.1 | 333 | 84 | 25.2 | 403 | 101 | 25.1 | 360 | 97 | 26.9 |
| Illinois..... | 1,012 | 81 | 8.0 | 1,714 | 192 | 11.2 | 1,923 | 194 | 10.1 | 1,596 | 190 | 11.9 |
| Michigan..... | 434 | 11 | 2.5 | 909 | 27 | 3.0 | 814 | 44 | 5.4 | 868 | 46 | 5.3 |
| Wisconsin..... | 364 | 32 | 8.8 | 696 | 110 | 15.8 | 914 | 136 | 14.9 | 1,055 | 213 | 20.2 |
| Minnesota..... | 651 | 159 | 29.0 | 1,023 | 291 | 28.5 | 1,452 | 430 | 29.6 | 1,586 | 369 | 23.3 |
| Iowa..... | 704 | 368 | 52.3 | 935 | 450 | 52.3 | 1,317 | 663 | 50.3 | 1,707 | 861 | 50.4 |
| Missouri..... | 403 | 61 | 15.1 | 560 | 105 | 18.8 | 1,106 | 238 | 21.5 | 1,482 | 287 | 19.4 |
| North Dakota..... | 302 | 237 | 78.5 | 749 | 615 | 82.1 | 1,047 | 782 | 74.7 | 837 | 629 | 75.1 |
| South Dakota..... | 73 | 38 | 52.1 | 232 | 148 | 63.8 | 373 | 236 | 63.3 | 550 | 352 | 63.3 |
| Nebraska..... | 184 | 60 | 32.6 | 259 | 132 | 51.0 | 515 | 172 | 33.4 | 525 | 178 | 33.9 |
| Kansas..... | 328 | 113 | 34.5 | 588 | 225 | 38.3 | 737 | 264 | 35.8 | 670 | 213 | 31.8 |
| Delaware..... | 35 | 3 | 8.6 | 29 | 2 | 6.9 | 46 | 6 | 13.0 | 40 | 8 | 20.0 |
| Maryland..... | 159 | 17 | 10.7 | 170 | 37 | 21.8 | 307 | 42 | 13.7 | 175 | 38 | 21.7 |
| Virginia..... | 726 | 40 | 5.5 | 1,320 | 87 | 6.6 | 1,167 | 84 | 7.2 | 1,407 | 95 | 6.8 |
| West Virginia..... | 268 | 12 | 4.5 | 328 | 7 | 2.1 | 348 | 11 | 3.2 | 414 | 19 | 4.6 |
| North Carolina..... | 154 | 13 | 8.4 | 215 | 16 | 7.4 | 319 | 36 | 11.3 | 308 | 45 | 14.6 |
| South Carolina..... | 115 | 1 | .9 | 246 | 24 | 9.8 | 416 | 36 | 8.7 | 230 | 26 | 11.3 |
| Georgia..... | 2,344 | 588 | 25.1 | 2,918 | 772 | 26.5 | 3,386 | 848 | 25.0 | 3,041 | 798 | 26.2 |
| Florida..... | 145 | 4 | 2.8 | 348 | 14 | 4.0 | 365 | 22 | 6.0 | 186 | 8 | 4.3 |
| Kentucky..... | 222 | 43 | 19.4 | 587 | 88 | 15.0 | 605 | 104 | 17.2 | 682 | 106 | 15.8 |
| Tennessee..... | 1,133 | 46 | 4.1 | 1,600 | 118 | 7.4 | 1,669 | 112 | 6.7 | 1,844 | 109 | 5.9 |
| Alabama..... | 2,461 | 100 | 4.1 | 1,977 | 181 | 9.2 | 2,125 | 218 | 10.3 | 2,248 | 242 | 10.8 |
| Mississippi..... | 265 | 12 | 4.5 | 462 | 33 | 7.1 | 582 | 49 | 8.4 | 542 | 58 | 10.7 |
| Arkansas..... | 266 | 72 | 27.1 | 454 | 76 | 16.7 | 560 | 104 | 18.6 | 335 | 85 | 25.1 |
| Louisiana..... | 219 | 32 | 14.6 | 423 | 129 | 30.5 | 498 | 171 | 35.0 | 362 | 77 | 21.3 |
| Oklahoma..... | 240 | 38 | 15.8 | 551 | 81 | 14.7 | 956 | 138 | 14.4 | 921 | 145 | 15.7 |
| Texas..... | 628 | 122 | 19.4 | 1,208 | 253 | 20.9 | 1,523 | 375 | 24.6 | 1,129 | 343 | 30.4 |
| Montana..... | 363 | 215 | 59.2 | 611 | 366 | 59.9 | 855 | 551 | 64.4 | 703 | 460 | 65.4 |
| Idaho..... | 169 | 79 | 46.8 | 292 | 160 | 54.8 | 414 | 231 | 55.8 | 468 | 260 | 55.6 |
| Wyoming..... | 42 | 12 | 28.6 | 56 | 14 | 25.0 | 102 | 36 | 35.3 | 143 | 48 | 33.6 |
| Colorado..... | 249 | 77 | 30.9 | 366 | 118 | 32.2 | 341 | 128 | 37.5 | 686 | 220 | 32.1 |
| New Mexico..... | 37 | 3 | 8.1 | 17 | 3 | 17.7 | 144 | 28 | 19.4 | 95 | 27 | 28.4 |
| Arizona..... | 40 | 9 | 22.5 | 105 | 37 | 35.2 | 82 | 31 | 37.8 | 62 | 19 | 30.6 |
| Utah..... | 177 | 22 | 12.4 | 235 | 32 | 13.6 | 302 | 35 | 11.6 | 382 | 32 | 8.4 |
| Nevada..... | 21 | 2 | 9.5 | 2 | ----- | ----- | 5 | 0 | ----- | 24 | 5 | 20.8 |
| Washington..... | 377 | 49 | 13.0 | 727 | 131 | 18.0 | 874 | 213 | 24.4 | 824 | 196 | 23.8 |
| Oregon..... | 370 | 33 | 8.9 | 717 | 110 | 15.3 | 799 | 91 | 11.4 | 928 | 100 | 10.8 |
| California..... | 1,004 | 110 | 11.0 | 1,150 | 183 | 15.9 | 1,760 | 236 | 13.4 | 2,296 | 293 | 12.8 |
| United States..... | 22,462 | 3,236 | 14.4 | 34,236 | 5,940 | 17.4 | 41,524 | 7,772 | 18.7 | 44,236 | 7,872 | 17.8 |

TABLE 712.—Total refrigerated space: All cold storages, including meat-packing establishments reporting to the Bureau of Agricultural Economics, October 1, 1925

| State | Concerns | Cubic feet of space held at temperatures of— | | | | Total space |
|---------------------------|----------|--|-------------------------|-------------------------|------------------|----------------|
| | | 10° F. and below | 11 to 29° F., inclusive | 30 to 44° F., inclusive | 45° F. and above | |
| | | | | | | <i>Cu. ft.</i> |
| Alabama..... | 4 | 30,652 | 75,258 | 1,157,945 | ----- | 1,263,855 |
| Alaska..... | 5 | 56,592 | 593,872 | 29,888 | 2,000 | 679,352 |
| Arizona..... | 4 | 15,360 | 3,900 | 473,436 | ----- | 492,696 |
| Arkansas..... | 7 | 33,750 | ----- | 1,390,546 | 5,823 | 1,430,119 |
| California..... | 74 | 1,661,559 | 2,385,160 | 17,471,385 | 304,246 | 21,822,350 |
| Colorado..... | 17 | 1,075,091 | 225,454 | 4,704,383 | 402,962 | 6,407,890 |
| Connecticut..... | 6 | 160,400 | 132,544 | 1,850,837 | 118,000 | 2,261,781 |
| District of Columbia..... | 4 | 252,617 | 1,822 | 2,304,931 | 22,656 | 2,582,026 |
| Florida..... | 10 | 48,010 | 109,695 | 617,074 | 12,171 | 786,950 |
| Georgia..... | 19 | 122,812 | 377,003 | 2,288,556 | 14,210 | 2,802,581 |
| Idaho..... | 12 | 34,451 | 45,041 | 404,178 | 25,900 | 509,570 |
| Illinois..... | 86 | 18,652,985 | 17,397,433 | 95,301,476 | 11,027,439 | 142,379,333 |
| Indiana..... | 42 | 450,646 | 1,806,001 | 13,103,005 | 1,237,182 | 16,687,434 |
| Iowa..... | 38 | 1,912,080 | 2,718,421 | 16,918,532 | 2,156,655 | 23,706,688 |
| Kansas..... | 31 | 2,006,940 | 6,278,598 | 28,708,375 | 5,147,951 | 42,141,864 |
| Kentucky..... | 15 | 377,400 | 343,097 | 4,236,390 | 72,814 | 5,029,701 |
| Louisiana..... | 7 | 140,200 | 135,363 | 1,903,470 | 77,177 | 2,256,210 |
| Maine..... | 8 | 540,732 | 3,006 | 839,092 | 4,907 | 1,388,337 |
| Maryland..... | 21 | 560,985 | 284,149 | 3,389,916 | 146,438 | 4,385,488 |
| Massachusetts..... | 39 | 6,580,939 | 2,655,231 | 14,891,725 | 344,408 | 23,872,303 |
| Michigan..... | 33 | 1,196,796 | 527,222 | 6,008,145 | 80,000 | 8,412,163 |
| Minnesota..... | 27 | 2,253,127 | 2,285,557 | 14,099,603 | 2,219,072 | 21,757,359 |
| Missouri..... | 50 | 3,416,764 | 1,295,237 | 29,271,878 | 1,835,656 | 35,819,535 |
| Montana..... | 6 | 31,080 | 57,488 | 173,616 | 9,328 | 271,512 |
| Nebraska..... | 19 | 3,653,522 | 890,862 | 17,927,664 | 1,394,654 | 23,866,702 |
| New Jersey..... | 30 | 3,280,811 | 590,116 | 9,389,060 | 403,231 | 13,643,218 |
| New York..... | 180 | 10,107,787 | 5,811,360 | 57,715,051 | 1,778,273 | 75,412,411 |
| North Carolina..... | 8 | 18,000 | 50,000 | 640,102 | 6,000 | 714,702 |
| Ohio..... | 92 | 2,148,983 | 1,120,968 | 19,270,427 | 897,600 | 23,437,978 |
| Oklahoma..... | 13 | 599,298 | 595,182 | 6,716,366 | 1,043,919 | 8,954,765 |
| Oregon..... | 29 | 436,797 | 1,564,381 | 3,580,023 | 130,373 | 5,717,574 |
| Pennsylvania..... | 108 | 2,961,267 | 2,050,607 | 19,489,301 | 600,694 | 25,107,869 |
| Rhode Island..... | 3 | 330,888 | 400,000 | 822,928 | ----- | 1,553,816 |
| South Dakota..... | 7 | 267,806 | 442,481 | 2,600,858 | 387,961 | 3,699,106 |
| Tennessee..... | 20 | 301,000 | 159,842 | 5,461,820 | 125,612 | 6,048,368 |
| Texas..... | 55 | 800,583 | 2,422,448 | 9,731,594 | 1,780,463 | 14,735,088 |
| Utah..... | 7 | 125,441 | 87,490 | 1,243,005 | 142,000 | 1,597,936 |
| Virginia..... | 28 | 318,346 | 597,827 | 12,514,706 | 308,280 | 13,739,159 |
| Washington..... | 66 | 1,042,911 | 2,636,232 | 16,232,030 | 838,589 | 20,749,762 |
| West Virginia..... | 17 | 7,840 | 90,176 | 3,047,771 | 61,163 | 3,206,950 |
| Wisconsin..... | 62 | 695,350 | 628,593 | 11,811,390 | 1,269,029 | 14,404,362 |
| All other States..... | 14 | 33,094 | 134,176 | 686,920 | 71,701 | 925,891 |
| Total..... | 1,323 | 68,721,782 | 59,414,433 | 462,012,398 | 36,519,137 | 626,667,750 |

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TABLE 718.—Farmers' business organizations by kinds and States, December, 1925

| State and division | Cotton and cotton products | Dairy products | Forage crops | Fruits and vegetables | Grains | Livestock | Nuts | Poultry and poultry products | Tobacco | Wool | Miscellaneous selling | Merchandise farmers' stores | Miscellaneous buying | Total |
|---------------------------|----------------------------|----------------|--------------|-----------------------|--------|-----------|------|------------------------------|---------|------|-----------------------|-----------------------------|----------------------|-------|
| Maine..... | | 7 | | 34 | 1 | | | 1 | | 1 | 8 | 28 | 8 | 82 |
| New Hampshire..... | | 4 | | | | | | | | | 2 | 2 | 6 | 14 |
| Vermont..... | | 42 | | 1 | | 1 | | | | | 12 | | 4 | 61 |
| Massachusetts..... | | 18 | | 5 | 1 | | | | 1 | 2 | 4 | | 17 | 48 |
| Rhode Island..... | | 2 | | | | | | | | | 1 | | | 7 |
| Connecticut..... | | 7 | | 5 | | | | 2 | 2 | | 81 | | 4 | 47 |
| New England..... | | 80 | | 45 | 3 | 1 | | 3 | 2 | 3 | 88 | 25 | 38 | 369 |
| New York..... | | 96 | 2 | 84 | 4 | 2 | | 2 | 1 | 32 | 18 | 12 | 43 | 286 |
| New Jersey..... | | 57 | | 20 | 3 | 1 | | | 4 | 8 | 24 | 2 | 10 | 20 |
| Pennsylvania..... | | 143 | 2 | 109 | 7 | 3 | | 3 | 5 | 40 | 45 | 23 | 142 | 522 |
| Middle Atlantic..... | | | | | | | | | | | | | | |
| Ohio..... | | 89 | | 21 | 205 | 74 | | 1 | 2 | 3 | 17 | 14 | 19 | 896 |
| Indiana..... | | 22 | | 24 | 138 | 91 | | | | 6 | 13 | 18 | 18 | 330 |
| Illinois..... | 1 | 39 | | 432 | 273 | | | 1 | | 1 | 22 | 22 | 9 | 822 |
| Michigan..... | | 60 | | 60 | 92 | 82 | | 1 | | 1 | 77 | 18 | 18 | 436 |
| Wisconsin..... | | 716 | | 26 | 57 | 184 | | 1 | 4 | 1 | 61 | 58 | 14 | 1,092 |
| East North Central..... | 1 | 906 | | 163 | 924 | 674 | | 5 | 6 | 12 | 190 | 126 | 76 | 3,075 |
| Minnesota..... | | 678 | | 53 | 301 | 300 | | 11 | | 5 | 22 | 105 | 8 | 1,383 |
| Iowa..... | | 226 | | 31 | 368 | 374 | | 8 | | 1 | 17 | 92 | 6 | 1,094 |
| Missouri..... | 5 | 11 | | 31 | 163 | 117 | | 1 | | 1 | 133 | 62 | 6 | 537 |
| North Dakota..... | | 16 | | 13 | 332 | 60 | | 2 | | 2 | 9 | 26 | 2 | 460 |
| South Dakota..... | | 25 | | 8 | 235 | 94 | | 4 | | 2 | 4 | 25 | 4 | 397 |
| Nebraska..... | | 11 | | 5 | 344 | 37 | | | | | 10 | 77 | 4 | 468 |
| Kansas..... | | 7 | | 3 | 847 | 23 | | | | 2 | 8 | 73 | 3 | 466 |
| West North Central..... | 5 | 874 | | 116 | 2,080 | 1,005 | | 20 | | 13 | 208 | 480 | 39 | 4,895 |
| Delaware..... | | 1 | | 5 | | | | | | | | | 4 | 12 |
| Maryland..... | | 2 | | 4 | 2 | | | | 1 | | 2 | 1 | 4 | 16 |
| District of Columbia..... | | 1 | | | | | | | | | | | | 1 |
| Virginia..... | | 13 | | 14 | 2 | 12 | 1 | | | 1 | 13 | 15 | 24 | 69 |
| West Virginia..... | | | | 9 | | 18 | | 1 | | 2 | 6 | | 6 | 42 |
| North Carolina..... | 6 | 5 | | 11 | 1 | | | | 2 | | 10 | 7 | 8 | 99 |
| South Carolina..... | 4 | | 1 | 11 | | | | | | | 1 | | 1 | 19 |

| | | | | | | | | | | | | | | | | | | |
|-------------------------|-----|-------|----|-------|-------|-------|----|----|----|----|---|-----|-----|-----|----|---|---|--------|
| Georgia..... | 15 | 1 | 2 | 10 | 5 | 30 | 4 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 12 | 2 | 2 | 45 |
| Florida..... | | | | 98 | | | | | | | | | | | 2 | 2 | 1 | 104 |
| South Atlantic..... | | | | | | | | | | | | | | | | | | |
| Kentucky..... | 25 | 23 | 2 | 162 | 5 | 30 | 4 | 2 | 4 | 3 | 3 | 48 | 27 | 50 | | | | 385 |
| Tennessee..... | | 6 | | 7 | 1 | 8 | | 4 | 2 | 3 | 3 | 9 | 11 | 5 | | | | 56 |
| Alabama..... | 3 | 25 | 1 | 36 | 2 | 8 | | 3 | 3 | 4 | 4 | 19 | 5 | 2 | | | | 111 |
| Mississippi..... | 12 | 3 | 1 | 22 | | 6 | | 2 | 2 | | | 13 | | 4 | | | | 68 |
| ..... | 8 | 3 | | 17 | | | | | | | | 22 | | | | | | 47 |
| East South Central..... | | | | | | | | | | | | | | | | | | |
| Arkansas..... | 18 | 37 | 2 | 82 | 3 | 22 | 1 | 8 | 5 | 7 | 7 | 65 | 16 | 11 | | | | 277 |
| Louisiana..... | 6 | | | 70 | 2 | | | 2 | | | | 7 | 11 | 3 | | | | 101 |
| Mississippi..... | 9 | | | 20 | 5 | | | | | | | 7 | 1 | 1 | | | | 38 |
| Alabama..... | 11 | 2 | | 8 | 89 | 4 | | | 1 | | | 9 | 17 | 3 | | | | 143 |
| Texas..... | 49 | 5 | 2 | 49 | 16 | 3 | 1 | 9 | | | | 22 | 12 | 4 | | | | 172 |
| West South Central..... | | | | | | | | | | | | | | | | | | |
| Montana..... | 68 | 8 | 2 | 147 | 112 | 7 | 1 | 11 | 1 | | | 45 | 41 | 11 | | | | 454 |
| Idaho..... | | 6 | | 4 | 64 | 12 | | 2 | | | | 5 | 7 | 1 | | | | 102 |
| Wyoming..... | | 9 | | 18 | 12 | | | 1 | | | | 9 | 7 | 1 | | | | 89 |
| Colorado..... | | 1 | | 2 | 6 | 1 | | 1 | | | | 3 | 2 | 1 | | | | 18 |
| New Mexico..... | | 6 | | 34 | 40 | 7 | | | | | | 7 | 4 | 1 | | | | 101 |
| Arizona..... | 1 | 1 | 2 | 2 | 6 | 1 | | 1 | | | | 9 | | 1 | | | | 20 |
| Utah..... | 3 | 1 | 1 | 5 | 1 | | | | | | | 6 | | 2 | | | | 20 |
| Nevada..... | | 9 | | 11 | 3 | 5 | | 3 | 3 | 3 | | 5 | 5 | 2 | | | | 41 |
| ..... |  |  |  |  | 1 | | | | | | | 1 | | | | | | 2 |
| Mountain..... | | | | | | | | | | | | | | | | | | |
| Washington..... | 4 | 33 | 3 | 76 | 132 | 21 | | 8 | | | | 42 | 25 | 9 | | | | 363 |
| Oregon..... | | 24 | 1 | 45 | 42 | | | 2 | | | | 5 | 38 | 4 | | | | 172 |
| California..... | | 50 | 1 | 37 | 9 | 2 | 3 | 2 | | | | 8 | 5 | 3 | | | | 121 |
| ..... |  | 19 | 3 | 255 | 11 | 5 | 30 | 7 | | | | 4 | 9 | 6 | | | | 350 |
| Pacific..... | | | | | | | | | | | | | | | | | | |
| United States..... | | 93 | 5 | 347 | 62 | 7 | 33 | 11 | | | | 17 | 52 | 13 | | | | 643 |
| | | | | | | | | | | | | | | | | | | |
| ..... | 124 | 2,197 | 16 | 1,287 | 3,338 | 1,770 | 39 | 71 | 24 | 91 | | 713 | 795 | 391 | | | | 10,803 |

Division of Agricultural Cooperation.

| | | | | | | | | | | | | | | | |
|-------------------------|----|--------|----|---------|----|--------|--|-----|---------|-----|---------|-----|---------|-------|-----------|
| South Carolina..... | 1 | 50 | 1 | 113 | | | | 5 | 3,429 | 2 | 114 | 1 | 80 | 11 | 16,211 |
| Georgia..... | | | | | | | | 2 | 3,325 | | 810 | 2 | 286 | 28 | 68,996 |
| Florida..... | | | | | | | | | | | | | | | 2,276 |
| South Atlantic..... | 1 | 50 | 4 | 102,465 | 3 | 2,501 | | 24 | 8,759 | 21 | 5,148 | 38 | 5,515 | 232 | 200,924 |
| Kentucky..... | 2 | 66 | 2 | 179,418 | 3 | 1,280 | | 7 | 1,164 | 9 | 2,659 | 4 | 528 | 46 | 194,979 |
| Tennessee..... | 1 | 132 | 3 | 411 | 4 | 433 | | 15 | 4,932 | 4 | 775 | 2 | 5,018 | 88 | 31,077 |
| Alabama..... | | | | | | | | 12 | 3,570 | | | 4 | 2,166 | 44 | 38,662 |
| Mississippi..... | | | | | | | | 15 | 4,869 | | | | | 21 | 28,888 |
| East South Central..... | 3 | 198 | 5 | 179,829 | 7 | 1,713 | | 49 | 14,555 | 13 | 3,454 | 10 | 8,300 | 204 | 280,016 |
| Arkansas..... | | | | | | | | 5 | 26,037 | 11 | 1,945 | 3 | 324 | 65 | 88,215 |
| Louisiana..... | | | | | | | | 4 | 1,864 | 1 | 21 | | | 92 | 13,378 |
| Oklahoma..... | | | 1 | 66 | | | | 7 | 8,338 | 16 | 2,402 | | | 128 | 92,339 |
| Texas..... | 6 | 1,458 | | | | | | 16 | 6,108 | 9 | 762 | 3 | 280 | 128 | 75,479 |
| West South Central..... | 5 | 1,458 | 1 | 66 | | | | 32 | 42,467 | 37 | 4,330 | 6 | 613 | 343 | 231,809 |
| Montana..... | 2 | 316 | | | | | | 2 | 86 | | 440 | 1 | 34 | 91 | 19,771 |
| Idaho..... | 1 | 980 | | | | | | 9 | 1,794 | 5 | 489 | 1 | 46 | 93 | 10,571 |
| Wyoming..... | | | | | | | | 2 | 520 | 2 | 618 | 1 | 18 | 14 | 1,693 |
| Colorado..... | | | | | | | | 5 | 783 | 3 | 234 | 1 | 88 | 72 | 17,673 |
| New Mexico..... | 1 | 20 | | | | | | 3 | 719 | | | 1 | 15 | 14 | 1,627 |
| Arizona..... | | | | | | | | 1 | 120 | | | | 212 | 15 | 2,079 |
| Utah..... | 2 | 1,070 | | | | | | 4 | 382 | 2 | 504 | 2 | 66 | 83 | 13,112 |
| Nevada..... | | | | | | | | 5 | 969 | | | | | 1 | 44 |
| Mountain..... | 6 | 2,356 | | | | | | 30 | 5,283 | 17 | 2,335 | 9 | 479 | 285 | 67,298 |
| Washington..... | | | | | | | | 5 | 719 | 24 | 5,200 | 3 | 494 | 180 | 24,148 |
| Oregon..... | 2 | 4,608 | | | | | | 7 | 1,048 | 4 | 366 | 2 | 48 | 77 | 13,720 |
| California..... | 6 | 5,024 | | | | | | 2 | 268 | 6 | 1,418 | 5 | 1,430 | 106 | 67,031 |
| Pacific..... | 10 | 10,603 | | | | | | 14 | 2,035 | 44 | 7,613 | 10 | 1,981 | 318 | 104,869 |
| United States..... | 43 | 31,872 | 19 | 300,174 | 57 | 47,021 | | 472 | 134,800 | 699 | 101,468 | 326 | 126,486 | 8,286 | 2,360,061 |

Division of Agricultural Cooperation.

TABLE 715.—Total expenditures of funds from all sources for cooperative agricultural extension work, by projects, United States, 1915-1924, by States, 1924

| Year and State | Total | Adminis- tration | Printing and dis- tribution of publica- tions | County agent work | Home dem- onstration work | Boys' and girls' club work | Home eco- nomics specialists | Extension schools | Animal hus- bandry | Poultry | Dairying | Animal diseases | Agronomy |
|--------------------|---------------|---------------------|---|-------------------------|---------------------------------|----------------------------------|------------------------------------|----------------------|--------------------------|------------|------------|--------------------|------------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| 1915..... | 3,498,815.35 | 295,308.45 | 71,597.65 | 1,902,230.51 | 319,822.50 | 162,448.27 | 198,333.91 | 42,448.08 | 196,098.08 | 106,098.08 | 4,583.64 | 20,972.81 | |
| 1916..... | 4,864,180.04 | 445,243.67 | 99,779.68 | 2,411,539.81 | 519,866.99 | 231,227.16 | 196,045.02 | 131,937.90 | 47,328.40 | 172,557.69 | 21,936.05 | 77,850.95 | |
| 1917..... | 6,149,619.63 | 512,891.54 | 137,647.87 | 3,035,640.94 | 741,679.89 | 319,556.91 | 175,754.15 | 162,083.74 | 59,498.54 | 205,966.83 | 44,215.50 | 105,529.87 | |
| 1918..... | 11,302,764.75 | 754,175.86 | 267,478.99 | 5,604,962.72 | 2,226,277.97 | 699,666.18 | 153,904.15 | 306,270.72 | 70,402.84 | 352,852.51 | 31,777.11 | 153,211.24 | |
| 1919..... | 14,692,560.50 | 930,658.24 | 203,616.98 | 7,124,500.50 | 2,869,210.50 | 921,621.38 | 131,752.14 | 350,168.56 | 199,441.59 | 286,756.98 | 71,678.74 | 170,534.71 | |
| 1920..... | 14,638,079.92 | 995,051.57 | 308,029.24 | 7,665,170.77 | 2,177,024.52 | 883,615.86 | 332,415.38 | 144,157.62 | 231,141.57 | 151,161.93 | 276,917.62 | 63,200.89 | 218,019.26 |
| 1921..... | 16,772,248.32 | 1,147,756.66 | 392,024.06 | 8,911,965.32 | 2,388,473.21 | 923,084.19 | 300,146.47 | 147,582.19 | 300,270.51 | 200,454.02 | 323,182.77 | 36,432.87 | 281,547.94 |
| 1922..... | 17,181,751.64 | 1,159,074.59 | 408,983.22 | 8,946,340.45 | 2,400,789.41 | 934,385.85 | 470,378.09 | 154,153.53 | 291,417.41 | 280,773.00 | 40,492.07 | 350,605.55 | |
| 1923..... | 18,428,845.00 | 1,226,809.21 | 332,987.35 | 9,625,817.43 | 2,700,419.11 | 991,179.78 | 592,968.15 | 144,870.45 | 338,874.66 | 270,060.32 | 369,724.59 | 44,758.23 | 388,279.58 |
| 1924..... | 19,082,025.04 | 1,201,783.43 | 389,321.11 | 9,999,271.48 | 2,831,269.37 | 991,490.45 | 575,250.46 | 170,929.62 | 355,517.40 | 294,732.27 | 395,267.26 | 36,781.09 | 417,558.06 |
| 1924 STATE | | | | | | | | | | | | | |
| Alabama..... | 498,641.27 | 17,285.01 | 1,709.41 | 234,520.64 | 125,823.74 | 10,441.21 | 7,665.25 | 2,391.70 | 15,482.47 | 375.96 | 217.25 | 5,875.51 | |
| Arizona..... | 193,193.38 | 12,514.75 | 828.60 | 58,922.38 | 17,729.53 | 3,407.41 | 5,218.46 | 661.86 | 5,218.46 | 2,161.08 | 2,023.84 | | |
| Arkansas..... | 432,967.87 | 33,490.09 | 5,462.77 | 206,101.10 | 147,576.26 | 28,599.76 | 10,707.06 | 661.86 | 1,718.18 | 9,949.60 | 5,717.40 | | |
| California..... | 605,300.80 | 18,545.17 | 113,294.61 | 113,294.61 | 7,993.64 | 20,648.72 | 9,866.46 | 6,753.10 | 6,482.26 | 9,374.82 | 770.70 | 8,216.71 | |
| Colorado..... | 217,758.61 | 15,300.76 | 8,198.94 | 108,738.60 | 7,993.64 | 20,648.72 | 9,866.46 | 6,753.10 | 6,482.26 | 9,374.82 | 770.70 | 8,216.71 | |
| Connecticut..... | 281,146.75 | 18,303.96 | 6,890.18 | 109,050.91 | 10,025.53 | 17,506.53 | 15,372.98 | 625.48 | 5,609.22 | 11,805.59 | 10,103.68 | 4,941.87 | |
| Delaware..... | 38,123.00 | 6,232.37 | 1,137.97 | 15,878.09 | 3,407.41 | 10,114.27 | 3,711.91 | 1,783.20 | 2,708.58 | 6,901.76 | 4,705.66 | 1,013.45 | |
| Florida..... | 253,573.11 | 13,967.25 | 2,696.23 | 120,114.98 | 86,379.10 | 5,391.08 | 3,711.91 | 1,783.20 | 6,708.49 | 9,374.82 | 770.70 | 8,216.71 | |
| Georgia..... | 580,488.59 | 26,478.99 | 6,968.93 | 273,343.29 | 153,919.04 | 15,824.93 | 6,250.18 | 1,557.35 | 10,121.58 | 7,085.58 | 1,586.67 | 9,544.70 | |
| I Idaho..... | 187,492.81 | 10,072.94 | 697.85 | 75,687.84 | 23,188.84 | 16,081.19 | 3,352.58 | 1,557.35 | 10,121.58 | 7,085.58 | 1,586.67 | 9,544.70 | |
| Illinois..... | 1,098,935.47 | 14,271.52 | 4,310.22 | 589,164.77 | 84,984.68 | 10,028.28 | 20,628.38 | 6,983.12 | 2,740.02 | 8,843.76 | 2,664.66 | 12,961.00 | |
| Indiana..... | 498,551.68 | 60,408.84 | 7,018.91 | 235,620.49 | 9,411.57 | 42,518.20 | 12,947.30 | 10,578.70 | 13,084.24 | 12,240.23 | 12,886.14 | 9,538.28 | |
| Iowa..... | 952,500.33 | 60,408.84 | 20,969.29 | 630,877.23 | 50,351.24 | 30,556.25 | 37,764.70 | 6,922.83 | 15,383.39 | 25,084.15 | 4,620.26 | 20,772.56 | |
| Kansas..... | 463,206.51 | 21,961.94 | 9,196.71 | 257,152.91 | 26,171.15 | 11,639.60 | 21,177.17 | 48,307.86 | 7,694.50 | 7,481.57 | 7,481.57 | 4,877.25 | |
| Kentucky..... | 463,206.51 | 22,419.50 | 4,797.79 | 284,782.25 | 74,473.04 | 30,048.70 | 15,886.69 | 6,237.81 | 10,738.65 | 7,085.58 | 2,664.66 | 9,538.28 | |
| Louisiana..... | 338,619.16 | 33,968.15 | 4,329.33 | 197,199.23 | 50,780.01 | 14,758.05 | 3,335.38 | 9,707.67 | 9,194.07 | 8,879.22 | 3,642.47 | 5,931.38 | |
| Maine..... | 160,310.99 | 13,867.42 | 1,127.78 | 64,792.95 | 6,673.39 | 6,673.39 | 3,944.69 | 633.00 | 3,354.51 | 2,852.81 | 2,852.81 | 3,354.51 | |
| Maryland..... | 298,795.13 | 24,662.22 | 1,127.78 | 114,926.95 | 66,707.07 | 8,385.93 | 5,372.43 | 3,763.38 | 3,763.38 | 3,504.99 | 4,186.78 | 4,331.38 | |
| Massachusetts..... | 14,515.06 | 1,515.06 | 8,866.91 | 109,772.65 | 7,952.75 | 13,764.47 | 9,922.75 | 10,602.82 | 3,763.38 | 6,194.77 | 1,606.34 | 1,606.34 | |
| Michigan..... | 699,360.55 | 21,346.27 | 6,239.71 | 330,241.88 | 26,794.06 | 65,441.64 | 12,575.10 | 3,165.83 | 4,674.03 | 8,069.71 | 20,520.71 | 17,667.16 | |

| | | | | | | | | | | | | |
|----------------|--------------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
| Minnesota | 441,307.89 | 28,960.19 | 10,620.75 | 201,954.74 | 15,563.56 | 28,372.95 | 10,836.23 | 8,580.48 | 7,454.87 | 15,591.95 | 4,068.71 | 3,626.94 |
| Mississippi | 481,476.56 | 20,390.68 | 4,519.04 | 227,417.64 | 138,897.64 | 24,674.86 | 9,490.59 | 4,500.12 | 4,730.29 | 14,574.65 | ----- | 28,684.58 |
| Missouri | 421,644.06 | 20,800.31 | 7,755.86 | 220,636.04 | 32,452.72 | 11,411.30 | 39,205.80 | 11,539.57 | 9,130.99 | 12,516.15 | ----- | 10,420.88 |
| Montana | 253,496.16 | 21,188.59 | 1,970.58 | 130,831.88 | 24,818.34 | 24,618.34 | 11,311.43 | 5,604.62 | 4,651.06 | 5,794.78 | ----- | 10,000.58 |
| Nebraska | 328,605.22 | 17,196.67 | 3,535.24 | 211,941.71 | 10,183.38 | 19,614.47 | 16,214.67 | 5,600.02 | 4,937.86 | 3,114.70 | ----- | 5,283.93 |
| Nevada | 96,681.06 | 8,804.81 | ----- | 48,394.67 | 24,071.49 | 825.00 | ----- | 703.39 | ----- | 2,651.40 | ----- | ----- |
| New Hampshire | 128,357.91 | 11,170.55 | 5,606.09 | 48,692.98 | 30,945.72 | 22,827.47 | ----- | ----- | ----- | 5,790.02 | ----- | 4,676.76 |
| New Jersey | 267,034.98 | 19,685.22 | 4,151.42 | 108,861.98 | 52,985.87 | 51,038.90 | 11,925.08 | 3,145.01 | 9,401.53 | 5,790.06 | ----- | 4,185.45 |
| New Mexico | 153,437.70 | 17,010.83 | 1,739.76 | 91,979.26 | 15,690.65 | 2,364.10 | ----- | 18,567.98 | 4,906.84 | 5,830.86 | ----- | 18,386.30 |
| New York | 1,214,341.12 | 91,633.76 | 121,608.44 | 457,914.76 | 184,992.09 | 92,633.98 | 51,962.34 | 53,814.25 | 17,726.98 | 18,134.47 | ----- | ----- |
| North Carolina | 579,848.00 | 19,708.86 | 12,104.00 | 342,919.55 | 119,895.66 | 1,200.00 | ----- | 32,441.43 | 4,117.46 | 5,576.45 | ----- | 15,336.31 |
| North Dakota | 244,696.96 | 14,826.27 | 2,469.35 | 146,997.37 | 13,181.19 | 9,235.00 | 16,945.76 | 14,410.14 | 9,231.15 | 5,214.81 | 4,473.26 | 29,847.44 |
| Ohio | 635,868.14 | 46,610.65 | 13,393.77 | 296,435.25 | 41,268.65 | 60,342.83 | 24,711.56 | 14,464.38 | 9,073.73 | 11,399.12 | ----- | 4,068.72 |
| Oklahoma | 464,077.97 | 27,752.38 | 6,594.18 | 134,860.23 | 33,552.88 | 38,452.88 | 5,864.58 | 4,404.78 | 7,075.73 | 5,293.84 | ----- | 8,824.00 |
| Oregon | 274,223.39 | 32,732.99 | 5,497.69 | 112,721.48 | 19,119.63 | 35,470.36 | 5,165.31 | 4,483.42 | 4,520.46 | 4,592.65 | ----- | ----- |
| Pennsylvania | 685,004.28 | 75,027.65 | 3,145.14 | 307,213.99 | 15,998.29 | 79,225.24 | 266.30 | 21,558.37 | 19,219.08 | 29,742.07 | ----- | 24,412.11 |
| Rhode Island | 31,833.59 | 3,613.10 | 7,432.00 | 4,288.51 | 8,163.50 | 8,294.26 | ----- | 8,692.74 | 5,713.08 | 12,205.11 | ----- | 13,900.69 |
| South Carolina | 414,084.20 | 30,811.21 | 7,038.90 | 166,868.50 | 118,723.00 | 8,294.26 | 6,320.96 | 8,068.32 | 4,507.24 | 4,797.46 | 5,019.57 | 13,262.54 |
| South Dakota | 332,828.73 | 25,308.43 | 7,038.90 | 202,492.50 | 30,307.47 | 3,538.46 | 13,287.77 | 13,322.51 | 4,221.47 | 18,440.91 | ----- | 9,090.53 |
| Tennessee | 432,640.63 | 30,433.39 | 8,743.76 | 215,753.99 | 89,330.46 | 4,798.63 | 9,779.64 | 6,627.36 | ----- | ----- | ----- | ----- |
| Texas | 964,370.74 | 43,403.63 | 13,085.61 | 535,298.47 | 272,360.98 | 9,076.00 | 14,100.80 | 10,196.40 | 7,523.90 | 6,034.58 | ----- | 6,282.03 |
| Utah | 182,649.00 | 9,143.48 | 421.22 | 68,833.21 | 19,282.03 | 7,251.28 | 3,181.74 | 2,107.98 | 1,905.75 | 6,736.60 | ----- | 9,473.94 |
| Virginia | 122,821.92 | 10,819.50 | 6,255.73 | 47,002.15 | 18,512.54 | 22,305.29 | 3,181.74 | 8,041.19 | 1,641.80 | 4,425.75 | ----- | 2,828.28 |
| Washington | 525,443.00 | 71,394.99 | 14,127.92 | 244,888.39 | 106,036.32 | 9,474.23 | 7,787.75 | 8,041.19 | 12,841.20 | 10,638.86 | ----- | 8,148.13 |
| West Virginia | 253,634.49 | 23,756.52 | 6,889.59 | 130,745.63 | 20,529.06 | 18,201.50 | 10,113.94 | 4,054.50 | 4,284.30 | 10,056.54 | ----- | 4,056.49 |
| Wisconsin | 365,808.55 | 22,711.32 | 8,293.97 | 137,253.75 | 48,632.47 | 30,897.24 | 21,239.56 | 7,755.28 | 7,766.31 | 5,542.84 | 1,912.70 | 4,920.04 |
| Wyoming | 333,758.75 | 19,771.77 | 14,252.30 | 219,042.63 | 6,104.31 | 12,279.29 | ----- | 11,837.50 | 5,288.65 | 22,057.62 | ----- | 18,660.76 |
| ----- | 191,597.25 | 14,260.48 | 1,550.22 | 71,001.03 | 19,026.00 | 4,031.20 | 3,590.30 | 5,363.49 | 3,978.88 | 756.90 | ----- | 5,263.17 |

* Prior to 1920, included home-economies specialists.
 † Prior to 1920, included under home demonstration work.

TABLE 715.—Total expenditures of funds from all sources for cooperative agricultural extension work, by projects, United States, 1915-1924, by States, 1924—Continued

| Year and State | Horticulture | Botany and plant pathology | Entomology and apiculture | Rodent pests | Forestry | Agricultural engineering | Farm management | Rural organization | Marketing | Exhibits and fairs | Farmers' institutes | Publicity | Miscellaneous specialists | Correspondence courses |
|--------------------|--------------|----------------------------|---------------------------|--------------|-----------|--------------------------|-----------------|--------------------|------------|--------------------|---------------------|-----------|---------------------------|------------------------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| 1915..... | 29,827.89 | 4,923.17 | 3,940.00 | 3,963.44 | 13,041.60 | 51,531.27 | 5,000.34 | 2,283.60 | 14,018.21 | 92,379.09 | 126,027.03 | 8,422.64 | | |
| 1916..... | 79,744.13 | 14,014.12 | 8,510.74 | 2,633.94 | 36,680.32 | 88,469.26 | 39,447.36 | 20,493.57 | 12,650.06 | 93,815.11 | 78,528.28 | 30,860.97 | | |
| 1917..... | 78,086.97 | 22,404.15 | 14,828.22 | 9,553.59 | 50,600.78 | 102,033.20 | 46,194.46 | 50,237.47 | 12,852.49 | 94,321.08 | 55,813.72 | 50,868.33 | | |
| 1918..... | 125,604.52 | 61,501.37 | 100,783.02 | 58,670.91 | 64,517.11 | 102,302.00 | 42,152.51 | 104,268.49 | 13,158.98 | 62,299.03 | 27,224.00 | 21,201.00 | | |
| 1919..... | 163,788.79 | 286,997.60 | 112,474.45 | 151,373.85 | 97,293.25 | 123,614.03 | 49,575.14 | 163,927.62 | 10,328.41 | 63,033.46 | 27,353.66 | 25,060.37 | | |
| 1920..... | 106,000.25 | 195,722.24 | 88,679.73 | 129,141.12 | 10,694.57 | 125,161.36 | 114,381.31 | 30,028.75 | 179,628.88 | 23,245.03 | 70,267.48 | 24,938.28 | | |
| 1921..... | 244,664.78 | 245,403.99 | 98,490.86 | 158,167.12 | 10,693.94 | 124,742.98 | 148,080.45 | 22,518.19 | 259,041.33 | 20,078.00 | 66,651.69 | 12,071.76 | | 29,643.68 |
| 1922..... | 272,175.98 | 103,683.99 | 103,562.27 | 154,067.62 | 13,201.60 | 128,178.32 | 152,623.81 | 21,318.83 | 294,183.86 | 10,311.31 | 76,033.84 | 99,549.81 | | 8,636.92 |
| 1923..... | 216,387.40 | 84,167.35 | 111,120.36 | 176,222.78 | 14,187.56 | 177,600.68 | 183,830.70 | 37,048.51 | 171,271.52 | 18,221.48 | 74,064.45 | 68,338.28 | | 35,322.00 |
| 1924..... | 316,343.61 | 95,242.00 | 106,905.73 | 143,737.23 | 18,928.99 | 167,832.95 | 156,415.94 | 50,843.31 | 177,435.75 | 24,863.34 | 75,479.04 | 13,070.98 | | 86,899.09 |
| 1924 STATE | | | | | | | | | | | | | | |
| Alabama..... | 5,073.71 | 1,913.14 | 2,698.45 | | 11,120.29 | 938.36 | | | 10,653.93 | 475.47 | | 5,967.87 | | |
| Arizona..... | 6,447.55 | | | 16,912.00 | | | | | 75.00 | | | | | |
| Arkansas..... | 7,424.32 | | 2,644.68 | 9,621.00 | 151.96 | 1,746.94 | | | 9,003.98 | | | | | |
| California..... | 8,791.36 | | | 9,977.54 | 11,873.07 | 2,856.07 | | | 375.00 | 3,337.81 | | 16,970.46 | | |
| Colorado..... | | | | | 8,122.38 | 4,593.05 | | | 2,106.06 | 343.50 | | 1,633.16 | | |
| Connecticut..... | 12,432.16 | 2,422.23 | | | 2,441.84 | 6,482.01 | | | 8,767.64 | | | 7,594.82 | | |
| Delaware..... | | 244.24 | | | | | | | | | | | | |
| Florida..... | 7,473.16 | | | | 7.15 | | | | 2,653.00 | 2,000.00 | | | | |
| Georgia..... | 4,073.13 | | | | 6,919.86 | | | | 5,899.01 | 3,145.80 | | 87,250.00 | | |
| Idaho..... | 4,417.45 | 2,111.16 | | 13,370.06 | 5.00 | | | | | | | | | |
| Illinois..... | 7,634.72 | | 480.94 | | 3,850.71 | 7,179.63 | | | 210.00 | | | | | |
| Indiana..... | 6,094.25 | 7,297.20 | | | 1,617.45 | 6,251.13 | | | 428.00 | | | | | |
| Iowa..... | 11,107.64 | 1,014.28 | 8,155.96 | 3,163.45 | 6,553.00 | 10,972.13 | 3,619.82 | | 9,732.45 | 3,141.26 | | 17,176.38 | | |
| Kansas..... | 6,703.21 | 4,336.95 | 4,294.65 | 6,198.98 | 9,487.78 | 4,513.58 | | | 9,175.87 | | | | | |
| Kentucky..... | 8,479.86 | | | | 5,689.15 | 5,245.30 | | | 8,788.40 | | | | | |
| Louisiana..... | 9,680.29 | | 3,642.46 | 150.00 | | | | | 2,928.47 | | | | | |
| Maine..... | | | | 2,670.97 | | 6,044.69 | | | | | | | | |
| Maryland..... | 8,931.41 | 4,440.60 | 6,423.81 | | 10.85 | 4,088.40 | | | 2,620.84 | | | | | |
| Massachusetts..... | 18,480.69 | 15.80 | 5,800.98 | .00 | | | | | 2,694.88 | 1,903.74 | | | | |
| Michigan..... | 20,927.97 | | | | 12,713.27 | 35.01 | | | 19,183.02 | | | | | |

| | | | | | | | | | | |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|-----------|
| Minnesota | 260.57 | 3,680.41 | 259.28 | 318.17 | 5,853.06 | 3,616.00 | 2,174.42 | 1,000.00 | 2,268.69 | |
| Mississippi | 11,402.47 | | | | 1,600.42 | 2,948.62 | 15,105.49 | | | |
| Missouri | 9,471.20 | 5,445.22 | | | 875.09 | 8,077.30 | 6,980.57 | | | |
| Montana | | 668.68 | | | 8,773.05 | 4,095.48 | 4,120.51 | | | |
| Nebraska | 3,776.33 | | | | | | | | | |
| Nevada | | | | | | | 441.67 | | | |
| New Hampshire | | | | | | 4,052.98 | | | | |
| New Jersey | 13,727.82 | | | | 14.95 | 4,530.39 | 315.00 | | | |
| New Mexico | 1,616.62 | | | | | | 2,450.78 | | | 153.62 |
| New York | 19,025.06 | 19,077.11 | 10,769.44 | 3,732.41 | 10,528.90 | 16,581.88 | 100.00 | | | |
| North Carolina | 10,265.32 | 3,647.90 | 6,328.62 | | 5,425.96 | 8,952.91 | 5,267.91 | | | |
| North Dakota | | 1,290.24 | | | 444.68 | | 86.00 | 334.36 | | 7,103.09 |
| Ohio | 13,562.77 | 765.24 | 5,469.52 | | 11,218.45 | 13,330.27 | 5,773.15 | | | 31,618.26 |
| Oklahoma | 4,415.72 | | 4,318.65 | | 4,593.10 | | 5,180.66 | | | |
| Oregon | 5,008.41 | | | | 4,311.11 | 5,444.21 | 6,278.57 | 7,361.84 | | |
| Pennsylvania | 15,900.44 | 15,646.36 | 19,194.42 | 8,667.39 | | 10,173.58 | 12,770.63 | | | |
| Rhode Island | | | | | | 541.62 | | | | |
| South Carolina | 4,776.78 | 4,258.61 | 4,812.41 | | 4,879.19 | 3,961.51 | 1,458.58 | | | |
| South Dakota | | | 4,264.35 | | 4,713.15 | | 1,414.72 | | | |
| Tennessee | 3,069.25 | | | | | | 11,044.85 | | | |
| Texas | 10,402.46 | | 4,824.03 | | 5,137.90 | | 10,016.95 | | | |
| Utah | 2,022.41 | 1,653.80 | 748.34 | | 1,629.01 | | 33.33 | | | 5,621.65 |
| Vermont | 805.09 | | | | 32.50 | 4,501.50 | 210.00 | | | |
| Virginia | 16,922.57 | 3,775.32 | | | 7,694.46 | | 2,866.84 | | | |
| Washington | 3,733.41 | 3,470.82 | 2,021.62 | 10,013.00 | 3,919.24 | 3,647.31 | 2,007.67 | | | |
| West Virginia | 14,283.05 | 2,927.69 | | | 23.98 | | 125.00 | | | 8,898.59 |
| Wisconsin | 90,226.63 | 7,077.61 | 2,438.32 | | 10,847.57 | 4,195.24 | 321.15 | | | |
| Wyoming | | | | | | | | 116.89 | | |

Office of Cooperative Extension Work.

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TABLE 716.—Total expenditures of funds from all sources for cooperative agricultural extension work, by sources of funds, 1915-1924

| Year | Total | United States Department of Agriculture | | Smith-Lever | | State and college | County | Other |
|--------------------|---------------|---|---------------|--------------|--------------|-------------------|--------------|--------------|
| | | Farmers' cooperative demonstration work | Other bureaus | Federal | State | | | |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| 1915..... | 3,597,233.85 | 905,762.00 | 106,168.40 | 474,934.73 | 597,922.73 | 1,044,270.38 | 780,331.79 | 286,748.55 |
| 1916..... | 4,864,180.94 | 900,389.92 | 163,172.01 | 1,077,923.73 | 1,575,054.38 | 872,733.90 | 973,231.56 | 276,782.09 |
| 1917..... | 6,146,619.63 | 938,333.87 | 183,863.15 | 1,575,054.38 | 2,068,066.29 | 832,114.16 | 1,238,296.14 | 244,910.55 |
| 1918..... | 11,302,764.75 | 1,300,406.80 | 507,282.95 | 2,068,066.29 | 2,538,828.04 | 881,091.25 | 1,863,632.29 | 374,910.38 |
| 1919..... | 14,661,560.50 | 1,021,061.39 | 405,020.96 | 4,464,344.36 | 3,984,344.36 | 1,244,465.72 | 2,865,739.87 | 470,073.28 |
| 1920..... | 16,792,248.32 | 1,025,063.33 | 435,046.70 | 4,974,048.50 | 4,494,048.50 | 1,549,897.30 | 3,293,598.38 | 1,023,557.61 |
| 1921..... | 17,181,751.64 | 1,007,263.48 | 299,540.93 | 5,510,349.45 | 5,060,349.45 | 1,497,378.71 | 2,972,740.71 | 854,137.91 |
| 1922..... | 18,494,845.00 | 1,004,729.29 | 275,832.24 | 5,820,818.89 | 5,340,818.89 | 1,712,786.53 | 3,420,000.81 | 910,182.35 |
| 1923..... | 19,082,025.04 | 991,900.82 | 224,320.98 | 5,859,605.01 | 5,379,605.01 | 1,066,875.21 | 3,893,185.02 | 1,006,528.99 |
| 1924..... | | | | | | | | |
| 1924, BY STATES | | | | | | | | |
| Alabama..... | 460,641.27 | 32,096.05 | 1,963.72 | 203,201.83 | 193,201.83 | 15,120.07 | 14,154.77 | |
| Arizona..... | 123,193.38 | 11,385.63 | 17,113.25 | 32,781.23 | 22,761.23 | 18,558.18 | 20,616.86 | |
| Arkansas..... | 433,867.87 | 30,942.97 | 2,498.77 | 153,576.10 | 153,576.10 | 9,663.30 | 54,386.82 | |
| California..... | 605,300.80 | 23,434.50 | 13,774.73 | 125,061.46 | 115,061.46 | 172,416.90 | 153,591.00 | |
| Colorado..... | 215,756.61 | 23,494.78 | 14,578.43 | 61,101.07 | 51,101.07 | 12,004.62 | 52,355.06 | |
| Connecticut..... | 281,146.75 | 13,664.13 | 84.15 | 56,680.00 | 46,680.00 | 35,895.91 | 98,284.38 | |
| Delaware..... | 38,123.01 | 6,639.88 | | 20,741.56 | 10,741.56 | | | |
| Florida..... | 263,573.41 | 22,052.78 | 2,632.15 | 74,368.33 | 64,368.33 | 16,200.00 | 73,951.82 | |
| Georgia..... | 580,498.59 | 38,529.13 | 1,157.94 | 237,780.76 | 227,780.76 | 16,873.92 | 38,000.00 | |
| Idaho..... | 183,492.81 | 20,696.68 | 17,186.28 | 42,867.74 | 32,867.74 | 16,873.92 | 51,442.32 | |
| Illinois..... | 1,026,935.47 | 632.13 | 210.00 | 228,495.98 | 218,495.98 | 13,000.00 | 21,989.22 | 543,712.16 |
| Indiana..... | 498,551.63 | 12,175.27 | 435.00 | 162,087.00 | 152,087.00 | 53,000.00 | 75,350.54 | 44,160.67 |
| Iowa..... | 992,400.33 | 13,800.82 | 351.30 | 170,596.43 | 160,596.43 | 221,457.72 | 141,500.00 | 284,167.63 |
| Kansas..... | 470,532.99 | 10,740.23 | 5,637.55 | 130,962.06 | 120,962.06 | 120,962.06 | 104,555.97 | 39,091.19 |
| Kentucky..... | 463,200.51 | 31,102.80 | 1,181.20 | 197,342.23 | 187,342.23 | 57,883.98 | 37,903.54 | 8,237.51 |
| Louisiana..... | 338,619.16 | 34,251.68 | 262.55 | 132,963.83 | 122,963.83 | 2,000.21 | 61,180.12 | 4,997.94 |
| Maine..... | 180,310.96 | 18,559.65 | | 59,217.76 | 49,217.76 | 63.00 | 25,788.77 | 6,874.05 |
| Maryland..... | 259,795.15 | 19,389.35 | 10.85 | 70,963.51 | 60,963.51 | 64,096.93 | 44,371.00 | |
| Massachusetts..... | 408,814.15 | 25,643.91 | | 31,234.75 | 21,234.75 | 78,540.74 | 232,160.00 | |
| Michigan..... | 599,360.55 | 9,060.74 | 632.40 | 159,913.05 | 149,913.05 | 72,613.51 | 207,204.00 | |

| | | | | | | | |
|---------------------|------------|-----------|-----------|------------|------------|------------|-----------|
| Minnesota..... | 441,307.89 | 13,646.98 | 235.00 | 150,319.33 | 31,609.66 | 81,555.21 | 23,622.38 |
| Mississippi..... | 481,473.56 | 38,712.48 | 1,769.25 | 173,904.53 | 8,017.70 | 97,140.91 | ----- |
| Missouri..... | 321,644.06 | 12,312.12 | 1,248.25 | 203,921.32 | 3,638.07 | 12,424.90 | ----- |
| Montana..... | 233,494.16 | 23,418.15 | 12,248.62 | 49,597.13 | 39,080.87 | 86,857.36 | ----- |
| Nebraska..... | 328,663.22 | 12,994.42 | 3,386.62 | 103,620.98 | 28,556.36 | 87,463.86 | ----- |
| Nevada..... | 96,681.06 | 12,362.53 | 12,231.25 | 16,530.11 | 694.39 | 48,332.67 | 15,464.69 |
| New Hampshire..... | 129,357.91 | 18,197.12 | ----- | 27,159.69 | 10,470.96 | 39,905.76 | ----- |
| New Jersey..... | 287,034.98 | 14,806.04 | 329.95 | 80,773.81 | 70,773.81 | 120,351.37 | 594.66 |
| New Mexico..... | 153,437.70 | 20,441.01 | 13,495.80 | 41,033.53 | 31,035.53 | 47,145.17 | 3,793.01 |
| New York..... | 214,341.12 | 11,118.39 | 13,478.15 | 196,113.14 | 287,129.71 | 523,595.58 | ----- |
| North Carolina..... | 579,848.00 | 33,279.81 | 6,877.45 | 227,356.06 | 10,642.72 | 84,335.90 | ----- |
| North Dakota..... | 244,596.98 | 7,128.97 | 5,572.00 | 68,694.01 | 1,807.78 | 32,702.61 | 1,263.28 |
| Ohio..... | 635,688.14 | 9,838.32 | 2,865.40 | 228,775.06 | 55,672.20 | 118,778.82 | ----- |
| Oklahoma..... | 464,007.97 | 30,502.62 | 6,304.17 | 164,375.95 | 54,375.95 | 108,449.28 | 1,276.07 |
| Oregon..... | 275,223.39 | 23,971.94 | 14,388.24 | 51,224.89 | 75,263.57 | 67,873.79 | ----- |
| Pennsylvania..... | 658,004.23 | 70.25 | ----- | 323,777.88 | 20,378.22 | 10,520.00 | ----- |
| Rhode Island..... | 31,838.59 | 7,722.36 | ----- | 11,580.21 | 135.81 | 70,722.62 | ----- |
| South Carolina..... | 414,044.80 | 32,401.05 | 1,892.25 | 154,014.49 | 7,000.01 | 112,418.99 | ----- |
| South Dakota..... | 333,828.75 | 22,765.14 | 8,845.67 | 68,176.30 | 67,449.45 | 5,968.19 | ----- |
| Tennessee..... | 427,560.52 | 35,926.71 | 9,471.70 | 191,413.63 | 31,413.63 | ----- | ----- |
| Texas..... | 954,370.74 | 55,117.58 | 6,707.20 | 341,015.26 | 51,015.26 | 290,515.14 | 1,307.40 |
| Utah..... | 143,649.09 | 16,488.28 | 15,699.75 | 34,968.68 | 24,565.65 | 29,573.72 | 23,256.13 |
| Vermont..... | 122,821.92 | 16,894.53 | 242.60 | 33,473.53 | 25,473.53 | 6,424.71 | 14,106.90 |
| Virginia..... | 525,443.09 | 31,741.52 | 304.10 | 181,894.66 | 71,894.66 | 71,106.90 | 12,228.79 |
| Washington..... | 253,634.49 | 26,142.13 | 11,367.30 | 73,868.29 | 68,868.29 | 74,794.14 | ----- |
| West Virginia..... | 301,898.55 | 18,131.17 | 148.98 | 123,015.45 | 15,015.45 | 17,974.49 | ----- |
| Wisconsin..... | 385,758.75 | 7,640.62 | 3,613.38 | 123,199.29 | 13,199.29 | 78,047.18 | ----- |
| Wyoming..... | 141,397.25 | 16,937.67 | 12,776.56 | 24,399.74 | 37,972.86 | 33,111.38 | ----- |

Office of Cooperative Extension Work.

* Includes \$2,949,072.48 emergency funds

* Includes \$4,598,243.13 emergency funds.

TABLE 717.—Number of counties with county extension agents, 1914-1925

| State | Number of counties | 1914 | | 1915 | | 1916 | | 1917 | | 1918 | | 1919 | | 1920 | | 1921 | | 1922 | | 1923 | | 1924 | | 1925 | |
|----------------|-----------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| Alabama | 67 | 18 | 19 | 67 | 19 | 65 | 27 | 62 | 28 | 66 | 67 | 65 | 54 | 55 | 32 | 36 | 55 | 34 | 54 | 34 | 59 | 35 | 59 | 37 | |
| Arizona | 14 | 46 | 15 | 53 | 20 | 53 | 31 | 61 | 47 | 68 | 65 | 66 | 58 | 58 | 43 | 40 | 34 | 11 | 11 | 10 | 9 | 10 | 12 | | |
| Arkansas | 79 | 46 | 20 | 52 | 20 | 61 | 47 | 68 | 47 | 68 | 65 | 66 | 58 | 58 | 43 | 40 | 34 | 11 | 11 | 10 | 9 | 10 | 12 | | |
| California | 88 | 4 | 11 | 13 | 19 | 13 | 17 | 22 | 16 | 23 | 24 | 27 | 8 | 35 | 10 | 37 | 10 | 36 | 47 | 42 | 50 | 39 | 22 | | |
| Colorado | 63 | 13 | 13 | 19 | 2 | 16 | 16 | 23 | 16 | 23 | 24 | 27 | 8 | 35 | 10 | 37 | 10 | 36 | 47 | 42 | 50 | 39 | 22 | | |
| Connecticut | 8 | 1 | 8 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 8 | 8 | 5 | 7 | 6 | 6 | 8 | 7 | | |
| Delaware | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| Florida | 63 | 26 | 27 | 34 | 28 | 37 | 35 | 53 | 54 | 57 | 42 | 57 | 42 | 32 | 29 | 31 | 28 | 33 | 37 | 37 | 33 | 37 | 36 | | |
| Georgia | 161 | 94 | 81 | 93 | 45 | 117 | 57 | 120 | 117 | 120 | 93 | 134 | 93 | 66 | 66 | 85 | 66 | 98 | 70 | 83 | 64 | 98 | 30 | | |
| Idaho | 44 | 2 | 3 | 7 | 7 | 11 | 11 | 27 | 11 | 27 | 24 | 32 | 4 | 34 | 5 | 32 | 5 | 28 | 21 | 30 | 19 | 30 | 16 | | |
| Illinois | 102 | 14 | 18 | 20 | 1 | 22 | 1 | 33 | 22 | 33 | 33 | 33 | 17 | 81 | 11 | 85 | 11 | 85 | 11 | 84 | 16 | 95 | 21 | | |
| Indiana | 92 | 27 | 31 | 32 | 16 | 40 | 26 | 53 | 22 | 53 | 33 | 33 | 23 | 86 | 19 | 82 | 3 | 82 | 2 | 86 | 2 | 95 | 21 | | |
| Iowa | 99 | 9 | 11 | 16 | 16 | 26 | 26 | 37 | 26 | 37 | 23 | 70 | 8 | 68 | 3 | 82 | 3 | 83 | 2 | 86 | 2 | 95 | 21 | | |
| Kansas | 106 | 9 | 39 | 56 | 56 | 33 | 33 | 67 | 33 | 67 | 14 | 53 | 8 | 51 | 9 | 59 | 9 | 59 | 9 | 58 | 9 | 63 | 15 | | |
| Kentucky | 119 | 28 | 39 | 47 | 24 | 45 | 27 | 90 | 45 | 90 | 71 | 74 | 33 | 53 | 18 | 61 | 19 | 61 | 26 | 59 | 24 | 72 | 24 | | |
| Louisiana | 64 | 41 | 43 | 43 | 18 | 42 | 20 | 58 | 42 | 58 | 33 | 55 | 32 | 41 | 24 | 38 | 25 | 45 | 29 | 45 | 28 | 48 | 24 | | |
| Maine | 16 | 16 | 3 | 4 | 4 | 9 | 9 | 14 | 9 | 14 | 14 | 16 | 2 | 16 | 5 | 16 | 5 | 16 | 15 | 16 | 15 | 16 | 19 | | |
| Maryland | 23 | 8 | 13 | 16 | 10 | 23 | 13 | 22 | 13 | 22 | 22 | 23 | 23 | 22 | 21 | 17 | 17 | 22 | 16 | 23 | 18 | 23 | 19 | | |
| Massachusetts | 14 | 14 | 10 | 9 | 9 | 11 | 11 | 13 | 11 | 13 | 12 | 13 | 10 | 11 | 9 | 11 | 9 | 11 | 11 | 11 | 10 | 11 | 11 | | |
| Michigan | 83 | 11 | 17 | 22 | 1 | 30 | 1 | 71 | 30 | 71 | 24 | 63 | 13 | 60 | 12 | 64 | 10 | 64 | 8 | 64 | 7 | 57 | 7 | | |
| Minnesota | 87 | 27 | 23 | 19 | 19 | 16 | 16 | 35 | 16 | 35 | 39 | 86 | 8 | 82 | 8 | 83 | 7 | 77 | 4 | 67 | 3 | 62 | 58 | | |
| Mississippi | 82 | 48 | 49 | 44 | 32 | 53 | 49 | 79 | 49 | 79 | 71 | 75 | 64 | 71 | 53 | 56 | 35 | 56 | 45 | 56 | 45 | 56 | 44 | | |
| Missouri | 114 | 18 | 15 | 14 | 14 | 16 | 16 | 23 | 16 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | | |
| Montana | 55 | 4 | 8 | 7 | 7 | 12 | 12 | 23 | 12 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | | |
| Nebraska | 93 | 5 | 8 | 9 | 9 | 8 | 8 | 16 | 8 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | | |
| Nevada | 17 | 17 | 5 | 8 | 1 | 6 | 6 | 8 | 6 | 8 | 10 | 4 | 5 | 6 | 5 | 7 | 6 | 9 | 4 | 11 | 4 | 8 | 9 | | |
| New Hampshire | 10 | 1 | 5 | 8 | 8 | 9 | 9 | 10 | 9 | 10 | 9 | 10 | 6 | 9 | 8 | 10 | 5 | 10 | 6 | 10 | 4 | 10 | 8 | | |
| New Jersey | 21 | 4 | 7 | 11 | 1 | 10 | 2 | 17 | 10 | 17 | 8 | 18 | 5 | 18 | 8 | 18 | 7 | 18 | 9 | 18 | 8 | 18 | 11 | | |
| New Mexico | 31 | 8 | 8 | 9 | 9 | 11 | 11 | 25 | 11 | 25 | 11 | 25 | 5 | 22 | 4 | 22 | 4 | 22 | 4 | 22 | 4 | 22 | 4 | | |
| New York | 60 | 25 | 29 | 36 | 1 | 41 | 3 | 56 | 41 | 56 | 38 | 55 | 24 | 55 | 22 | 55 | 28 | 55 | 31 | 55 | 32 | 56 | 35 | | |
| North Carolina | 100 | 51 | 64 | 65 | 44 | 69 | 46 | 91 | 69 | 91 | 72 | 87 | 66 | 77 | 4 | 77 | 4 | 77 | 4 | 73 | 59 | 76 | 49 | | |
| North Dakota | 53 | 17 | 15 | 16 | 16 | 17 | 17 | 33 | 17 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | | |
| Ohio | 88 | 8 | 10 | 12 | 12 | 12 | 12 | 63 | 10 | 63 | 63 | 65 | 5 | 63 | 2 | 80 | 2 | 83 | 10 | 86 | 8 | 81 | 15 | | |
| Oklahoma | 77 | 49 | 59 | 59 | 22 | 62 | 23 | 77 | 22 | 77 | 77 | 77 | 46 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | | |
| Oregon | 36 | 10 | 12 | 13 | 13 | 14 | 14 | 24 | 14 | 24 | 15 | 23 | 26 | 40 | 5 | 26 | 6 | 36 | 4 | 42 | 4 | 42 | 4 | | |

| | 67 | 10 | 14 | 22 | 1 | 45 | 53 | 48 | 40 | 54 | 57 | 3 | 63 | 5 | 60 | 28 | 63 | 28 | 28 |
|----------------|-------|-----|-----|-------|-----|-------|-----|-------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|-----|
| Pennsylvania | 3 | 43 | 24 | 42 | 31 | 13 | 36 | 44 | 45 | 45 | 42 | 38 | 42 | 36 | 38 | 36 | 40 | 38 | 5 |
| Rhode Island | 40 | 3 | 3 | 11 | 13 | 13 | 26 | 44 | 45 | 45 | 39 | 3 | 36 | 38 | 38 | 36 | 38 | 38 | 5 |
| South Carolina | 40 | 3 | 3 | 11 | 13 | 13 | 26 | 44 | 45 | 45 | 39 | 3 | 36 | 38 | 38 | 36 | 38 | 38 | 5 |
| South Dakota | 40 | 3 | 3 | 11 | 13 | 13 | 26 | 44 | 45 | 45 | 39 | 3 | 36 | 38 | 38 | 36 | 38 | 38 | 5 |
| Tennessee | 40 | 3 | 3 | 11 | 13 | 13 | 26 | 44 | 45 | 45 | 39 | 3 | 36 | 38 | 38 | 36 | 38 | 38 | 5 |
| Texas | 264 | 98 | 28 | 90 | 27 | 90 | 38 | 92 | 31 | 178 | 67 | 168 | 69 | 127 | 55 | 126 | 38 | 143 | 158 |
| Utah | 264 | 98 | 28 | 90 | 27 | 90 | 38 | 92 | 31 | 178 | 67 | 168 | 69 | 127 | 55 | 126 | 38 | 143 | 158 |
| Vermont | 14 | 7 | 9 | 11 | 13 | 13 | 26 | 44 | 45 | 45 | 39 | 3 | 36 | 38 | 38 | 36 | 38 | 38 | 5 |
| Virginia | 10 | 53 | 17 | 10 | 25 | 13 | 38 | 53 | 38 | 75 | 52 | 71 | 36 | 57 | 28 | 61 | 23 | 67 | 80 |
| Washington | 30 | 7 | 10 | 13 | 22 | 22 | 34 | 34 | 22 | 29 | 6 | 29 | 32 | 8 | 31 | 7 | 28 | 7 | 24 |
| West Virginia | 58 | 13 | 5 | 27 | 10 | 28 | 12 | 45 | 12 | 48 | 33 | 48 | 22 | 40 | 12 | 31 | 8 | 40 | 18 |
| Wisconsin | 71 | 9 | 12 | 10 | 22 | 22 | 17 | 41 | 4 | 42 | 2 | 50 | 1 | 50 | 1 | 50 | 1 | 47 | 1 |
| Wyoming | 23 | 8 | 6 | 8 | 13 | 13 | 15 | 5 | 7 | 14 | 7 | 16 | 6 | 16 | 6 | 16 | 6 | 16 | 6 |
| Total | 1,304 | 928 | 270 | 1,136 | 350 | 1,436 | 537 | 2,435 | 1,715 | 2,247 | 1,049 | 2,033 | 784 | 2,043 | 699 | 2,114 | 801 | 2,096 | 928 |

Office of Cooperative Extension Work.

! Number of counties reporting agricultural products.

| | | | | | | | | | | | | | | |
|--------------------|------------|-----------|-----------|------------|-----------|-----------|---------|-------|---------|-----------|-----------|-----------|------------|-------------|
| Kentucky..... | 1,215,435 | 6,751 | 6,885 | 1,228,769 | 2,665 | 73,413 | 13 | 2 | 73,428 | 1,304,862 | 2,149,780 | 30,780 | 226,070 | 2,416,680 |
| Tennessee..... | 1,061,037 | 2,420 | 2,917 | 1,066,374 | 1,656 | 203,633 | 24 | 1 | 203,678 | 1,271,708 | 1,870,515 | 15,478 | 451,892 | 2,337,885 |
| Alabama..... | 812,282 | 2,612 | 2,749 | 817,643 | 2,379 | 515,994 | 255 | 14 | 515,863 | 1,335,885 | 1,429,370 | 17,662 | 901,142 | 2,348,174 |
| Mississippi..... | 541,068 | 1,966 | 2,334 | 545,388 | 1,698 | 722,276 | 1,002 | 14 | 723,395 | 1,270,482 | 845,945 | 8,019 | 996,656 | 1,790,618 |
| Arkansas..... | 792,613 | 7,246 | 8,033 | 807,892 | 4,939 | 334,162 | 49 | 7 | 334,218 | 1,147,049 | 1,265,782 | 13,975 | 472,447 | 1,752,204 |
| Louisiana..... | 405,345 | 8,789 | 4,193 | 418,327 | 5,813 | 361,661 | 224 | 5 | 361,910 | 786,090 | 1,051,740 | 44,871 | 701,898 | 1,798,509 |
| Oklahoma..... | 842,893 | 22,783 | 20,039 | 857,615 | 13,362 | 78,189 | 38,137 | 4 | 16 | 116,330 | 1,017,327 | 1,781,226 | 207,089 | 2,028,283 |
| Texas..... | 1,545,766 | 125,709 | 73,802 | 1,744,977 | 114,507 | 417,095 | 946 | 18 | 418,289 | 2,277,773 | 3,557,646 | 390,519 | 745,053 | 4,663,228 |
| Montana..... | 119,891 | 39,737 | 25,064 | 184,092 | 33,642 | 6,971 | 71 | 127 | 7,333 | 225,667 | 440,640 | 93,629 | 14,629 | 548,889 |
| Idaho..... | 139,747 | 22,739 | 20,601 | 153,067 | 14,705 | 128 | 2,263 | 81 | 622 | 3,110 | 200,902 | 386,705 | 38,965 | 431,866 |
| Wyoming..... | 47,562 | 7,288 | 5,988 | 60,808 | 5,594 | 118 | 683 | 88 | 904 | 67,305 | 164,891 | 25,255 | 4,256 | 194,402 |
| Colorado..... | 187,995 | 32,992 | 18,469 | 239,456 | 24,357 | 556 | 371 | 1 | 1,327 | 2,260 | 266,073 | 807,149 | 116,954 | 989,629 |
| New Mexico..... | 134,730 | 4,611 | 4,866 | 143,707 | 5,360 | 289 | 12,042 | 1 | 1 | 12,379 | 161,446 | 205,596 | 29,077 | 360,350 |
| Arizona..... | 42,206 | 5,683 | 4,262 | 52,151 | 13,711 | 394 | 23,983 | 46 | 297 | 24,686 | 90,560 | 213,356 | 78,069 | 334,162 |
| Utah..... | 88,160 | 20,461 | 19,752 | 128,373 | 9,540 | 69 | 1,471 | 11 | 753 | 2,336 | 140,249 | 385,446 | 56,455 | 446,396 |
| Nevada..... | 7,397 | 2,460 | 1,571 | 11,428 | 2,779 | 16 | 1,856 | 45 | 39 | 1,957 | 16,164 | 55,897 | 14,802 | 77,407 |
| Washington..... | 155,559 | 47,092 | 28,783 | 231,444 | 44,094 | 357 | 4,291 | 117 | 3,079 | 38,382 | 1,069,722 | 250,055 | 36,844 | 1,356,621 |
| Oregon..... | 145,729 | 23,713 | 19,511 | 188,953 | 21,117 | 121 | 2,665 | 177 | 966 | 3,931 | 214,021 | 666,995 | 102,151 | 783,389 |
| California..... | 245,593 | 85,654 | 45,020 | 376,267 | 94,910 | 1,652 | 7,164 | 3,617 | 31,471 | 45,593 | 516,770 | 2,583,049 | 681,662 | 3,426,961 |
| United States..... | 21,045,836 | 2,329,166 | 1,470,612 | 24,842,614 | 1,471,040 | 5,112,233 | 142,714 | 4,287 | 39,504 | 5,300,615 | 91,269,81 | 1,08,161 | 13,712,754 | 105,710,620 |

Division of Farm Population and Rural Life. Compiled from reports of Bureau of the Census.

See footnotes to Table 719.

* Includes 1,887 nonwhites other than Negroes, Indians, Chinese, or Japanese, of which 1,639 were reported from California.

TABLE 719.—*Farm population and other population, by race, nativity, parentage, and age group, United States, 1920*

BY RACE, ETC.

| Race, nativity, parentage, and age group | Farm population ¹ | Rural population ² | Urban population ³ | Total population | Percentage distribution | | | |
|--|------------------------------|-------------------------------|-------------------------------|------------------|-------------------------|------------------|------------------|------------------|
| | | | | | Farm population | Rural population | Urban population | Total population |
| White: | | | | | | | | |
| Native | 24,842,614 | 40,845,060 | 40,263,101 | 81,108,161 | 78.6 | 79.5 | 74.1 | 78.7 |
| Native parentage | 21,045,836 | 33,865,228 | 24,556,729 | 58,421,957 | 66.6 | 65.9 | 45.2 | 65.3 |
| Foreign parentage | 2,326,166 | 4,389,653 | 11,304,886 | 15,994,539 | 7.4 | 8.5 | 20.8 | 14.8 |
| Mixed parentage | 1,470,612 | 2,590,179 | 4,401,486 | 6,991,695 | 4.7 | 5.0 | 8.1 | 6.6 |
| Foreign born | 1,471,040 | 3,355,771 | 10,356,983 | 13,712,754 | 4.7 | 6.5 | 19.1 | 13.0 |
| Total | 28,313,654 | 44,200,831 | 50,620,084 | 94,820,915 | 83.2 | 86.0 | 93.2 | 89.7 |
| Colored (nonwhite): | | | | | | | | |
| Negro | 5,112,253 | 6,003,658 | 3,559,473 | 10,463,131 | 16.2 | 13.4 | 6.6 | 9.9 |
| Indian | 142,714 | 229,218 | 15,219 | 244,437 | 0.5 | 0.4 | (⁴) | 0.2 |
| Chinese | 4,287 | 11,631 | 50,008 | 61,639 | (⁴) | (⁴) | 0.1 | 0.1 |
| Japanese | 39,504 | 57,180 | 53,890 | 111,010 | 0.1 | 0.1 | 0.1 | 0.1 |
| All other | 1,857 | 3,499 | 5,989 | 9,488 | (⁴) | (⁴) | (⁴) | (⁴) |
| Total | 5,300,615 | 7,205,186 | 3,684,519 | 10,889,705 | 16.8 | 14.0 | 6.8 | 10.3 |
| Total white and colored | 31,614,269 | 51,406,017 | 54,304,603 | 105,710,620 | 100.0 | 100.0 | 100.0 | 100.0 |

BY AGE

| | | | | | | | | |
|-------------------|------------|------------|------------|-------------|-------|-------|-------|-------|
| Under 10 years | 8,138,070 | 12,645,278 | 10,326,027 | 22,971,805 | 25.7 | 24.6 | 19.0 | 21.7 |
| 10 to 20 years | 7,824,106 | 11,813,311 | 10,030,484 | 21,852,795 | 24.7 | 23.0 | 18.5 | 20.7 |
| 21 years and over | 15,652,092 | 26,947,428 | 33,939,092 | 60,886,520 | 40.5 | 52.4 | 62.5 | 57.6 |
| All ages | 31,614,269 | 51,406,017 | 54,304,603 | 105,710,620 | 100.0 | 100.0 | 100.0 | 100.0 |

Division of Farm Population and Rural Life. Compiled from reports of Bureau of the Census.

¹ Definition of farm population as used in these tables: (1) All persons living on farms, without regard to occupation; (2) all those farm laborers (and their families) who, while not living on farms, nevertheless live in strictly rural territory, outside the limits of any incorporated place.² Definition of rural population: All persons other than those who are urban.³ Definition of urban population: All persons living in places of 2,500 population and more.⁴ Less than one-tenth of 1 per cent.TABLE 720.—*Farm population and other population, summary, United States, 1920*

| Item | Number | Percentage of total population |
|---|-------------|--------------------------------|
| Farm population | 31,614,269 | 29.9 |
| Farm population in rural territory | 31,358,640 | 29.66 |
| Farm population in urban territory | 255,629 | .24 |
| In cities and other incorporated places of 25,000 and over | 82,965 | .08 |
| In cities and other incorporated places of 10,000 to 25,000 | 96,191 | .09 |
| In cities and other incorporated places of 2,500 to 10,000 | 166,543 | .16 |
| Rural population | 51,406,017 | 48.6 |
| In incorporated places of less than 2,500 inhabitants | 8,969,241 | 8.5 |
| In unincorporated territory | 42,436,776 | 40.1 |
| Urban population (living in cities and other incorporated places of 2,500 inhabitants and over) | 54,304,603 | 51.4 |
| Total population | 105,710,620 | 100.0 |

Division of Farm Population and Rural Life. Compiled from Bureau of the Census reports. See footnotes to Table 719.

TABLE 721.—Farm population and other population, by place of residence, by States, 1920

| State | Farm population | | | | Urban population (in cities and other incorporated places of 2,500 and over) | Total population | |
|---------------------------|--------------------|--|---|------------|---|---------------------|--|
| | In rural territory | | In cities and other incorporated places of 2,500 and over | Total | | | |
| | Number | Per cent of rural popu- lation | | Number | | | Per cent of total popu- lation |
| Maine..... | 189,028 | 40.4 | 8,575 | 197,601 | 25.7 | 299,599 | 768,014 |
| New Hampshire..... | 64,607 | 39.6 | 11,414 | 76,021 | 17.2 | 279,761 | 443,083 |
| Vermont..... | 124,445 | 51.3 | 818 | 125,263 | 35.5 | 100,976 | 352,428 |
| Massachusetts..... | 61,732 | 30.5 | 56,822 | 118,554 | 3.1 | 3,650,248 | 3,852,356 |
| Rhode Island..... | 5,315 | 34.9 | 9,821 | 15,136 | 2.5 | 589,180 | 604,397 |
| Connecticut..... | 90,297 | 20.3 | 3,005 | 93,302 | 6.8 | 936,339 | 1,380,631 |
| New York..... | 782,954 | 43.6 | 17,793 | 800,747 | 7.7 | 8,589,844 | 10,385,227 |
| New Jersey..... | 136,847 | 20.1 | 6,861 | 143,708 | 4.6 | 5,474,930 | 3,155,600 |
| Pennsylvania..... | 941,360 | 30.2 | 6,974 | 948,334 | 10.9 | 6,007,815 | 8,720,017 |
| Ohio..... | 1,133,912 | 54.5 | 5,417 | 1,139,329 | 19.8 | 3,677,136 | 5,759,394 |
| Indiana..... | 902,820 | 62.4 | 4,475 | 907,295 | 31.0 | 1,482,855 | 2,920,390 |
| Illinois..... | 1,060,736 | 52.4 | 7,526 | 1,068,262 | 18.9 | 4,403,153 | 6,485,280 |
| Michigan..... | 844,400 | 59.2 | 4,211 | 848,710 | 23.1 | 2,241,500 | 3,698,412 |
| Wisconsin..... | 915,237 | 66.0 | 4,890 | 920,037 | 35.0 | 1,244,568 | 2,632,067 |
| Minnesota..... | 893,460 | 66.9 | 3,721 | 897,181 | 37.6 | 1,061,593 | 2,387,125 |
| Iowa..... | 977,694 | 64.0 | 7,105 | 984,799 | 41.0 | 875,495 | 2,404,021 |
| Missouri..... | 1,207,896 | 66.5 | 3,417 | 1,211,313 | 35.6 | 1,586,903 | 3,404,055 |
| North Dakota..... | 393,622 | 70.5 | 878 | 394,500 | 61.0 | 88,239 | 646,872 |
| South Dakota..... | 361,898 | 67.7 | 335 | 362,231 | 50.9 | 101,872 | 636,547 |
| Nebraska..... | 562,738 | 65.4 | 1,434 | 564,172 | 45.1 | 405,306 | 1,290,378 |
| Kansas..... | 735,884 | 63.9 | 1,493 | 737,377 | 41.7 | 617,964 | 1,760,257 |
| Delaware..... | 51,151 | 50.0 | 61 | 51,212 | 23.0 | 120,787 | 223,003 |
| Maryland..... | 277,656 | 47.9 | 1,589 | 279,245 | 19.3 | 869,422 | 1,449,661 |
| District of Columbia..... | | | 894 | 894 | 0.2 | 437,571 | |
| Virginia..... | 1,059,913 | 64.8 | 4,504 | 1,064,417 | 46.1 | 673,984 | 2,303,187 |
| West Virginia..... | 476,631 | 43.5 | 1,293 | 477,924 | 32.7 | 369,097 | 1,463,701 |
| North Carolina..... | 1,469,946 | 72.5 | 1,281 | 1,501,227 | 56.7 | 490,370 | 2,559,123 |
| South Carolina..... | 1,072,479 | 77.2 | 2,214 | 1,074,693 | 63.8 | 263,967 | 1,663,724 |
| Georgia..... | 1,680,611 | 77.5 | 4,602 | 1,685,213 | 58.2 | 727,859 | 2,985,832 |
| Florida..... | 279,370 | 45.6 | 2,523 | 281,893 | 29.1 | 355,825 | 968,470 |
| Kentucky..... | 1,302,342 | 73.0 | 2,520 | 1,304,862 | 54.0 | 633,543 | 2,416,630 |
| Tennessee..... | 1,269,179 | 73.5 | 2,529 | 1,271,708 | 54.4 | 611,226 | 2,337,985 |
| Alabama..... | 1,354,513 | 72.6 | 1,372 | 1,355,885 | 50.9 | 509,317 | 2,348,174 |
| Mississippi..... | 1,268,772 | 81.8 | 1,710 | 1,270,482 | 71.0 | 240,121 | 1,790,018 |
| Arkansas..... | 1,144,482 | 78.3 | 2,567 | 1,147,049 | 66.5 | 280,497 | 1,752,204 |
| Louisiana..... | 784,455 | 67.0 | 1,595 | 786,050 | 43.7 | 628,183 | 1,798,509 |
| Oklahoma..... | 1,015,899 | 69.2 | 1,428 | 1,017,327 | 50.2 | 539,480 | 2,028,283 |
| Texas..... | 2,365,734 | 71.9 | 12,039 | 2,377,773 | 49.8 | 1,812,699 | 4,093,239 |
| Montana..... | 225,389 | 59.8 | 278 | 225,667 | 41.1 | 172,011 | 458,889 |
| Idaho..... | 196,563 | 62.8 | 4,339 | 200,902 | 40.5 | 119,037 | 431,866 |
| Wyoming..... | 67,076 | 48.9 | 230 | 67,306 | 34.6 | 57,348 | 194,402 |
| Colorado..... | 265,281 | 54.5 | 792 | 266,073 | 28.3 | 453,258 | 939,629 |
| New Mexico..... | 160,542 | 54.3 | 904 | 161,446 | 44.8 | 64,960 | 300,350 |
| Arizona..... | 90,167 | 41.6 | 393 | 90,560 | 27.1 | 117,627 | 334,162 |
| Utah..... | 131,872 | 56.4 | 8,377 | 140,249 | 31.2 | 215,584 | 449,396 |
| Nevada..... | 16,103 | 25.9 | 61 | 16,164 | 20.9 | 15,254 | 77,407 |
| Washington..... | 280,022 | 46.1 | 3,360 | 283,382 | 20.9 | 749,735 | 1,356,021 |
| Oregon..... | 212,009 | 54.0 | 2,012 | 214,021 | 27.3 | 391,019 | 783,399 |
| California..... | 493,513 | 45.1 | 25,257 | 518,770 | 15.1 | 2,531,729 | 3,426,861 |
| United States..... | 31,358,640 | 61.0 | 255,629 | 31,614,269 | 29.9 | 54,304,603 | 105,710,620 |

TABLE 722.—*Farm population and other population, by age groups, by States, 1920*

| State | Percentage of total | | | | | | | | | | | |
|------------------------|---------------------|----------------|-------------------|------------------|----------------|-------------------|------------------|----------------|-------------------|------------------|----------------|-------------------|
| | Farm population | | | Rural population | | | Urban population | | | Total population | | |
| | Under 10 years | 10 to 20 years | 21 years and over | Under 10 years | 10 to 20 years | 21 years and over | Under 10 years | 10 to 20 years | 21 years and over | Under 10 years | 10 to 20 years | 21 years and over |
| Maine..... | 19.0 | 20.4 | 60.6 | 19.9 | 19.4 | 60.7 | 17.9 | 18.5 | 63.6 | 19.1 | 19.0 | 61.9 |
| New Hampshire..... | 16.7 | 18.1 | 65.2 | 17.5 | 17.3 | 65.3 | 18.8 | 18.8 | 62.4 | 18.3 | 18.3 | 63.4 |
| Vermont..... | 19.8 | 20.8 | 59.4 | 19.7 | 19.3 | 61.0 | 18.3 | 18.8 | 62.9 | 19.3 | 19.1 | 61.6 |
| Massachusetts..... | 18.3 | 19.5 | 62.2 | 18.2 | 18.1 | 63.7 | 18.4 | 18.0 | 62.5 | 19.4 | 18.0 | 62.6 |
| Rhode Island..... | 17.5 | 19.2 | 63.4 | 17.6 | 18.2 | 64.2 | 20.0 | 19.1 | 60.9 | 20.0 | 19.1 | 61.0 |
| Connecticut..... | 19.4 | 19.4 | 61.2 | 21.2 | 18.2 | 60.6 | 21.2 | 18.0 | 60.7 | 21.2 | 18.1 | 60.7 |
| New York..... | 18.4 | 19.2 | 62.3 | 18.5 | 18.0 | 63.5 | 19.2 | 18.2 | 62.6 | 19.1 | 18.2 | 62.7 |
| New Jersey..... | 19.2 | 20.9 | 59.9 | 20.6 | 19.1 | 60.2 | 21.1 | 18.8 | 60.1 | 21.0 | 18.9 | 60.1 |
| Pennsylvania..... | 21.7 | 23.3 | 55.0 | 24.7 | 21.3 | 54.0 | 21.1 | 19.1 | 59.9 | 22.4 | 19.8 | 57.8 |
| Ohio..... | 21.2 | 21.9 | 56.9 | 21.3 | 20.4 | 58.3 | 18.8 | 17.5 | 63.7 | 19.7 | 18.5 | 61.8 |
| Indiana..... | 21.4 | 22.2 | 56.4 | 20.8 | 21.1 | 58.1 | 18.4 | 18.3 | 63.3 | 19.6 | 19.7 | 60.7 |
| Illinois..... | 22.7 | 23.0 | 54.2 | 21.7 | 21.5 | 56.8 | 19.3 | 18.0 | 62.7 | 20.1 | 19.1 | 60.8 |
| Michigan..... | 22.9 | 21.9 | 55.1 | 22.6 | 20.5 | 56.9 | 20.1 | 17.3 | 62.6 | 21.1 | 18.5 | 60.4 |
| Wisconsin..... | 24.3 | 23.7 | 52.1 | 23.1 | 22.0 | 54.9 | 19.4 | 19.0 | 61.5 | 21.4 | 20.6 | 58.0 |
| Minnesota..... | 24.4 | 24.7 | 50.9 | 23.4 | 23.0 | 53.6 | 18.8 | 18.0 | 63.2 | 21.4 | 20.8 | 57.8 |
| Iowa..... | 24.4 | 22.8 | 52.8 | 22.3 | 21.3 | 56.5 | 17.2 | 18.2 | 64.6 | 20.4 | 20.2 | 59.4 |
| Missouri..... | 23.6 | 23.7 | 52.7 | 22.8 | 22.7 | 54.6 | 15.9 | 18.1 | 66.0 | 19.6 | 20.5 | 59.9 |
| North Dakota..... | 29.4 | 24.2 | 46.4 | 28.3 | 23.2 | 48.5 | 21.3 | 19.9 | 58.8 | 27.3 | 22.8 | 49.9 |
| South Dakota..... | 27.0 | 23.0 | 50.0 | 25.2 | 22.0 | 52.7 | 19.1 | 19.2 | 61.8 | 24.2 | 21.6 | 54.2 |
| Nebraska..... | 25.9 | 23.6 | 50.5 | 23.7 | 22.4 | 53.9 | 18.0 | 18.4 | 63.6 | 21.9 | 21.2 | 57.0 |
| Kansas..... | 24.1 | 23.4 | 52.5 | 22.6 | 22.0 | 55.4 | 18.2 | 19.2 | 62.6 | 21.1 | 21.1 | 57.9 |
| Delaware..... | 22.5 | 23.5 | 54.0 | 20.5 | 20.8 | 58.7 | 19.2 | 17.5 | 63.3 | 19.8 | 19.0 | 61.2 |
| Maryland..... | 23.4 | 24.4 | 52.1 | 22.6 | 22.7 | 54.7 | 18.4 | 19.0 | 62.7 | 20.1 | 20.5 | 59.5 |
| Dist. of Columbia..... | 8.5 | 51.9 | 39.6 | ----- | ----- | ----- | 13.8 | 16.5 | 69.8 | 13.8 | 16.5 | 69.8 |
| Virginia..... | 26.9 | 25.9 | 47.2 | 26.5 | 24.8 | 48.6 | 18.8 | 20.2 | 61.1 | 24.3 | 23.5 | 52.3 |
| West Virginia..... | 26.2 | 26.3 | 47.5 | 27.8 | 23.5 | 48.7 | 20.6 | 20.1 | 59.4 | 26.0 | 22.6 | 51.4 |
| North Carolina..... | 30.1 | 26.3 | 43.7 | 29.4 | 25.4 | 45.3 | 21.8 | 22.3 | 56.0 | 27.9 | 24.8 | 47.3 |
| South Carolina..... | 30.3 | 27.9 | 41.8 | 29.1 | 27.0 | 43.9 | 20.2 | 21.9 | 57.9 | 27.6 | 26.1 | 46.3 |
| Georgia..... | 29.4 | 27.6 | 43.0 | 28.2 | 26.5 | 45.4 | 18.5 | 21.2 | 60.2 | 25.7 | 25.2 | 49.1 |
| Florida..... | 26.4 | 26.7 | 46.9 | 24.6 | 23.8 | 51.6 | 18.5 | 19.6 | 61.9 | 22.4 | 22.2 | 55.4 |
| Kentucky..... | 26.9 | 25.1 | 48.0 | 26.4 | 24.0 | 49.6 | 17.0 | 18.9 | 64.1 | 24.0 | 22.7 | 53.4 |
| Tennessee..... | 26.9 | 25.7 | 47.4 | 26.5 | 24.9 | 48.6 | 17.9 | 20.6 | 61.5 | 24.3 | 23.8 | 52.0 |
| Alabama..... | 29.1 | 27.2 | 43.7 | 28.1 | 26.0 | 45.9 | 19.8 | 21.4 | 58.8 | 26.3 | 25.0 | 48.7 |
| Mississippi..... | 27.0 | 27.3 | 45.7 | 26.3 | 26.4 | 47.3 | 18.5 | 22.1 | 59.4 | 25.2 | 26.8 | 48.9 |
| Arkansas..... | 27.8 | 26.7 | 45.5 | 27.0 | 25.6 | 47.4 | 18.9 | 21.0 | 60.1 | 25.6 | 24.9 | 49.5 |
| Louisiana..... | 28.3 | 27.9 | 43.9 | 27.1 | 26.3 | 46.6 | 18.4 | 21.3 | 60.3 | 24.0 | 24.6 | 51.4 |
| Oklahoma..... | 28.6 | 27.0 | 44.4 | 27.5 | 25.6 | 46.9 | 19.4 | 20.7 | 59.9 | 25.4 | 24.3 | 50.4 |
| Texas..... | 27.4 | 27.0 | 45.6 | 26.2 | 25.8 | 48.0 | 18.5 | 20.8 | 60.7 | 23.7 | 24.1 | 52.1 |
| Montana..... | 26.2 | 19.4 | 54.4 | 25.1 | 18.7 | 56.1 | 19.0 | 17.6 | 63.4 | 23.2 | 18.4 | 58.4 |
| Idaho..... | 27.4 | 23.5 | 49.1 | 25.9 | 21.7 | 52.4 | 20.9 | 20.1 | 58.9 | 24.5 | 21.3 | 54.2 |
| Wyoming..... | 25.6 | 20.9 | 53.5 | 23.7 | 18.8 | 57.5 | 19.0 | 16.6 | 64.4 | 22.3 | 18.1 | 59.5 |
| Colorado..... | 25.9 | 22.6 | 51.5 | 24.6 | 21.3 | 54.2 | 16.0 | 17.5 | 66.5 | 20.4 | 19.5 | 60.1 |
| New Mexico..... | 27.4 | 24.6 | 48.1 | 26.7 | 23.1 | 50.2 | 21.4 | 21.6 | 57.0 | 25.7 | 22.9 | 51.4 |
| Arizona..... | 27.5 | 24.2 | 48.3 | 25.2 | 21.2 | 53.7 | 20.6 | 18.4 | 61.0 | 23.6 | 20.2 | 56.2 |
| Utah..... | 29.5 | 27.0 | 43.6 | 29.4 | 24.0 | 46.6 | 22.8 | 21.6 | 55.5 | 26.2 | 22.9 | 50.9 |
| Nevada..... | 21.8 | 18.7 | 59.5 | 18.1 | 15.1 | 66.9 | 14.9 | 15.2 | 69.9 | 17.4 | 15.1 | 67.5 |
| Washington..... | 22.2 | 22.1 | 55.7 | 21.5 | 19.9 | 58.6 | 16.6 | 16.6 | 66.9 | 18.8 | 18.0 | 63.2 |
| Oregon..... | 21.3 | 21.3 | 57.4 | 20.8 | 20.0 | 59.2 | 16.1 | 16.8 | 67.2 | 18.4 | 18.4 | 63.2 |
| California..... | 20.5 | 18.6 | 60.9 | 19.4 | 17.3 | 63.3 | 14.7 | 15.6 | 69.7 | 16.2 | 16.1 | 67.6 |
| United States..... | 25.7 | 24.7 | 49.5 | 24.6 | 23.0 | 52.4 | 19.0 | 18.5 | 62.5 | 21.7 | 20.7 | 57.6 |

Division of Farm Population and Rural Life. Compiled from reports of Bureau of the Census.
See footnotes to Table 719.

TABLE 723.—Average weight per carload of freight originating on Class I railroads in the United States, 1920-1924

| Commodity | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
|---|------------|------------|------------|------------|------------|-------------------|
| | Short tons | Short tons | Short tons | Short tons | Short tons | Short tons |
| Wheat..... | 40.21 | 39.89 | 40.17 | 40.35 | 40.78 | 40.93 |
| Corn..... | 36.45 | 38.07 | 38.38 | 37.88 | 37.57 | 37.31 |
| Oats..... | 31.20 | 30.55 | 30.07 | 31.04 | 31.62 | 32.00 |
| Flour and meal..... | 30.27 | 25.63 | 24.94 | 25.02 | 24.37 | 24.42 |
| Hay, straw, and alfalfa..... | 12.38 | 12.46 | 12.35 | 12.33 | 12.45 | 12.54 |
| Tobacco..... | 12.14 | 10.92 | 11.09 | 10.84 | 10.67 | 10.68 |
| Cotton..... | 12.17 | 11.57 | 11.50 | 11.29 | 11.25 | 11.15 |
| Citrus fruits..... | 16.68 | 16.22 | 15.40 | 15.04 | 15.63 | 16.00 |
| Potatoes..... | 18.77 | 18.24 | 18.20 | 17.87 | 17.96 | 17.71 |
| Horses and mules..... | 11.47 | 11.39 | 11.30 | 11.26 | 11.45 | 11.53 |
| Cattle and calves..... | 11.59 | 11.62 | 11.56 | 11.63 | 11.54 | 11.55 |
| Sheep and goats..... | 9.93 | 9.75 | 9.79 | 9.73 | 9.69 | 9.68 |
| Hogs..... | 9.61 | 9.51 | 9.61 | 9.55 | 9.50 | 9.55 |
| Poultry..... | 11.61 | 10.95 | 11.02 | 11.15 | 11.09 | 11.05 |
| Eggs..... | 11.58 | 11.18 | 11.19 | 11.27 | 11.22 | 11.22 |
| Butter and cheese..... | 12.90 | 12.18 | 12.37 | 12.65 | 12.49 | 12.61 |
| Wool..... | 12.48 | 12.20 | 11.63 | 12.37 | 12.53 | 12.78 |
| Sugar, sirup, glucose, and molasses..... | 28.98 | 27.68 | 27.54 | 27.53 | 27.87 | 28.00 |
| Canned goods..... | 24.78 | 23.13 | 23.09 | 22.92 | 22.88 | 23.02 |
| Anthracite coal..... | 48.28 | 47.53 | 47.85 | 48.45 | 49.06 | 49.17 |
| Bituminous coal..... | 49.27 | 50.45 | 50.80 | 51.28 | 51.72 | 52.37 |
| Textiles..... | 13.20 | 11.82 | 11.72 | 11.61 | 11.56 | 11.74 |
| Lumber, timber, box shooks, staves, and headings..... | 27.04 | 26.03 | 26.31 | 26.76 | 26.30 | 26.29 |

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¹ Subject to revision.

TABLE 724.—Freight tonnage originating on railways in the United States, 1920-1925

| Commodity | Calendar year | | | | | |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
| FARM PRODUCTS | | | | | | |
| Animal products: | 1,000 short tons | 1,000 short tons | 1,000 short tons | 1,000 short tons | 1,000 short tons | 1,000 short tons |
| Animals, live— | | | | | | |
| Horses and mules..... | 936 | 428 | 491 | 603 | 531 | 544 |
| Cattle and calves..... | 9,809 | 8,522 | 9,507 | 9,400 | 9,316 | 9,331 |
| Sheep and goats..... | 1,344 | 1,175 | 1,159 | 1,159 | 1,215 | 1,224 |
| Hogs..... | 5,421 | 5,504 | 5,795 | 6,944 | 6,707 | 5,501 |
| Packing-house products— | | | | | | |
| Fresh meats..... | 2,770 | 2,578 | 2,614 | 3,023 | 3,001 | 2,904 |
| Hides and leather..... | 1,061 | 972 | 1,081 | 1,080 | 1,025 | 1,026 |
| Other packing-house products..... | 2,206 | 2,094 | 2,049 | 2,397 | 2,395 | 2,139 |
| Total packing-house products..... | 6,027 | 5,644 | 5,744 | 6,510 | 6,421 | 6,069 |
| Eggs..... | 536 | 551 | 565 | 597 | 572 | 591 |
| Butter and cheese..... | 425 | 434 | 507 | 571 | 649 | 686 |
| Poultry..... | 264 | 276 | 292 | 366 | 376 | 357 |
| Wool..... | 292 | 400 | 300 | 291 | 294 | 263 |
| Other animals and products..... | 1,540 | 1,329 | 1,750 | 1,814 | 1,698 | 1,758 |
| Total animal products..... | 26,594 | 24,263 | 26,230 | 28,255 | 27,749 | 26,324 |
| Vegetable products: | | | | | | |
| Cotton..... | 3,379 | 3,191 | 3,074 | 2,887 | 3,261 | 4,127 |
| Fruits and vegetables..... | 10,045 | 9,255 | 9,683 | 10,598 | 10,868 | 11,686 |
| Potatoes..... | 4,118 | 4,639 | 4,829 | 4,698 | 4,660 | 4,614 |

¹ Subject to revision.

TABLE 724.—*Freight tonnage originating on railways in the United States, 1920-1925—Continued*

| Commodity | Calendar year | | | | | |
|---------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
| FARM PRODUCTS—continued | | | | | | |
| Vegetable products—Continued. | | | | | | |
| Grain and grain products— | | | | | | |
| Grain— | <i>1,000 short tons</i> | <i>1,000 short tons</i> | <i>1,000 short tons</i> | <i>1,000 short tons</i> | <i>1,000 short tons</i> | <i>1,000 short tons</i> |
| Wheat..... | 23, 131 | 26, 039 | 24, 806 | 23, 091 | 27, 442 | 21, 548 |
| Corn..... | 12, 089 | 17, 218 | 19, 275 | 15, 151 | 14, 883 | 12, 680 |
| Oats..... | 8, 615 | 7, 542 | 7, 646 | 8, 332 | 8, 507 | 8, 450 |
| Other grain..... | 5, 669 | 4, 568 | 5, 245 | 4, 739 | 5, 616 | 4, 564 |
| Grain products— | | | | | | |
| Flour and meal..... | 10, 962 | 10, 553 | 10, 694 | 10, 518 | 10, 330 | 9, 901 |
| Other mill products..... | 8, 891 | 7, 881 | 9, 000 | 10, 002 | 10, 083 | 9, 578 |
| Total grain and grain products..... | 69, 947 | 76, 801 | 76, 665 | 71, 833 | 76, 861 | 66, 721 |
| Hay, straw and alfalfa..... | 7, 957 | 5, 154 | 5, 723 | 5, 965 | 5, 802 | 5, 507 |
| Sugar, sirup glucose and molasses.. | 5, 694 | 4, 767 | 5, 091 | 4, 891 | 5, 356 | 5, 669 |
| Tobacco..... | 1, 061 | 927 | 882 | 1, 099 | 1, 069 | 1, 038 |
| Other vegetable products..... | 15, 251 | 15, 186 | 11, 868 | 13, 406 | 15, 277 | 17, 120 |
| Total vegetable products..... | 117, 442 | 119, 920 | 117, 815 | 115, 177 | 123, 064 | 116, 382 |
| Canned goods (food products)..... | 3, 074 | 2, 627 | 3, 106 | 3, 435 | 3, 731 | 4, 143 |
| Total farm products..... | 147, 110 | 146, 810 | 147, 151 | 146, 867 | 154, 554 | 146, 849 |
| OTHER FREIGHT | | | | | | |
| Products of mines..... | 712, 154 | 511, 271 | 532, 998 | 713, 735 | 638, 520 | 678, 335 |
| Products of forests..... | 100, 766 | 76, 419 | 89, 059 | 115, 618 | 108, 090 | 107, 387 |
| Manufactures..... | 242, 189 | 163, 691 | 211, 308 | 258, 471 | 246, 432 | 273, 986 |
| Mechandise, all l. c. l. freight..... | 53, 202 | 41, 992 | 43, 229 | 44, 339 | 40, 551 | 40, 580 |
| Total tonnage..... | 1, 255, 421 | 940, 183 | 1, 023, 745 | 1, 279, 030 | 1, 188, 157 | 1, 247, 137 |

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¹ Subject to revision.

TABLE 725.—*Index numbers showing changes in freight rates of 50 representative agricultural products, by months, 1909-1925*

[Average for year 1913=100]

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1909..... | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> | <i>P. ct.</i> |
| 1910..... | 100.0 | 100.0 | 99.9 | 99.9 | 99.9 | 99.9 | 99.9 | 100.0 | 100.1 | 100.1 | 99.9 | 99.9 | 100.0 |
| 1911..... | 99.9 | 100.3 | 100.3 | 100.3 | 100.3 | 100.5 | 100.5 | 100.5 | 100.5 | 100.5 | 100.5 | 100.4 | 100.4 |
| 1912..... | 100.4 | 100.4 | 100.4 | 100.4 | 100.4 | 100.4 | 100.4 | 100.4 | 100.4 | 100.4 | 100.4 | 100.5 | 100.4 |
| 1913..... | 100.5 | 100.5 | 100.4 | 100.4 | 100.5 | 100.5 | 100.2 | 99.5 | 99.3 | 99.3 | 99.3 | 99.3 | 100.0 |
| 1914..... | 99.3 | 99.4 | 99.4 | 99.4 | 99.4 | 99.4 | 99.4 | 99.4 | 99.4 | 99.4 | 99.5 | 99.6 | 99.4 |
| 1915..... | 99.7 | 100.0 | 100.2 | 100.2 | 100.3 | 100.3 | 100.3 | 100.3 | 100.3 | 100.5 | 100.4 | 100.4 | 100.2 |
| 1916..... | 100.6 | 100.6 | 100.6 | 100.6 | 100.6 | 100.6 | 100.6 | 100.6 | 100.7 | 100.7 | 100.7 | 100.7 | 100.6 |
| 1917..... | 102.7 | 102.7 | 100.8 | 100.8 | 100.8 | 100.8 | 100.8 | 101.6 | 101.9 | 102.2 | 102.4 | 102.4 | 101.3 |
| 1918..... | 102.4 | 102.4 | 102.4 | 103.2 | 103.3 | 103.3 | 103.7 | 130.7 | 130.7 | 130.5 | 130.3 | 130.3 | 117.1 |
| 1919..... | 130.3 | 130.3 | 130.4 | 130.5 | 130.5 | 130.8 | 130.8 | 130.5 | 130.7 | 131.4 | 131.4 | 131.6 | 130.8 |
| 1920..... | 131.8 | 131.8 | 132.1 | 132.1 | 132.1 | 131.9 | 131.7 | 140.2 | 176.1 | 176.1 | 176.1 | 176.8 | 147.4 |
| 1921..... | 176.8 | 176.8 | 177.3 | 177.8 | 177.8 | 177.8 | 177.7 | 177.4 | 177.2 | 176.1 | 175.8 | 175.8 | 177.0 |
| 1922..... | 169.5 | 169.5 | 169.5 | 169.7 | 169.3 | 159.4 | 157.2 | 157.2 | 157.5 | 157.9 | 157.9 | 157.9 | 159.0 |
| 1923..... | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 |
| 1924..... | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.9 | 157.7 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.7 |
| 1925..... | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 | 157.5 |

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TABLE 726.—Wheat: Index numbers of freight rates, from representative points in producing regions in the United States to their terminal markets, 1913-1925

| Wheat areas | Year beginning July 1— | | | | | | | | | | | | |
|--|------------------------|------|------|------|------|------|------|------|------|------|------|------|-------------------|
| | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 ¹ |
| Spring ² | 100 | 100 | 101 | 101 | 101 | 127 | 127 | 164 | 160 | 149 | 149 | 149 | 150 |
| Western ³ | 100 | 100 | 100 | 100 | 100 | 126 | 126 | 154 | 148 | 140 | 140 | 140 | 140 |
| Winter ⁴ | 100 | 101 | 100 | 101 | 101 | 129 | 128 | 166 | 162 | 152 | 152 | 152 | 152 |
| Hard winter ⁵ | 100 | 100 | 100 | 100 | 100 | 128 | 128 | 165 | 160 | 150 | 150 | 150 | 150 |
| Hard winter, excluding export rates ⁶ | 100 | 100 | 99 | 99 | 99 | 124 | 123 | 158 | 154 | 143 | 143 | 143 | 143 |

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These relatives are based on the average of the monthly rates in effect during the crop year. Rates in effect in 1913 equal 100.

¹ These rates in effect up to Dec. 1.² Based on local rates from Larimore, Leal, Makota, N. Dak., Groton, S. Dak., Scobey, Mont., and Osakis, Minn., to Minneapolis, Minn. The same rates apply to Duluth except from Groton, S. Dak., and Osakis, Minn. No proportional rates available.³ Based on local rates from Colfax, Wash., to Portland, Oreg., Moscow, Idaho, to Seattle, Wash., and Pendleton, Oreg., to Portland, Oreg. No export rates available.⁴ Based on local rates from Minden, Nebr., Wray, Colo., Brewster, Kans., Great Bend, Kans., Hutchinson, Kans., and Cherokee, Okla., to Kansas City, Mo.; Marshall, Mo., to St. Louis, Mo.; LaPrairie, Ill., to St. Louis, Mo.; and export rates from Wichita, Kans., to Galveston, Tex.; and Enid, Okla., to New Orleans, La.⁵ Based on all rates named in note 4 except the rate from LaPrairie, Ill., to St. Louis, Mo.⁶ Based on all rates named in note 4 except rate from LaPrairie, Ill., to St. Louis, Mo., and the export rates from Wichita, Kans., to Galveston, Tex., and Enid, Okla., to New Orleans, La.

TABLE 727.—Wheat: Freight rates to specified destinations from selected points of origin, 1913-1925

| Producing region, destination, and point of origin | Date effective | Rate per 100 pounds | Producing region, destination, and point of origin | Date effective | Rate per 100 pounds |
|--|----------------|---------------------|--|----------------|---------------------|
| Spring-wheat region: ¹ Minneapolis and Duluth— | | <i>Cents</i> | Pacific coast region: ⁴ Portland, Oreg.— | | <i>Cents</i> |
| From Larimore, N. Dak. | Jan. 1, 1913 | 12 | From Colfax, Wash. | Jan. 1, 1913 | 17 |
| | June 25, 1918 | 15 | | June 25, 1918 | 21.5 |
| | Aug. 26, 1920 | 20.5 | | Aug. 26, 1920 | 27 |
| | Jan. 1, 1922 | 17.5 | | Jan. 7, 1922 | 24 |
| | Nov. 27, 1925 | 17.5 | | Nov. 27, 1925 | 24 |
| From Leal, N. Dak. | Jan. 1, 1913 | 13 | From Pendleton, Oreg. | Jan. 1, 1913 | 13.5 |
| | Oct. 5, 1915 | 13.5 | | June 25, 1918 | 17 |
| | June 25, 1918 | 17 | | Aug. 26, 1920 | 21.5 |
| | Aug. 26, 1920 | 23 | | July 1, 1921 | 20.5 |
| | Jan. 1, 1922 | 20 | | Jan. 7, 1922 | 18.5 |
| | Aug. 19, 1925 | 21 | | Nov. 27, 1925 | 18.5 |
| | Nov. 27, 1925 | 21 | Seattle, Wash.— | | |
| From Makota, N. Dak. | Jan. 1, 1913 | 17 | From Moscow, Idaho. | Jan. 1, 1913 | 17 |
| | June 25, 1918 | 21.5 | | June 25, 1918 | 21.5 |
| | Aug. 26, 1920 | 29 | | Aug. 26, 1920 | 27 |
| | Jan. 1, 1922 | 25.5 | | Jan. 7, 1922 | 24 |
| | Nov. 27, 1925 | 25.5 | | Nov. 27, 1925 | 24 |
| From Groton, S. Dak. ² | Jan. 1, 1913 | 14.5 | Winter-wheat region: ⁴ Kansas City, Mo.— | | |
| | June 25, 1918 | 18 | From Brewster, Kans. | Jan. 1, 1913 | 14.5 |
| | Aug. 26, 1920 | 24.5 | | June 25, 1918 | 18 |
| | Jan. 1, 1922 | 21 | | Dec. 1, 1919 | 17.5 |
| | Oct. 23, 1924 | 20.5 | | Aug. 26, 1920 | 23.5 |
| | Nov. 27, 1925 | 20.5 | | Jan. 1, 1922 | 20.5 |
| From Scobey, Mont. ³ | Jan. 1, 1913 | 26 | | Nov. 27, 1925 | 20.5 |
| | June 25, 1918 | 32 | From Great Bend, Kans. | Jan. 1, 1913 | 13.25 |
| | Aug. 26, 1920 | 43 | | June 25, 1918 | 16.5 |
| | Nov. 22, 1920 | 42.5 | | Aug. 26, 1920 | 22.5 |
| | Jan. 1, 1922 | 37.5 | | Dec. 27, 1921 | 19.5 |
| | Nov. 27, 1925 | 37.5 | | Nov. 27, 1925 | 19.5 |
| From Osakis, Minn. ³ | Jan. 1, 1913 | 8 | From Hutchinson, Kans. | Jan. 1, 1913 | 13 |
| | Mar. 25, 1914 | 8.2 | | June 25, 1918 | 16.5 |
| | June 25, 1918 | 10.5 | | Dec. 1, 1919 | 16 |
| | Aug. 26, 1920 | 14 | | Aug. 26, 1920 | 21.5 |
| | Jan. 1, 1922 | 12.5 | | Dec. 27, 1921 | 19 |
| | Nov. 27, 1925 | 12.5 | | Nov. 27, 1925 | 19 |

¹ These are local rates. No reshipping rate available.² This rate applies only to Minneapolis.³ This station not established until Nov. 20, 1913.⁴ These are domestic rates. No export rates available.⁵ Local rates are used except as otherwise stated.

TABLE 727.—Wheat: Freight rates to specified destinations from selected points of origin, 1913-1925—Continued

| Producing region, destination, and point of origin | Date effective | Rate per 100 pounds | Producing region, destination, and point of origin | Date effective | Rate per 100 pounds |
|---|----------------|---------------------|--|----------------|---------------------|
| Winter-wheat region—Con. Kansas City, Mo.— Continued. | | | Winter-wheat region—Con. St. Louis, Mo.—Con. | | <i>Cents</i> |
| From Cherokee, Okla.----- | | <i>Cents</i> | From Marshall, Mo. | Jan. 1, 1922 | 17.5 |
| Jan. 1, 1913 | 15 | | Nov. 27, 1925 | 17.5 | |
| June 25, 1918 | 19 | | Jan. 1, 1913 | 8 | |
| Aug. 26, 1920 | 23.5 | | Jan. 8, 1914 | 9 | |
| Dec. 27, 1921 | 22.5 | | June 25, 1918 | 11.5 | |
| Nov. 27, 1925 | 22.5 | | Aug. 26, 1920 | 16 | |
| From Beatrice, Nebr.----- | | | Jan. 1, 1922 | 14 | |
| Jan. 1, 1913 | 11.3 | | Nov. 15, 1922 | 14.5 | |
| June 25, 1918 | 14 | | Nov. 27, 1925 | 14.5 | |
| Dec. 1, 1919 | 14.5 | | | | |
| Aug. 26, 1920 | 19.5 | | Galveston, Tex.— | | |
| Jan. 1, 1922 | 17 | | From Wichita, Kans. ¹ | Jan. 1, 1913 | 25 |
| Nov. 27, 1925 | 17 | | Feb. 10, 1915 | 25.7 | |
| Jan. 1, 1913 | 15.6 | | Mar. 12, 1917 | 26.5 | |
| June 25, 1918 | 19.5 | | June 25, 1918 | 36.5 | |
| Dec. 1, 1919 | 18.5 | | Dec. 30, 1919 | 37.5 | |
| Aug. 26, 1920 | 25 | | Aug. 26, 1920 | 50.5 | |
| Jan. 2, 1922 | 21.5 | | Sept. 12, 1921 | 47.5 | |
| Nov. 27, 1925 | 21.5 | | Dec. 27, 1921 | 44 | |
| From Wray, Colo.----- | | | Nov. 27, 1925 | 44 | |
| Jan. 1, 1913 | 16.5 | | | | |
| June 25, 1918 | 20.5 | | New Orleans, La.— | | |
| Dec. 1, 1919 | 19.5 | | From Enid, Okla. ¹ | Jan. 1, 1913 | 24.5 |
| Aug. 26, 1920 | 26.5 | | Feb. 5, 1916 | 25.5 | |
| Jan. 2, 1922 | 23 | | Mar. 12, 1917 | 26 | |
| Nov. 27, 1925 | 23 | | June 25, 1918 | 35 | |
| St. Louis, Mo.— | | | Dec. 30, 1919 | 37 | |
| From Marshall, Mo. | | | Aug. 26, 1920 | 50 | |
| Jan. 1, 1913 | 13 | | Sept. 12, 1921 | 47.5 | |
| July 30, 1915 | 12 | | Jan. 1, 1922 | 41 | |
| June 25, 1918 | 15 | | Apr. 5, 1922 | 43.5 | |
| Aug. 26, 1920 | 20.5 | | Nov. 27, 1925 | 45.5 | |

Division of Statistical and Historical Research. Rates furnished by the Interstate Commerce Commission.

¹ Export rate.

TABLE 728.—Wheat: Weighted average freight rates to Duluth from points in the spring wheat region, December 1925

| Point of origin ¹ | Rate per bushel | Point of origin ¹ | Rate per bushel |
|----------------------------------|-----------------|----------------------------------|-----------------|
| Minnesota: | <i>Cents</i> | North Dakota—Continued | <i>Cents</i> |
| Winger----- | 9.9 | Dodge----- | 17.7 |
| Dawson----- | 12.3 | Jamestown----- | 12 |
| Fairfax----- | 11.4 | Walden----- | 11.7 |
| Lambertson----- | 11.7 | Dickinson----- | 16.8 |
| Waseca----- | 11.1 | Bismarck----- | 14.1 |
| Dodge Center----- | 11.4 | LaMoure----- | 12.6 |
| State average ² ----- | 12.4 | State average ² ----- | 13.69 |
| Montana: | | South Dakota: | |
| Teton----- | 25.2 | Lemmon----- | 18.6 |
| Scobey----- | 22.5 | Faulton----- | 18.9 |
| Harlowton----- | 25.2 | Watertown----- | 13.8 |
| Glendive----- | 18.6 | Rapid City----- | 25.5 |
| Bozeman----- | 25.2 | Miller----- | 17.7 |
| State average ----- | 23.20 | Madison----- | 15.3 |
| North Dakota: | | Melvin----- | 27.9 |
| Stanley----- | 15.9 | Murdo-Mackenzie----- | 23.7 |
| Rugby----- | 13.5 | Parker----- | 16.9 |
| Lakota----- | 11.7 | State average ² ----- | 17.01 |

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Compiled from rates furnished by the Interstate Commerce Commission.

¹ One point of origin, within each crop-reporting district, was chosen as representative for that district.

² State average rates are weighted by the 1919 acreages for each crop-reporting district.

TABLE 729.—Wheat: Comparative freight rates to Liverpool from producing regions in the United States, Canada, Argentina, Australia, and India, 1925

| Producing region and route | Rate per bushel ¹ | Producing region and route | Rate per bushel ¹ |
|---|------------------------------|---|------------------------------|
| Summary, by countries: | | | |
| United States— | | Canada: | |
| Spring wheat via Lakes and New York..... | Cents 36.9 | 1. Average rate from wheat area to Port Arthur ² | Cents 13.4 |
| Winter wheat via Chicago, Lakes and New York..... | 40.1 | 2. Port Arthur to Montreal (all water) ³ | 9.0 |
| Wichita, Kans., via Gulf..... | 37.5 | 3. Montreal to Liverpool ⁴ | 10.7 |
| Canada via Lakes and Montreal..... | 33.1 | Total..... | 33.1 |
| Argentina..... | 26.6 | | |
| Australia..... | 31.3 | 1. Average rate from wheat area to Port Arthur ² | 13.4 |
| India..... | 34.7 | 2. Port Arthur to Georgian Bay ³ | 3.4 |
| | | 3. Georgian Bay to Montreal (rail) ⁴ | 8.6 |
| United States: | | 4. Montreal to Liverpool ⁴ | 10.7 |
| Spring wheat region— | | Total..... | 36.1 |
| 1. Average rate to Duluth ¹ | 16.0 | | |
| 2. Duluth to Buffalo (via Lakes) ² | 2.7 | Argentina: | |
| 3. Buffalo to New York (rail) ³ | 9.1 | 1. Average freight rate to Rosario ¹⁰ | 11.3 |
| 4. New York to Liverpool ⁴ | 9.1 | 2. Average rate Rosario to Liverpool ¹ | 15.3 |
| Total..... | 36.9 | Total..... | 26.6 |
| Winter wheat region— | | | |
| 1. Average Kansas rate to Kansas City ⁵ | 9.6 | Australia: | |
| 2. Kansas City to Chicago ⁶ | 10.5 | 1. Average rate to seaport ¹¹ | 8.0 |
| 3. Chicago to Buffalo (Lake) ⁷ | 1.8 | 2. Average ocean rate to Liverpool ¹² | 23.3 |
| 4. Buffalo to New York ⁸ | 9.1 | Total..... | 31.3 |
| 5. New York to Liverpool ⁹ | 9.1 | | |
| 6. Chicago to New York (all rail) 13.6 ⁴ | | India: | |
| Total..... | 40.1 | 1. Average rate to Karachi ¹³ | 20.1 |
| 1. Wichita, Kans., to Galveston ⁴ | 26.4 | 2. Karachi to Liverpool ¹ | 14.6 |
| 2. Galveston to Liverpool ¹ | 11.1 | Total..... | 34.7 |
| Total..... | 37.5 | | |

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¹ Exclusive of handling charges.² Compiled from 1925 rates furnished by the Interstate Commerce Commission.³ Compiled from 1924 report of Duluth Board of Trade. Average monthly rates weighted by shipments.⁴ Interstate Commerce Commission.⁵ Rates from 1924 Agricultural Year book, Table 730, weighted by exports.⁶ Average of rates from typical points in crop-reporting districts, weighted by acreage. Rates from Interstate Commerce Commission.⁷ 1924 report of Chicago Board of Trade.⁸ Compiled from 1924 report on the Grain Trade of Canada. Rates weighted by shipments.⁹ Board of Railway Commissioners of Canada.¹⁰ Report No. 188898 of American Consul at Rosario, Argentina, Oct. 14, 1925.¹¹ Report No. 189859 of American Consul at Newcastle, N. S. W., Australia, Oct. 19, 1925.¹² Report No. 187675 of American Consul at Karachi, India, Oct. 2, 1925.

TABLE 730.—Apples: Car-lot freight rates to specified destinations from selected points of origin, 1915-1925

| Destination and point of origin | Date effective | Rate per 100 pounds | Destination and point of origin | Date effective | Rate per 100 pounds |
|---|--|--|---|--|--|
| Chicago, New York, Philadelphia, and Boston: From Yakima, Wash., Hood River, Oreg., Medford, Oreg., and Watsonville, Calif. | Jan. 1, 1913 June 25, 1918 Oct. 23, 1918 May 13, 1919 Aug. 26, 1920 July 21, 1921 and present. | <i>Cents</i> 100.0 125.0 110.0 125.0 166.5 150.0 | Philadelphia, Pa.: From Marionville, Mo. | Jan. 1, 1913 Jan. 15, 1915 July 10, 1917 July 28, 1917 June 25, 1918 Feb. 15, 1919 Aug. 26, 1920 Jan. 1, 1922 July 1, 1922 and present. | <i>Cents</i> 55.0 56.5 62.0 61.0 70.5 78.0 108.5 105.0 97.5 |
| Chicago: From Marionville, Mo. | Jan. 1, 1913 Oct. 16, 1917 June 25, 1918 Aug. 26, 1920 Jan. 1, 1922 Nov. 1, 1924 and present. | 35.0 35.2 44.0 60.0 54.0 55.0 27.0 | From Winchester, Va. | Jan. 1, 1913 Feb. 23, 1915 Aug. 1, 1917 June 25, 1918 Dec. 31, 1919 Aug. 26, 1920 Jan. 3, 1922 July 1, 1922 Mar. 1, 1923 and present. | 16.0 16.8 19.5 24.5 25.0 35.0 36.0 32.5 32.0 |
| From Winchester, Va. | Jan. 1, 1913 June 1, 1915 July 16, 1917 June 25, 1918 Aug. 26, 1920 June 20, 1921 July 1, 1922 and present. | 28.5 33.0 42.0 50.0 60.0 53.5 | From Rochester, N. Y. | Jan. 1, 1913 Feb. 23, 1915 Aug. 1, 1917 June 25, 1918 Aug. 26, 1920 Jan. 1, 1922 and present. | 15.0 15.8 18.0 22.5 31.5 28.5 |
| From Rochester, N. Y. | Jan. 1, 1913 Jan. 15, 1915 July 16, 1917 Jan. 3, 1918 June 25, 1918 Aug. 26, 1920 July 1, 1922 and present. | 21.0 22.5 21.0 25.0 31.5 44.0 30.5 | Boston, Mass.: From Marionville, Mo. | Jan. 1, 1913 Jan. 15, 1915 July 10, 1917 July 28, 1917 June 25, 1918 Feb. 15, 1919 Aug. 26, 1920 Jan. 1, 1922 July 1, 1922 and present. | 60.0 61.5 67.0 66.0 82.5 83.0 113.5 110.0 102.5 |
| New York: From Marionville, Mo. | Jan. 1, 1913 Jan. 15, 1915 July 16, 1917 July 28, 1917 June 25, 1918 Feb. 15, 1919 Aug. 26, 1920 Jan. 1, 1922 July 1, 1922 and present. | 57.0 58.5 64.0 63.0 79.0 80.0 110.5 107.0 99.5 | From Winchester, Va. | Jan. 1, 1913 Feb. 23, 1915 Aug. 1, 1917 June 25, 1918 Dec. 31, 1919 Aug. 26, 1920 Jan. 3, 1922 July 1, 1922 and present. | 20.5 21.4 24.0 30.0 29.5 41.5 40.5 36.5 |
| From Winchester, Va. | Jan. 1, 1913 Feb. 23, 1915 Aug. 1, 1917 June 25, 1918 Aug. 26, 1920 Jan. 1, 1922 and present. | 18.0 18.9 21.5 27.0 38.0 34.0 | From Rochester, N. Y. | Jan. 1, 1913 Feb. 23, 1915 Aug. 1, 1917 June 25, 1918 Dec. 31, 1919 Aug. 26, 1920 Jan. 1, 1922 Oct. 15, 1922 June 1, 1923 and present. | 17.5 18.4 20.5 25.5 25.0 35.0 31.5 30.5 33.5 |
| From Rochester, N. Y. | Jan. 1, 1913 Feb. 23, 1915 Aug. 1, 1917 June 25, 1918 Aug. 26, 1920 Jan. 1, 1922 and present. | 15.0 15.8 18.0 22.5 31.5 28.5 | | | |

Division of Statistical and Historical Research. Compiled from rates furnished by the Interstate Commerce Commission.

TABLE 731.—*Freight rates, ocean: Wheat per bushel to the United Kingdom from the United States, Canada, Argentina, India, and Australia, 1913, 1924, and 1925*

| Month | United States | | | | | | | | | | | | Canada | | Argentina | | | India | | | Australia | | |
|-----------|-----------------------------------|--------|---------|--------|-----------------------|--------|--------|---------|--------------------------|---------|--------|--------|----------------------------------|---------|-----------|---------|---------|---------|---------|---------|-----------|---------|---------|
| | North Atlantic ports ¹ | | | | New York ² | | | | New Orleans ³ | | | | North Pacific ports ⁴ | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | 1913 | 1924 | 1925 | 1913 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1913 | 1924 | 1925 | 1913 | 1924 | 1925 | 1913 | 1924 | 1925 |
| Jan..... | Cts. 10 | Cts. 9 | Cts. 10 | Cts. 9 | Cts. 8 | Cts. 8 | Cts. 8 | Cts. 12 | Cts. 23 | Cts. 22 | Cts. 9 | Cts. 9 | Cts. 14 | Cts. 15 | Cts. 15 | Cts. 12 | Cts. 16 | Cts. 17 | Cts. 24 | Cts. 25 | Cts. 30 | Cts. 24 | Cts. 30 |
| Feb..... | 10 | 11 | 10 | 6 | 10 | 7 | 8 | 12 | 23 | 23 | 11 | 10 | 16 | 17 | 13 | 12 | 17 | 17 | 22 | 27 | 31 | 27 | 31 |
| Mar..... | 9 | 10 | 9 | 6 | 9 | 6 | 9 | 12 | 21 | 22 | 11 | 9 | 14 | 17 | 10 | 12 | 16 | 16 | 22 | 25 | 26 | 22 | 26 |
| Apr..... | 8 | 9 | 9 | 6 | 7 | 5 | 9 | 12 | 20 | 22 | 10 | 9 | 12 | 16 | 10 | 11 | 15 | 15 | 20 | 20 | 23 | 20 | 23 |
| May..... | 8 | 9 | 9 | 7 | 8 | 5 | 11 | 12 | 20 | 22 | 10 | 9 | 11 | 16 | 10 | 11 | 15 | 13 | 20 | 19 | 23 | 20 | 23 |
| June..... | 7 | 8 | 6 | 5 | 5 | 5 | 11 | 12 | 19 | 21 | 9 | 7 | 8 | 14 | 8 | 11 | 14 | 12 | 20 | 18 | 20 | 18 | 20 |
| July..... | 8 | 7 | 7 | 5 | 4 | 5 | 11 | 12 | 19 | 20 | 8 | 8 | 9 | 12 | 9 | 12 | 13 | 12 | 20 | 19 | 18 | 20 | 18 |
| Aug..... | 9 | 8 | 7 | 5 | 5 | 5 | 11 | 12 | 18 | 21 | 9 | 8 | 10 | 13 | 11 | 12 | 13 | 14 | 19 | 19 | 23 | 19 | 23 |
| Sept..... | 8 | 9 | 8 | 4 | 6 | 7 | 11 | 12 | 19 | 21 | 11 | 8 | 8 | 14 | 8 | 11 | 15 | 16 | 19 | 25 | 26 | 19 | 26 |
| Oct..... | 7 | 9 | 9 | 5 | 8 | 9 | 11 | 12 | 22 | 20 | 11 | 10 | 6 | 14 | 9 | 10 | 16 | 15 | 21 | 27 | 26 | 21 | 26 |
| Nov..... | 7 | 10 | 9 | 5 | 9 | 9 | 11 | 12 | 22 | 21 | 11 | 11 | 6 | 13 | 12 | 11 | 16 | 15 | 21 | 20 | 26 | 21 | 26 |
| Dec..... | 6 | 9 | 10 | 4 | 8 | 10 | 12 | 12 | 22 | 23 | 10 | 10 | 6 | 15 | 13 | 10 | 16 | 14 | 20 | 28 | 27 | 20 | 27 |
| Average | 8 | 9 | 9 | 6 | 7 | 7 | 10 | 12 | 21 | 22 | 10 | 9 | 10 | 15 | 11 | 11 | 15 | 15 | 21 | 23 | 25 | 21 | 25 |

Division of Statistical and Historical Research. Compiled from Reports of the International Institute of Agriculture, except as otherwise indicated. The above rates were originally quoted in shillings; conversions made on the basis of the average monthly rate of exchange, except in 1913, when exchange was at par.

¹ Average of principal North Atlantic ports, including New York.

² New York to Liverpool.

³ From U. S. Shipping Board.

⁴ Average of principal North Pacific ports.

FERTILIZER MATERIALS AND FERTILIZER

TABLE 732.—*Pyrites: Production and price, by States, 1918-1924*

PRODUCTION

| State | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 |
|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | <i>Long tons</i> | <i>Long tons</i> | <i>Long tons</i> | <i>Long tons</i> | <i>Long tons</i> | <i>Long tons</i> | <i>Long tons</i> |
| Colorado..... | 18,817 | 17,474 | 25,523 | 7,290 | | | |
| Georgia..... | 31,315 | 34,412 | | | | | |
| California..... | 111,861 | 128,803 | 128,114 | 98,252 | | (1) | (1) |
| Illinois..... | 24,369 | 13,353 | | | | | |
| New York..... | 63,982 | 60,544 | 30,753 | | 5,900 | 11,000 | 7,598 |
| Missouri..... | 7,674 | | | | | | |
| Ohio..... | 9,845 | 4,609 | | | | 138 | 73 |
| Virginia..... | 143,427 | 119,164 | 100,545 | | | (1) | (1) |
| Wisconsin..... | | 26,053 | | | 600 | 190 | 121 |
| Other States..... | 53,204 | 16,235 | 25,842 | | | | |
| Total..... | 464,494 | 420,647 | 310,777 | 157,118 | 169,043 | 181,628 | 160,096 |

¹ Totals include production for States not separately reported. The combined production of California and Virginia was 170,300 long tons in 1923 and 152,309 long tons in 1924.

TABLE 732.—*Pyrites: Production and price, by States, 1918-1924—Continued*

AVERAGE PRICE PER TON

| State | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Colorado..... | 6.15 | 4.88 | 4.84 | 2.53 | | | |
| Georgia..... | 8.58 | 10.16 | | | | | |
| California..... | 4.48 | 4.12 | 4.05 | 4.76 | | | |
| Illinois..... | 3.52 | 3.49 | | | | | |
| New York..... | 6.61 | 7.73 | 8.51 | | | | |
| Missouri..... | 9.02 | | | | | | |
| Ohio..... | 4.08 | 3.66 | | | | 3.66 | |
| Virginia..... | 5.86 | 7.48 | 6.07 | | | | |
| Wisconsin..... | | .74 | | | 2.75 | | |
| Other States..... | 5.62 | 9.24 | 3.19 | | | | |
| Average..... | 5.69 | 6.08 | 5.14 | 4.53 | 3.97 | 3.64 | 4.03 |

Division of Statistical and Historical Research. Compiled from reports of the Geological Survey. Figures for 1904-1917 are published in the Yearbook for 1923.

TABLE 733.—*Phosphate rock: Production, and value per ton, based on the quantity marketed, by States, 1921-1924*

| State and item | 1921 | | 1922 | | 1923 | | 1924 | |
|-------------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|
| | Quantity | Value per ton | Quantity | Value per ton | Quantity | Value per ton | Quantity | Value per ton |
| Florida: | <i>Long tons</i> | <i>Dolls.</i> | <i>Long tons</i> | <i>Dolls.</i> | <i>Long tons</i> | <i>Dolls.</i> | <i>Long tons</i> | <i>Dolls.</i> |
| Hard rock..... | 175,774 | 10.28 | 188,084 | 6.96 | 199,516 | 5.37 | 143,115 | 4.40 |
| Soft rock..... | 4,419 | 4.56 | 446 | 7.85 | | | | |
| Land pebble..... | 1,899,835 | 5.38 | 1,870,063 | 3.76 | 2,348,137 | 3.40 | 2,289,466 | 3.23 |
| Total..... | 1,780,028 | 5.86 | 2,058,593 | 4.05 | 2,547,653 | 3.56 | 2,432,581 | 3.30 |
| South Carolina: | | | | | | | | |
| Land rock..... | | | 1,500 | 5.50 | | | | |
| Tennessee: | | | | | | | | |
| Brown rock..... | 252,543 | 6.60 | 344,231 | 5.97 | 1 427,790 | 5.46 | 1 375,260 | 5.22 |
| Blue rock..... | 25,163 | 5.81 | 9,078 | 5.71 | 919 | 6.14 | 21,378 | 3.82 |
| Total..... | 277,706 | 6.53 | 353,309 | 5.96 | 1 428,718 | 5.46 | 1 396,638 | 5.14 |
| Other States..... | 6,291 | 4.11 | 4,481 | 4.39 | 30,335 | 5.79 | 38,570 | 5.04 |
| Grand total..... | 2,064,025 | 5.95 | 2,417,883 | 4.34 | 3,006,706 | 3.85 | 2,867,789 | 3.57 |

Division of Statistical and Historical Research. Compiled from reports of Geological Survey. Figures for 1891-1920 are published in the Yearbook for 1923.

¹ Includes brown rock from Kentucky.

TABLE 734.—*Lime, for agricultural purposes: Production and value, by States, 1917-1924*

PRODUCTION

| State | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> |
| Alabama..... | 1,791 | 1,947 | ----- | ----- | ----- | ----- | (¹) | ----- |
| California..... | 6,196 | 850 | ----- | ----- | 559 | 2,756 | ----- | 3,251 |
| Connecticut..... | ----- | ----- | ----- | ----- | ----- | ----- | (¹) | (¹) |
| Indiana..... | 2,297 | 1,303 | 5,868 | 3,475 | 1,182 | 5,017 | 4,926 | 5,157 |
| Kentucky..... | ----- | ----- | ----- | ----- | ----- | ----- | (¹) | ----- |
| Maine..... | 10,243 | 8,017 | 8,763 | 7,810 | 8,207 | 8,912 | 7,678 | 8,166 |
| Maryland..... | 85,633 | 68,807 | 76,770 | 64,193 | 50,543 | 44,053 | 41,109 | 40,628 |
| Massachusetts..... | 5,073 | 3,089 | 4,673 | 4,552 | 2,902 | 4,628 | 3,960 | 4,928 |
| Missouri..... | 4,317 | 193 | 1,123 | 1,891 | ----- | 1,081 | 1,014 | ----- |
| New Jersey..... | 5,002 | 2,208 | 4,154 | 2,997 | ----- | 2,078 | (¹) | ----- |
| New York..... | 9,588 | 5,931 | 6,206 | 3,323 | 3,917 | 2,751 | 3,668 | 3,988 |
| Ohio..... | 29,997 | 40,001 | 27,696 | 11,195 | 16,969 | 25,332 | 17,497 | 19,686 |
| Pennsylvania..... | 246,608 | 200,073 | 232,831 | 202,830 | 152,667 | 137,460 | 112,011 | 116,966 |
| Tennessee..... | 1,904 | 3,311 | 730 | 377 | 614 | 1,392 | 1,325 | 791 |
| Vermont..... | 502 | 2,201 | 2,072 | 752 | 1,278 | 1,111 | 1,571 | 829 |
| Virginia..... | 44,335 | 34,444 | 35,712 | 26,974 | 21,793 | 16,420 | 21,294 | 19,906 |
| West Virginia..... | 21,969 | 16,053 | 25,253 | 17,449 | 17,746 | 15,287 | 16,719 | 18,289 |
| Wisconsin..... | 954 | 241 | 433 | 356 | 145 | 657 | ----- | (¹) |
| Other States..... | 10,931 | 1,555 | 4,698 | 2,280 | 5,768 | 3,192 | 5,329 | 4,095 |
| Total..... | 487,370 | 390,224 | 436,982 | 350,454 | 284,290 | 272,127 | 238,101 | 248,336 |
| Hawaii..... | ----- | ----- | ----- | 475 | 75 | ----- | ----- | ----- |
| Porto Rico..... | 927 | 823 | 1,650 | 922 | 357 | 699 | 1,466 | ----- |
| Total..... | 488,297 | 391,047 | 438,632 | 351,851 | 284,722 | 272,726 | 240,551 | 248,336 |

VALUE

| | | | | | | | | |
|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Alabama..... | 9,816 | 17,436 | ----- | ----- | ----- | ----- | ----- | 44,992 |
| California..... | 32,447 | 8,304 | ----- | ----- | 4,968 | 35,774 | ----- | (¹) |
| Connecticut..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | (¹) |
| Indiana..... | 12,143 | 6,122 | 49,461 | 33,210 | 11,328 | 39,741 | 42,889 | 35,622 |
| Kentucky..... | ----- | ----- | ----- | ----- | ----- | ----- | (¹) | ----- |
| Maine..... | 35,216 | 46,168 | 59,558 | 39,157 | 51,978 | 48,283 | 36,256 | 40,424 |
| Maryland..... | 463,081 | 534,582 | 655,704 | 614,097 | 441,085 | 351,482 | 374,125 | 355,778 |
| Massachusetts..... | 18,185 | 35,480 | 25,532 | 26,096 | 15,082 | 19,163 | 14,042 | 17,995 |
| Missouri..... | 26,844 | 1,706 | 8,540 | 20,770 | ----- | 11,736 | 10,978 | ----- |
| New Jersey..... | 18,978 | 12,268 | 21,997 | 23,920 | ----- | 18,382 | (¹) | ----- |
| New York..... | 40,540 | 27,868 | 34,574 | 23,912 | 30,334 | 22,613 | 25,559 | 30,215 |
| Ohio..... | 161,205 | 275,561 | 212,156 | 99,219 | 125,844 | 177,571 | 127,758 | 134,943 |
| Pennsylvania..... | 1,218,316 | 1,343,636 | 1,706,027 | 1,792,948 | 1,183,361 | 1,021,092 | 838,010 | 883,225 |
| Tennessee..... | 9,835 | 15,333 | 6,020 | 2,465 | 5,217 | 11,752 | 11,591 | 5,407 |
| Vermont..... | 1,380 | 8,288 | 15,474 | 5,157 | 7,657 | 6,262 | 10,784 | 4,277 |
| Virginia..... | 235,568 | 232,204 | 290,032 | 208,190 | 161,653 | 109,968 | 153,182 | 130,571 |
| West Virginia..... | 106,892 | 116,554 | 191,125 | 160,091 | 136,982 | 101,075 | 112,374 | 122,594 |
| Wisconsin..... | 5,024 | 502 | 4,754 | 1,824 | 660 | 4,523 | ----- | (¹) |
| Other States..... | 74,938 | 10,267 | 49,495 | 25,944 | 54,154 | 21,814 | 49,010 | 47,824 |
| Total..... | 2,470,408 | 2,692,519 | 3,330,449 | 3,077,000 | 2,230,359 | 2,001,231 | 1,808,528 | 1,864,514 |
| Hawaii..... | ----- | ----- | ----- | 8,313 | 1,500 | ----- | ----- | ----- |
| Porto Rico..... | 5,323 | 6,329 | 14,590 | 11,392 | 5,651 | 3,851 | 8,493 | ----- |
| Total..... | 2,475,731 | 2,698,848 | 3,345,039 | 3,086,705 | 2,237,510 | 2,005,082 | 1,825,519 | 1,864,514 |

Division of Statistical and Historical Research. Compiled from reports of Geological Survey.

¹ Included in other States.² Totals include some chemical lime in Wisconsin and nonspecified States.³ Totals include Texas production of 984 tons, valued at \$7,498.

TABLE 735.—Lime and peat, for fertilizer: Production and value, United States, 1909-1924

| Year | Quantity | | | Value | | |
|------|---------------|----------------------|------------|---------------|----------------------|----------|
| | Hydrated lime | Limestone pulverized | Peat | Hydrated lime | Limestone pulverized | Peat |
| | Short tons | Short tons | Short tons | Dollars | Dollars | Dollars |
| 1909 | ----- | ----- | 26, 788 | ----- | ----- | 118, 891 |
| 1910 | ----- | ----- | 37, 024 | ----- | ----- | 140, 200 |
| 1911 | ----- | 174, 200 | 51, 733 | ----- | 205, 006 | 287, 204 |
| 1912 | ----- | 200, 000 | 41, 080 | ----- | 311, 702 | 186, 022 |
| 1913 | ----- | 408, 627 | 28, 460 | ----- | 493, 718 | 169, 600 |
| 1914 | 126, 136 | 615, 197 | 37, 729 | 548, 662 | 688, 961 | 249, 899 |
| 1915 | ----- | 810, 369 | 38, 304 | ----- | 893, 530 | 238, 417 |
| 1916 | 184, 944 | 1, 066, 376 | 48, 106 | 869, 664 | 1, 146, 582 | 336, 004 |
| 1917 | 177, 815 | 1, 040, 248 | 92, 263 | 1, 114, 359 | 1, 352, 397 | 658, 500 |
| 1918 | 181, 890 | 1, 091, 918 | 79, 573 | 1, 452, 436 | 1, 626, 292 | 775, 313 |
| 1919 | 198, 165 | 1, 392, 914 | 54, 690 | 1, 784, 110 | 2, 409, 460 | 557, 240 |
| 1920 | 148, 981 | 1, 364, 260 | 63, 272 | 1, 525, 960 | 2, 724, 293 | 773, 695 |
| 1921 | 142, 682 | 1, 311, 520 | 29, 440 | 1, 297, 192 | 2, 355, 339 | 251, 044 |
| 1922 | 150, 423 | 1, 195, 000 | 57, 747 | 1, 254, 894 | 2, 150, 435 | 369, 166 |
| 1923 | 131, 443 | 1, 278, 770 | 57, 907 | 1, 176, 637 | 2, 160, 249 | 351, 641 |
| 1924 | 128, 410 | ----- | 55, 196 | 1, 160, 822 | ----- | 387, 310 |

Division of Statistical and Historical Research. Compiled from reports of Geological Survey.

TABLE 736.—Phosphate rock, pyrites, and marl: Production and value for fertilizer, United States, 1909-1924

| Year | Quantity | | | Value | | |
|------|----------------|-----------|-----------------|----------------|-------------|-----------------|
| | Phosphate rock | Pyrites | Calcareous marl | Phosphate rock | Pyrites | Calcareous marl |
| | Long tons | Long tons | Short tons | Dollars | Dollars | Dollars |
| 1909 | 2, 350, 152 | 247, 070 | 121, 814 | 10, 772, 120 | 1, 028, 157 | 145, 053 |
| 1910 | 2, 654, 988 | 241, 612 | ----- | 10, 917, 060 | 977, 978 | ----- |
| 1911 | 3, 083, 279 | 301, 458 | ----- | 11, 900, 693 | 1, 164, 871 | ----- |
| 1912 | 2, 973, 332 | 350, 928 | ----- | 11, 675, 774 | 1, 334, 259 | ----- |
| 1913 | 3, 111, 221 | 341, 338 | ----- | 11, 796, 281 | 1, 286, 084 | ----- |
| 1914 | 2, 734, 043 | 336, 602 | ----- | 9, 608, 041 | 1, 289, 346 | ----- |
| 1915 | 1, 835, 667 | 394, 124 | ----- | 5, 413, 449 | 1, 674, 933 | ----- |
| 1916 | 1, 982, 385 | 439, 132 | 58, 058 | 5, 896, 993 | 2, 038, 002 | 144, 788 |
| 1917 | 2, 584, 287 | 482, 662 | 73, 900 | 7, 771, 084 | 2, 508, 085 | 165, 223 |
| 1918 | 2, 490, 766 | 464, 494 | 98, 694 | 8, 214, 463 | 2, 644, 515 | 261, 082 |
| 1919 | 2, 271, 963 | 420, 047 | 91, 437 | 11, 591, 268 | 2, 558, 172 | 327, 294 |
| 1920 | 4, 103, 962 | 310, 777 | 97, 487 | 25, 079, 572 | 1, 596, 961 | 323, 359 |
| 1921 | 2, 064, 025 | 157, 118 | 50, 730 | 12, 270, 070 | 711, 432 | 195, 743 |
| 1922 | 2, 417, 843 | 169, 042 | 67, 777 | 10, 482, 846 | 671, 241 | 208, 196 |
| 1923 | 3, 006, 706 | 181, 624 | 99, 410 | 11, 576, 049 | 661, 000 | 328, 932 |
| 1924 | 2, 867, 739 | 160, 066 | 72, 710 | 10, 252, 083 | 645, 262 | 225, 383 |

Division of Statistical and Historical Research. Compiled from report of Geological Survey. Figures for 1890-1908 are published in Yearbook for 1923.

* Reported as "marl."

TABLE 737.—Fish scrap (acidulated): Production in Atlantic and Gulf coast districts, 1912-1923

| Year | The North | North Carolina | Florida | Texas | Georgia | Total, five districts |
|------|------------|----------------|------------|------------|------------|-----------------------|
| | Short tons | Short tons | Short tons | Short tons | Short tons | Short tons |
| 1912 | 12, 838 | ----- | ----- | ----- | ----- | 12, 838 |
| 1913 | 31, 548 | 2, 639 | ----- | ----- | ----- | 33, 587 |
| 1914 | 12, 162 | 3, 689 | 1, 190 | 1, 544 | ----- | 17, 985 |
| 1915 | 5, 268 | 3, 045 | 788 | 1, 273 | ----- | 10, 374 |
| 1916 | 5, 215 | 5, 110 | 2, 496 | 1, 806 | ----- | 14, 525 |
| 1917 | 5, 637 | 7, 478 | 2, 336 | 865 | 1, 345 | 17, 661 |
| 1918 | 19, 412 | 6, 524 | 2, 700 | 2, 646 | 1, 905 | 33, 187 |
| 1919 | 30, 086 | 6, 784 | 5, 080 | 4, 420 | 750 | 47, 070 |
| 1920 | 33, 900 | 3, 900 | 3, 800 | 3, 000 | 5, 000 | 49, 600 |
| 1921 | ----- | 16, 800 | 1, 200 | ----- | ----- | 15, 558 |
| 1922 | 37, 100 | 5, 600 | 2, 120 | ----- | 1, 890 | 46, 710 |
| 1923 | 38, 905 | 7, 650 | 3, 265 | 770 | 1, 925 | 52, 605 |

Division of Statistical and Historical Research. Compiled from The American Fertilizer Handbook; 1924 not separately reported, included with "Fish, scrap, dried."

* Includes 37,558 tons produced in Chesapeake district.

TABLE 738.—Fish scrap (dried): Production in Atlantic coast districts, 1912-1924

| Year | Chesapeake | The North | North Carolina | Florida | Total, four districts |
|-------------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> |
| 1912..... | 51,900 | 6,655 | 7,250 | 160 | ¹ 65,965 |
| 1913..... | 21,358 | 2,744 | 2,175 | 245 | 31,522 |
| 1914..... | 21,036 | 1,604 | 665 | ----- | 24,305 |
| 1915..... | 19,301 | 824 | 1,289 | ----- | 21,414 |
| 1916..... | 21,258 | ----- | ----- | 1,200 | 22,458 |
| 1917..... | ----- | 292 | 5,187 | 762 | 20,825 |
| 1918..... | 14,584 | ----- | 3,460 | 366 | 16,047 |
| 1919..... | 12,340 | ----- | 2,763 | ----- | 15,103 |
| 1920..... | 18,750 | ----- | 1,240 | ----- | 19,990 |
| 1921..... | 2,200 | 22,898 | 2,112 | ----- | 27,210 |
| 1922..... | 24,650 | 1,500 | 1,757 | 1,320 | 29,227 |
| 1923..... | 30,780 | 3,750 | 2,500 | 1,750 | 38,780 |
| 1924 ¹ | 9,565 | 12,975 | 12,790 | 5,588 | ² 45,918 |

Division of Statistical and Historical Research. Compiled from The American Fertilizer Handbook.

¹ Includes 595 tons produced in Texas district.² Dried and acidulated combined, not separately reported.³ Includes 4,000 tons produced in Georgia and 1,033 tons produced in Texas.TABLE 739.—Fertilizers: Production, value, and average value per ton of specified kinds, by States, census years, 1914, 1919, 1921, 1923¹

PRODUCTION

| State | Complete and ammoniated | | | | Complete | | Ammoniated | |
|---------------------|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 1914 | 1919 | 1921 | 1923 | 1921 | 1923 | 1921 | 1923 |
| | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> |
| Maine..... | 50,554 | 52,980 | 92,819 | 60,700 | 92,819 | 60,700 | ----- | ----- |
| Connecticut..... | 49,533 | 55,445 | 47,541 | 62,495 | 46,874 | 61,881 | 667 | 614 |
| New York..... | 99,519 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| New Jersey..... | 353,310 | 256,403 | 244,199 | 267,027 | 230,387 | 264,143 | 7,812 | 2,884 |
| Pennsylvania..... | 171,461 | 152,529 | 110,742 | 103,130 | 88,149 | 96,898 | 22,593 | 6,232 |
| Ohio..... | 218,601 | 206,064 | 122,119 | 133,447 | 100,229 | 130,121 | 21,890 | 3,326 |
| Indiana..... | 41,818 | 87,065 | 57,341 | 67,268 | 44,782 | 65,004 | 12,559 | 2,264 |
| Illinois..... | 251,654 | 156,057 | 82,244 | 99,212 | 65,334 | 86,256 | 16,910 | 12,957 |
| Missouri..... | 10,375 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Delaware..... | 21,883 | 12,175 | 14,290 | 9,391 | 13,825 | 9,266 | 465 | 125 |
| Maryland..... | 516,958 | 486,104 | 397,020 | 482,631 | 364,878 | 437,579 | 82,142 | 45,052 |
| Virginia..... | 375,256 | 361,802 | 347,609 | 427,892 | 319,401 | 404,373 | 28,199 | 23,519 |
| North Carolina..... | 458,295 | 463,161 | 387,812 | 514,965 | 361,148 | 500,474 | 26,664 | 14,511 |
| South Carolina..... | 691,076 | 545,642 | 251,864 | 377,179 | 191,633 | 336,285 | 60,231 | 40,894 |
| Georgia..... | 1,155,550 | 1,004,717 | 448,475 | 595,658 | 337,363 | 581,794 | 61,112 | 13,804 |
| Florida..... | 200,663 | 175,746 | 196,295 | 256,263 | 192,950 | 255,222 | 3,336 | 1,061 |
| Kentucky..... | 14,926 | 3,794 | 17,192 | 19,442 | 13,332 | 18,335 | 2,860 | 1,107 |
| Tennessee..... | 164,109 | 75,458 | 39,237 | 62,679 | 33,719 | 61,081 | 5,518 | 1,598 |
| Alabama..... | 403,135 | 204,872 | 85,685 | 165,152 | 76,032 | 161,245 | 9,953 | 3,907 |
| Mississippi..... | 96,359 | 51,808 | 23,764 | 67,138 | 20,473 | 65,543 | 3,291 | 1,505 |
| Louisiana..... | 132,287 | 94,359 | 34,746 | 114,235 | 28,720 | 107,415 | 6,026 | 6,820 |
| Texas..... | 32,807 | 12,848 | 3,750 | 12,673 | 2,427 | 12,673 | 1,329 | ----- |
| Washington..... | ----- | 1,630 | 4,133 | 4,133 | ----- | 4,133 | ----- | ----- |
| California..... | 44,460 | 45,433 | 46,351 | 57,897 | 42,277 | 51,681 | 4,074 | 6,210 |
| Other States..... | 250,323 | 247,968 | 271,766 | 261,753 | 236,874 | 260,406 | 11,861 | 1,348 |
| Total..... | 5,612,421 | 4,756,440 | 3,324,487 | 4,222,400 | 2,985,205 | 4,032,506 | 339,222 | 189,894 |

¹ Data for establishments with products under \$5,000 in value excluded in 1913, but included in other years.

TABLE 739.—*Fertilizers: Production, value, and average value per ton of specified kinds, by States, census years, 1914, 1919, 1921, 1923—Continued*

PRODUCTION—Continued

| State | Superphosphates and concentrated phosphates | | | | Other fertilizer | | | |
|---------------------|---|------------|------------|------------|------------------|------------|------------|------------|
| | 1914 | 1919 | 1921 | 1923 | 1914 | 1919 | 1921 * | 1923 * |
| | Short tons | Short tons | Short tons | Short tons | Short tons | Short tons | Short tons | Short tons |
| Maine..... | | | 137 | 73 | | | 5,386 | 9,680 |
| Connecticut..... | | | 406 | 831 | 9,503 | 1,732 | 2,085 | 2,161 |
| New York..... | | | | | 54,022 | | | |
| New Jersey..... | 82,674 | 93,350 | 91,929 | 78,251 | 39,837 | 55,799 | 20,193 | 42,543 |
| Pennsylvania..... | 23,899 | 12,054 | 54,052 | 44,959 | 80,728 | 59,509 | 39,478 | 30,298 |
| Ohio..... | 69,927 | 187,164 | 149,805 | 172,190 | 50,825 | 105,128 | 49,738 | 70,812 |
| Indiana..... | (9) | 41,467 | 43,321 | 55,806 | 10,094 | 14,230 | 17,918 | 22,773 |
| Illinois..... | (9) | 43,003 | 57,841 | 58,357 | 32,961 | 76,266 | 53,536 | 50,061 |
| Missouri..... | | | | | 11,077 | | | |
| Delaware..... | | | 2,306 | 1,974 | | | 5,250 | 3,363 |
| Maryland..... | 228,045 | 635,856 | 530,765 | 528,533 | 130,993 | 87,716 | 63,453 | 75,182 |
| Virginia..... | 76,130 | 152,305 | 132,444 | 165,606 | 90,304 | 18,730 | 47,627 | 65,316 |
| North Carolina..... | 147,604 | 206,231 | 121,276 | 182,526 | 29,241 | 124,743 | 41,118 | 58,081 |
| South Carolina..... | 182,407 | 249,145 | 104,034 | 180,501 | 60,270 | 51,015 | 42,375 | 50,431 |
| Georgia..... | 459,783 | 341,515 | 278,559 | 330,368 | 134,123 | 77,480 | 157,983 | 133,842 |
| Florida..... | 36,701 | 68,902 | 36,789 | 93,119 | 9,142 | 9,908 | 3,018 | 20,159 |
| Kentucky..... | | | 9,557 | 9,385 | 52,453 | 25,726 | 13,765 | 13,260 |
| Tennessee..... | 47,327 | 121,122 | 125,918 | 153,608 | 118,021 | 46,918 | 8,372 | 22,625 |
| Alabama..... | 230,494 | 146,677 | 61,534 | 143,507 | 53,414 | 28,472 | 16,340 | 60,029 |
| Mississippi..... | 62,518 | 51,159 | 36,911 | 74,099 | (^c) | 19,069 | 303 | 918 |
| Louisiana..... | 52,713 | 59,856 | 35,329 | 67,057 | 36,434 | 8,711 | 1,614 | 6,729 |
| Texas..... | | | 4,615 | 14,399 | | | 3,426 | 4,922 |
| Washington..... | | | | 850 | | | 1,368 | 3,029 |
| California..... | | | 15,027 | 12,525 | 9,749 | 15,403 | 16,048 | 16,666 |
| Other States..... | 59,978 | 105,475 | 84,097 | 89,594 | 46,304 | 138,075 | 82,556 | 104,890 |
| Total..... | 1,760,290 | 2,515,281 | 1,976,742 | 2,458,118 | 1,059,495 | 965,290 | 692,950 | 868,770 |

VALUE

| | Complete and ammoniated | | | | Complete | | Ammoniated | |
|---------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|------------|-----------|
| | 1914 | 1919 | 1921 | 1923 | 1921 | 1923 | 1921 | 1923 |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 1,574,590 | 3,934,620 | 6,556,483 | 2,053,083 | 6,556,483 | 2,053,083 | | |
| Connecticut..... | 1,661,626 | 3,471,617 | 2,795,066 | 3,018,731 | 2,778,674 | 2,985,077 | 16,392 | 33,654 |
| New York..... | 2,072,730 | | | | | | | |
| New Jersey..... | 8,723,747 | 11,990,054 | 10,152,955 | 9,072,372 | 9,902,934 | 8,933,360 | 250,021 | 139,012 |
| Pennsylvania..... | 3,818,919 | 5,220,781 | 4,231,698 | 3,065,564 | 3,444,396 | 2,922,866 | 787,302 | 142,678 |
| Ohio..... | 4,496,321 | 6,496,781 | 3,649,212 | 3,280,624 | 3,019,456 | 3,217,402 | 629,726 | 72,222 |
| Indiana..... | 787,466 | 2,707,699 | 1,613,887 | 1,886,784 | 1,301,018 | 1,747,254 | 612,669 | 61,530 |
| Illinois..... | 4,065,958 | 5,173,346 | 2,458,663 | 3,590,721 | 1,966,978 | 3,253,389 | 491,685 | 337,332 |
| Missouri..... | 267,059 | | | | | | | |
| Delaware..... | 471,093 | 465,965 | 501,289 | 278,899 | 486,311 | 275,224 | 14,978 | 8,676 |
| Maryland..... | 10,013,331 | 20,937,554 | 13,447,832 | 12,907,303 | 12,621,849 | 11,046,092 | 825,983 | 1,200,611 |
| Virginia..... | 7,576,028 | 16,329,418 | 11,261,973 | 11,910,522 | 10,442,676 | 11,229,270 | 819,297 | 681,252 |
| North Carolina..... | 9,999,225 | 21,096,283 | 12,084,319 | 13,834,321 | 11,944,649 | 13,443,994 | 730,670 | 890,327 |
| South Carolina..... | 11,199,158 | 24,218,733 | 8,984,264 | 9,418,125 | 7,017,127 | 8,168,200 | 1,967,237 | 1,249,925 |
| Georgia..... | 24,387,229 | 39,855,409 | 14,153,625 | 16,026,636 | 12,467,834 | 15,598,455 | 1,685,791 | 428,181 |
| Florida..... | 5,720,326 | 8,618,976 | 9,010,209 | 9,519,278 | 8,892,692 | 9,480,155 | 117,517 | 39,123 |
| Kentucky..... | 316,786 | 135,227 | 523,679 | 566,655 | 438,495 | 535,715 | 85,184 | 30,940 |
| Tennessee..... | 2,871,635 | 2,816,787 | 1,291,750 | 1,594,749 | 1,116,685 | 1,518,903 | 175,065 | 40,846 |
| Alabama..... | 8,111,405 | 7,704,149 | 2,283,886 | 4,524,044 | 2,086,838 | 4,434,785 | 197,047 | 89,259 |
| Mississippi..... | 1,867,251 | 2,120,881 | 801,120 | 1,853,042 | 703,023 | 1,840,523 | 98,097 | 42,519 |
| Louisiana..... | 2,558,982 | 3,556,830 | 1,227,565 | 3,665,582 | 1,015,335 | 3,406,233 | 212,230 | 269,349 |
| Texas..... | 794,488 | 907,612 | 162,719 | 402,038 | 107,104 | 402,038 | 55,006 | |
| Washington..... | | | 92,095 | 202,817 | | 202,817 | | |
| California..... | 1,639,686 | 2,600,655 | 2,630,591 | 3,072,733 | 2,406,522 | 2,738,948 | 221,099 | 338,805 |
| Other States..... | 6,651,327 | 10,142,172 | 12,411,763 | 8,464,761 | 11,974,444 | 8,420,050 | 437,319 | 88,711 |
| Total..... | 121,876,386 | 200,106,419 | 122,926,533 | 124,135,404 | 112,786,648 | 118,460,453 | 10,139,885 | 5,674,951 |

* Includes those reported as commercial fertilizers.

* Included in all other States.

TABLE 739.—Fertilizers: Production, value and average value per ton of specified kinds, by States, census years, 1914, 1919, 1921, 1923—Continued

VALUE—Continued

| State | Superphosphates and concentrated phosphates | | | | Other fertilizer | | | |
|---------------------|---|------------|------------|------------|------------------|------------|-------------------|-------------------|
| | 1914 | 1919 | 1921 | 1923 | 1914 | 1919 | 1921 ¹ | 1923 ¹ |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | | | 5,690 | 920 | | | 201,582 | 477,843 |
| Connecticut..... | | | 9,714 | 15,441 | 284,888 | 84,794 | 100,763 | 112,391 |
| New York..... | | | | | 691,478 | | | |
| New Jersey..... | 941,738 | 1,827,494 | 1,935,039 | 1,158,565 | 615,962 | 1,407,807 | 470,799 | 1,146,758 |
| Pennsylvania..... | 242,935 | 310,611 | 915,196 | 620,191 | 1,235,063 | 1,655,734 | 1,627,731 | 897,554 |
| Ohio..... | 969,903 | 1,779,899 | 3,204,865 | 2,915,057 | 840,851 | 2,377,681 | 1,211,380 | 1,577,163 |
| Indiana..... | (?) | 1,019,089 | 948,751 | 920,797 | 186,036 | 658,318 | 512,826 | 630,255 |
| Illinois..... | (?) | 835,494 | 1,254,834 | 1,140,786 | 402,360 | 3,059,099 | 1,378,559 | 913,803 |
| Missouri..... | | | | | 242,735 | | | |
| Delaware..... | | | 42,960 | 30,269 | | | 123,308 | 73,315 |
| Maryland..... | 2,006,040 | 10,661,824 | 7,474,125 | 5,757,933 | 1,469,613 | 3,408,432 | 1,548,480 | 1,567,091 |
| Virginia..... | 663,654 | 3,416,931 | 2,450,737 | 2,267,708 | 1,278,431 | 612,477 | 946,577 | 1,117,521 |
| North Carolina..... | 1,285,889 | 5,210,407 | 2,142,462 | 2,448,357 | 417,043 | 5,595,856 | 1,216,659 | 1,331,951 |
| South Carolina..... | 1,642,797 | 4,869,285 | 1,993,806 | 2,055,506 | 1,163,903 | 2,249,809 | 1,270,691 | 1,297,037 |
| Georgia..... | 4,138,243 | 6,228,256 | 4,268,828 | 4,283,910 | 1,883,315 | 3,136,121 | 4,183,028 | 3,114,434 |
| Florida..... | 307,272 | 1,127,428 | 579,600 | 1,209,542 | 262,469 | 217,651 | 71,351 | 745,774 |
| Kentucky..... | | | 154,227 | 144,620 | 642,540 | 784,965 | 239,767 | 250,612 |
| Tennessee..... | 444,664 | 2,572,765 | 2,018,829 | 2,245,694 | 1,092,003 | 1,332,012 | 170,606 | 308,925 |
| Alabama..... | 1,948,594 | 2,947,652 | 999,344 | 1,815,068 | 923,529 | 1,024,952 | 373,358 | 1,086,858 |
| Mississippi..... | 477,818 | 995,700 | 481,062 | 1,053,183 | (?) | 793,900 | 21,084 | 18,067 |
| Louisiana..... | 460,070 | 1,309,030 | 676,286 | 1,154,921 | 668,372 | 362,453 | 56,429 | 251,949 |
| Texas..... | | | 108,009 | 277,685 | | | 103,925 | 130,356 |
| Washington..... | | | | 22,700 | | | 61,044 | 84,594 |
| California..... | | | 299,285 | 212,840 | 312,584 | 1,042,519 | 497,107 | 490,126 |
| Other States..... | 601,042 | 1,968,172 | 1,634,721 | 1,513,907 | 817,752 | 4,575,057 | 1,966,814 | 2,246,227 |
| Total..... | 16,145,659 | 50,050,347 | 33,598,364 | 33,204,439 | 15,438,107 | 34,387,757 | 18,353,967 | 19,887,124 |

AVERAGE VALUE PER TON

| State | Complete and ammoniated | | | | Complete | | Ammoniated | |
|---------------------|-------------------------|---------|---------|---------|----------|---------|------------|---------|
| | 1914 | 1919 | 1921 | 1923 | 1921 | 1923 | 1921 | 1923 |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | 31.15 | 74.27 | 70.64 | 33.82 | 70.64 | 33.82 | | |
| Connecticut..... | 33.55 | 62.61 | 58.79 | 48.30 | 50.25 | 48.24 | 24.58 | 54.81 |
| New York..... | 20.83 | | | | | | | |
| New Jersey..... | 24.69 | 46.76 | 41.58 | 33.95 | 41.80 | 33.82 | 32.00 | 48.26 |
| Pennsylvania..... | 22.27 | 34.27 | 38.21 | 29.73 | 30.07 | 30.16 | 34.85 | 22.89 |
| Ohio..... | 20.57 | 31.52 | 29.88 | 24.65 | 30.13 | 24.73 | 28.77 | 21.71 |
| Indiana..... | 19.06 | 31.10 | 28.14 | 26.89 | 29.05 | 26.88 | 24.90 | 27.18 |
| Illinois..... | 16.28 | 33.15 | 29.89 | 36.19 | 30.11 | 37.72 | 29.08 | 26.03 |
| Missouri..... | 25.74 | | | | | | | |
| Delaware..... | 21.52 | 38.27 | 35.08 | 29.70 | 35.18 | 29.70 | 32.21 | 29.46 |
| Maryland..... | 19.37 | 43.07 | 33.87 | 26.74 | 34.50 | 26.62 | 25.70 | 27.98 |
| Virginia..... | 20.19 | 45.13 | 32.40 | 27.84 | 32.69 | 27.77 | 29.05 | 28.97 |
| North Carolina..... | 21.82 | 40.86 | 32.71 | 26.86 | 33.07 | 29.86 | | |
| South Carolina..... | 22.81 | 44.39 | 35.67 | 24.97 | 36.62 | 24.29 | 32.66 | 30.56 |
| Georgia..... | 21.10 | 39.67 | 31.56 | 26.91 | 32.19 | 26.81 | 27.59 | 30.88 |
| Florida..... | 28.51 | 49.04 | 45.90 | 37.14 | 46.09 | 37.14 | 35.23 | 36.87 |
| Kentucky..... | 21.22 | 35.64 | 30.46 | 29.15 | 30.60 | 29.22 | 29.78 | 27.95 |
| Tennessee..... | 17.50 | 37.33 | 32.92 | 24.88 | 33.12 | 24.87 | 31.73 | 25.56 |
| Alabama..... | 20.12 | 36.88 | 26.65 | 27.39 | 27.45 | 27.50 | 20.41 | 22.85 |
| Mississippi..... | 19.58 | 40.86 | 33.71 | 28.05 | 34.34 | 28.08 | | |
| Louisiana..... | 19.34 | 37.69 | 35.33 | 32.09 | 35.35 | 31.71 | 35.22 | 38.03 |
| Texas..... | 24.22 | 39.61 | 43.32 | 31.72 | 44.13 | 31.72 | 41.84 | |
| Washington..... | | | 56.50 | 49.07 | 56.50 | 49.07 | | |
| California..... | 36.88 | 57.23 | 50.75 | 53.07 | 56.99 | 54.26 | 54.26 | 53.70 |
| Other States..... | 25.05 | 40.92 | 45.67 | 32.34 | 46.08 | 32.36 | 36.78 | 28.72 |
| Total..... | 21.68 | 42.07 | 36.98 | 29.40 | 37.78 | 29.38 | 29.89 | 29.86 |

¹ Includes those reported as commercial fertilizer.² Included in all other States.

TABLE 739.—Fertilizers: Production, value and average value per ton of specified kinds, by States, census years, 1914, 1919, 1921, 1923—Continued

AVERAGE VALUE PER TON—Continued

| State | Superphosphates and concentrated phosphates | | | | Other fertilizer | | | |
|---------------------|---|---------|---------|---------|------------------|---------|---------|---------|
| | 1914 | 1919 | 1921 | 1923 | 1914 | 1919 | 1921 * | 1923 * |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Maine..... | | | 41.53 | 12.60 | | | 37.43 | 49.36 |
| Connecticut..... | | | 23.93 | 18.58 | 29.98 | | 48.33 | 52.01 |
| New York..... | | | | | 12.80 | | | |
| New Jersey..... | 11.39 | 19.59 | 21.08 | 14.81 | 15.46 | 25.23 | 23.31 | 26.96 |
| Pennsylvania..... | 10.16 | 25.77 | 16.93 | 11.57 | 15.30 | 27.80 | 41.23 | 29.62 |
| Ohio..... | 13.87 | 25.22 | 21.39 | 16.93 | 16.66 | 22.62 | 24.36 | 22.27 |
| Indiana..... | | 24.58 | 21.90 | 16.66 | 18.43 | 46.26 | 23.62 | 26.76 |
| Illinois..... | | 19.43 | 21.69 | 19.55 | 12.21 | 40.11 | 25.75 | 18.25 |
| Missouri..... | | | | | 21.91 | | | |
| Delaware..... | | | 17.98 | 15.33 | | | 23.49 | 21.60 |
| Maryland..... | 8.80 | 16.87 | 14.08 | 10.89 | 11.22 | 38.83 | 24.40 | 20.85 |
| Virginia..... | 8.80 | 22.43 | 18.50 | 13.87 | 14.16 | 32.70 | 19.87 | 17.11 |
| North Carolina..... | 8.71 | 25.26 | 17.67 | 13.41 | 14.28 | 44.86 | 29.59 | 22.93 |
| South Carolina..... | 9.01 | 19.66 | 19.17 | 11.39 | 19.31 | 44.10 | 29.90 | 28.74 |
| Georgia..... | 9.00 | 18.24 | 15.32 | 12.97 | 14.04 | 40.48 | 26.48 | 23.27 |
| Florida..... | 8.37 | 16.36 | 15.75 | 12.99 | 28.71 | 21.97 | 23.64 | 36.90 |
| Kentucky..... | | | 16.14 | 15.41 | 12.25 | 30.51 | 17.42 | 18.90 |
| Tennessee..... | 9.40 | 21.24 | 16.03 | 14.62 | 9.26 | 28.39 | 20.39 | 13.65 |
| Alabama..... | 8.45 | 20.10 | 16.24 | 12.65 | 17.29 | 36.09 | 22.85 | 18.12 |
| Mississippi..... | 7.64 | 19.46 | 13.03 | 14.21 | | 40.36 | 69.58 | 19.70 |
| Louisiana..... | 8.90 | 21.87 | 19.14 | 17.22 | 18.34 | 41.61 | 34.96 | 37.44 |
| Texas..... | | | 23.40 | 19.29 | | | 30.33 | 28.31 |
| Washington..... | | | | 26.71 | | | 44.62 | 27.63 |
| California..... | | | 19.92 | 16.99 | 32.06 | 67.68 | 30.98 | 26.41 |
| Other States..... | 10.03 | 18.66 | 19.44 | 16.90 | 17.66 | 33.13 | 23.32 | 21.42 |
| Total..... | 9.17 | 19.90 | 17.00 | 13.51 | 14.57 | 35.62 | 26.49 | 22.89 |

Division of Statistical and Historical Research. Compiled from reports of the Bureau of the Census.

* Includes those reported as commercial fertilizer.

TABLE 740.—Specified fertilizer materials produced and consumed, 1909-1934

| Year | Production ¹ | | | Sulphuric acid | | | | | |
|-----------|----------------------------------|----------------------------|---|-------------------------|--------------------------|--------------------------------------|-----------|--------------------------------|-----------|
| | Sulphate of ammonia ² | Potash, crude ³ | Consumption of sulphate of ammonia ⁴ | Production ⁵ | Consumption ⁶ | Year beginning July 1 | | | |
| | | | | | | Imports for consumption ⁷ | | Exports, domestic ⁸ | |
| | | | | | | Quantity | Value | Quantity | Value |
| 1909..... | Short tons | Short tons | Short tons | Short tons | Short tons | Short tons | Dollars | Short tons | Dollars |
| 1910..... | 106,530 | | 149,415 | 996,394 | 841,935 | 18 | 1,063 | 2,541 | 61,899 |
| 1911..... | 116,000 | | 208,343 | | | 19 | 526 | 2,889 | 80,537 |
| 1912..... | 127,000 | | 221,633 | | | 24 | 639 | 3,501 | 71,877 |
| 1913..... | 165,000 | | 224,542 | | | 72 | 2,291 | 4,895 | 89,783 |
| 1914..... | 195,900 | | 260,775 | | | 3,362 | 40,569 | 6,066 | 126,892 |
| 1915..... | 183,000 | | 266,016 | 1,405,768 | 1,276,715 | 3,691 | 44,608 | 23,386 | 516,436 |
| 1916..... | 250,049 | 4,374 | 286,423 | | | 3,143 | 61,352 | 41,010 | 1,990,532 |
| 1917..... | 288,285 | 35,739 | 302,782 | | | 334 | 6,617 | 29,302 | 961,886 |
| 1918..... | 325,670 | 126,961 | 333,805 | | | 14,113 | 358,904 | 23,827 | 1,119,997 |
| 1919..... | 379,278 | 207,686 | 382,630 | | | 5,670 | 106,499 | 23,707 | 806,430 |
| 1920..... | 463,323 | 116,634 | 405,869 | 1,877,394 | 1,596,577 | 4,611 | 79,294 | 16,167 | 778,287 |
| 1921..... | 499,463 | 166,834 | 434,944 | | | 5,183 | 93,937 | 9,300 | 446,360 |
| 1922..... | 338,500 | 20,485 | 248,583 | 1,319,582 | 1,143,850 | 2,458 | 64,717 | 6,990 | 265,560 |
| 1923..... | 476,761 | 25,176 | 317,227 | 1,423,917 | 1,589,809 | 9,072 | 156,440 | 3,631 | 166,204 |
| 1924..... | 603,363 | 39,029 | 455,209 | 1,690,235 | 1,820,278 | 8,598 | 144,376 | 5,182 | 184,385 |
| 1924..... | 599,622 | 43,719 | 443,771 | 1,576,544 | 1,782,816 | 7,107 | 7,146,841 | | 173,120 |

Division of Statistical and Historical Research.

¹ Production for all purposes.² The American Fertilizer Handbook.³ Geological Survey.⁴ Computed from production figures as quoted by the American Fertilizer Handbook, plus imports, 1909-1919, and net imports, 1920-1924, as reported by the Bureau of Foreign and Domestic Commerce.⁵ Bureau of the Census. In fertilizer manufacturing plants only.⁶ Bureau of Foreign and Domestic Commerce.⁷ General imports.

TABLE 741.—Fertilizer materials: Imports into the United States, 1912-1925

| Year ended June 30— | Bone dust and bone ash ¹ | | Kainit | | Manure salts ² | |
|---------------------|-------------------------------------|-----------|----------|-----------|---------------------------|-----------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | Tons | Dollars | Tons | Dollars | Tons | Dollars |
| 1912..... | 33,864 | 830,616 | 485,132 | 2,399,761 | 192,738 | 1,814,071 |
| 1913..... | 33,337 | 801,713 | 466,795 | 2,154,977 | 171,802 | 1,794,058 |
| 1914..... | 41,450 | 1,034,636 | 541,846 | 2,579,619 | 261,342 | 2,767,241 |
| 1915..... | 23,428 | 584,748 | 79,004 | 444,760 | 66,062 | 760,699 |
| 1916..... | 20,466 | 524,153 | 64 | 1,795 | 2,271 | 41,825 |
| 1917..... | 14,305 | 385,541 | ----- | ----- | 324 | 7,704 |
| 1918..... | 8,511 | 286,764 | ----- | ----- | 190 | 8,872 |
| 1919..... | 4,138 | 117,690 | ----- | ----- | ----- | ----- |
| 1920..... | 7,340 | 306,301 | 274,761 | 5,655,660 | 240,348 | 8,319,620 |
| 1921..... | 27,413 | 1,317,876 | 204,834 | 4,882,974 | 123,273 | 4,164,817 |
| 1922..... | 18,234 | 495,445 | 83,571 | 585,338 | 81,442 | 957,443 |
| 1923..... | 52,933 | 1,380,413 | 168,574 | 1,048,054 | 244,760 | 2,395,098 |
| 1924..... | 66,820 | 1,783,531 | 181,288 | 1,080,132 | 268,203 | 2,664,634 |
| 1925..... | 35,908 | 730,889 | 142,888 | 855,277 | 344,260 | 3,293,254 |

| Year ended June 30— | Ammonia sulphate | | Potash | | | |
|---------------------|------------------|-----------|----------|------------|----------|-----------|
| | Quantity | Value | Muriate | | Sulphate | |
| | | | Quantity | Value | Quantity | Value |
| | Tons | Dollars | Tons | Dollars | Tons | Dollars |
| 1912..... | 65,906 | 4,143,417 | 215,957 | 7,235,718 | 44,476 | 1,820,830 |
| 1913..... | 54,089 | 3,655,413 | 201,220 | 6,782,056 | 42,745 | 1,753,485 |
| 1914..... | 74,444 | 4,888,563 | 237,886 | 7,915,523 | 45,139 | 1,897,740 |
| 1915..... | 57,044 | 3,208,152 | 102,732 | 3,666,114 | 21,852 | 1,071,761 |
| 1916..... | 19,610 | 1,371,007 | 2,130 | 491,431 | 2,423 | 197,806 |
| 1917..... | 8,176 | 647,271 | 606 | 174,806 | 661 | 20,538 |
| 1918..... | 3,983 | 467,999 | 723 | 195,154 | 135 | 10,837 |
| 1919..... | 1,964 | 278,469 | 1,677 | 201,507 | 137 | 23,394 |
| 1920..... | 2,587 | 343,107 | 110,324 | 11,038,173 | 6,350 | 1,073,322 |
| 1921..... | 2,537 | 226,300 | 49,911 | 5,290,196 | 12,081 | 1,659,998 |
| 1922..... | 6,356 | 314,285 | 131,423 | 5,519,580 | 45,290 | 2,085,348 |
| 1923..... | 1,785 | 119,686 | 150,461 | 4,749,134 | 51,776 | 2,109,966 |
| 1924..... | 5,848 | 337,032 | 119,605 | 3,828,891 | 68,369 | 2,085,120 |
| 1925..... | 21,188 | 1,198,428 | 154,447 | 4,737,224 | 67,292 | 2,553,248 |

Division of Statistical and Historical Research. Compiled from the Monthly Summary of Foreign Commerce of the United States, June issues, 1921-1925.

¹ Includes "Other potash-bearing substances" amounting to 20,734 tons and valued at \$238,651.

² Classified in 1924 and 1925 as "Bone phosphate and other phosphate material."

³ Classified as "Manure salts and other potash-bearing substances."

TABLE 742.—Guano: Imports into the United States, 1909-1925

| Year ended June 30— | Quantity | | Year ended June 30— | Quantity | |
|---------------------|----------|---------|---------------------|--------------------|----------------------|
| | Tons | Dollars | | Tons | Dollars |
| 1909..... | 36,909 | 580,334 | 1919..... | 8,218 | 283,425 |
| 1910..... | 52,330 | 845,765 | 1920..... | 18,796 | 1,550,098 |
| 1911..... | 29,516 | 593,309 | 1921..... | 37,670 | 3,158,064 |
| 1912..... | 34,706 | 684,658 | 1922..... | 1,305 | 48,876 |
| 1913..... | 19,075 | 340,915 | 1923..... | (¹) | (¹) |
| 1914..... | 21,887 | 755,833 | 1924..... | ² 4,982 | ³ 191,659 |
| 1915..... | 20,945 | 534,391 | 1925..... | 24,566 | 737,896 |
| 1916..... | 16,837 | 425,377 | | | |
| 1917..... | 3,563 | 73,398 | | | |
| 1918..... | 10,096 | 287,446 | | | |

Division of Statistical and Historical Research. Compiled from Monthly Summary of Foreign Commerce of the United States, June issues, 1921-1925.

¹ Included in all other fertilizers.

² Beginning Jan. 1, 1924.

TABLE 743.—*Fertilizer materials: Average wholesale price 1913-1925*

AMMONIATES

| Year | Ammonia sulphate, domestic, spot, per 100 pounds | Blood, dried, 12 per cent ammonia, f. o. b., per short ton ¹ | | Fish scrap, dried, 11 per cent ammonia, 14 per cent bone phosphate, f. o. b. fish factory, per short ton ¹ | Fish, wet, acidulated, 6 per cent ammonia, 3 per cent phosphoric acid, f. o. b. fish factory, per short ton | Soda, nitrate, spot, 95 per cent, per 100 pounds | Cottonseed meal, 7 per cent ammonia f. o. b. mill, per short ton | Concentrated tankage, 14 per cent, f. o. b. Chicago, per short ton ¹ |
|-----------|--|---|----------|---|---|--|--|---|
| | | New York | Chicago | | | | | |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| 1913..... | 3.03 | 34.56 | 32.76 | 29.12 | 16.11 | 2.46 | ----- | ----- |
| 1914..... | 2.73 | 38.52 | 37.08 | 38.14 | ----- | 2.10 | ----- | ----- |
| 1915..... | 3.34 | 34.08 | 31.68 | 36.82 | ----- | 2.43 | ----- | ----- |
| 1916..... | 3.82 | 38.76 | 36.84 | 42.21 | 25.26 | 3.21 | ----- | ----- |
| 1917..... | 5.90 | 67.20 | 63.96 | 60.14 | 33.70 | 4.13 | ----- | ----- |
| 1918..... | 5.70 | 83.40 | Nominal. | 61.23 | 43.12 | 4.74 | ----- | ----- |
| 1919..... | 4.68 | 74.76 | Nominal. | 73.12 | 36.00 | 3.63 | ----- | ----- |
| 1920..... | 5.01 | 90.84 | Nominal. | 74.77 | 36.12 | 3.52 | 41.00 | ----- |
| 1921..... | 2.42 | 39.84 | Nominal. | 36.16 | 17.10 | 2.50 | 32.67 | 31.64 |
| 1922..... | 3.01 | 49.68 | 50.64 | 40.12 | 19.26 | 2.54 | 39.50 | 45.36 |
| 1923..... | 3.18 | 50.28 | 50.64 | 45.18 | 22.74 | 2.51 | 39.67 | 45.36 |
| 1924..... | 2.71 | 41.76 | 42.12 | 46.94 | 23.34 | 2.49 | 37.33 | 40.60 |
| 1925..... | 2.89 | 44.88 | ----- | 49.91 | 24.78 | 2.59 | 34.46 | 43.12 |

Division of Statistical and Historical Research. Compiled from Oil, Paint, and Drug Reporter, average of weekly prices.

¹ Converted from price per unit. Unit equals 1 per cent in a ton, or 20 pounds of pure ammonia.

TABLE 744.—*Phosphate rock: Average wholesale price per long ton, 1913-1925*

| Year | Tennessee phosphate rock, f. o. b. Mount Pleasant | | | South Carolina phosphate rock kiln dried, f. o. b. Ashley River | Florida land pebble phosphate rock, 68 per cent, f. o. b. Florida points | Florida high-grade phosphate hard rock | |
|-----------|---|------------------------|--------------------------------|---|--|--|--------------------|
| | Domestic, 78 to 80 per cent | 75 per cent guaranteed | 68 to 72 per cent ¹ | | | 77 per cent, f. o. b. Florida points | 75 per cent, Tampa |
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| 1913..... | 5.25 | 4.88 | 4.38 | 3.62 | 3.49 | 6.00 | ----- |
| 1914..... | 5.25 | 4.88 | 4.38 | 3.62 | 3.12 | 6.00 | ----- |
| 1915..... | 5.25 | 4.88 | 4.38 | 3.62 | 3.01 | 5.60 | ----- |
| 1916..... | 5.25 | 4.88 | 4.38 | 3.62 | 2.84 | 5.12 | ----- |
| 1917..... | 5.48 | 4.99 | 4.65 | 3.89 | 2.63 | 5.42 | ----- |
| 1918..... | 6.56 | 6.71 | 6.81 | Nominal. | 4.22 | 7.25 | ----- |
| 1919..... | 10.50 | 9.52 | 7.49 | Nominal. | 5.00 | 9.39 | 7.75 |
| 1920..... | 13.42 | 10.82 | ----- | ----- | 8.48 | 13.02 | 10.35 |
| 1921..... | 15.25 | 8.90 | ----- | ----- | 5.90 | 12.02 | 8.74 |
| 1922..... | Nominal. | 6.90 | 5.54 | ----- | 3.11 | 8.58 | 6.23 |
| 1923..... | Nominal. | 7.50 | 5.50 | ----- | 3.05 | 7.60 | 5.17 |
| 1924..... | Nominal. | 6.65 | 4.65 | ----- | 2.34 | 6.75 | 4.18 |
| 1925..... | Nominal. | 6.19 | 5.19 | ----- | 2.45 | 6.05 | ----- |

Division of Statistical and Historical Research. Compiled from Oil, Paint and Drug Reporter, average of weekly prices.

¹ Grade changed to 70 per cent 1922-1924, and 72 per cent in 1925.

² Three months, January-March.

TABLE 745.—*Fertilizer, commercial: Sold in cotton States, based on sale of fertilizer tags, 1919-1925*

| State | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> | <i>Short tons</i> |
| Virginia..... | 421, 436 | 465, 227 | 369, 490 | 449, 942 | 302, 211 | 343, 793 | 342, 386 |
| North Carolina..... | 1, 109, 070 | 1, 222, 103 | 831, 084 | 1, 035, 430 | 1, 190, 583 | 1, 189, 315 | 1, 217, 467 |
| South Carolina..... | 1, 033, 887 | 1, 253, 890 | 615, 488 | 504, 000 | 678, 612 | 879, 093 | 863, 928 |
| Georgia..... | 1, 063, 841 | 1, 039, 048 | 556, 573 | 535, 084 | 677, 040 | 690, 075 | 789, 621 |
| Florida..... | 250, 613 | 272, 316 | 289, 857 | 329, 668 | 379, 000 | 386, 521 | 361, 840 |
| Alabama..... | 1, 298, 007 | 391, 171 | 180, 248 | 295, 429 | 436, 786 | 472, 240 | 570, 149 |
| Mississippi..... | 126, 377 | 166, 903 | 94, 572 | 169, 937 | 253, 811 | 213, 516 | 257, 113 |
| Louisiana..... | 97, 724 | 95, 863 | 38, 760 | 66, 470 | 107, 368 | 129, 288 | 103, 699 |
| Texas..... | 46, 000 | 56, 700 | 19, 204 | 33, 420 | 76, 000 | 120, 000 | 103, 000 |
| Arkansas..... | 53, 373 | 69, 036 | 14, 550 | 40, 325 | 74, 774 | 84, 995 | 130, 000 |
| Tennessee..... | 108, 430 | 112, 102 | 84, 044 | 96, 962 | 112, 656 | 117, 137 | 135, 270 |
| Missouri..... | 70, 000 | 77, 888 | 8, 022 | 7, 900 | ----- | ----- | ----- |
| Total..... | 4, 678, 758 | 5, 222, 247 | 3, 102, 492 | 3, 564, 597 | 4, 288, 841 | 4, 625, 973 | 4, 883, 482 |

Division of Statistical and Historical Research. Compiled from reports of the Division of Crop and Livestock Estimates. Figures for 1914-1919 are published in Yearbook, 1923.

¹ Cottonseed meal not included.

TABLE 746.—*Fertilizer used on cotton, 1924-1925*

| State | Acreage in cotton | | | | Fertilizers used | | | | Value | | | | | | | |
|------------------------------|--------------------|--------------------|--------------------|--------------------|------------------|-------------|-------------|-------------|-----------------------|--------------|--------------|--------------------|--------------------|-----------------------|--------------|--------------|
| | June 25 | | Fertilized | | Average per acre | | Total | | Average price per ton | Total | | Average per acre | | Average price per ton | Total | |
| | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | 1924 | 1925 | | 1924 | 1925 | 1924 | 1925 | | 1924 | 1925 |
| | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>1,000 acres</i> | <i>Lbs.</i> | <i>Lbs.</i> | <i>Tons</i> | <i>Tons</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>1,000 Dols.</i> | <i>1,000 Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| Virginia..... | 107 | 96 | 105 | 92 | 440 | 390 | 23, 100 | 17, 940 | 27. 40 | 31. 50 | 633 | 565 | 6. 03 | 6. 14 | ----- | ----- |
| North Carolina..... | 2, 099 | 2, 183 | 2, 078 | 2, 139 | 450 | 450 | 467, 550 | 481, 275 | 26. 70 | 30. 50 | 12, 484 | 14, 679 | 6. 01 | 6. 86 | ----- | ----- |
| South Carolina..... | 2, 491 | 2, 740 | 2, 366 | 2, 576 | 345 | 350 | 408, 135 | 450, 800 | 25. 40 | 29. 50 | 10, 367 | 13, 299 | 4. 38 | 5. 16 | ----- | ----- |
| Georgia..... | 3, 099 | 3, 504 | 2, 944 | 3, 386 | 270 | 265 | 397, 440 | 448, 645 | 27. 00 | 31. 00 | 10, 731 | 14, 177 | 3. 65 | 4. 19 | ----- | ----- |
| Florida..... | 82 | 115 | 75 | 104 | 200 | 232 | 7, 500 | 12, 064 | 28. 00 | 31. 00 | 210 | 374 | 2. 80 | 3. 60 | ----- | ----- |
| Alabama..... | 3, 114 | 3, 425 | 2, 740 | 3, 082 | 238 | 245 | 326, 060 | 377, 545 | 29. 20 | 32. 70 | 9, 521 | 12, 346 | 3. 47 | 4. 01 | ----- | ----- |
| Mississippi..... | 3, 057 | 3, 424 | 1, 406 | 1, 712 | 200 | 213 | 140, 600 | 182, 328 | 35. 00 | 37. 00 | 4, 921 | 6, 746 | 3. 50 | 3. 94 | ----- | ----- |
| Louisiana..... | 1, 666 | 1, 916 | 833 | 805 | 175 | 171 | 72, 888 | 68, 828 | 38. 60 | 41. 00 | 2, 806 | 2, 822 | 3. 37 | 3. 51 | ----- | ----- |
| Texas..... | 17, 706 | 18, 237 | 1, 239 | 1, 694 | 175 | 175 | 108, 412 | 95, 725 | 35. 20 | 37. 00 | 3, 816 | 3, 542 | 3. 08 | 3. 24 | ----- | ----- |
| Arkansas ¹ | 3, 173 | 3, 649 | 1, 111 | 1, 277 | 177 | 185 | 98, 324 | 118, 122 | 35. 60 | 37. 00 | 3, 500 | 4, 371 | 3. 15 | 3. 42 | ----- | ----- |
| Tennessee..... | 1, 016 | 1, 219 | 457 | 634 | 205 | 219 | 46, 842 | 69, 423 | 27. 50 | 32. 50 | 1, 288 | 2, 256 | 2. 82 | 3. 56 | ----- | ----- |
| Missouri..... | 524 | 503 | 21 | 25 | 170 | 120 | 1, 785 | 1, 500 | 34. 00 | 35. 00 | 61 | 52 | 2. 90 | 2. 08 | ----- | ----- |
| Oklahoma..... | 4, 022 | 4, 867 | 201 | 49 | 150 | 150 | 15, 075 | 3, 075 | 29. 50 | 30. 00 | 445 | 110 | 2. 21 | 2. 24 | ----- | ----- |
| California..... | 130 | 170 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Arizona..... | 183 | 163 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| New Mexico..... | 126 | 130 | 6 | 7 | 150 | 180 | 450 | 630 | 33. 00 | 30. 00 | 15 | 19 | 2. 50 | 2. 71 | ----- | ----- |
| All other ² | 46 | 38 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Total..... | 42, 641 | 46, 448 | 15, 582 | 16, 982 | 272 | 274 | 2, 114, 161 | 2, 328, 500 | 28. 76 | 32. 36 | 60, 798 | 75, 358 | 3. 90 | 4. 44 | ----- | ----- |

Division of Statistical and Historical Research. Compiled from reports of the Division of Crop and Livestock Estimates.

¹ Cottonseed meal and nitrate of soda are not included in the report for this State.

² Includes Illinois, Kansas, and Kentucky.

FOREIGN EXCHANGE

TABLE 747.—*Foreign exchange: Average rates at New York*ARGENTINE PESO, PAPER¹

(Par=42.4512 cents)

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> |
| 1912..... | 42.460 | 42.500 | 42.604 | 42.655 | 42.526 | 42.510 | 42.510 | 42.510 | 42.510 | 42.510 | 42.478 | 42.495 |
| 1913..... | 42.510 | 42.878 | 42.720 | 42.535 | 43.470 | 42.395 | 42.290 | 42.110 | 42.110 | 42.110 | 42.110 | 42.110 |
| 1914..... | 42.158 | 42.522 | 42.540 | 42.365 | 42.230 | 42.230 | 42.249 | 43.465 | 44.683 | 43.042 | 43.428 | 43.726 |
| 1915..... | 43.348 | 43.332 | 42.925 | 42.580 | 42.005 | 42.018 | 42.239 | 41.385 | 41.712 | 42.080 | 42.212 | 42.560 |
| 1916..... | 42.652 | 42.858 | 43.158 | 43.058 | 42.525 | 42.182 | 41.592 | 41.402 | 42.126 | 42.900 | 43.240 | 43.824 |
| 1917..... | 44.170 | 43.960 | 43.402 | 42.642 | 43.262 | 43.918 | 43.525 | 43.104 | 42.900 | 43.708 | 45.600 | 46.680 |
| 1918..... | 44.820 | 43.805 | 44.062 | 44.472 | 45.192 | 44.820 | 44.388 | 44.413 | 44.632 | 44.712 | 44.828 | 45.018 |
| 1919..... | 44.804 | 44.748 | 44.328 | 44.045 | 44.100 | 43.220 | 42.548 | 42.138 | 42.315 | 42.324 | 42.945 | 43.110 |
| 1920..... | 43.076 | 43.108 | 43.320 | 42.957 | 42.485 | 42.058 | 40.496 | 37.657 | 36.808 | 35.807 | 33.650 | 34.368 |
| 1921..... | 34.792 | 35.078 | 34.122 | 32.476 | 31.595 | 30.782 | 28.952 | 29.284 | 30.637 | 32.154 | 32.329 | 32.914 |
| 1922..... | 33.963 | 36.334 | 36.423 | 35.529 | 36.260 | 33.016 | 36.013 | 36.117 | 35.677 | 35.822 | 36.180 | 37.650 |
| 1923..... | 37.284 | 37.055 | 37.024 | 36.585 | 35.939 | 35.485 | 34.205 | 32.762 | 32.935 | 32.410 | 31.304 | 31.826 |
| 1924..... | 32.468 | 33.039 | 33.683 | 32.913 | 32.838 | 32.512 | 32.612 | 33.729 | 35.212 | 36.762 | 37.616 | 38.890 |
| 1925..... | 40.075 | 39.745 | 39.472 | 38.227 | 39.706 | 40.185 | 40.370 | 40.348 | 40.352 | 41.078 | 41.554 | 41.452 |

EGYPTIAN TALARI²

(Par=98.862 cents)

| | | | | | | | | | | | | |
|-----------|---------|---------|---------|--------|---------|--------|---------|---------|---------|---------|---------|---------|
| 1912..... | 100.845 | 100.398 | 100.310 | 99.980 | 100.006 | 99.992 | 99.972 | 100.090 | 100.042 | 100.412 | 99.980 | 100.005 |
| 1913..... | 100.144 | 99.028 | 99.845 | 99.832 | 99.862 | 99.690 | 99.662 | 99.952 | 100.120 | 100.244 | 99.912 | 99.768 |
| 1914..... | 99.985 | 99.855 | 99.685 | 99.828 | 99.912 | 99.912 | 100.158 | 103.630 | 103.292 | 102.552 | 100.962 | 100.236 |
| 1915..... | 99.582 | 99.138 | 98.708 | 98.372 | 98.320 | 97.955 | 97.738 | 96.335 | 96.252 | 96.114 | 95.805 | 95.840 |
| 1916..... | 97.605 | 97.652 | 97.740 | 97.770 | 97.648 | 97.575 | 97.592 | 97.590 | 97.612 | 97.698 | 97.698 | 97.644 |
| 1917..... | 97.605 | 97.538 | 97.570 | 97.670 | 97.578 | 97.520 | 97.608 | 97.680 | 97.628 | 97.572 | 97.576 | 98.080 |
| 1918..... | 97.585 | 97.580 | 97.552 | 97.598 | 97.600 | 97.570 | 97.608 | 97.618 | 97.630 | 97.675 | 97.712 | 97.710 |
| 1919..... | 97.720 | 97.702 | 96.480 | 95.625 | 95.808 | 94.588 | 91.395 | 88.036 | 95.518 | 85.560 | 84.334 | 78.442 |
| 1920..... | 75.864 | 68.660 | 74.123 | 80.088 | 78.934 | 79.642 | 78.362 | 73.498 | 72.510 | 70.876 | 70.876 | 72.844 |
| 1921..... | 76.915 | 79.482 | 80.405 | 80.780 | 82.390 | 78.298 | 75.126 | 75.128 | 76.810 | 79.538 | 81.428 | 84.630 |
| 1922..... | 86.725 | 89.163 | 87.592 | 89.970 | 91.120 | 91.377 | 91.118 | 91.955 | 90.828 | 91.275 | 91.558 | 93.842 |
| 1923..... | 95.070 | 96.730 | 96.850 | 95.328 | 95.382 | 94.880 | 94.417 | 94.315 | 93.794 | 93.635 | 89.808 | 89.234 |
| 1924..... | 87.295 | 88.410 | 88.340 | 88.852 | 89.960 | 88.750 | 89.623 | 92.150 | 91.900 | 92.140 | 94.478 | 96.560 |
| 1925..... | 98.136 | 97.950 | 98.220 | 98.440 | 99.672 | 99.880 | 99.625 | 99.682 | 99.401 | 99.310 | 99.356 | 99.446 |

INDIAN RUPEE, GOLD³

(Par=48.665 cents)

| | | | | | | | | | | | | |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1919..... | 35.650 | 35.650 | 35.875 | 35.650 | 42.500 | 42.500 | 43.000 | 43.500 | 45.000 | 43.000 | 43.375 | 45.000 |
| 1920..... | 44.125 | 45.500 | 47.250 | 46.500 | 43.500 | 40.875 | 37.875 | 35.750 | 33.784 | 30.625 | 29.375 | 27.250 |
| 1921..... | 28.574 | 28.938 | 29.906 | 26.100 | 26.344 | 25.422 | 23.059 | 24.224 | 26.390 | 27.419 | 26.874 | 27.449 |
| 1922..... | 27.810 | 28.143 | 27.822 | 27.810 | 28.751 | 28.911 | 28.891 | 29.014 | 28.741 | 28.842 | 29.511 | 30.649 |
| 1923..... | 31.726 | 31.850 | 31.566 | 31.346 | 31.081 | 30.922 | 30.859 | 30.461 | 30.602 | 31.063 | 30.860 | 31.005 |
| 1924..... | 30.447 | 30.324 | 29.862 | 30.404 | 30.580 | 30.488 | 31.233 | 32.260 | 32.519 | 33.694 | 34.392 | 36.324 |
| 1925..... | 35.710 | 35.730 | 35.670 | 35.600 | 36.230 | 36.480 | 36.610 | 36.620 | 36.630 | 36.600 | 36.62 | 36.640 |

¹ Compiled from International Yearbook of Agricultural Statistics, 1921, page 505, through June, 1921; average of weekly quotations. Federal Reserve Bulletin, July, 1921, to date; average monthly rate of exchange.

² Interpolation, no quotation.

³ International Yearbook of Agricultural Statistics, 1921, page 505, and 1922, page 342.

⁴ Federal Reserve Bulletin. January–September, 1919, highest rate for month. October, 1919–December, 1920, average of high and low quotations for month. January, 1921–June, 1921, average of weekly high and low quotations for month. July, 1921 to date, average rate of exchange.

TABLE 747.—Foreign exchange: Average rates at New York—Continued

POUND STERLING *

(Par = \$4.8665)

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1912..... | \$4.8699 | \$4.8728 | \$4.8721 | \$4.8710 | \$4.8720 | \$4.8756 | \$4.8752 | \$4.8725 | \$4.8604 | \$4.8574 | \$4.8506 | \$4.8502 |
| 1913..... | 4.8688 | 4.8746 | 4.8729 | 4.8688 | 4.8651 | 4.8670 | 4.8678 | 4.8640 | 4.8508 | 4.8590 | 4.8526 | 4.8535 |
| 1914..... | 4.8623 | 4.8570 | 4.8628 | 4.8608 | 4.8831 | 4.8849 | 4.8878 | 5.0000 | 4.9812 | 4.9530 | 4.9031 | 4.8715 |
| 1915..... | 4.8422 | 4.8206 | 4.8018 | 4.7945 | 4.7925 | 4.7755 | 4.7648 | 4.7062 | 4.6912 | 4.6858 | 4.6706 | 4.7208 |
| 1916..... | 4.7506 | 4.7591 | 4.7641 | 4.7648 | 4.7581 | 4.7579 | 4.7577 | 4.7575 | 4.7574 | 4.7567 | 4.7567 | 4.7479 |
| 1917..... | 4.7587 | 4.7550 | 4.7544 | 4.7567 | 4.7555 | 4.7544 | 4.7553 | 4.7545 | 4.7548 | 4.7522 | 4.7520 | 4.7517 |
| 1918..... | 4.7525 | 4.7525 | 4.7523 | 4.7550 | 4.7550 | 4.7538 | 4.7525 | 4.7562 | 4.7550 | 4.7550 | 4.7576 | 4.7575 |
| 1919..... | 4.7575 | 4.7575 | 4.7600 | 4.6512 | 4.6562 | 4.6125 | 4.4275 | 4.2726 | 4.1800 | 4.1712 | 4.0912 | 3.7688 |
| 1920..... | 3.6700 | 3.8762 | 3.7712 | 3.9130 | 3.8500 | 3.9475 | 3.8525 | 3.6200 | 3.5125 | 3.4750 | 3.4250 | 3.4912 |
| 1921..... | 3.7562 | 3.8712 | 3.9150 | 3.9300 | 3.9775 | 3.7725 | 3.6321 | 3.6536 | 3.7240 | 3.8729 | 3.9702 | 4.1531 |
| 1922..... | 4.2248 | 4.3620 | 4.3757 | 4.4134 | 4.4461 | 4.4519 | 4.4464 | 4.4647 | 4.4307 | 4.4385 | 4.4709 | 4.6098 |
| 1923..... | 4.6546 | 4.6908 | 4.6957 | 4.6555 | 4.6257 | 4.6147 | 4.5834 | 4.5603 | 4.5422 | 4.5237 | 4.3822 | 4.3602 |
| 1924..... | 4.2591 | 4.3077 | 4.2906 | 4.3513 | 4.3608 | 4.3199 | 4.3704 | 4.4995 | 4.4605 | 4.4870 | 4.6097 | 4.6958 |
| 1925..... | 4.7817 | 4.7724 | 4.7763 | 4.7953 | 4.8517 | 4.8694 | 4.8506 | 4.8569 | 4.8465 | 4.8428 | 4.8450 | 4.8498 |

DANISH KRONE *

(Par = 25.8 cents)

| | | | | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1911..... | | | | | | | 26.63 | 26.58 | 26.25 | 25.74 | 25.25 | 24.98 |
| 1915..... | 24.72 | 24.48 | 24.48 | 25.13 | 25.61 | 26.08 | 25.64 | 25.41 | 25.29 | 25.71 | 25.53 | 26.70 |
| 1916..... | 26.77 | 27.40 | 28.09 | 29.07 | 29.81 | 28.69 | 28.05 | 27.59 | 27.10 | 27.10 | 26.92 | 27.03 |
| 1917..... | 27.25 | 27.43 | 28.17 | 28.41 | 28.49 | 28.74 | 29.28 | 30.08 | 30.63 | 32.41 | 33.61 | 31.35 |
| 1918..... | 30.72 | 30.49 | 30.63 | 31.06 | 31.25 | 30.96 | 31.15 | 31.10 | 29.67 | 27.89 | 26.07 | 26.81 |
| 1919..... | 26.74 | 26.02 | 25.53 | 25.09 | 24.17 | 23.89 | 22.75 | 21.88 | 21.91 | 21.52 | 20.81 | 18.67 |
| 1920..... | 17.60 | 14.90 | 17.23 | 18.01 | 16.83 | 16.87 | 16.42 | 14.96 | 14.01 | 13.87 | 13.41 | 14.85 |
| 1921..... | 18.06 | 18.54 | 17.31 | 18.09 | 18.07 | 17.21 | 15.78 | 16.19 | 17.67 | 18.92 | 18.47 | 19.52 |
| 1922..... | 19.97 | 20.64 | 21.11 | 21.22 | 21.40 | 21.66 | 21.54 | 21.53 | 21.06 | 20.19 | 20.21 | 20.67 |
| 1923..... | 19.79 | 19.09 | 19.20 | 18.92 | 18.65 | 17.96 | 17.54 | 18.46 | 18.16 | 17.53 | 17.20 | 17.82 |
| 1924..... | 16.94 | 16.06 | 15.68 | 16.64 | 16.92 | 16.78 | 16.05 | 16.21 | 16.95 | 17.33 | 17.55 | 17.64 |
| 1925..... | 17.81 | 17.81 | 17.07 | 18.44 | 18.81 | 19.11 | 21.37 | 23.30 | 24.52 | 24.58 | 24.86 | 24.80 |

Division of Statistical and Historical Research.

* International Yearbook of Agricultural Statistics, 1921, pages 504 and 498. Federal Reserve Bulletin, July, 1921, to date. Sight drafts 1912-1920; cables 1921 to date.

* Federal Reserve Board Bulletin, quoting Statistisk Aarbog, July, 1914, to December, 1919, and their own monthly averages since January, 1920. Quotations at New York on Copenhagen are not available throughout the period, but the shift in sources does not result in any considerable discrepancy. For the calendar year 1920, for example, the Copenhagen quotations on New York show the krone as equivalent to 15.43 cents while the New York quotations on Copenhagen average 15.63 cents per krone.

FEDERAL-AID HIGHWAYS

TABLE 748.—Apportionment of Federal aid to States, year ended June 30

| State | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 |
|---------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Alabama..... | 104, 148. 90 | 208, 297. 80 | 1, 303, 720. 57 | 1, 095, 501. 80 | 2, 104, 883. 51 | 1, 553, 420. 67 |
| Arizona..... | 68, 513. 52 | 137, 027. 04 | 890, 584. 16 | 1, 301, 582. 81 | 1, 373, 644. 16 | 1, 058, 855. 41 |
| Arkansas..... | 82, 689. 10 | 165, 378. 20 | 1, 090, 247. 99 | 1, 596, 436. 09 | 1, 685, 178. 09 | 1, 254, 142. 20 |
| California..... | 151, 063. 92 | 302, 127. 84 | 1, 980, 415. 53 | 2, 896, 071. 77 | 3, 054, 675. 51 | 2, 462, 098. 53 |
| Colorado..... | 83, 690. 14 | 167, 380. 28 | 1, 124, 849. 83 | 1, 648, 384. 72 | 1, 755, 769. 17 | 1, 341, 175. 69 |
| Connecticut..... | 31, 060. 44 | 62, 180. 88 | 399, 281. 11 | 583, 422. 84 | 613, 349. 43 | 480, 597. 78 |
| Delaware..... | 8, 184. 37 | 16, 368. 74 | 105, 796. 45 | 154, 630. 46 | 162, 674. 81 | 365, 625. 00 |
| Florida..... | 55, 976. 27 | 111, 952. 54 | 744, 521. 08 | 1, 090, 214. 67 | 1, 147, 447. 92 | 886, 825. 69 |
| Georgia..... | 134, 329. 48 | 268, 658. 96 | 1, 749, 954. 20 | 2, 557, 485. 02 | 2, 697, 150. 96 | 1, 997, 967. 58 |
| Idaho..... | 60, 463. 50 | 120, 927. 00 | 792, 980. 82 | 1, 159, 967. 61 | 1, 226, 049. 93 | 938, 536. 68 |
| Illinois..... | 220, 926. 23 | 441, 852. 46 | 2, 843, 874. 13 | 4, 152, 546. 24 | 4, 365, 067. 91 | 3, 246, 281. 07 |
| Indiana..... | 135, 747. 62 | 271, 495. 24 | 1, 756, 149. 60 | 2, 664, 846. 88 | 2, 687, 053. 27 | 1, 958, 855. 41 |
| Iowa..... | 146, 175. 60 | 292, 351. 20 | 1, 877, 699. 81 | 2, 741, 787. 79 | 2, 881, 328. 74 | 2, 102, 872. 74 |
| Kansas..... | 143, 207. 40 | 286, 414. 80 | 1, 865, 445. 80 | 2, 728, 966. 45 | 2, 871, 244. 62 | 2, 102, 281. 61 |
| Kentucky..... | 97, 471. 91 | 194, 943. 82 | 1, 269, 849. 80 | 1, 856, 043. 83 | 1, 951, 755. 43 | 1, 417, 178. 08 |
| Louisiana..... | 67, 474. 66 | 134, 949. 32 | 884, 484. 31 | 1, 293, 385. 15 | 1, 362, 231. 13 | 996, 989. 64 |
| Maine..... | 48, 451. 50 | 96, 903. 00 | 626, 638. 97 | 914, 339. 94 | 969, 230. 16 | 695, 160. 25 |
| Maryland..... | 44, 047. 22 | 88, 094. 44 | 565, 608. 45 | 826, 600. 35 | 866, 998. 61 | 640, 620. 01 |
| Massachusetts..... | 73, 850. 95 | 147, 701. 90 | 958, 145. 15 | 1, 400, 078. 26 | 1, 472, 788. 83 | 1, 066, 176. 04 |
| Michigan..... | 145, 783. 72 | 291, 567. 44 | 1, 882, 570. 18 | 2, 749, 706. 24 | 2, 891, 667. 97 | 2, 249, 532. 43 |
| Minnesota..... | 142, 304. 06 | 284, 788. 12 | 1, 846, 639. 92 | 2, 699, 471. 59 | 2, 842, 069. 33 | 2, 123, 597. 07 |
| Mississippi..... | 88, 905. 84 | 177, 811. 68 | 1, 168, 239. 88 | 1, 709, 027. 72 | 1, 807, 557. 17 | 1, 294, 906. 22 |
| Missouri..... | 169, 720. 41 | 339, 440. 82 | 2, 203, 918. 08 | 3, 221, 096. 80 | 3, 387, 899. 60 | 2, 448, 128. 62 |
| Montana..... | 98, 287. 19 | 196, 574. 38 | 1, 297, 988. 03 | 1, 898, 987. 58 | 2, 006, 990. 13 | 1, 546, 885. 82 |
| Nebraska..... | 106, 770. 81 | 213, 541. 62 | 1, 386, 087. 32 | 2, 026, 619. 93 | 2, 133, 741. 98 | 1, 581, 189. 50 |
| Nevada..... | 64, 398. 30 | 128, 796. 60 | 836, 163. 28 | 1, 221, 573. 57 | 1, 276, 344. 43 | 953, 436. 78 |
| New Hampshire..... | 20, 996. 62 | 41, 993. 24 | 270, 420. 49 | 394, 839. 71 | 414, 838. 93 | 365, 625. 00 |
| New Jersey..... | 59, 212. 68 | 118, 425. 36 | 771, 408. 02 | 1, 128, 696. 61 | 1, 187, 556. 45 | 942, 870. 95 |
| New Mexico..... | 78, 737. 81 | 157, 475. 62 | 1, 037, 420. 34 | 1, 517, 692. 99 | 1, 598, 467. 85 | 1, 189, 823. 34 |
| New York..... | 250, 720. 27 | 501, 440. 54 | 3, 237, 630. 60 | 4, 727, 117. 15 | 4, 971, 893. 11 | 3, 696, 447. 97 |
| North Carolina..... | 114, 381. 92 | 228, 763. 84 | 1, 482, 633. 03 | 2, 165, 957. 19 | 2, 279, 053. 80 | 1, 709, 333. 90 |
| North Dakota..... | 76, 143. 09 | 152, 286. 12 | 997, 046. 19 | 1, 459, 884. 53 | 1, 536, 227. 80 | 1, 164, 714. 42 |
| Ohio..... | 186, 908. 42 | 373, 810. 84 | 2, 412, 605. 91 | 3, 623, 478. 73 | 3, 706, 246. 81 | 2, 823, 004. 05 |
| Oklahoma..... | 115, 139. 00 | 230, 278. 00 | 1, 499, 544. 83 | 2, 190, 805. 44 | 2, 302, 478. 33 | 1, 752, 339. 44 |
| Oregon..... | 78, 687. 37 | 157, 374. 74 | 1, 023, 791. 84 | 1, 496, 172. 28 | 1, 576, 162. 08 | 1, 182, 663. 60 |
| Pennsylvania..... | 230, 644. 17 | 461, 288. 34 | 2, 986, 221. 62 | 4, 362, 544. 11 | 4, 501, 946. 05 | 3, 398, 953. 97 |
| Rhode Island..... | 11, 665. 71 | 23, 331. 42 | 151, 503. 33 | 221, 408. 80 | 233, 256. 87 | 365, 625. 00 |
| South Carolina..... | 71, 807. 64 | 143, 615. 28 | 932, 311. 14 | 1, 362, 864. 40 | 1, 426, 019. 04 | 1, 061, 237. 34 |
| South Dakota..... | 80, 946. 02 | 161, 892. 04 | 1, 053, 896. 27 | 1, 540, 389. 27 | 1, 615, 779. 44 | 1, 204, 060. 31 |
| Tennessee..... | 114, 153. 48 | 228, 306. 96 | 1, 472, 767. 00 | 2, 150, 996. 64 | 2, 261, 913. 60 | 1, 647, 692. 24 |
| Texas..... | 291, 927. 81 | 583, 855. 62 | 3, 803, 206. 07 | 5, 559, 816. 81 | 5, 881, 598. 46 | 4, 425, 172. 41 |
| Utah..... | 56, 950. 15 | 113, 900. 30 | 738, 355. 27 | 1, 078, 425. 00 | 1, 120, 575. 66 | 849, 417. 21 |
| Vermont..... | 22, 844. 47 | 45, 688. 94 | 294, 116. 61 | 423, 376. 62 | 450, 077. 09 | 365, 625. 00 |
| Virginia..... | 99, 660. 71 | 199, 321. 42 | 1, 290, 173. 72 | 1, 884, 900. 60 | 1, 977, 673. 83 | 1, 456, 828. 47 |
| Washington..... | 71, 884. 28 | 143, 768. 56 | 938, 897. 43 | 1, 372, 497. 77 | 1, 444, 627. 79 | 1, 103, 709. 77 |
| West Virginia..... | 53, 270. 46 | 106, 540. 92 | 691, 723. 00 | 1, 010, 817. 30 | 1, 060, 152. 77 | 802, 359. 77 |
| Wisconsin..... | 128, 361. 07 | 256, 722. 14 | 1, 655, 653. 72 | 2, 418, 598. 39 | 2, 544, 945. 35 | 1, 894, 815. 86 |
| Wyoming..... | 61, 196. 82 | 122, 393. 64 | 796, 718. 22 | 1, 164, 533. 65 | 1, 233, 715. 84 | 934, 617. 63 |
| Hawaii..... | | | | | | |
| Total..... | 4, 850, 000. 00 | 9, 700, 000. 00 | 63, 050, 000. 00 | 92, 150, 000. 00 | 97, 000, 000. 00 | 73, 125, 000. 00 |

TABLE 748.—Apportionment of Federal aid to States, year ended June 30—Cont.

| State | 1923 | 1924 | 1925 | 1926 | 1927 | Total apportionment 1917-1927 |
|---------------------|----------------|----------------|----------------|----------------|----------------|-------------------------------|
| | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Alabama..... | 1,035,613.78 | 1,345,323.41 | 1,542,052.56 | 1,541,870.00 | 1,540,799.00 | 14,349,455.00 |
| Arizona..... | 702,187.63 | 915,876.68 | 1,053,003.56 | 1,056,171.00 | 1,055,908.00 | 9,617,240.00 |
| Arkansas..... | 836,094.80 | 1,093,376.46 | 1,258,857.07 | 1,264,164.00 | 1,267,907.00 | 11,605,804.00 |
| California..... | 1,641,399.02 | 2,140,463.10 | 2,464,990.78 | 2,472,636.00 | 2,484,706.00 | 22,072,815.00 |
| Colorado..... | 894,117.13 | 1,183,041.58 | 1,361,482.06 | 1,373,237.00 | 1,380,384.00 | 12,325,812.00 |
| Connecticut..... | 320,598.52 | 414,890.09 | 475,513.91 | 474,801.00 | 473,428.00 | 4,333,681.00 |
| Delaware..... | 243,750.00 | 318,875.00 | 365,625.17 | 365,625.00 | 365,625.00 | 2,474,058.00 |
| Florida..... | 591,217.13 | 771,395.18 | 897,336.52 | 892,878.00 | 897,185.00 | 8,084,954.00 |
| Georgia..... | 1,331,971.72 | 1,729,366.09 | 1,983,022.99 | 1,983,049.00 | 1,981,189.00 | 18,431,953.00 |
| Idaho..... | 625,691.12 | 816,357.33 | 936,698.01 | 936,927.00 | 936,589.00 | 8,650,627.00 |
| Illinois..... | 2,164,187.38 | 2,797,888.59 | 3,203,867.99 | 3,191,479.00 | 3,175,616.00 | 29,832,198.00 |
| Indiana..... | 1,305,403.61 | 1,692,437.05 | 1,939,963.32 | 1,938,908.00 | 1,935,890.00 | 18,204,355.00 |
| Iowa..... | 1,401,915.16 | 1,813,757.63 | 2,078,348.33 | 2,070,396.00 | 2,060,469.00 | 19,485,563.00 |
| Kansas..... | 1,401,521.01 | 1,818,947.37 | 2,081,230.04 | 2,074,360.00 | 2,072,166.00 | 19,464,411.00 |
| Kentucky..... | 944,785.70 | 1,228,125.29 | 1,411,584.45 | 1,411,607.00 | 1,416,809.00 | 13,212,809.00 |
| Louisiana..... | 664,650.76 | 865,966.44 | 995,301.59 | 997,262.00 | 1,000,764.00 | 9,272,408.00 |
| Maine..... | 463,440.17 | 598,954.65 | 680,453.36 | 685,140.00 | 683,574.00 | 6,464,828.00 |
| Maryland..... | 427,086.01 | 554,540.90 | 635,945.01 | 635,783.00 | 634,624.00 | 5,925,057.00 |
| Massachusetts..... | 730,784.03 | 950,448.62 | 1,080,806.22 | 1,090,118.00 | 1,089,055.00 | 10,108,726.00 |
| Michigan..... | 1,499,688.29 | 1,942,431.00 | 2,226,824.73 | 2,225,227.00 | 2,217,418.00 | 20,342,365.00 |
| Minnesota..... | 1,415,731.38 | 1,842,800.97 | 2,120,906.56 | 2,124,151.00 | 2,130,168.00 | 19,591,780.00 |
| Mississippi..... | 863,270.81 | 1,127,182.03 | 1,294,371.65 | 1,291,960.00 | 1,293,203.00 | 12,128,018.00 |
| Missouri..... | 1,632,085.75 | 2,114,412.17 | 2,423,485.75 | 2,417,727.00 | 2,400,847.00 | 22,784,436.00 |
| Montana..... | 1,031,257.21 | 1,344,963.47 | 1,544,483.19 | 1,548,473.00 | 1,551,960.00 | 13,424,886.00 |
| Nebraska..... | 1,054,123.33 | 1,371,713.17 | 1,577,155.34 | 1,581,969.00 | 1,588,138.00 | 14,635,235.00 |
| Nevada..... | 635,624.52 | 828,360.27 | 947,623.25 | 948,576.00 | 948,318.00 | 8,796,215.00 |
| New Hampshire..... | 243,750.00 | 316,875.00 | 365,625.01 | 365,625.00 | 365,625.00 | 3,109,492.00 |
| New Jersey..... | 628,580.63 | 816,983.37 | 936,413.03 | 935,082.00 | 934,708.00 | 8,467,420.00 |
| New Mexico..... | 793,215.56 | 1,030,969.61 | 1,185,528.88 | 1,185,166.00 | 1,187,264.00 | 10,972,886.00 |
| New York..... | 2,464,298.65 | 3,195,493.85 | 3,663,105.86 | 3,657,996.00 | 3,647,166.00 | 34,045,195.00 |
| North Carolina..... | 1,139,555.93 | 1,477,424.33 | 1,697,246.16 | 1,699,168.00 | 1,708,554.00 | 15,717,206.00 |
| North Dakota..... | 776,476.28 | 1,021,269.47 | 1,178,708.13 | 1,180,699.00 | 1,193,720.00 | 10,748,659.00 |
| Ohio..... | 1,892,092.70 | 2,436,404.85 | 2,795,804.69 | 2,789,588.00 | 2,777,637.00 | 25,731,796.00 |
| Oklahoma..... | 1,168,238.29 | 1,524,701.96 | 1,753,189.74 | 1,755,105.00 | 1,752,245.00 | 16,059,787.00 |
| Oregon..... | 788,442.60 | 1,026,044.00 | 1,176,830.15 | 1,179,668.00 | 1,182,945.00 | 10,879,347.00 |
| Pennsylvania..... | 2,265,960.31 | 2,938,092.22 | 3,365,956.21 | 3,360,123.00 | 3,346,920.00 | 31,338,781.00 |
| Rhode Island..... | 243,750.00 | 316,875.00 | 365,624.87 | 365,625.00 | 365,625.00 | 2,667,569.00 |
| South Carolina..... | 707,491.56 | 918,171.43 | 1,054,028.17 | 1,052,549.00 | 1,051,903.00 | 9,801,524.00 |
| South Dakota..... | 862,766.87 | 1,049,885.60 | 1,209,144.18 | 1,215,020.00 | 1,222,198.00 | 11,166,790.00 |
| Tennessee..... | 1,098,461.39 | 1,421,694.32 | 1,628,740.97 | 1,622,985.00 | 1,618,419.00 | 15,280,691.00 |
| Texas..... | 2,930,114.94 | 3,838,351.12 | 4,410,169.76 | 4,415,715.00 | 4,426,917.00 | 40,606,431.00 |
| Utah..... | 566,278.14 | 745,829.37 | 847,741.90 | 846,467.00 | 848,551.00 | 7,518,779.00 |
| Vermont..... | 213,750.00 | 310,875.00 | 365,625.27 | 365,625.00 | 365,625.00 | 3,268,507.00 |
| Virginia..... | 971,218.98 | 1,264,012.72 | 1,448,562.55 | 1,449,713.00 | 1,445,852.00 | 13,501,514.00 |
| Washington..... | 735,806.51 | 962,177.72 | 1,113,308.17 | 1,118,967.00 | 1,130,080.00 | 10,145,776.00 |
| West Virginia..... | 534,906.51 | 696,085.80 | 798,275.47 | 797,295.00 | 793,936.00 | 7,352,511.00 |
| Wisconsin..... | 1,263,210.57 | 1,636,543.58 | 1,877,000.32 | 1,873,308.00 | 1,870,262.00 | 17,438,815.00 |
| Wyoming..... | 623,078.42 | 814,724.65 | 936,372.13 | 934,947.00 | 935,594.00 | 8,566,274.00 |
| Hawaii..... | ----- | ----- | 365,625.00 | 365,625.00 | 365,625.00 | 1,100,153.00 |
| Total..... | 48,750,000.00 | 63,375,000.00 | 73,125,000.00 | 73,125,000.00 | 73,125,000.00 | 671,375,000.00 |

Bureau of Public Roads.

TABLE 749.—Federal-aid highways completed and under construction

| State | Highways completed and final payment made, year ended June 30, 1925 | | | Projects under construction June 30, 1925 ¹ | | |
|---------------------|---|----------------|----------------|--|----------------|----------------------|
| | Miles | Total cost | Federal aid | Miles | Estimated cost | Federal aid allotted |
| | | <i>Dollars</i> | <i>Dollars</i> | | <i>Dollars</i> | <i>Dollars</i> |
| Alabama..... | 147.7 | 1,371,376.08 | 676,950.32 | 804.8 | 15,450,912.60 | 7,494,856.47 |
| Arizona..... | 66.0 | 1,241,768.62 | 728,436.06 | 158.1 | 2,186,015.75 | 1,346,463.82 |
| Arkansas..... | 104.5 | 2,215,438.77 | 955,836.10 | 397.4 | 7,175,728.71 | 3,252,163.54 |
| California..... | 361.1 | 9,347,100.96 | 5,072,101.44 | 230.4 | 9,322,361.01 | 4,412,288.58 |
| Colorado..... | 148.6 | 3,708,633.63 | 2,037,915.37 | 158.9 | 3,555,355.79 | 1,944,068.78 |
| Connecticut..... | 28.0 | 1,495,767.27 | 549,810.06 | 30.9 | 1,993,218.91 | 606,847.75 |
| Delaware..... | 34.6 | 1,294,727.59 | 488,475.82 | 12.3 | 489,503.74 | 213,581.10 |
| Florida..... | 47.5 | 1,998,139.65 | 944,017.05 | 251.8 | 8,767,223.95 | 4,279,162.51 |
| Georgia..... | 264.1 | 2,988,629.05 | 1,450,561.26 | 740.9 | 11,245,752.26 | 5,544,980.07 |
| Idaho..... | 93.3 | 1,212,978.88 | 722,936.74 | 154.9 | 2,454,035.02 | 1,535,561.07 |
| Illinois..... | 431.5 | 13,045,775.04 | 6,360,529.95 | 270.4 | 7,979,727.96 | 3,863,458.50 |
| Indiana..... | 196.4 | 6,061,728.49 | 2,906,914.71 | 432.9 | 14,852,730.92 | 7,196,558.57 |
| Iowa..... | 314.0 | 4,076,507.02 | 1,870,461.13 | 434.6 | 7,505,888.60 | 3,815,441.22 |
| Kansas..... | 328.7 | 9,315,550.29 | 3,712,099.52 | 600.3 | 12,808,547.40 | 5,398,167.91 |
| Kentucky..... | 153.5 | 4,009,343.97 | 1,402,047.31 | 260.0 | 8,298,279.66 | 3,724,887.00 |
| Louisiana..... | 204.4 | 3,450,061.79 | 1,643,727.50 | 170.0 | 3,571,757.27 | 1,724,822.29 |
| Maine..... | 50.7 | 1,263,222.53 | 607,934.95 | 42.1 | 1,151,207.40 | 544,027.42 |
| Maryland..... | 51.2 | 1,272,492.48 | 636,061.37 | 57.1 | 1,932,936.70 | 815,245.52 |
| Massachusetts..... | 67.8 | 3,856,454.20 | 1,361,934.06 | 84.2 | 5,501,324.46 | 1,424,297.34 |
| Michigan..... | 118.1 | 2,799,865.73 | 1,267,704.68 | 475.2 | 14,787,520.89 | 6,990,273.05 |
| Minnesota..... | 429.2 | 6,378,124.65 | 2,852,798.97 | 683.9 | 6,706,509.32 | 3,182,800.00 |
| Mississippi..... | 148.4 | 2,404,091.90 | 1,159,701.34 | 491.3 | 8,854,700.33 | 4,421,094.52 |
| Missouri..... | 315.4 | 6,016,128.87 | 2,973,512.25 | 869.2 | 27,236,575.44 | 11,406,660.15 |
| Montana..... | 130.2 | 1,289,321.25 | 633,188.03 | 182.8 | 2,112,322.39 | 1,550,333.81 |
| Nebraska..... | 130.2 | 1,430,037.20 | 674,831.91 | 929.3 | 8,523,180.75 | 4,126,635.19 |
| Nevada..... | 131.7 | 1,457,220.17 | 1,234,074.80 | 449.9 | 5,116,444.07 | 4,320,875.30 |
| New Hampshire..... | 36.8 | 1,088,937.67 | 498,359.29 | 28.9 | 832,156.80 | 426,087.09 |
| New Jersey..... | 70.4 | 4,337,562.33 | 1,159,148.50 | 63.8 | 9,030,393.22 | 3,240,713.23 |
| New Mexico..... | 367.0 | 3,411,712.73 | 2,155,220.93 | 394.6 | 4,353,981.22 | 2,887,782.66 |
| New York..... | 258.8 | 9,735,027.18 | 3,971,232.09 | 621.0 | 30,005,625.87 | 10,225,242.60 |
| North Carolina..... | 235.1 | 8,446,717.44 | 3,069,696.93 | 217.1 | 8,280,397.44 | 3,553,613.80 |
| North Dakota..... | 228.6 | 1,740,220.71 | 850,425.05 | 407.1 | 3,314,353.51 | 1,672,819.67 |
| Ohio..... | 228.6 | 8,449,501.38 | 3,365,075.94 | 285.1 | 9,494,318.75 | 3,397,125.05 |
| Oklahoma..... | 354.9 | 7,800,150.68 | 3,784,038.31 | 311.9 | 7,030,055.22 | 3,324,602.25 |
| Oregon..... | 139.0 | 2,305,315.53 | 1,323,270.84 | 136.9 | 3,016,966.63 | 1,745,532.24 |
| Pennsylvania..... | 120.6 | 6,229,586.21 | 2,107,329.18 | 529.2 | 30,880,520.14 | 8,168,048.18 |
| Rhode Island..... | 18.8 | 854,098.95 | 340,460.13 | 20.3 | 1,798,608.99 | 518,589.59 |
| South Carolina..... | 311.5 | 2,146,871.11 | 997,222.32 | 373.3 | 6,546,967.82 | 2,938,981.67 |
| South Dakota..... | 458.1 | 3,410,836.81 | 1,745,242.73 | 1,011.4 | 7,593,498.47 | 3,742,326.64 |
| Tennessee..... | 238.8 | 6,983,457.63 | 3,418,143.70 | 422.7 | 12,364,278.08 | 5,587,754.44 |
| Texas..... | 784.8 | 11,778,972.27 | 4,867,315.81 | 1,509.1 | 25,177,136.37 | 10,515,352.63 |
| Utah..... | 204.1 | 2,954,735.66 | 1,923,030.99 | 226.1 | 2,953,903.45 | 2,014,706.49 |
| Vermont..... | 33.4 | 1,093,090.35 | 510,125.33 | 26.6 | 1,207,289.94 | 578,117.66 |
| Virginia..... | 113.7 | 3,064,418.53 | 1,470,215.77 | 248.7 | 10,127,047.08 | 4,560,134.02 |
| Washington..... | 60.7 | 1,967,888.51 | 826,316.42 | 127.3 | 3,015,886.61 | 1,426,900.00 |
| West Virginia..... | 71.1 | 1,853,452.91 | 865,251.80 | 149.2 | 5,194,890.10 | 2,178,214.28 |
| Wisconsin..... | 126.4 | 3,053,237.76 | 1,478,007.05 | 180.4 | 3,870,401.52 | 1,746,214.36 |
| Wyoming..... | 204.4 | 2,682,193.72 | 1,060,997.97 | 267.2 | 8,796,266.56 | 2,803,221.79 |
| Hawaii..... | | | | 6.5 | 342,277.22 | 97,440.00 |
| Total..... | 9,445.4 | 190,485,399.55 | 87,801,946.18 | 17,123.0 | 389,606,481.37 | 171,448,571.53 |

Bureau of Public Roads.

¹ Includes 4,587.2 miles of practically completed projects.

TABLE 750.—Highways: Federal-aid projects completed, by types, 1918–1925

| Year ended June 30— | Graded and drained | | | Sand-clay | | |
|---------------------|--------------------|---------------|---------------|-----------|---------------|---------------|
| | Miles | Total cost | Federal aid | Miles | Total cost | Federal aid |
| | | Dollars | Dollars | | Dollars | Dollars |
| 1918..... | 10.0 | 11,808.24 | 4,738.04 | 46.8 | 126,836.24 | 63,321.17 |
| 1919..... | 203.0 | 681,851.41 | 298,900.04 | 90.0 | 384,811.91 | 181,107.89 |
| 1920..... | 349.9 | 2,308,794.90 | 1,021,277.45 | 384.2 | 2,401,029.18 | 1,075,980.00 |
| 1921..... | 1,635.5 | 17,134,140.97 | 7,055,608.94 | 1,111.8 | 9,298,839.93 | 4,233,280.25 |
| 1922..... | 1,966.0 | 14,569,570.11 | 6,316,326.91 | 1,016.7 | 8,120,872.53 | 3,890,230.31 |
| 1923..... | 2,865.2 | 14,853,625.61 | 6,720,790.19 | 805.8 | 5,635,910.97 | 2,890,353.07 |
| 1924..... | 1,824.4 | 15,964,180.00 | 7,727,969.57 | 729.9 | 4,390,200.33 | 2,283,697.37 |
| 1925..... | | | | | | |
| Total..... | 8,354.0 | 65,527,980.24 | 28,145,707.14 | 4,185.2 | 30,237,213.19 | 14,538,364.43 |

| Year ended June 30— | Gravel | | | Water-bound macadam | | |
|---------------------|----------|----------------|---------------|---------------------|---------------|--------------|
| | Miles | Total cost | Federal aid | Miles | Total cost | Federal aid |
| | | Dollars | Dollars | | Dollars | Dollars |
| 1918..... | 55.2 | 236,623.22 | 103,891.61 | | | |
| 1919..... | 247.8 | 1,795,314.88 | 778,592.85 | 11.7 | 139,131.90 | 69,241.84 |
| 1920..... | 1,201.4 | 9,839,752.94 | 4,268,725.54 | 40.5 | 560,631.81 | 254,980.69 |
| 1921..... | 3,445.3 | 35,333,778.98 | 15,854,797.05 | 286.8 | 4,279,366.52 | 1,837,921.56 |
| 1922..... | 4,404.0 | 46,479,144.23 | 20,867,368.64 | 287.5 | 5,987,050.01 | 2,578,843.54 |
| 1923..... | 3,463.4 | 32,733,515.57 | 15,332,944.52 | 238.6 | 4,227,471.07 | 1,767,188.78 |
| 1924..... | 3,323.8 | 36,724,556.12 | 18,981,373.60 | 117.3 | 2,301,291.42 | 1,095,015.84 |
| 1925..... | | | | | | |
| Total..... | 16,234.7 | 162,923,101.22 | 70,039,214.44 | 982.4 | 17,430,493.96 | 7,567,687.48 |

| Year ended June 30— | Bituminous macadam | | | Bituminous concrete | | |
|---------------------|--------------------|---------------|---------------|---------------------|---------------|---------------|
| | Miles | Total cost | Federal aid | Miles | Total cost | Federal aid |
| | | Dollars | Dollars | | Dollars | Dollars |
| 1918..... | | | | 6.8 | 136,715.04 | 50,571.76 |
| 1919..... | 1.2 | 41,237.10 | 11,620.00 | 19.5 | 347,484.00 | 162,622.93 |
| 1920..... | 11.0 | 205,783.73 | 100,882.07 | 19.7 | 469,080.99 | 195,503.11 |
| 1921..... | 144.9 | 3,428,606.06 | 1,576,184.47 | 159.1 | 4,580,101.11 | 2,035,818.94 |
| 1922..... | 294.5 | 8,854,811.29 | 3,822,667.03 | 392.8 | 13,533,187.30 | 5,221,494.06 |
| 1923..... | 468.1 | 14,610,388.34 | 6,355,525.91 | 131.0 | 4,823,129.82 | 2,071,448.10 |
| 1924..... | 601.0 | 17,553,663.03 | 7,754,528.06 | 210.6 | 8,066,672.91 | 3,278,591.95 |
| 1925..... | 624.8 | 18,280,813.53 | 8,252,385.23 | 244.0 | 8,911,391.08 | 3,614,311.47 |
| 1926..... | | | | | | |
| Total..... | 2,149.5 | 63,635,303.17 | 27,873,792.83 | 1,183.5 | 40,583,526.44 | 16,516,673.70 |

| Year ended June 30— | Portland-cement concrete | | | Brick | | |
|---------------------|--------------------------|----------------|----------------|-------|---------------|--------------|
| | Miles | Total cost | Federal aid | Miles | Total cost | Federal aid |
| | | Dollars | Dollars | | Dollars | Dollars |
| 1918..... | 5.7 | 121,015.43 | 52,685.22 | | | |
| 1919..... | 25.2 | 599,328.74 | 217,917.11 | 18.8 | 792,502.04 | 194,361.28 |
| 1920..... | 110.3 | 2,729,185.04 | 1,189,723.28 | 21.8 | 839,373.33 | 261,104.00 |
| 1921..... | 494.6 | 16,490,885.57 | 7,374,016.37 | 26.8 | 1,520,655.96 | 391,123.05 |
| 1922..... | 2,126.9 | 84,788,065.27 | 35,844,590.98 | 205.8 | 9,680,179.46 | 3,100,843.36 |
| 1923..... | 1,621.4 | 63,886,248.33 | 26,021,235.74 | 69.0 | 2,998,898.14 | 1,063,446.49 |
| 1924..... | 1,292.0 | 46,578,479.90 | 20,861,772.92 | 166.8 | 6,757,954.05 | 2,810,165.94 |
| 1925..... | 2,431.6 | 86,582,667.11 | 37,900,028.89 | 122.5 | 5,372,580.88 | 2,033,701.09 |
| 1926..... | | | | | | |
| Total..... | 8,107.7 | 301,231,906.07 | 129,249,310.54 | 631.3 | 27,872,113.86 | 9,654,745.21 |

| Year ended June 30— | Bridges | | | All types | | |
|---------------------|---------|---------------|---------------|-----------|----------------|----------------|
| | Miles | Total cost | Federal aid | Miles | Total cost | Federal aid |
| | | Dollars | Dollars | | Dollars | Dollars |
| 1918..... | | | | 12.5 | 257,731.37 | 112,256.98 |
| 1919..... | 0.2 | 59,004.90 | 10,000.00 | 176.8 | 2,124,873.48 | 764,472.17 |
| 1920..... | .9 | 169,467.28 | 84,733.45 | 716.1 | 7,405,000.53 | 3,160,780.53 |
| 1921..... | 4.2 | 1,018,723.83 | 494,474.58 | 2,898.5 | 42,149,181.56 | 18,402,089.99 |
| 1922..... | 20.0 | 6,153,276.71 | 2,844,952.47 | 9,510.3 | 188,965,646.43 | 79,810,175.66 |
| 1923..... | 10.3 | 5,318,937.62 | 2,510,895.00 | 9,973.9 | 166,902,207.97 | 71,681,382.67 |
| 1924..... | 12.3 | 3,792,417.69 | 1,907,865.25 | 9,155.7 | 140,227,611.45 | 63,053,168.68 |
| 1925..... | 22.2 | 7,408,321.53 | 3,737,015.49 | 9,445.5 | 186,005,065.80 | 85,605,263.74 |
| 1926..... | | | | | | |
| Total..... | 70.1 | 23,980,149.56 | 11,589,936.24 | 41,898.4 | 732,921,787.71 | 322,176,199.20 |

TABLE 751.—*Mileage of road in State highway systems at the end of 1924*

| State | Year report ends | Grand total mileage in systems | Unimproved, and earth partially graded | Earth, to established grade, and drained | Total miles of road and surfaced | Sand-clay | Gravel, etc., untreated | Water-bound macadam, untreated | Surface-treated macadam and gravel | Bituminous macadam, by penetration | Sheet asphalt | Bituminous concrete | Cement concrete | Block pavements | | |
|---------------------|------------------|--------------------------------|--|--|----------------------------------|-----------|-------------------------|--------------------------------|------------------------------------|------------------------------------|---------------|---------------------|-----------------|-----------------|---------|------------|
| | | | | | | | | | | | | | | Brick | Asphalt | Wood Stone |
| Alabama..... | Dec. 31 | 3,938.0 | 2,147.7 | 157.8 | 1,632.5 | 538.0 | 874.6 | 35.9 | 25.3 | 130.8 | 5.7 | 74.9 | 16.1 | | | 0.2 |
| Arizona..... | do. | 3,006.0 | 310.5 | 306.0 | 1,367.9 | | 1,186.8 | | | | 15.0 | 24.3 | 138.8 | | | |
| Arkansas..... | do. | 6,718.0 | 2,248.0 | 1,096.0 | 2,864.0 | | 2,085.0 | 183.0 | 48.0 | 144.0 | 32.0 | 261.0 | 131.0 | | | |
| California..... | do. | 8,400.0 | 2,618.8 | 1,550.0 | 3,231.2 | | 1,730.0 | 39.4 | | 378.6 | | 332.9 | 1,730.3 | | | |
| Colorado..... | do. | 8,026.0 | 223.4 | 5,296.2 | 3,406.4 | | 3,206.5 | | | | | | 199.9 | | | |
| Connecticut..... | June 30 | 1,821.7 | | 153.9 | 1,667.8 | | 75.1 | | 1,030.5 | 193.4 | | 125.2 | 241.9 | 1.7 | | |
| Delaware..... | Dec. 31 | 417.8 | | 417.8 | | | | | 1.3 | 20.1 | | 390.0 | 6.4 | | | |
| Florida..... | do. | 3,508.5 | 1,409.3 | 44.7 | 2,054.5 | 385.0 | 23.0 | 142.3 | 694.4 | 175.0 | 192.0 | 25.8 | 112.0 | 337.0 | 58.0 | |
| Georgia..... | do. | 6,255.9 | 3,792.1 | 118.2 | 2,325.6 | 1,530.0 | 402.0 | 35.1 | 26.4 | 115.8 | 5.4 | 21.6 | 181.9 | .6 | | |
| Idaho..... | do. | 4,621.3 | 2,192.9 | 380.0 | 1,488.4 | 68.2 | 1,327.5 | | | | | 56.2 | 41.1 | | | |
| Illinois..... | do. | 4,819.5 | 339.1 | 1,053.8 | 3,416.6 | | .4 | .5 | | 3.4 | 4.6 | 22.0 | 3,305.7 | 80.0 | | |
| Indiana..... | Sept. 30 | 3,916.4 | 9.3 | 130.7 | 3,776.4 | | 1,845.6 | 990.6 | 29.1 | 136.2 | | 24.1 | 680.1 | 70.2 | | |
| Iowa..... | Dec. 31 | 6,659.7 | 2,058.6 | 1,094.4 | 2,665.7 | | 2,164.4 | | | | | | 448.4 | 53.9 | | .5 |
| Kansas..... | do. | 7,147.0 | 5,900.4 | 319.8 | 2,366.8 | 63.0 | 160.1 | | | 72.9 | | | 426.5 | 112.3 | | |
| Kentucky..... | do. | 8,000.0 | 5,315.3 | 435.7 | 2,249.0 | | 545.1 | 481.2 | 875.0 | 217.1 | | 13.8 | 111.6 | 5.2 | | |
| Louisiana..... | do. | 7,000.0 | 3,598.8 | | 3,401.2 | | 3,256.6 | | 87.1 | 20.2 | | 12.4 | 9.9 | 15.0 | | |
| Maine..... | do. | 1,455.5 | 271.0 | | 1,184.5 | 7.3 | 643.5 | | 304.5 | 176.1 | | 53.1 | 83.1 | | | |
| Maryland..... | Sept. 30 | 2,247.2 | | | 2,247.2 | | 438.1 | | 1,004.2 | | 56.0 | 28.2 | 768.0 | 7.7 | | |
| Massachusetts..... | Nov. 30 | 1,515.5 | | 12.8 | 1,502.7 | 2.7 | 438.1 | | 653.7 | 640.3 | | 177.6 | 145.7 | .8 | | 1.8 |
| Michigan..... | Dec. 31 | 7,681.7 | 36.1 | 674.8 | 5,570.8 | 10.5 | 3,614.8 | | 652.3 | 107.0 | | 188.3 | 1,237.7 | 10.2 | | |
| Minnesota..... | Nov. 1 | 6,982.4 | 183.2 | 1,328.3 | 5,470.9 | 191.1 | 4,691.1 | 14.8 | | 10.6 | | 66.2 | 473.9 | 10.7 | | 12.5 |
| Mississippi..... | Dec. 31 | 5,389.9 | 2,679.3 | 546.0 | 2,373.6 | 2.5 | 2,079.3 | 10.7 | 49.4 | 4.7 | 6.7 | 13.8 | 187.3 | 19.2 | | |
| Missouri..... | do. | 7,640.0 | 4,120.4 | 1,860.2 | 1,659.4 | | 1,079.5 | | | 80.7 | | | 499.2 | | | |
| Montana..... | do. | 7,957.0 | 6,956.7 | 280.1 | 729.2 | | 679.7 | | .6 | 5.5 | | 2.3 | 32.1 | | | |
| Nebraska..... | do. | 5,742.3 | 3,350.2 | 1,465.5 | 926.6 | 238.7 | 615.4 | | | | 2.6 | 8.2 | 41.7 | 19.0 | | |
| Nevada..... | do. | 2,704.3 | 1,931.6 | 182.2 | 590.5 | | 508.6 | | 9 10.2 | 24.0 | | 1.6 | 45.1 | | | |
| New Hampshire..... | do. | 1,367.4 | 246.2 | 10.4 | 1,110.8 | | 293.9 | 9.7 | 728.4 | 95.6 | | 59.2 | 8.0 | | | |
| New Jersey..... | do. | 1,630.3 | | 19.3 | 1,611.0 | | 129.0 | 19.2 | 146.9 | 7.4 | 47.3 | 229.9 | 407.7 | 4.1 | 3.1 | 6.3 |
| New Mexico..... | Nov. 30 | 6,300.7 | 185.0 | 1,413.2 | 4,778.5 | | 1,413.2 | | | | | .7 | 63.4 | | | |
| New York..... | Dec. 31 | 11,260.0 | 1,973.5 | 6.7 | 9,279.3 | | 119.4 | | 2,389.1 | 4,080.5 | | 198.6 | 2,189.9 | 284.5 | 22.4 | .6 |
| North Carolina..... | do. | 6,200.0 | | 889.6 | 5,310.4 | 2,905.6 | 565.6 | 125.1 | | 151.6 | | 781.7 | 734.0 | 46.8 | | |
| North Dakota..... | June 30 | 6,174.0 | | 1,544.0 | 572.8 | | 598.0 | | | | | | | | | |
| Ohio..... | Dec. 31 | 10,546.0 | 4,805.7 | | 5,740.3 | | 1,462.9 | | | 51,122.2 | 39.9 | 193.1 | 1,113.5 | 1,244.3 | | |
| Oklahoma..... | do. | 5,589.0 | 4,173.5 | 47.0 | 1,368.5 | | 885.5 | | | | | | 383.0 | 20.0 | | |
| Oregon..... | do. | 4,464.0 | 1,319.0 | 318.0 | 2,827.0 | | 1,949.0 | | | | | 684.0 | 194.0 | | | |

| | | | | | | | | | | | | | | |
|----------------------------|----------|-----------|----------|-----------|----------|----------|---------|----------|---------|---------|---------|---------|------|------|
| Pennsylvania ¹⁴ | do. | 10,788.0 | 3,913.6 | 6,854.4 | 592.7 | 2,681.1 | 332.2 | 206.1 | 283.5 | 2,373.3 | 371.3 | 6.1 | 3.4 | 4.7 |
| Rhode Island | do. | 761.6 | 177.9 | 468.7 | 2,637.8 | 186.9 | 82.4 | 2.9 | 111.9 | 2,303.5 | --- | --- | --- | --- |
| South Carolina | do. | 4,740.0 | 1,616.6 | 333.5 | 2,680.9 | 1,474.3 | 14.8 | 10.8 | 41.7 | 113.1 | --- | --- | --- | --- |
| South Dakota | do. | 5,663.2 | 3,827.7 | 1,475.5 | 1,474.3 | --- | --- | 65.3 | --- | 111.2 | --- | --- | --- | --- |
| Tennessee | do. | 4,644.4 | 1,965.3 | 2,479.9 | 526.4 | 932.1 | 171.5 | 385.3 | 56.9 | 88.1 | --- | --- | --- | --- |
| Texas | do. | 16,668.0 | 993.0 | 7,227.3 | 609.1 | 4,462.5 | 245.4 | 114.3 | 25.0 | 372.8 | 42.4 | --- | --- | --- |
| Utah | Nov. 30 | 3,132.3 | 1,325.0 | 657.6 | 339.7 | 690.5 | --- | 114.3 | 10.5 | 197.3 | --- | --- | --- | --- |
| Vermont | Dec. 31 | 4,433.0 | 1,364.6 | 2,868.4 | 2,728.8 | --- | 9.0 | 22.9 | 75.8 | 31.9 | --- | --- | --- | --- |
| Virginia | Sept. 30 | 4,621.6 | 847.7 | 2,838.1 | (*) | 750.5 | --- | 388.9 | 10.7 | 356.1 | 9.9 | --- | --- | --- |
| Washington | Dec. 31 | 3,133.7 | 673.3 | 2,418.2 | 1,770.9 | --- | --- | 39.6 | 1.8 | 493.3 | 9.3 | --- | --- | --- |
| West Virginia | do. | 3,594.0 | 2,068.2 | 961.1 | 113.3 | 92.4 | --- | 17,267.3 | .7 | 281.6 | 126.5 | --- | --- | --- |
| Wisconsin | do. | 10,000.0 | 1,900.0 | 8,500.0 | 800.0 | 5,500.0 | 500.0 | --- | --- | 1,100.0 | --- | --- | --- | --- |
| Wyoming | do. | 3,136.8 | 1,903.6 | 710.0 | 669.6 | --- | --- | 2.2 | 27.1 | 11.1 | --- | --- | --- | --- |
| Total | | 239,721.3 | 96,094.7 | 125,347.3 | 10,043.5 | 85,337.1 | 5,344.1 | 13,891.6 | 9,656.5 | 771.4 | 4,433.0 | 2,882.0 | 90.6 | 20.3 |

Bureau of Public Roads.

¹ Includes 2.4 miles of patent "Rawhide" road.² Partly estimated.³ Includes Kentucky rock asphalt road.⁴ Includes 38 miles hard pavement in Baltimore.⁵ Includes 73.6 miles of shell road.⁶ Includes 11.5 miles of oil-treated sand road.⁷ State trunk roads only.⁸ Includes 111.4 miles of road with combined 9 feet of concrete and 7 feet of gravel.⁹ Oil-treated sand road.¹⁰ Excludes 60.2 miles of road built by contract with towns of over 2,500 population.¹¹ Includes 94.5 miles taken over from county system.¹² System increased by 1,319 miles of unimproved (or partly graded) road.¹³ Includes 113.4 miles of Kentucky rock asphalt.¹⁴ Includes State-aid system.¹⁵ Includes 121.4 miles added to system of which 18 miles were county graded roads and 51 miles county gravel roads.¹⁶ Included with gravel.¹⁷ Includes 22.7 miles of Kentucky rock asphalt road.¹⁸ Approximate data: 2,580 miles of county road acted to system.¹⁹ Includes bituminous concrete.²⁰ Decrease in mileage by revision of roads in system.

TABLE 752.—Mileage of county and local roads at the end of 1924

| State ¹ | Unimproved, and earth partially graded | Earth to established grade and drained | Total miles of road surfaced | Sand-clay | Gravel, etc., untreated | Water-bound, am. untreated | Surface-treated macadam and gravel | Bituminous macadam, by penetration | Sheet asphalt | Bituminous concrete | Cement concrete | Brick | (w) Wood, (a) asphalt, (s) stone, block | Miscellaneous | Grand total mileage rural roads, other than State highway system |
|-----------------------|--|--|------------------------------|-----------|-------------------------|----------------------------|------------------------------------|------------------------------------|---------------|---------------------|-----------------|-------|---|---------------|--|
| Alabama | 46,685.7 | 1,512.3 | 10,857.5 | 6,486.1 | 3,311.4 | 663.0 | 224.9 | 121.6 | 19.2 | 29.9 | 1.4 | | | | 57,543.2 |
| Arizona | 16,745.2 | 1,932.3 | 1,063.4 | 648.3 | 716.8 | | | | | 67.1 | 261.2 | | | | 20,370.9 |
| Arkansas | 63,972.5 | 1,200.0 | 2,974.5 | 150.2 | 2,434.9 | 162.2 | 28.4 | 102.7 | 9.4 | 35.9 | 50.8 | | | | 68,147.0 |
| California | 27,498.0 | 29,688.0 | 12,031.0 | 6,123.0 | 6,123.0 | 966.0 | 566.0 | 992.0 | | 755.0 | 1,729.0 | | | 900.0 | 69,218.0 |
| Colorado | 25,643.9 | 27,707.1 | 5,341.4 | (7) | 5,341.4 | | | | | | | | | | 58,692.4 |
| Connecticut | 7,277.9 | 2,376.1 | 742.9 | | 8.4 | 111.5 | 471.3 | 87.4 | 4.0 | 17.7 | 42.6 | | | | 10,386.9 |
| Delaware | 17,623.5 | 1,790.0 | 273.5 | | 50.0 | 30.0 | 152.2 | 19.5 | | 20.5 | 6.8 | 0.5 | | | 3,993.0 |
| Florida | 17,601.8 | 6,644.4 | 6,644.4 | 2,784.5 | 1,822.6 | 537.1 | 637.4 | 159.2 | | 38.9 | 145.3 | 427.2 | (a) 87.0 | | 24,905.0 |
| Georgia | 49,198.8 | 26,680.6 | 16,861.6 | 12,598.4 | 3,151.8 | 184.5 | 114.3 | 231.9 | 33.7 | 70.0 | 477.0 | | | | 92,128.7 |
| Idaho | 9,025.0 | 12,200.0 | 9,470.0 | | 9,013.0 | 325.0 | | | | 60.0 | | | | 70.0 | 30,745.0 |
| Illinois | 80,098.3 | 634.0 | 10,756.2 | | 6,782.6 | 2,622.5 | 138.0 | 64.4 | 28.4 | 34.0 | 928.3 | 182.0 | (w) 8.0 | | 91,598.5 |
| Indiana | 40,506.0 | | 36,112.3 | | 23,615.5 | 11,035.0 | 208.9 | 268.1 | | 147.9 | 690.8 | 181.1 | | | 76,617.3 |
| Iowa | 95,078.1 | 827.6 | 2,060.8 | | 2,068.8 | | 63.0 | | | | 2.0 | | | | 97,961.5 |
| Kansas | 121,406.0 | | 573.0 | | 270.0 | 240.0 | | | | | | | | | 121,973.0 |
| Kentucky | 45,603.6 | 251.7 | 14,816.7 | 70.0 | 3,153.0 | 10,644.3 | 740.3 | 11.0 | 56.0 | | 36.1 | 4.0 | (w) 3.0 | | 60,704.0 |
| Louisiana | 31,526.2 | | 1,276.8 | | 1,265.0 | | | 3.2 | | 5.6 | | 3.0 | | | 32,803.0 |
| Maine | 16,695.6 | 8.9 | 2,778.8 | | 2,113.3 | 605.4 | 43.1 | 7.5 | 3.8 | 1.5 | 4.3 | | | | 19,481.3 |
| Maryland | 8,722.0 | 1,807.0 | 2,110.0 | 414.0 | 1,89.0 | 189.0 | 415.0 | 70.0 | | | 48.0 | | | 189.0 | 12,638.0 |
| Massachusetts | 11,775.4 | | 5,807.5 | | 3,126.5 | 96.2 | 1,485.6 | 917.6 | | 140.6 | 41.0 | | | | 17,582.9 |
| Michigan | 54,715.0 | 860.0 | 15,126.4 | 67.5 | 12,593.2 | 1,254.0 | 353.1 | 94.0 | 2.0 | 91.7 | 435.4 | 3.6 | | 231.9 | 70,701.4 |
| Minnesota | 81,457.2 | 2,538.1 | 16,839.2 | 3,776.2 | 12,532.5 | 68.6 | 67.4 | | 8.5 | 21.9 | 61.6 | 2.5 | | | 100,834.5 |
| Mississippi | 43,963.6 | 645.6 | 6,867.3 | 364.3 | 6,114.0 | 89.5 | 20.0 | 228.2 | | 6.0 | 45.3 | | | | 51,481.5 |
| Missouri | 96,334.8 | 1,200.0 | 7,875.3 | 1,755.3 | 1,213.8 | 56.0 | | 79.2 | 1.0 | 5.6 | 256.9 | 10.0 | | | 104,461.1 |
| Montana | 69,009.9 | 210.0 | | | 210.0 | | | | | | | | | | 69,219.9 |
| Nebraska | 70,549.5 | 1,785.7 | 214.3 | 146.8 | 61.0 | .7 | | | | 2.0 | 3.3 | .5 | | | 81,549.5 |
| Nevada | 18,247.0 | 1,513.0 | 314.5 | | 314.0 | .5 | | | | | | | | | 20,074.5 |
| New Hampshire | 11,605.0 | | 115.6 | | 113.0 | | | 2.6 | | | | | (a) 3.2 | | 11,720.8 |
| New Jersey | 74.0 | 10,173.9 | 6,440.4 | | 2,709.5 | 1,323.2 | 592.4 | 718.4 | 244.1 | 476.9 | 256.4 | 36.8 | (s) 79.5 | | 16,089.2 |
| New Mexico | 37,638.4 | 495.7 | 933.6 | 731.0 | 202.6 | | | | | | | | | | 39,067.7 |
| New York | 54,912.8 | 440.7 | 15,239.5 | | 5,110.4 | 3,484.4 | 3,637.4 | 2,408.6 | 16.5 | 17.3 | 619.9 | 65.0 | | | 70,613.0 |
| North Carolina (1921) | 48,967.4 | | 12,830.3 | 9,610.1 | 2,736.3 | 275.2 | 119.8 | 35.0 | 12.0 | 20.6 | 20.0 | 19.3 | (s) .5 | .5 | 61,706.7 |
| North Dakota | 99,842.3 | | 482.1 | | 482.1 | | | | | | | | | | 100,324.4 |
| Ohio (1921) | 48,581.8 | 283.5 | 27,840.5 | 501.0 | 13,184.1 | 11,650.9 | 951.8 | 616.5 | 4.6 | 25.3 | 314.8 | 276.9 | | 414.7 | 73,986.1 |
| Oklahoma | 124,801.8 | 3,571.7 | 27,299.5 | | 29.7 | | | | | | | | | | 128,673.0 |
| Oregon | 30,945.0 | 7,098.0 | 7,293.0 | | 6,837.0 | | | | | 255.5 | 90.5 | | | 3,130.0 | 45,306.0 |

| | | | | | | | | | | | | | |
|----------------------|-------------|-----------|-----------|-----------|----------|----------|---------|---------|---------|---------|---------|---------|-------------|
| Pennsylvania (1921) | 72,007.7 | 9,244.8 | 5 | 75.6 | 696.2 | 65.7 | 17.2 | 1.2 | 319.8 | 98.3 | 177.0 | 7,796.3 | 81,252.5 |
| Rhode Island | 1,313.2 | 244.8 | | 60.5 | 47.8 | 49.5 | 78.5 | 5.0 | 5 | | | (s) 3.0 | 1,558.0 |
| South Carolina | 46,422.1 | 5,991.0 | 5,486.1 | 401.8 | 19.1 | 5.0 | | 1.0 | 26.1 | 48.9 | | | 50,668.5 |
| South Dakota | 109,608.7 | 5,538.5 | | 388.5 | | | | | | | | | 110,142.2 |
| Tennessee | 39,632.6 | 9,533.1 | | 4,708.0 | 3,933.7 | 659.3 | 99.6 | 343.6 | 17.0 | 30.9 | | (w) 1.0 | 60,082.3 |
| Texas | 137,345.4 | 11,821.6 | 1,500.0 | 9,405.8 | 275.8 | 130.0 | 243.2 | 81.4 | 45.4 | | | | 151,017.0 |
| Utah (1921) | 16,912.9 | 1,322.0 | 597.6 | 1,201.1 | 12.0 | 3.6 | 7.2 | | 17.7 | 45.7 | | | 20,248.8 |
| Vermont (1921) | 8,241.0 | 1,613.0 | | 1,613.0 | | | | | | | | | 10,408.0 |
| Virginia (1921) | 50,227.2 | 100.0 | 2,528.8 | 943.7 | 762.4 | 419.7 | 126.2 | | | 89.7 | | | 55,250.7 |
| Washington | 22,126.0 | 9,417.0 | | 12,435.0 | | | 112.0 | 20.0 | 229.0 | 1,193.0 | 53.0 | 100.0 | 46,750.0 |
| West Virginia (1921) | 30,924.8 | 716.1 | | 93.7 | 308.7 | 52.2 | 35.1 | | 7.7 | 66.8 | 55.0 | 6.9 | 31,840.9 |
| Wisconsin | 20,456.3 | 32,570.7 | 15,937.2 | 11,415.9 | 889.7 | | | | | 315.8 | | | 68,964.2 |
| Wyoming | 43,168.2 | 14.2 | | 14.2 | | | | | | | | | 43,182.4 |
| Total | 2,202,621.5 | 201,015.2 | 339,558.5 | 185,925.0 | 54,860.6 | 12,739.1 | 7,852.6 | 1,498.6 | 2,960.5 | 8,362.8 | 1,437.4 | 187.2 | 2,743,195.2 |

Bureau of Public Roads.

A few States did not report 1924 data. Latest available information has been used, the year being indicated in first column.

* Sand-clay included with gravel.

* Wood plank road.

TABLE 753.—Highway expenditures of State and State-controlled funds, 1924

| State | Fiscal year ends | Construction on roads and bridges | | Maintenance on roads and bridges | | Administration and engineering | | Bonds, notes, etc., on principal | | Bonds, notes, etc., on interest | | Equipment, material | | A County funds | | Miscellaneous expenses | | Percentage of total disbursements | | Unexpended balance at the end of year | | Total disbursements during year (100 per cent) | |
|---------------|------------------|-----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|--------------------------------|-----------------------------------|----------------------------------|-----------------------------------|---------------------------------|-----------------------------------|---------------------|-----------------------------------|----------------|-----------------------------------|------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------------|-----------------------------------|--|-----------------------------------|
| | | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements | Dollars | Percentage of total disbursements |
| Alabama | Sept. 30 | 6,351,698.81 | 7 | 264,622.1 | 3.3 | 281,336.9 | 3.5 | 427,766 | 5.5 | 403,037 | 5.1 | 70,535 | 0.9 | | | | | | | 2,005,457 | | 7,779,311 | |
| Arizona | Dec. 31 | 2,245,141.73 | 1 | 442,610.14 | 4 | 383,247.12 | 5 | | | | | | | | | | | | | 490,154 | | 3,070,988 | |
| Arkansas | do | 7,368,663.6 | 8 | 1,275,230.11 | 4 | 252,500 | 2.3 | | | | | 308,016 | 2 | (A) 1,590,900 | 17.8 | | | | | 867,555 | | 11,214,248 | |
| California | do | 12,071,044.56 | 1 | 3,252,632.18 | 1 | 1,191,598 | 8.2 | 775,000 | 2.7 | 3,024,634.10 | 14.0 | 623,500 | 2.5 | (C) 22,041 | 0.4 | | | | | 5,699,362 | | 21,500,268 | |
| Colorado | Nov. 30 | 4,589,396.70 | 7 | 894,727.12 | 4 | 153,481 | 2.3 | 500,000 | 7.7 | 353,000 | 0.1 | 94,922 | 1.4 | | | | | | | 1,045,807 | | 6,490,567 | |
| Connecticut | June 30 | 5,013,036.57 | 7 | 3,390,657.38 | 9 | 296,266 | 3.4 | | | | | | | | | | | | | 5,448,890 | | 8,689,959 | |
| Delaware | Dec. 31 | 2,838,168.73 | 3 | 94,663 | 2.6 | 123,289 | 3.4 | 192,000 | 5.3 | 317,700 | 8.7 | 7,898 | 4.5 | (C) 39,501 | 1.7 | | | | | 144,315 | | 3,688,216 | |
| Florida | do | 5,338,381.76 | 8 | 942,026.13 | 5 | 359,283 | 5.2 | | | | | 300,415 | 7.5 | (A) 106,201 | 1.4 | | | | | 594,946 | | 6,040,135 | |
| Georgia | do | 4,313,624.52 | 0 | 1,564,142.21 | 5 | 764,900.10 | 6 | | | | | 552,388 | 7.5 | | | | | | | 503,375 | | 7,301,255 | |
| Idaho | do | 1,931,096.74 | 7 | 302,544.11 | 7 | 61,461 | 2.4 | | | | | 127,288 | 4.9 | | | | | | | 314,142 | | 2,584,717 | |
| Illinois | do | 23,442,772.81 | 8 | 2,044,861 | 5.0 | 2,368,148 | 5.8 | | | | | | | (A) 1,176,893 | 2.9 | | | | | 1,141,193 | | 40,851,149 | |
| Indiana | do | 6,709,743.44 | 2 | 3,913,961.26 | 3 | 497,917 | 3.4 | | | | | 3,239,756 | 21.7 | (B) 538,187 | 3.7 | | | | | 1,941,685 | | 14,919,566 | |
| Iowa | Nov. 30 | 9,706,575.54 | 2 | 2,722,077.15 | 2 | 746,168 | 4.2 | 3,391,000 | 13.9 | 597,503 | 3.4 | 117,400 | 0.6 | (B) 629,911 | 3.5 | | | | | 3,665,780 | | 17,910,634 | |
| Kansas | Dec. 31 | 6,254,649.94 | 2 | | | 384,250 | 5.8 | | | | | | | | | | | | | | | 6,638,899 | |
| Kentucky | do | 10,447,875.67 | 5 | 3,971,571.25 | 7 | 256,338 | 1.7 | | | | | 414,925 | 2.7 | 7,377,420 | 2.4 | | | | | (9) | | 15,469,877 | |
| Louisiana | do | 7,169,076.81 | 1 | 762,023 | 8.6 | 329,960 | 3.7 | 29,800 | 0.4 | 26,000 | 0.3 | 373,217 | 4.2 | (C) 152,076 | 1.7 | | | | | 618,968 | | 8,842,682 | |
| Maine | do | 4,259,194.61 | 2 | 1,537,751.22 | 2 | 119,000 | 1.7 | 119,000 | 1.7 | 395,564 | 5.6 | 271,301 | 3.9 | (C) 140,494 | 2.0 | | | | | 1,298,726 | | 6,996,638 | |
| Maryland | Sept. 30 | 7,815,284.61 | 1 | 949,427.11 | 4 | (0) | | 2,391,946.18 | 8 | 1,977,700 | 7.9 | | | | | | | | | 894,825 | | 12,727,535 | |
| Massachusetts | Dec. 31 | 5,513,499.41 | 7 | 5,723,458.42 | 2 | 1,010,734 | 7.7 | 540,500 | 4.1 | 254,609 | 1.9 | 200,003 | 1.4 | | | | | | | 2,331,876 | | 13,289,751 | |
| Michigan | June 30 | 16,878,177.69 | 5 | 2,621,550.18 | 8 | 333,695 | 1.4 | 1,523,034 | 6.3 | 1,999,380 | 5.3 | 855,680 | 3.5 | (A) 55,885 | 0.2 | | | | | 2,024,911 | | 24,269,601 | |
| Minnesota | Dec. 31 | 8,680,664.48 | 2 | 3,021,064.18 | 0 | 990,380 | 5.9 | 1,175,217 | 1.4 | 1,892,628 | 9.4 | 391,797 | 2.2 | (A) 2,499,103 | 14.9 | | | | | 348,104 | | 16,761,906 | |
| Mississippi | do | 4,462,872.53 | 9 | 702,683.12 | 2 | 780,017 | 2.8 | | | | | 55,000 | 1.0 | (A) 20,000 | 0.4 | | | | | 1,680,853 | | 5,320,565 | |
| Missouri | do | 20,418,612.78 | 2 | 2,019,323 | 7.1 | 170,017 | 2.5 | 2,000,000 | 7.7 | 385,000 | 2.2 | | | | | | | | | 5,478,698 | | 26,106,781 | |
| Montana | do | 1,451,817.81 | 2 | 134,802.75 | 1 | 193,044.08 | 8 | | | | | | | | | | | | | 2,342,282 | | 1,788,362 | |
| Nebraska | do | 3,032,541.44 | 9 | 1,246,306.18 | 3 | 284,337 | 4.2 | | | | | 9,000 | 0.5 | (A) 2,221,218 | 82.6 | | | | | 2,614,244 | | 6,894,402 | |
| Nevada | Nov. 30 | 2,544,510.80 | 1 | 122,789 | 3.9 | 326,542.10 | 3 | | | | | | | | | | | | | 169,096 | | 3,174,385 | |
| New Hampshire | Dec. 31 | 1,865,059.48 | 5 | 1,753,045.6 | 7 | 76,971 | 2.0 | | | | | 113,336 | 3.6 | | | | | | | 788,419 | | 3,848,014 | |
| New Jersey | do | 13,742,768.63 | 9 | 1,587,205.74 | 4 | 2,988,407 | 5.9 | 891,349 | 4.1 | 3,938 | 0.1 | 148,096 | 3.8 | (A) 3,712,397 | 17.3 | | | | | 6,460,601 | | 27,499,693 | |
| New Mexico | do | 4,031,746.87 | 5 | 882,083 | 8.3 | 119,306 | 2.6 | | | | | 50,747 | 0.7 | (A) 4,905,910 | 11.6 | | | | | 8,492,068 | | 14,609,480 | |
| New York | do | 17,804,409.42 | 1 | 11,873,494.28 | 1 | 1,591,188 | 3.8 | 1,892,636 | 4.3 | 4,250,000 | 10.1 | 23,940 | 0.5 | | | | | | | 27,311,838 | | 42,257,627 | |

| | | | | | | | | | | | | | | | | | |
|---------------------|----------|----------------|-------|------------|------|------------|-------|-----------|-----|------------|-------|-----------|-----|---------------|------|-----------|------------|
| North Carolina..... | June 30 | 24,195,914.68 | 7.3 | 225,551 | 9.3 | 1,917,158 | 5.6 | 360,000 | 1.0 | 1,851,692 | 5.4 | 2,601,637 | 7.5 | (A) 540,224 | 1.5 | 1,355,716 | 34,732,806 |
| North Dakota..... | do | 1,445,724.78 | 4.8 | 89,316 | 4.8 | 307,630 | 15.7 | | | | | | | (A) 1,586 | 0.1 | 334,959 | 1,844,276 |
| Ohio..... | Dec. 31 | 19,399,434.71 | 7.7 | 6,760,849 | 25.0 | 914,293 | 3.3 | | | | | | | | | 7,092,590 | 27,079,560 |
| Oklahoma..... | do | 5,874,646.88 | 5.9 | 91,300 | 1.3 | 585,955 | 8.6 | | | | | | | | | 4,200,705 | 6,637,565 |
| Oregon..... | Nov. 30 | 5,287,116.56 | 5.9 | 1,647,981 | 17.7 | 215,746 | 2.3 | 334,500 | 3.6 | 1,824,340 | 19.5 | 19,849 | 0.2 | (C) 27,848 | 0.2 | 2,924,494 | 9,360,330 |
| Pennsylvania..... | Dec. 31 | 22,664,141.46 | 9.9 | 15,290,150 | 31.6 | 3,242,845 | 5.8 | | | | | | | | | 6,327,574 | 48,333,185 |
| Rhode Island..... | Nov. 30 | 1,750,440.53 | 2.2 | 472,090 | 17.0 | 143,644 | 5.2 | 38,680 | 1.4 | 96,020 | 3.5 | 224,471 | 8.5 | 16,611,233 | 3.3 | 896,096 | 2,790,649 |
| South Carolina..... | Dec. 31 | 3,982,924.67 | 7.7 | 1,294,771 | 21.8 | 416,324 | 7.0 | | | | | | | | | 19,832 | 5,887,432 |
| South Dakota..... | June 30 | 4,379,000.78 | 3.9 | 278,216 | 5.0 | 423,301 | 7.5 | | | | | | | (C) 13,768 | 0.2 | 673,294 | 5,595,620 |
| Tennessee..... | Nov. 30 | 5,796,142.68 | 9.1 | 1,795,611 | 21.4 | 474,400 | 5.7 | | | | | | | | | 1,032,825 | 8,405,114 |
| Texas..... | Dec. 31 | 10,211,258.40 | 5.9 | 3,793,714 | 15.0 | 433,995 | 1.7 | | | | | | | | | 889,293 | 25,230,460 |
| Utah..... | do | 2,005,670.55 | 3.9 | 520,443 | 14.6 | 270,524 | 7.6 | 330,000 | 9.6 | 325,000 | 8.9 | 19,198 | 1.4 | (A) 9,730,000 | 33.6 | 46,428 | 3,627,151 |
| Vermont..... | do | 1,980,000.56 | 2.2 | 987,009 | 54.9 | 110,000 | 3.8 | | | | | | | | | 510,009 | 2,832,000 |
| Virginia..... | Sept. 30 | 8,452,119.65 | 6.6 | 3,445,763 | 23.6 | 340,143 | 2.3 | | | | | | | | | 177,438 | 14,611,112 |
| Washington..... | Dec. 31 | 5,323,003.69 | 4.4 | 1,735,980 | 22.7 | 515,469 | 6.7 | | | | | | | | | 96,629 | 1.2 |
| West Virginia..... | do | 11,002,593.77 | 9.9 | 464,501 | 3.3 | 465,139 | 3.3 | 1,100,000 | 7.8 | 775,268 | 5.5 | 217,063 | 1.5 | (A) 83,798 | 0.7 | 5,229,699 | 14,124,144 |
| Wisconsin..... | do | 7,780,282.65 | 1.1 | 2,393,320 | 26.9 | 451,894 | 5.1 | | | | | | | | | 1,870,191 | 8,891,798 |
| Wyoming..... | do | 3,071,970.63 | 9.9 | 635,141 | 13.2 | 197,825 | 4.1 | 450,000 | 9.4 | 159,625 | 3.4 | 283,360 | 5.9 | (C) 1,800 | | 100,125 | 4,805,355 |
| Total..... | | 381,080,059.62 | 9.104 | 806,557 | 17.3 | 27,536,829 | 4.617 | 394,431 | 2.8 | 21,500,649 | 3.619 | 793,166 | 3.3 | A 28,669,698 | 4.7 | 2,895,590 | 0.3 |
| | | | | | | | | | | | | | | B 1,255,637 | 0.2 | | |
| | | | | | | | | | | | | | | C 732,662 | 0.1 | | |

Bureau of Public Roads.

The disbursements shown above, in general, cover money spent on State roads; in some States country-road work is supervised by State highway department.

- 1 On retirements and sinking funds.
- 2 Includes repairs, rentals, and purchases.
- 3 Includes reimbursements to counties, towns, etc., purchases of right of way and traffic control (policing and signs).
- 4 Consists of \$300,000 to counties and \$38,187 for purchase of right of way.
- 5 On primary road bonds issued by counties.
- 6 Maintenance of roads by counties total \$2,993,039.
- 7 County transfers, \$372,221, and purchase of right of way \$5,200.
- 8 Out-land warrants on road fund, \$11,072,321.
- 9 Engineering included in construction and maintenance.
- 10 Included in construction and maintenance.
- 11 Payment from highway reimbursement funds on county bond obligations assumed by State.
- 12 Includes \$462,339 for purchase of right of way and \$2,036,763 for county reimbursement.
- 13 Administration only as engineering is included with construction and maintenance.
- 14 Includes \$100,000 for purchase of right of way (toll bridge), \$3,115,169 on county roads and \$497,228 on town roads.
- 15 Excludes expenditures on market roads and forest-aid roads.
- 16 Includes \$314,601 traffic control, and \$1,296,632 transfer for township reward.
- 17 Includes \$1,442,628 for expenses motor vehicle registration.
- 18 State bridge fund receipts and disbursements not included.
- 19 Forest-aid road expenditures not included.
- 20 Included in construction and maintenance.
- 21 Deficit in one State of \$5,123,945 allowed for in this total.

TABLE 754.—Highway expenditures by counties, townships, and districts, 1924

| State | Construction, local, town, and county roads | Maintenance, local, town, and county roads | Overhead ex- penses (when reported) | Bond and note payments | | Miscellaneous expenses | Unexpended balance at end of year | Total disburse- ments, county, town, and local roads |
|---------------------|---|--|---|------------------------|-----------------------|---------------------------|---|---|
| | Dollars | Dollars | Dollars | Principal ¹ | Interest ¹ | Dollars | Dollars | Dollars |
| Alabama..... | 2,130,745 | 5,955,787 | 90,547 | | | 145,841 | 177,918 | 7,984,832 |
| Arizona..... | 788,696 | 745,892 | | | (¹) | | 3,965,400 | 7,771,376 |
| Arkansas..... | 1,300,000 | 2,100,000 | 675,000 | 5,860,000 | 2,078,069 | 740,329 | | 9,280,000 |
| California..... | 8,000,000 | 14,834,068 | 95,355 | 1,645,770 | | 936,841 | | 27,973,576 |
| Colorado..... | 1,550,221 | 2,566,161 | | | | | 364,466 | 3,145,611 |
| Connecticut..... | 466,350 | 2,102,718 | | | | | 20,000 | 2,569,068 |
| Delaware..... | 340,876 | 491,734 | 18,611 | 10,000 | 326,055 | 46,077 | 129,578 | 1,283,353 |
| Florida..... | 10,153,889 | 3,185,531 | | | | 5,376,229 | 6,530,212 | 18,285,532 |
| Georgia..... | 2,175,631 | 5,772,139 | | | | 3,654,424 | 5,026,351 | 11,602,244 |
| I Idaho..... | | | | | | | | 13,000,000 |
| Illinois..... | 3,488,300 | 5,464,500 | 262,500 | 482,600 | (¹) | 884,100 | 122,800 | 10,590,000 |
| Indiana..... | 18,847,600 | 10,961,400 | | 16,753,800 | (¹) | 24,400 | 10,782,800 | 47,582,300 |
| Iowa..... | 8,513,453 | 9,083,979 | 490,268 | 574,570 | (¹) | 371,172 | 3,180,150 | 19,031,072 |
| Kansas..... | 12,674,607 | 2,968,076 | | 491,500 | (¹) | 211,526 | 4,907,560 | 16,361,684 |
| Kentucky..... | 1,066,200 | 3,366,750 | 255,100 | 1,164,550 | (¹) | 3,071,940 | 675,733 | 8,927,840 |
| Louisiana..... | 4,985,743 | 1,317,834 | | | | 2,830,922 | 3,845,614 | 9,284,499 |
| Maine..... | | | | | | | | 3,400,000 |
| Maryland..... | 1,150,000 | 2,100,000 | | 137,000 | 241,000 | | | 3,628,000 |
| Massachusetts..... | | | | | | | | 1,500,000 |
| Michigan..... | 12,955,560 | 4,807,460 | 1,164,660 | 6,731,360 | (¹) | 2,685,180 | 1,261,220 | 28,344,270 |
| Minnesota..... | 12,284,510 | 10,037,485 | 1,047,483 | | | 2,850,937 | 682,112 | 26,222,415 |
| Mississippi..... | 8,877,024 | 7,440,743 | | | | 3,408,256 | 1,735,028 | 11,735,028 |
| Missouri..... | 10,769,223 | 2,140,373 | | 2,643,461 | (¹) | 594,279 | 1,936,282 | 16,609,802 |
| Montana..... | | 1,894,444 | | | | | 1,172,962 | 1,894,444 |
| Nebraska..... | 8,570,488 | 2,627,783 | 294,418 | | | 766,405 | 2,733,839 | 12,229,045 |
| Nevada..... | 175,517 | 278,654 | 15,000 | | | 3,463 | 58,783 | 472,634 |
| New Hampshire..... | 309,833 | 1,140,377 | | | | 12,914 | | 1,463,344 |
| New Jersey..... | 5,136,500 | | | | | | | 5,136,500 |
| New Mexico..... | 166,096 | 252,200 | 21,497 | | | 124,057 | 103,665 | 563,960 |
| New York..... | 10,600,000 | 5,900,000 | | | | 2,000,000 | 2,100,000 | 24,400,000 |
| North Carolina..... | 6,990,000 | 3,940,000 | 940,000 | 970,000 | 3,210,000 | | | 16,060,000 |
| North Dakota..... | 2,250,000 | 1,829,261 | 94,185 | | | 65,300 | 118,760 | 4,235,766 |
| Ohio..... | 19,970,000 | 15,815,000 | | 13,170,000 | (¹) | 1,711,000 | 5,639,590 | 48,955,000 |
| Oklahoma..... | 500,000 | 10,000,000 | | | | | | 12,211,000 |
| Oregon..... | | | | | | | 5,000,000 | 5,000,000 |

| | | | | | | | |
|------------------------|-------------|-------------|-----------|------------|-----------|------------|----------------|
| Pennsylvania..... | 13,500,000 | 12,000,000 | 800,000 | 6,000,000 | (1) | 2,700,000 | \$ 35,000,000 |
| Rhode Island..... | 2,285,972 | 1,914,116 | | | | | \$ 8,812,000 |
| South Carolina..... | 4,721,199 | 2,873,121 | 151,807 | | | 2,021,911 | \$ 2,281,869 |
| South Dakota..... | 3,478,860 | 3,262,786 | | | | | \$ 7,531,827 |
| Tennessee..... | 13,160,000 | 5,000,000 | | | | | \$ 6,761,646 |
| Texas..... | | | | | | 8,000,000 | \$ 28,160,000 |
| Utah..... | 535,000 | 135,000 | | | | | \$ 1,500,000 |
| Vermont..... | 8,269,431 | | | 1,266,967 | (1) | 129,046 | \$ 8,675,446 |
| Virginia..... | | | | | | | \$ 9,000,000 |
| Washington..... | 6,477,700 | 3,332,500 | | 1,647,300 | 1,301,900 | | \$ 12,959,400 |
| West Virginia..... | 16,093,048 | 14,094,402 | | | | | \$ 32,814,069 |
| Wisconsin..... | 618,841 | 360,569 | 515,219 | | | 2,200,000 | \$ 979,410 |
| Wyoming..... | | | | | | | |
| Total detailed..... | 214,908,463 | 184,064,944 | 7,394,176 | 59,863,368 | 7,157,024 | 47,665,933 | \$ 531,043,908 |
| Total nondetailed..... | 11,041,340 | 8,287,208 | 322,556 | 2,704,508 | 322,556 | 2,133,832 | \$ 24,812,000 |
| Grand total..... | 225,949,803 | 192,352,152 | 7,716,732 | 62,567,876 | 7,479,580 | 49,799,765 | \$ 575,855,908 |

Bureau of Public Roads.

Above data are partly estimates and approximations, but are only available figures obtainable by this bureau.

1 Bond interest often included with payments on principal.

2 Estimates based on 1923 data.

3 Estimated from 1924 road program.

4 Estimated from mileage built.

5 In only a few States are balances dependable.

6 The figures in parentheses are apparent deficits and the total is a net unexpended balance.

7 Made up from detailed data and nondetailed estimates.

8 Only 20 States show county overhead expenses.

TABLE 755.—Sources and amounts of State and State-controlled funds for highways, 1924

| State | Fiscal year ends | Balance at beginning of year | Percent- age of total funds | Total income during year | Percent- age of total funds | State highway bonds, notes, etc., sold | Percent- age of total funds | State tax levied for highways, etc. | Percent- age of total funds | Appropriation by State for highways | Percent- age of total funds |
|----------------|------------------|------------------------------|-----------------------------|--------------------------|-----------------------------|--|-----------------------------|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|
| | | Dollars | | Dollars | | Dollars | | Dollars | | Dollars | |
| Alabama | Sept. 30 | 1,968,388 | 20.1 | 7,816,590 | 79.9 | 3,450,000 | 35.3 | 646,865 | 18.2 | 10,000 | 0.3 |
| Arizona | Dec. 31 | 899,599 | 26.3 | 2,624,553 | 73.7 | | | | | 225,000 | .8 |
| Arkansas | do. | 899,825 | 6.9 | 11,241,968 | 93.1 | | | 3,800,434 | 13.9 | 72,300 | .9 |
| California | do. | 4,416,334 | 16.3 | 22,792,316 | 83.7 | 5,681,500 | 20.8 | 860,973 | 11.4 | | |
| Colorado | Nov. 30 | 1,976,624 | 26.2 | 5,559,750 | 73.8 | 1,500,000 | 19.9 | | | | |
| Connecticut | June 30 | 5,157,750 | 35.9 | 9,181,108 | 64.1 | | | | | 2,100,750 | 14.7 |
| Delaware | Dec. 31 | 480,901 | 10.9 | 3,921,630 | 89.1 | 1,038,778 | 23.6 | | | 75,905 | 1.0 |
| Florida | do. | 624,083 | 8.3 | 6,872,363 | 91.7 | | | 424,393 | 5.7 | | |
| Georgia | do. | 1,119,644 | 13.8 | 6,964,965 | 86.2 | | | 308,447 | 10.4 | | |
| Idaho | do. | 489,885 | 16.9 | 2,409,004 | 83.1 | | | | | | |
| Illinois | do. | 3,165,063 | 7.5 | 38,827,259 | 92.5 | 23,404,316 | 55.7 | | | | |
| Indiana | do. | 1,254,456 | 7.4 | 15,606,805 | 92.6 | | | 759,730 | 4.5 | | |
| Iowa | Nov. 30 | 3,576,011 | 6.6 | 18,030,403 | 83.4 | | | | | 44,250 | .6 |
| Kansas | Dec. 31 | | | 6,638,939 | 1.1 | | | | | | |
| Kentucky | do. | 229,529 | 2.2 | 10,116,403 | 97.8 | | | 913,289 | 8.9 | | |
| Louisiana | do. | 145,185 | 1.5 | 9,316,365 | 98.5 | | | | | 300,000 | 3.7 |
| Maine | do. | 1,243,994 | 13.2 | 6,924,389 | 94.8 | 996,750 | 12.2 | 672,768 | 8.2 | 3,399,646 | 23.0 |
| Massachusetts | Sept. 30 | 2,433,711 | 25.2 | 10,188,649 | 74.8 | 2,203,739 | 16.2 | | | 791,109 | 4.9 |
| Michigan | Dec. 31 | 2,831,876 | 17.6 | 13,239,751 | 82.4 | 10,106,603 | 38.4 | | | 797,000 | 3.0 |
| Minnesota | June 30 | 3,929,338 | 14.9 | 22,365,174 | 85.1 | | | | | | |
| Mississippi | Dec. 31 | 619,919 | 3.6 | 16,490,691 | 96.4 | (^c) | | | | | |
| Missouri | do. | 1,237,245 | 17.7 | 5,764,203 | 82.3 | | | | | | |
| Montana | do. | 12,183,967 | 38.5 | 19,431,612 | 61.5 | 9,876,419 | 31.2 | | | | |
| Nebraska | do. | 233,410 | 11.6 | 1,786,224 | 88.4 | | | | | | |
| Nevada | do. | 1,665,323 | 7.5 | 7,770,523 | 82.5 | | | 1,847,383 | 19.6 | | |
| New Hampshire | Nov. 30 | 83,068 | 2.5 | 3,240,392 | 97.5 | | | 119,467 | 3.5 | 35,000 | .8 |
| New Jersey | Dec. 31 | 603,399 | 1.3 | 3,696,627 | 98.7 | | | | | | |
| New Mexico | do. | 9,070,693 | 31.1 | 19,295,373 | 67.9 | 5,000,000 | 17.7 | 4,375,124 | 15.4 | | |
| New York | do. | 30,865,526 | 44.3 | 3,844,442 | 52.6 | 1,000,000 | 21.5 | 698,882 | 13.0 | | |
| North Carolina | do. | | | 33,763,929 | 55.7 | 4,655,794 | 6.7 | | | 7,371,936 | 10.7 |
| North Dakota | June 30 | 1,150,494 | 3.2 | 34,938,038 | 96.8 | 22,832,900 | 63.3 | | | | |
| Oklahoma | do. | 223,966 | 10.3 | 1,955,269 | 89.7 | | | | | 142,118 | 6.5 |
| Oregon | Dec. 31 | 14,267,480 | 41.8 | 19,894,670 | 58.2 | | | | | 338,214 | .9 |
| Oregon | Nov. 30 | 3,295,825 | 26.8 | 7,702,424 | 71.1 | | | | | | |
| | | | | 8,989,349 | 3.2 | | | 255,863 | 2.0 | | |

| | | | | | | | | | | | |
|----------------|----------|------------|------|-------------|------|-------------|------|------------|------|------------|------|
| Pennsylvania | Dec. 31 | 23,282,554 | 42.6 | 31,378,205 | 57.4 | 1,484,473 | 2.7 | 455,409 | 13.3 | 478,210 | 13.0 |
| Rhode Island | Nov. 30 | 498,264 | 13.6 | 3,167,481 | 86.4 | 400,000 | 10.9 | | | 209,254 | 3.5 |
| South Carolina | Dec. 31 | 52,981 | 0.9 | 5,554,283 | 99.1 | | | | | | |
| South Dakota | June 30 | 1,453,874 | 23.2 | 4,815,049 | 76.8 | | | 5,965 | | | |
| Tennessee | Nov. 30 | 1,411,805 | 14.9 | 8,028,131 | 53.1 | | | 61,907 | 0.6 | | |
| Texas | Dec. 31 | 844,049 | 3.2 | 25,275,704 | 96.8 | | | | | 241,000 | 0.7 |
| Utah | do. | | | 3,673,579 | 10.0 | | | | | 87,034 | 2.6 |
| Vermont | do. | 930,000 | 27.8 | 2,412,000 | 72.2 | | | 142,000 | 4.3 | 3,357,068 | 11.7 |
| Virginia | Sept. 30 | 1,125,836 | 7.6 | 13,688,714 | 92.4 | | | 1,725,587 | 11.7 | | |
| Washington | Dec. 31 | | | 7,667,089 | 10.0 | | | 113,316 | 1.4 | | |
| West Virginia | do. | 6,134,231 | 31.7 | 13,219,612 | 68.3 | 8,000,000 | 41.3 | | | 8,500 | |
| Wisconsin | do. | 3,643,102 | 31.8 | 7,108,887 | 68.2 | | | | | | |
| Wyoming | do. | 231,850 | 4.8 | 4,673,680 | 95.2 | | | 100,074 | 3.2 | | |
| Total | | 15,826,702 | 22.1 | 555,397,045 | 77.9 | 101,653,327 | 14.3 | 18,282,878 | 2.6 | 20,084,324 | 2.8 |

* Receipts from county bond sales for trunk highway fund included among funds transferred from counties.

† In a few States the balance is approximate.

TABLE 755.—Sources and amounts of State and State-controlled funds for highways, 1924—Continued

| State | Miscellaneous State income for highways | Percent- age of total funds | Motor ve- hicle fees, etc., for use on roads | Percent- age of total funds | Gasoline tax applicable to highways | Percent- age of total funds | Transferred funds from counties, etc. | Percent- age of total funds | Federal-aid post road funds used | Percent- age of total funds | Total funds available (100 per cent) |
|----------------|---|--------------------------------------|---|--------------------------------------|---|--------------------------------------|---|--------------------------------------|--|--------------------------------------|--|
| | Dollars | | Dollars | | Dollars (^c) | | Dollars | | Dollars | | Dollars |
| Alabama | 135,720 | 1.4 | 1,578,445 | 16.1 | 300,690 | 10.1 | 111,508 | 1.2 | 2,540,907 | 25.9 | 9,784,968 |
| Arizona | 35,690 | 1.6 | 2,331,481 | 9.6 | 2,600,957 | 10.1 | 241,702 | 6.8 | 968,125 | 27.1 | 3,561,152 |
| Arkansas | 83,218 | 1.7 | 2,333,240 | 19.3 | 6,003,073 | 22.3 | 4,680,000 | 38.7 | 1,544,753 | 12.8 | 12,091,813 |
| California | 463,995 | 1.5 | 2,762,029 | 10.2 | 6,844,248 | 22.3 | 76,046 | 1.1 | 3,556,085 | 13.1 | 27,208,680 |
| Colorado | 69,389 | .9 | 1,574,568 | 7.8 | 982,479 | 6.8 | 315,267 | 2.2 | 1,362,226 | 20.7 | 7,536,374 |
| Connecticut | 328,843 | 2.3 | 5,038,909 | 35.2 | 982,479 | 6.8 | 1,516,866 | 34.5 | 414,860 | 2.9 | 14,338,898 |
| Delaware | 99,065 | 2.3 | 694,769 | 13.7 | 302,143 | 6.8 | 1,071,267 | 14.3 | 360,069 | 8.2 | 4,402,331 |
| Florida | 87,708 | 1.1 | 1,758,690 | 23.5 | 2,578,181 | 34.3 | 879,220 | 11.8 | 1,071,267 | 14.3 | 7,496,481 |
| Georgia | 28,681 | .3 | 2,446,196 | 30.1 | 1,340,133 | 13.9 | 1,301,579 | 16.1 | 2,088,397 | 25.8 | 8,104,630 |
| I Idaho | 29,209 | 1.0 | 326,028 | 11.3 | 545,672 | 18.8 | 430,777 | 14.9 | 773,871 | 26.7 | 2,898,889 |
| Illinois | 300,045 | .7 | 11,557,839 | 27.6 | 5,337,611 | 32.8 | 118,973 | 7 | 3,565,039 | 8.5 | 41,992,342 |
| Indiana | 1,003,725 | 9.5 | 3,881,826 | 23.2 | 1,738,500 | 16.8 | 2,045,696 | 19.8 | 3,704,940 | 21.9 | 16,861,261 |
| Iowa | 106,619 | 1.0 | 8,642,511 | 36.5 | 1,455,542 | 15.4 | 7,674,135 | 35.5 | 1,813,757 | 8.4 | 21,006,414 |
| Kansas | | | (^c) | | (^c) | | 3,384,825 | 51.0 | 3,209,824 | 48.4 | 6,638,999 |
| Kentucky | | | 3,103,338 | 29.9 | 1,738,500 | 16.8 | 2,045,696 | 19.8 | 2,208,911 | 21.4 | 10,345,932 |
| Louisiana | 63,348 | .6 | 2,760,348 | 29.5 | 1,455,542 | 15.4 | 3,483,408 | 36.9 | 1,823,719 | 16.1 | 9,461,550 |
| Maine | 469,149 | 5.7 | 2,140,592 | 26.3 | 542,414 | 6.7 | 1,057,784 | 12.9 | 744,932 | 9.1 | 8,168,383 |
| Maryland | 164,158 | 1.2 | 1,449,427 | 10.6 | 750,325 | 5.6 | 1,885,409 | 11.7 | 635,945 | 4.7 | 13,622,360 |
| Massachusetts | | | 9,113,253 | 56.8 | (^c) | | 2,291,160 | 14.2 | 1,044,229 | 6.5 | 16,071,627 |
| Michigan | 200,727 | .8 | 5,783,812 | 22.0 | (^c) | | 3,152,338 | 12.0 | 2,317,174 | 8.9 | 26,294,512 |
| Minnesota | 69,614 | .4 | 8,559,630 | 50.0 | (^c) | | 4,038,606 | 23.6 | 3,822,241 | 22.4 | 17,110,010 |
| Mississippi | 129,575 | 1.8 | 617,036 | 8.9 | 623,092 | 8.9 | 2,146,713 | 30.4 | 2,254,487 | 32.3 | 7,001,448 |
| Missouri | 497,563 | 1.5 | 4,525,914 | 14.4 | (^c) | | 456,031 | 1.5 | 4,095,555 | 12.9 | 31,585,479 |
| Montana | 79,682 | 8.9 | (^c) | | 97,522 | 4.7 | 461,405 | 22.9 | 1,156,025 | 35.9 | 2,030,044 |
| Nebraska | | | 3,964,438 | 38.2 | (^c) | | 566,004 | 5.9 | 1,762,468 | 18.8 | 9,418,646 |
| Nevada | 288,964 | 8.6 | 96,877 | 2.9 | 60,000 | 1.8 | 548,505 | 16.5 | 2,146,590 | 64.2 | 3,343,481 |
| New Hampshire | 72,973 | 1.5 | 1,411,784 | 30.7 | 638,245 | 14.4 | 1,306,864 | 28.5 | 451,161 | 9.8 | 4,596,426 |
| New Jersey | 6,365 | .0 | 8,373,182 | 26.5 | (^c) | | 397,321 | 1.4 | 1,106,194 | 3.9 | 28,328,381 |
| New Mexico | 57,131 | 1.2 | 248,835 | 5.4 | 182,857 | 3.9 | 1,746,717 | 37.6 | 1,474,717 | 37.6 | 4,451,896 |
| New York | 1,354,623 | 1.9 | 18,066,800 | 24.9 | (^c) | | 4,063,170 | 5.8 | 3,251,516 | 4.7 | 69,569,455 |
| North Carolina | 994,835 | 2.7 | 3,975,658 | 11.0 | 2,931,927 | 8.2 | 2,715,113 | 7.6 | 1,467,515 | 4.0 | 39,088,922 |
| North Dakota | 98,567 | 4.5 | 869,272 | 14.0 | (^c) | | 122,270 | 5.6 | 1,263,942 | 98.9 | 2,179,215 |
| Ohio | 350,995 | 3.2 | 4,771,200 | 14.2 | 1,610,200 | 14.9 | 12,184,781 | 35.7 | 2,590,942 | 7.6 | 34,172,150 |
| Oklahoma | | | (^c) | | 2,338,277 | 19.2 | 3,187,944 | 29.5 | 2,547,285 | 23.5 | 10,838,570 |
| Oregon | 250,446 | 2.0 | 3,419,869 | 27.8 | | | 1,586,176 | 13.0 | 1,118,778 | 9.2 | 12,284,874 |

| | | | | | | | | | | |
|---------------------|--------------|------|-------------|------|--------------|-----------|------------|-----------|------------|-------------|
| Pennsylvania..... | 792,736 | 1.4 | 21,724,333 | 39.8 | (1) | 3,737,885 | 6.8 | 3,638,573 | 6.7 | 54,690,759 |
| Rhode Island..... | 35,185 | .9 | 1,536,156 | 41.9 | (1) | 222,521 | 6.4 | 222,521 | 6.4 | 3,655,745 |
| South Carolina..... | 122,441 | 2.0 | 1,921,895 | 15.7 | 728,890 | 12.4 | 2,066,495 | 45.6 | 1,173,617 | 5,907,264 |
| South Dakota..... | 376,264 | 6.1 | 1,567,550 | 25.2 | 929,314 | 14.8 | 1,935,647 | 30.8 | 6,298,914 | |
| Tennessee..... | 25,713 | .2 | 1,261,263 | 13.3 | 14 2,152,522 | 22.9 | 1,418,438 | 15.0 | 9,437,989 | |
| Texas..... | 218,235 | .8 | 7,225,991 | 27.7 | 2,919,577 | 11.1 | 9,730,000 | 37.3 | 28,119,788 | |
| Utah..... | 179,830 | 4.8 | 427,509 | 11.6 | 682,965 | 18.5 | 760,529 | 20.8 | 3,673,579 | |
| Vermont..... | 175,000 | 5.2 | 1,252,101 | 37.5 | 230,865 | 6.9 | 525,000 | 15.7 | 3,342,000 | |
| Virginia..... | 333,661 | 2.3 | 3,755,233 | 25.4 | 2,156,384 | 14.6 | 42,440 | .8 | 14,788,550 | |
| Washington..... | | | 3,709,960 | 48.5 | 2,635,410 | 34.4 | | 1,212,468 | 7,671,069 | |
| West Virginia..... | 199,475 | 1.0 | 3,035,438 | 13.7 | 1,244,074 | 6.5 | 21,447 | 1 | 19,353,843 | |
| Wisconsin..... | 391,694 | 3.7 | 3,843,199 | 35.8 | (1) | 1,071,181 | 10.0 | 1,794,313 | 16.7 | 10,751,969 |
| Wyoming..... | 17 2,019,844 | 41.1 | 443,664 | 9.2 | 203,506 | 4.2 | 90,255 | 1.8 | 4,905,480 | |
| Total..... | 13,349,610 | 1.9 | 174,816,973 | 24.5 | 47,810,615 | 6.7 | 87,968,486 | 12.3 | 91,400,832 | 712,223,747 |

Bureau of Public Roads. Above funds, generally, cover money applied to financing State roads; in some States county road work is supervised by State highway department.

- ¹ Gasoline tax, all to county for road maintenance, \$1,635,924.
- ² Used to retire State highway bond issues.
- ³ Gasoline tax includes \$126,326 from inspection fees of one-eighth cent per gallon.
- ⁴ No gasoline tax in 1924.
- ⁵ Includes \$1,119,542 from inheritance taxes.
- ⁶ Includes over \$2,000,000 of 1923 collections.
- ⁷ For county roads.
- ⁸ Receipts from county bond sales for trunk highway fund included among funds transferred from counties.
- ⁹ Includes \$42,120 from Federal Government for oil royalties.
- ¹⁰ Motor vehicle funds to counties.
- ¹¹ All tax collected to State general fund.
- ¹² Expended by counties under regulation of State highway commission.
- ¹³ Excludes market road and forest-aid road income.
- ¹⁴ Gasoline tax receipts distribution, 25 per cent to county roads and 75 per cent to State general fund.
- ¹⁵ Includes transfer of \$190,000 from bond interest and sinking fund.
- ¹⁶ Receipts for 15 months, July 1, 1923, to Sept. 30, 1924.
- ¹⁷ Includes \$1,324,669 from oil royalties (Federal mineral leasing act).

TABLE 756.—Sources and amounts of county, township, and district funds for highways, 1924

| State | Balance from previous year | Receipts from bonds and notes | Taxes and appropriations | Motor vehicle license fees (share) | Gasoline tax (share) | Miscellaneous income | Total funds available |
|------------------------|----------------------------|-------------------------------|--------------------------|------------------------------------|----------------------|----------------------|-----------------------|
| | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
| Alabama..... | ..... | 300,563 | 3,451,250 | 3,151 | 1,635,924 | 2,593,644 | 7,984,532 |
| Arizona..... | 413,662 | ..... | 1,205,728 | ..... | 261,385 | 69,019 | 1,949,794 |
| Arkansas..... | ..... | 2,676,500 | 8,552,000 | 1,000,000 | 999,900 | ..... | 13,228,400 |
| California..... | ..... | 2,462,152 | 17,286,214 | 3,010,000 | 5,000,000 | 215,210 | 27,973,576 |
| Colorado..... | ..... | 50,986 | 3,670,672 | 340,541 | 641,533 | 806,376 | 5,513,107 |
| Connecticut..... | ..... | ..... | 2,589,068 | ..... | ..... | ..... | 2,589,068 |
| Delaware..... | 65,062 | 37,419 | 1,260,460 | ..... | ..... | ..... | 1,362,931 |
| Florida..... | ..... | 16,158,212 | 6,418,007 | 445,264 | 1,114,028 | 1,140,253 | 25,275,784 |
| Georgia..... | ..... | 3,662,341 | 9,593,744 | ..... | 1,188,447 | 2,184,093 | 16,628,625 |
| Idaho..... | ..... | ..... | ..... | ..... | ..... | ..... | 3,000,000 |
| Illinois..... | 545,500 | 25,000 | 8,929,200 | ..... | ..... | 1,212,900 | 10,712,600 |
| Indiana..... | 13,897,200 | 15,322,000 | 28,645,700 | ..... | 500,000 | ..... | 58,394,900 |
| Iowa..... | 3,929,799 | 483,938 | 14,723,867 | 525,756 | ..... | 2,562,171 | 22,225,531 |
| Kansas..... | 4,383,347 | 2,178,768 | 10,670,201 | 4,036,937 | ..... | ..... | 21,269,253 |
| Kentucky..... | 1,467,170 | 1,187,500 | 6,545,090 | ..... | ..... | 404,315 | 9,604,075 |
| Louisiana..... | ..... | 7,292,584 | 5,087,529 | ..... | ..... | 200,000 | 12,580,113 |
| Maine..... | ..... | ..... | ..... | ..... | ..... | ..... | 3,500,000 |
| Maryland..... | ..... | 500,000 | 3,128,000 | ..... | ..... | ..... | 3,628,000 |
| Massachusetts..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,500,000 |
| Michigan..... | ..... | 4,470,000 | 19,042,540 | 5,422,780 | ..... | 670,170 | 29,605,490 |
| Minnesota..... | ..... | 10,750,888 | 15,850,698 | ..... | ..... | 302,941 | 26,904,527 |
| Mississippi..... | ..... | 660,535 | 7,321,064 | 607,344 | 398,460 | 2,520,801 | 11,604,204 |
| Missouri..... | 1,314,386 | 562,500 | 14,944,591 | ..... | ..... | 1,724,607 | 18,546,084 |
| Montana..... | ..... | ..... | 1,855,087 | 810,156 | 229,825 | 82,338 | 2,977,406 |
| Nebraska..... | 3,344,708 | 161,879 | 11,456,298 | ..... | ..... | ..... | 14,962,885 |
| Nevada..... | ..... | 32,000 | 441,390 | ..... | 48,027 | 10,000 | 531,417 |
| New Hampshire..... | ..... | 1,463,344 | ..... | ..... | ..... | ..... | 1,463,344 |
| New Jersey..... | ..... | 5,079,959 | 56,541 | ..... | ..... | ..... | 5,136,500 |
| New Mexico..... | 117,561 | 100,000 | 419,310 | 8,965 | ..... | 21,689 | 667,525 |
| New York..... | 2,463,419 | 16,300,000 | 7,736,581 | ..... | ..... | ..... | 26,500,000 |
| North Carolina..... | ..... | 5,350,000 | 10,700,000 | ..... | ..... | ..... | 16,050,000 |
| North Dakota..... | ..... | ..... | 3,474,526 | 280,000 | ..... | 600,000 | 4,354,526 |
| Ohio..... | ..... | 10,000,000 | 38,955,000 | ..... | ..... | ..... | 48,955,000 |
| Oklahoma..... | ..... | 4,000,000 | 8,573,400 | 3,728,679 | 1,448,501 | ..... | 17,750,580 |
| Oregon..... | ..... | ..... | ..... | ..... | ..... | ..... | 11,000,000 |
| Pennsylvania..... | ..... | ..... | ..... | ..... | ..... | ..... | 35,000,000 |
| Rhode Island..... | ..... | ..... | ..... | ..... | ..... | ..... | 312,000 |
| South Carolina..... | ..... | 7,897,748 | 2,313,452 | ..... | 715,864 | 1,709,877 | 12,696,941 |
| South Dakota..... | ..... | 150,000 | 6,152,168 | 676,493 | ..... | ..... | 6,978,661 |
| Tennessee..... | ..... | 989,857 | 5,324,015 | ..... | ..... | 1,227,687 | 7,541,550 |
| Texas..... | ..... | 10,000,000 | 15,500,000 | 3,148,006 | ..... | ..... | 28,648,006 |
| Utah..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,500,000 |
| Vermont..... | ..... | ..... | 1,074,000 | ..... | ..... | ..... | 1,074,000 |
| Virginia..... | ..... | 2,822,136 | 3,241,940 | ..... | 1,104,396 | 578,602 | 8,047,074 |
| Washington..... | ..... | ..... | ..... | ..... | ..... | ..... | 9,000,000 |
| West Virginia..... | 7,568,300 | 1,865,500 | 7,611,700 | ..... | ..... | 208,700 | 17,254,200 |
| Wisconsin..... | ..... | 0,679,022 | 24,730,007 | ..... | ..... | ..... | 31,409,029 |
| Wyoming..... | ..... | 49,485 | 471,427 | ..... | ..... | 402,123 | 923,035 |
| Total detailed..... | 39,510,104 | 141,722,816 | 339,002,465 | 24,134,072 | 15,286,290 | 21,816,515 | 581,472,262 |
| Total nondetailed..... | 4,407,216 | 15,814,128 | 37,785,396 | 2,722,104 | 1,685,112 | 2,998,044 | 64,812,000 |
| Grand total..... | 43,917,320 | 157,536,944 | 376,787,861 | 26,856,176 | 16,971,402 | 24,814,559 | 646,284,262 |

Bureau of Public Roads.

Above data are partly estimates and approximations, but are the only available figures obtainable by this bureau.

¹ Estimates based on 1923 data.

² Estimated from 1924 road program.

³ Estimated from mileage built.

⁴ Made up from detailed data and nondetailed estimates.

⁵ This balance is probably understated, as most counties do not record balances or deficits: The balances being added to general fund and the deficits being covered from same fund.

TABLE 757.—Gasoline taxes, 1924

| State | Date of rate change, 1924 | Tax rate, per gallon | | Gross tax receipts, 1924 | Distribution of gross receipts | | |
|-----------------------------------|---------------------------|----------------------|------------------|--------------------------|--------------------------------------|--------------------------------|---|
| | | Jan. 1, 1924 | Dec. 31, 1924 | | Applied to road work | | For miscellaneous purposes ¹ |
| | | | | | Supervision State highway department | To county and local road funds | |
| | | Cts. | Cts. | Dollars | Dollars | Per cent | |
| Alabama..... | | 2 | 2 | 1,738,661 | | 100 | |
| Arizona..... | | 3 | 3 | 730,838 | 365,419 | 50 | |
| Arkansas..... | | 4 | 4 | 2,768,535 | 2,268,535 | (²) | |
| California ¹ | | 2 | 2 | 11,993,222 | 5,996,611 | 50 | |
| Colorado..... | | 2 | 2 | 1,725,967 | 819,830 | 47½ | 5 per cent collection cost. |
| Connecticut ¹ | | 1 | 1 | 978,283 | 978,283 | | |
| Delaware..... | | 2 | 2 | 304,392 | 304,392 | | |
| Dist. Columbia..... | May 23 | 3 | 2 | 380,792 | 380,792 | | |
| Florida..... | | 3 | 3 | 3,658,677 | 2,675,199 | 33½ | |
| Georgia..... | | 3 | 3 | 4,527,471 | 1,509,157 | 33½ | 33½ per cent State general fund. |
| Idaho..... | | 2 | 2 | 545,672 | 545,672 | | |
| Illinois..... | | | | (No tax) | | | |
| Indiana..... | | 2 | 2 | 4,925,372 | 4,187,855 | 12.7 | (¹) |
| Iowa..... | | | | (No tax) | | | |
| Kansas..... | | | (¹) | (No tax) | | | |
| Kentucky..... | June 10 | 1 | 3 | 1,660,938 | 1,660,938 | | |
| Louisiana..... | Aug. 1 | 1 | 2 | 1,335,320 | 1,335,320 | | |
| Maine..... | | 1 | 1 | 522,250 | 522,250 | | |
| Maryland..... | | 2 | 2 | 1,588,422 | 1,111,895 | | Balance "Road deficiency fund." |
| Massachusetts..... | | | | (No tax) | | | |
| Michigan..... | | | (¹) | (No tax) | | | |
| Minnesota..... | | | | (No tax) | | | |
| Mississippi ¹ | May 9 | 1 | 3 | 1,648,748 | 787,319 | 50 | |
| Missouri..... | | | | (No tax) | | | |
| Montana..... | | 2 | 2 | 619,295 | 123,859 | 40 | 40 per cent State general fund. |
| Nebraska..... | | | | (No tax) | | | |
| Nevada..... | | 2 | 2 | 162,596 | 60,000 | (¹) | |
| New Hampshire..... | | 2 | 2 | 587,845 | 587,845 | | |
| New Jersey..... | | | | (No tax) | | | |
| New Mexico..... | | 1 | 1 | 194,963 | 185,234 | | Balance State fish hatcheries. |
| New York..... | | | | (No tax) | | | |
| North Carolina..... | | 3 | 3 | 4,520,048 | 4,520,000 | | Balance collection cost. |
| North Dakota..... | | 1 | 1 | 442,969 | | | 100 per cent State general fund. |
| Ohio..... | | | | (No tax) | | | |
| Oklahoma..... | Mar. 14 | 1 | 2.5 | 2,983,501 | 1,544,600 | 60 | |
| Oregon..... | | 3 | 3 | 2,698,778 | 2,582,890 | | Balance refunds and expenses. |
| Pennsylvania..... | | 2 | 2 | 9,089,541 | | 25 | 75 per cent State general fund. |
| Rhode Island..... | | | | (No tax) | | | |
| South Carolina ¹ | | 3 | 3 | 2,186,137 | 728,889 | 33½ | 33½ State general fund. |
| South Dakota..... | | 2 | 2 | 1,205,155 | 1,106,635 | | (¹) |
| Tennessee..... | | 2 | 2 | 1,812,235 | 1,812,235 | | |
| Texas..... | | 1 | 1 | 3,892,769 | 2,919,577 | | 25 per cent free schools fund. |
| Utah ¹ | | 2.5 | 2.5 | 684,361 | 682,985 | | |
| Vermont ¹ | | 1 | 1 | 230,865 | 230,865 | | |
| Virginia..... | | 3 | 3 | 3,313,188 | 2,208,571 | 33½ | |
| Washington..... | | 2 | 2 | 2,635,411 | 2,635,411 | | |
| West Virginia..... | | 2 | 2 | 1,231,944 | 1,231,944 | | |
| Wisconsin..... | | | | (No tax) | | | |
| Wyoming..... | | 1 | 1 | 200,319 | 200,319 | | |
| Total..... | | | | 79,734,490 | 48,711,326 | | |

Bureau of Public Roads.

¹ In some cases the distribution in amounts and percentages do not balance. Cost of collection and refunds for gasoline used for other purposes than for motor vehicles may account for the differences in some States.

² Data given cover calendar years, except for the following States, where fiscal years end as shown: California, Jan. 31; Connecticut, June 30; Mississippi, South Carolina, Utah, and Vermont, November 30.

³ Balance.

⁴ To date in 1925, these States enacted new gasoline tax rates effective as follows: Kansas, 2 cents (May 1); Michigan, 2 cents (Feb. 15); North Carolina, 4 cents (Mar. 6); Tennessee, 3 cents (Feb. 9); Wyoming, 2½ cents (March).

⁵ This percentage became effective when the tax rate changed as shown here.

⁶ Approximate.

TABLE 758.—Motor vehicles: Registration, licenses, and revenues, 1924

| State | Individually and commercially owned | | | | Official cars and trucks owned by State, etc. ¹ | Motor-cycles | Registration fees, licenses, permits, etc. | | Amount of registration fees paid for | | Grand total motor cars 1923 | Increase during 1924 |
|---------------------------|-------------------------------------|---------------------------|----------------------------------|--|--|--------------|--|---|--------------------------------------|--------------|-----------------------------|----------------------|
| | Passenger cars ¹ | Motor trucks ¹ | Taxis, busses, and cars for hire | Grand total motor cars 1924 ¹ | | | Total gross receipts | Amount applicable to highway work by or under supervision of State highway department | Passenger cars | Motor trucks | | |
| | | | | | | | | | | | | |
| Number | Number | Number | Number | Number | Number | Dollars | Dollars | Dollars | Dollars | Number | Per cent | |
| Alabama..... | 135,777 | 18,688 | 2,787 | 157,252 | (²) 549 | 1,954,901 | 1,381,047 | ..... | ..... | 128,642 | 24.2 | |
| Arizona..... | 50,223 | 7,595 | (²) | 57,818 | (²) 903 | 372 | 339,722 | 339,722 | ..... | 49,175 | 17.6 | |
| Arkansas..... | 125,898 | 16,619 | (²) | 142,517 | (²) 468 | 295 | 2,338,240 | 1,833,240 | ..... | 113,900 | 25.3 | |
| California..... | 1,125,381 | 194,013 | (²) | 1,319,394 | (²) | 12,325 | 7,011,113 | 3,079,659 | 1,880,814 | 262,317 | 1,100,283 | 19.9 |
| Colorado..... | 197,361 | 13,686 | (²) | 211,047 | (²) | 2,226 | 1,258,206 | 574,986 | 962,333 | 180,222 | 188,956 | 12.9 |
| Connecticut..... | 180,642 | 33,776 | 2,909 | 217,327 | (²) 1,110 | 4,211 | 5,069,351 | 5,069,351 | 2,796,580 | 1,047,278 | 181,748 | 19.5 |
| Delaware..... | 26,075 | 6,081 | (²) | 32,156 | (²) | 325 | 604,354 | 604,354 | 334,250 | 122,874 | 29,977 | 17.2 |
| District of Columbia..... | 78,846 | 9,916 | (²) | 88,762 | (²) 1,351 | 1,889 | 378,988 | ..... | ..... | ..... | 674,811 | 18.6 |
| Florida..... | 157,519 | 34,192 | 3,417 | 195,128 | (²) 733 | 733 | 2,418,653 | 1,576,118 | ..... | ..... | 151,900 | 28.4 |
| Georgia..... | 181,268 | 26,276 | 145 | 207,688 | (²) | 750 | 2,532,286 | 2,446,215 | 2,067,280 | 408,823 | 173,889 | 19.4 |
| Idaho..... | 61,600 | 7,627 | (²) | 69,227 | (²) 580 | 619 | 1,306,992 | 328,723 | 1,083,700 | 195,727 | 62,379 | 11.0 |
| Illinois..... | 978,428 | 140,808 | (²) | 1,119,236 | (²) | 6,873 | 11,546,206 | 11,546,206 | ..... | ..... | 960,331 | 15.5 |
| Indiana..... | 566,736 | 84,969 | (²) | 651,705 | (²) | 4,822 | 4,102,666 | 3,906,838 | 3,080,023 | 826,008 | 583,342 | 11.7 |
| Iowa..... | 575,210 | 40,918 | (²) | 616,128 | (²) 2,400 | 2,597 | 8,979,170 | 7,871,045 | ..... | ..... | 571,061 | 7.9 |
| Kansas..... | 370,651 | 39,940 | (²) | 410,591 | (²) 1,947 | 1,632 | 7,422,630 | 7,406,937 | ..... | ..... | 375,994 | 9.4 |
| Kentucky..... | 308,064 | 28,275 | 1,465 | 337,804 | (²) 1,044 | 724 | 3,233,379 | 3,108,723 | ..... | ..... | 198,377 | 15.8 |
| Louisiana..... | 140,000 | 177,100 | (²) | 317,100 | (²) 1,000 | 510 | 2,790,348 | 2,790,348 | 1,922,716 | 713,000 | 136,622 | 30.3 |
| Maine..... | 105,040 | 19,001 | 3,137 | 127,178 | (²) 884 | 1,288 | 1,033,671 | 1,033,671 | ..... | ..... | 108,609 | 17.1 |
| Maryland..... | 184,388 | 11,183 | 2,817 | 195,588 | (²) 9,900 | 3,462 | 2,352,953 | 1,633,067 | 1,369,020 | 267,285 | 169,531 | 17.2 |
| Massachusetts..... | 1,486,952 | 183,026 | (²) | 1,670,000 | (²) | 10,778 | 8,122,156 | 7,400,000 | 5,119,146 | 1,283,628 | 1,479,900 | 18.9 |
| Michigan..... | 784,070 | 88,575 | (²) | 872,645 | (²) | 3,644 | 12,404,546 | 5,033,060 | 9,730,255 | 1,408,579 | 730,658 | 18.7 |
| Minnesota..... | 465,165 | 37,823 | 449 | 503,437 | (²) 2,171 | 3,060 | 8,991,833 | 8,991,833 | 7,387,608 | 886,036 | 446,187 | 12.3 |
| Mississippi..... | 122,117 | 12,593 | (²) | 134,680 | (²) 96 | 96 | 1,525,077 | 980,844 | ..... | ..... | 104,286 | 28.1 |
| Missouri..... | 489,246 | 51,144 | (²) | 540,390 | (²) 1,203 | 2,139 | 4,625,914 | 4,235,914 | ..... | ..... | 470,698 | 13.4 |
| Montana..... | 66,584 | 9,871 | (²) | 76,455 | (²) 979 | 233 | 776,320 | 776,320 | 688,584 | 107,310 | 73,628 | 7.9 |

| | | | | | | | | | | | | |
|---------------------|------------|-----------|-----|------------|-----|--------|-------------|-------------|------------|------------|------------|------|
| Nebraska..... | 277,449 | 31,266 | (1) | 308,715 | (1) | 1,342 | 3,597,261 | 12,667,946 | 2,922,753 | 564,702 | 286,053 | 7.9 |
| Nevada..... | 16,226 | 1,882 | (1) | 18,118 | (1) | 111 | 181,970 | 1,172,000 | 142,528 | 34,168 | 15,699 | 15.4 |
| New Hampshire..... | 63,662 | 7,270 | (1) | 70,932 | (1) | 1,750 | 1,522,186 | 1,411,784 | 3,673,989 | 2,701,905 | 59,604 | 19.0 |
| New Jersey..... | 383,788 | 99,288 | (1) | 594,217 | (1) | 8,053 | 8,278,428 | 8,213,182 | 3,673,989 | 2,701,905 | 430,638 | 17.0 |
| New Mexico..... | 39,880 | 1,790 | (1) | 41,680 | (1) | 228 | 421,412 | 400,342 | 3,673,989 | 2,701,905 | 32,632 | 30.1 |
| New York..... | 1,136,678 | 236,012 | (1) | 1,412,679 | (1) | 19,837 | 24,089,241 | 18,066,930 | 14,001,989 | 6,285,099 | 1,204,212 | 17.3 |
| North Carolina..... | 172,582 | 27,480 | (1) | 302,232 | (1) | 1,029 | 4,614,521 | 4,183,069 | 10,246,613 | 10,246,613 | 22.5 | 22.5 |
| North Dakota..... | 112,664 | 4,682 | (1) | 117,346 | (1) | 509 | 816,766 | 11,773,691 | 106,266 | 106,266 | 7.4 | 7.4 |
| Ohio..... | 1,676,800 | 164,800 | (1) | 1,841,600 | (1) | 15,000 | 11,685,329 | 6,842,664 | 1,069,100 | 1,069,100 | 16.1 | 16.1 |
| Oklahoma..... | 342,866 | 27,047 | (1) | 369,903 | (1) | 733 | 3,728,679 | 11,323,609 | 3,323,609 | 3,323,609 | 307,000 | 20.5 |
| Oregon..... | 177,558 | 15,057 | (1) | 192,615 | (1) | 2,764 | 4,766,070 | 3,424,552 | 3,925,444 | 688,712 | 165,962 | 16.1 |
| Pennsylvania..... | 1,043,692 | 178,122 | (1) | 1,228,815 | (1) | 17,540 | 22,107,376 | 22,107,376 | 10,246,613 | 4,870,202 | 1,043,770 | 17.7 |
| Rhode Island..... | 76,666 | 17,247 | (1) | 95,482 | (1) | 1,428 | 1,623,604 | 71,623,604 | 935,596 | 370,886 | 76,312 | 25.1 |
| South Carolina..... | 146,639 | 15,114 | (1) | 161,753 | (1) | 477 | 1,151,983 | 921,886 | 935,463 | 192,154 | 127,467 | 26.9 |
| South Dakota..... | 131,190 | 11,206 | (1) | 142,396 | (1) | 305 | 2,068,437 | 1,446,920 | 2,021,931 | 534,079 | 131,700 | 8.1 |
| Tennessee..... | 183,891 | 20,789 | (1) | 204,680 | (1) | 682 | 2,697,870 | 2,597,870 | 2,021,931 | 534,079 | 173,365 | 18.1 |
| Texas..... | 735,270 | 62,784 | (1) | 801,712 | (1) | 2,634 | 10,373,997 | 7,225,991 | 379,472 | 87,992 | 688,233 | 16.5 |
| Utah..... | 59,453 | 8,863 | (1) | 68,316 | (1) | 731 | 485,969 | 252,509 | 1,008,165 | 101,452 | 59,625 | 14.8 |
| Vermont..... | 57,072 | 4,107 | (1) | 61,179 | (1) | 123 | 1,323,377 | 1,252,101 | 1,008,165 | 101,452 | 52,776 | 15.9 |
| Virginia..... | 220,000 | 41,643 | (1) | 261,643 | (1) | 3,000 | 3,791,556 | 3,791,556 | 3,791,556 | 3,791,556 | 218,896 | 19.7 |
| Washington..... | 251,466 | 41,555 | (1) | 293,455 | (1) | 8,164 | 4,861,420 | 4,416,053 | 3,240,688 | 950,127 | 258,264 | 14.4 |
| West Virginia..... | 163,907 | 22,171 | (1) | 190,734 | (1) | 1,407 | 2,874,587 | 2,332,712 | 1,949,962 | 449,016 | 157,924 | 20.8 |
| Wisconsin..... | 475,182 | 50,039 | (1) | 525,221 | (1) | 3,938 | 6,756,465 | 1,650,000 | 5,483,275 | 1,160,967 | 457,271 | 14.8 |
| Wyoming..... | 38,581 | 4,806 | (1) | 43,639 | (1) | 232 | 448,664 | 448,664 | 346,365 | 90,622 | 36,831 | 9.6 |
| Total..... | 15,871,670 | 2,131,332 | (1) | 17,591,981 | (1) | 44,986 | 223,492,262 | 184,363,071 | 93,269,171 | 26,211,455 | 15,060,836 | 16.6 |

Bureau of Public Roads.

¹ Net number of cars and trucks shown when possible, excluding reregistrations and nonresident registrations. Federal, State, or other Government-owned cars and trucks, not registered and not paying licenses, are also excluded in grand totals, unless noted.

² Recorded in private cars and trucks.

³ Not separately recorded.

⁴ "Motor trucks" includes solid and pneumatic types, also taxis, busses, etc.

⁵ Included with private passenger cars.

⁶ Reregistrations included, but nonresident excluded.

⁷ Approximate.

⁸ City cable excluded.

⁹ State-owned cars only.

¹⁰ First six months of registration year only.

¹¹ Excludes cost of motor registration department.

¹² To be expended by counties under general regulation made by State highway department.

¹³ Includes nonresident registrations.

HUNTERS' LICENSES

TABLE 759.—*Hunters' licenses issued by States, with total money returns, for the seasons 1923-24 and 1924-25*

| State | Licenses issued | | | | | | Money returns ¹ | |
|-----------------------------|-----------------|-----------|-----------------------|---------|-----------|-----------|----------------------------|----------------------------|
| | Resident | | Nonresident and alien | | Total | | | |
| | 1923-24 | 1924-25 | 1923-24 | 1924-25 | 1923-24 | 1924-25 | 1923-24 | 1924-25 |
| Alaska ² | | | 32 | 86 | 32 | 86 | <i>Dollars</i> 1,800.00 | <i>Dollars</i> 6,964.00 |
| Alabama | 34,544 | 45,256 | 199 | 138 | 34,743 | 45,394 | 59,819.00 | 67,053.61 |
| Arizona | 22,564 | 26,485 | 106 | 170 | 22,670 | 26,655 | 30,430.00 | 38,479.00 |
| Arkansas | 3,638 | 3,926 | 534 | 303 | 4,172 | 4,229 | 11,936.80 | 8,561.90 |
| California | 244,986 | 224,601 | 1,313 | 1,820 | 246,299 | 226,421 | 246,299.00 | 245,591.00 |
| Colorado | 78,145 | 96,844 | 128 | 382 | 78,273 | 97,226 | 158,659.75 | 200,042.75 |
| Connecticut | 34,590 | 32,399 | 481 | 380 | 35,080 | 32,779 | 39,489.00 | 36,199.00 |
| Delaware | 1,357 | 1,502 | 286 | 250 | 1,643 | 1,752 | 4,496.70 | 4,002.00 |
| Florida ^{3,4} | | | | | | | | |
| Georgia | 17,416 | 29,030 | 195 | 151 | 17,611 | 29,181 | 26,816.50 | 40,598.75 |
| Idaho | 64,958 | 60,780 | 1,061 | 543 | 66,019 | 61,323 | 127,098.60 | 119,682.00 |
| Illinois | 237,540 | 265,064 | 1,057 | 1,478 | 238,597 | 266,542 | 207,683.80 | 213,578.00 |
| Indiana | 181,726 | 163,607 | 267 | 258 | 181,993 | 163,865 | 185,864.50 | 167,910.90 |
| Iowa | 124,320 | 144,729 | 279 | 273 | 124,599 | 145,002 | 127,110.00 | 147,459.00 |
| Kansas | 95,259 | 109,720 | | 110 | 95,259 | 109,830 | 95,259.00 | 100,226.00 |
| Kentucky | 72,286 | 80,774 | 330 | 391 | 72,616 | 81,165 | 63,868.60 | 71,160.03 |
| Louisiana | 69,991 | 110,778 | 473 | 337 | 70,464 | 111,116 | 81,816.00 | 124,565.25 |
| Maine | 37,156 | 33,863 | 3,222 | 3,696 | 40,378 | 37,559 | 55,643.40 | 48,369.65 |
| Maryland | 60,937 | 60,516 | 1,781 | 1,791 | 62,718 | 62,307 | 116,113.50 | 109,824.87 |
| Massachusetts | 86,414 | 75,484 | 1,027 | 1,019 | 87,441 | 76,503 | 141,322.40 | 122,934.25 |
| Michigan | 260,723 | 282,328 | 2,100 | 2,015 | 262,823 | 284,343 | 261,858.26 | 282,016.26 |
| Minnesota | 119,680 | 162,324 | 567 | 698 | 120,247 | 163,022 | 91,452.60 | 217,787.75 |
| Mississippi ⁴ | | | | | | | | |
| Missouri | 130,806 | 174,699 | | 1,208 | 130,806 | 175,907 | 165,262.50 | 191,922.87 |
| Montana | 64,202 | 64,584 | 144 | 164 | 64,346 | 64,748 | 133,564.00 | 132,528.00 |
| Nebraska | 117,487 | 140,922 | 203 | 483 | 117,690 | 141,406 | 125,715.10 | 156,068.00 |
| Nevada ⁵ | | 3,350 | | 15 | | 3,365 | | 5,175.00 |
| New Hampshire | 55,000 | 58,100 | 3,000 | 2,550 | 58,000 | 60,650 | 100,000.00 | 90,122.50 |
| New Jersey | 143,870 | 138,948 | 1,564 | 1,491 | 145,434 | 140,439 | 254,211.25 | 223,928.00 |
| New Mexico | 8,314 | 15,290 | 299 | 535 | 8,613 | 15,795 | 19,155.50 | 30,886.75 |
| New York | 310,239 | 317,384 | 2,761 | 3,152 | 313,000 | 320,536 | 339,220.50 | 325,364.41 |
| North Carolina ⁶ | | | | | | | | |
| North Dakota | 38,916 | 34,784 | 104 | 277 | 39,020 | 35,061 | 56,673.00 | 55,539.40 |
| Ohio | 269,388 | 362,730 | 59 | 66 | 269,447 | 362,796 | 343,621.00 | 454,402.50 |
| Oklahoma | 85,100 | 101,135 | 261 | 322 | 85,361 | 101,457 | 89,025.00 | 106,723.75 |
| Oregon | 48,600 | 53,484 | 552 | 638 | 49,161 | 54,122 | 181,893.50 | 199,490.00 |
| Pennsylvania | 497,216 | 501,572 | 2,328 | 2,558 | 499,544 | 504,130 | 605,627.90 | 613,939.30 |
| Rhode Island | 10,513 | 11,179 | 166 | 248 | 10,679 | 11,427 | 15,068.60 | 14,029.00 |
| South Carolina | 86,756 | 80,442 | 896 | 899 | 87,652 | 81,341 | 126,500.00 | 120,393.00 |
| South Dakota | 48,103 | 63,295 | 1,649 | 2,205 | 49,752 | 65,500 | 89,830.00 | 126,718.00 |
| Tennessee ⁴ | | 50,806 | | 425 | | 51,231 | | 75,201.94 |
| Texas | 50,488 | 71,842 | 291 | 449 | 50,779 | 72,291 | 96,894.80 | 138,295.70 |
| Utah | 48,322 | 53,840 | 325 | 1,068 | 48,647 | 54,906 | 89,534.72 | 96,859.00 |
| Vermont | 36,647 | 38,050 | 1,055 | 1,939 | 37,702 | 39,989 | 41,811.20 | 42,144.00 |
| Virginia | 91,198 | 85,888 | 2,160 | 1,880 | 93,248 | 87,768 | 152,650.00 | 139,161.80 |
| Washington | 173,844 | 182,969 | 3,341 | 504 | 177,185 | 183,473 | 177,185.00 | 178,888.50 |
| West Virginia ⁴ | | 44,850 | | 106 | | 44,956 | | 46,440.00 |
| Wisconsin | 174,779 | 180,000 | 542 | 592 | 175,321 | 180,592 | 192,779.00 | 206,600.00 |
| Wyoming | 19,374 | 22,266 | 500 | 3,790 | 19,874 | 26,056 | 64,433.50 | 50,431.75 |
| Total | 4,357,410 | 4,862,889 | 37,028 | 42,851 | 4,395,038 | 4,904,740 | 5,594,962.38 | 6,190,863.94 |

Bureau of Biological Survey.

¹ Include amounts received from combined hunting and fishing licenses, but not from licenses to fish only.² No resident license required.³ Combined hunting and fishing license.⁴ Figures not available.⁵ Department of game and fresh-water fish created in 1925.⁶ For six-months period only.

TABLE 760.—Pure-food law: Statistics of enforcement, 1917–1925

| Year ended June 30— | Number of official samples collected from interstate shipments | Number of official samples on which manufacturers and packers were cited to appear, and hearings held | Number of official samples on which the records were sent to the Department of Justice for prosecution | Number of consignments of foods and drugs seized under the food and drugs act |
|---------------------|--|---|--|---|
| 1917..... | 7,820 | 2,873 | 732 | 371 |
| 1918..... | 5,621 | 2,333 | 615 | 417 |
| 1919..... | 5,117 | 2,185 | 854 | 1,052 |
| 1920..... | 5,512 | 1,791 | 851 | 1,467 |
| 1921..... | 5,393 | 1,607 | 746 | 1,677 |
| 1922..... | 3,550 | 1,634 | 538 | 1,133 |
| 1923..... | 5,408 | 1,681 | 546 | 829 |
| 1924..... | 7,038 | 2,076 | 592 | 808 |
| 1925..... | 7,590 | 2,298 | 870 | 910 |

Bureau of Chemistry.

TABLE 761.—Insecticide and fungicide law: Statistics of enforcement, 1912–1925

| Year ended June 30— | Number of official samples collected from interstate shipments | Number of official samples on which manufacturers and shippers were cited to appear, and hearings held | Number of cases reported to the Department of Justice for criminal or seizure action | Number of cases disposed of by correspondence without resort to prosecution ¹ |
|---------------------|--|--|--|--|
| 1912..... | 650 | 105 | 64 | None. |
| 1913..... | 997 | 327 | 108 | 109 |
| 1914..... | 995 | 270 | 112 | 152 |
| 1915..... | 1,117 | 326 | 118 | 208 |
| 1916..... | 1,487 | 272 | 116 | 242 |
| 1917..... | 984 | 297 | 126 | 240 |
| 1918..... | 748 | 220 | 132 | 195 |
| 1919..... | 904 | 210 | 104 | 129 |
| 1920..... | 717 | 201 | 124 | 120 |
| 1921..... | 820 | 172 | 143 | 121 |
| 1922..... | 957 | 210 | 89 | 153 |
| 1923..... | 1,236 | 237 | 71 | 221 |
| 1924..... | 824 | 325 | 87 | 324 |
| 1925..... | 864 | 250 | 96 | 329 |

Insecticide and Fungicide Board.

¹ These cases presented violations which were technical only, not flagrant, or cases in which the manufacturers gave reasonable and adequate explanation for failure to comply with the provisions of the act.

TABLE 762.—*Soil surveys: Status of, by States, year ended June 30, 1925*

DETAILED SURVEY

| State | Area of State | Surveys previously made | Surveys made during 1925 | Total areas surveyed |
|---------------------|------------------|-------------------------|--------------------------|----------------------|
| | <i>Sq. miles</i> | <i>Sq. miles</i> | <i>Sq. miles</i> | <i>Sq. miles</i> |
| Alabama..... | 51,279 | 50,030 | 554 | 50,584 |
| Arizona..... | 113,810 | 1,738 | 245 | 1,983 |
| Arkansas..... | 52,525 | 15,145 | 238 | 15,383 |
| California..... | 155,652 | 25,083 | 946 | 26,029 |
| Colorado..... | 103,658 | 3,166 | 188 | 3,354 |
| Connecticut..... | 4,820 | 1,704 | ----- | 1,704 |
| Delaware..... | 1,965 | 2,276 | ----- | 2,276 |
| Florida..... | 54,861 | 12,384 | 869 | 13,253 |
| Georgia..... | 58,725 | 29,767 | 972 | 30,739 |
| Idaho..... | 83,364 | 9,373 | 143 | 9,516 |
| Illinois..... | 56,043 | 6,770 | ----- | 6,770 |
| Indiana..... | 36,045 | 14,577 | 734 | 15,311 |
| Iowa..... | 55,586 | 33,668 | 2,680 | 36,348 |
| Kansas..... | 81,774 | 9,450 | 108 | 9,558 |
| Kentucky..... | 40,181 | 5,020 | ----- | 5,020 |
| Louisiana..... | 45,400 | 15,597 | ----- | 15,597 |
| Maine..... | 29,895 | 2,197 | ----- | 2,197 |
| Maryland..... | 9,941 | 10,569 | 562 | 11,131 |
| Massachusetts..... | 8,039 | 5,402 | 832 | 6,234 |
| Michigan..... | 57,480 | 11,730 | 3,088 | 14,818 |
| Minnesota..... | 80,858 | 7,169 | 627 | 7,796 |
| Mississippi..... | 46,362 | 27,377 | 756 | 28,133 |
| Missouri..... | 68,727 | 36,451 | 726 | 37,177 |
| Montana..... | 146,131 | 882 | ----- | 882 |
| Nebraska..... | 76,808 | 38,258 | 3,109 | 41,367 |
| Nevada..... | 109,821 | 652 | ----- | 652 |
| New Hampshire..... | 9,431 | 1,411 | ----- | 1,411 |
| New Jersey..... | 7,514 | 9,455 | 212 | 9,667 |
| New Mexico..... | 122,503 | 596 | ----- | 596 |
| New York..... | 47,654 | 23,245 | 946 | 24,190 |
| North Carolina..... | 48,740 | 36,563 | 1,014 | 37,577 |
| North Dakota..... | 70,183 | 16,605 | 278 | 16,878 |
| Ohio..... | 40,740 | 11,337 | 767 | 12,104 |
| Oklahoma..... | 69,414 | 6,540 | ----- | 6,540 |
| Oregon..... | 95,607 | 9,796 | 1,901 | 11,697 |
| Pennsylvania..... | 44,832 | 16,721 | ----- | 16,721 |
| Porto Rico..... | ----- | 330 | ----- | 330 |
| Rhode Island..... | 1,067 | 1,085 | ----- | 1,085 |
| South Carolina..... | 30,496 | 23,062 | ----- | 23,062 |
| South Dakota..... | 76,868 | 5,372 | 1,451 | 6,823 |
| Tennessee..... | 41,687 | 10,793 | 264 | 11,057 |
| Texas..... | 262,396 | 42,399 | 2,159 | 44,558 |
| Utah..... | 82,184 | 2,419 | ----- | 2,419 |
| Vermont..... | 9,124 | 1,175 | ----- | 1,175 |
| Virginia..... | 40,262 | 9,718 | ----- | 9,718 |
| Washington..... | 66,836 | 10,752 | ----- | 10,752 |
| West Virginia..... | 24,022 | 18,996 | 369 | 19,365 |
| Wisconsin..... | 55,256 | 20,963 | 1,110 | 22,063 |
| Wyoming..... | 97,648 | 855 | ----- | 855 |
| Total..... | 2,974,114 | 656,614 | 27,837 | 684,451 |

TABLE 762.—Soil surveys: Status of, by States, year ended June 30, 1925—Con.

RECONNAISSANCE SURVEY

| State | Area of State | Surveys previously made | Surveys made during 1925 | Total areas surveyed |
|------------------------|---------------|-------------------------|--------------------------|----------------------|
| | Sq. miles | Sq. miles | Sq. miles | Sq. miles |
| Alaska..... | | 31,915 | | 31,915 |
| Arkansas-Missouri..... | | 58,000 | | 58,000 |
| California..... | | 32,135 | | 32,135 |
| Kansas..... | | 39,960 | | 39,960 |
| Michigan..... | | 1,322 | | 1,322 |
| Minnesota..... | | 1,191 | 161 | 1,352 |
| Montana..... | | 18,930 | 6,130 | 25,060 |
| Nebraska..... | | 53,064 | | 53,064 |
| North Dakota..... | | 39,240 | | 39,240 |
| Ohio..... | | 41,420 | | 41,420 |
| Pennsylvania..... | | 41,405 | | 41,405 |
| South Dakota..... | | 41,400 | | 41,400 |
| Texas..... | | 132,735 | | 132,735 |
| Washington..... | | 16,540 | | 16,540 |
| Wisconsin..... | | 14,425 | | 14,425 |
| Total..... | | 563,682 | 6,291 | 569,973 |

TABLE 763.—Forest areas, United States, 1920

| Region ¹ | Original forest areas | | Present forest areas | | | | | | | |
|---|-----------------------|----------|----------------------|----------|-------------|---------------|-------------|------------------|-------------|-------------|
| | | | Total ² | | Saw timber | | Cord-wood | Not re-stock-ing | Conif-ers | Hard-woods |
| | | | | | Virgin | Second growth | | | | |
| | 1,000 acres | Per cent | 1,000 acres | Per cent | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres |
| New England ³ | 38,908 | 4.7 | 25,768 | 5.5 | 2,000 | 9,261 | 8,872 | 5,575 | 16,208 | 9,500 |
| Middle Atlantic ⁴ | 69,610 | 8.5 | 28,678 | 6.1 | 1,896 | 9,559 | 10,793 | 6,430 | 11,560 | 17,128 |
| Lake ⁵ | 103,680 | 12.6 | 57,100 | 12.2 | 10,100 | 13,930 | 12,570 | 20,500 | 28,150 | 28,960 |
| Central ⁶ | 170,560 | 20.7 | 60,182 | 12.8 | 7,600 | 24,301 | 26,011 | 2,270 | 3,220 | 56,962 |
| South Atlantic and East Gulf ⁷ | 170,240 | 20.7 | 99,000 | 21.1 | 18,300 | 27,900 | 32,080 | 20,720 | 71,700 | 27,300 |
| Lower Mississippi Valley ⁸ | 128,400 | 15.6 | 78,865 | 16.8 | 20,835 | 20,200 | 24,075 | 13,755 | 42,664 | 36,201 |
| Rocky Mountain ⁹ | 63,720 | 7.8 | 60,842 | 12.9 | 37,746 | 3,313 | 14,533 | 5,250 | 60,842 | ..... |
| Pacific ¹⁰ | 77,120 | 9.4 | 59,100 | 12.6 | 39,683 | 5,292 | 7,425 | 6,700 | 59,100 | ..... |
| United States..... | 822,238 | 100.0 | 469,475 | 100.0 | 138,180 | 113,756 | 136,359 | 81,200 | 293,434 | 176,041 |

Forest Service. Compiled from report on Senate Resolution 311 and "Forest Resources of the World."

¹ Alaskan areas are not tabulated because so little is known of the interior forests that the best estimates are only approximations. The figures now commonly used indicate 65,000,000 acres of coniferous forest and 5,000,000 acres of hardwoods. The bulk of the merchantable timber is confined to a belt along the coast of the southeastern part of the Territory, containing approximately 5,000,000 acres of forest.

² The areas given in this table refer only to land capable of producing saw timber or pulp timber in commercial quantities, and do not include the open woodland and chaparral of the Southwest.

³ New England: Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island.

⁴ Middle Atlantic: New York, Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia.

⁵ Lake: Michigan, Wisconsin, Minnesota.

⁶ Central: Ohio, Indiana, Illinois, Iowa, West Virginia, Kentucky, Missouri, Tennessee.

⁷ South Atlantic and East Gulf: Virginia, North Carolina, South Carolina, Georgia, Alabama, Florida.

⁸ Lower Mississippi Valley: Mississippi, Louisiana, Arkansas, Texas, Oklahoma.

⁹ Rocky Mountain: Montana, Idaho, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico.

¹⁰ Pacific: Oregon, Washington, California.

TABLE 764.—National forests: Net areas of forests, by States, June 30, 1925

| State and forest | Net area | State and forest | Net area | State and forest | Net area |
|-----------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|
| | <i>Acres</i> | | <i>Acres</i> | | <i>Acres</i> |
| Alabama..... | 120, 404 | Idaho..... | 19, 071, 962 | New Mexico—Con. | |
| Alabama..... | 1 105, 054 | Boise..... | 1, 062, 693 | Datil..... | 1, 754, 161 |
| McClellan..... | 15, 350 | Cache..... | 494, 149 | Gila..... | 1, 596, 215 |
| Alaska..... | 21, 334, 274 | Caribon..... | 696, 254 | Lincoln..... | 1, 114, 127 |
| Chugach..... | 4, 792, 060 | Challis..... | 1, 253, 519 | Manzano..... | 668, 051 |
| Tongass..... | 16, 542, 214 | Clearwater..... | 785, 376 | Santa Fe..... | 1, 270, 450 |
| Arizona..... | 11, 234, 670 | Coeur d'Alene..... | 661, 692 | New York..... | 15, 954 |
| Apache..... | 677, 351 | Idaho..... | 1, 856, 722 | Pine Plains..... | 9, 800 |
| Coconino..... | 1, 716, 896 | Kaniksu..... | 186, 874 | Upton..... | 6, 154 |
| Coronado..... | 1, 336, 077 | Lemhi..... | 1, 354, 747 | North Carolina..... | 365, 658 |
| Crook..... | 1, 398, 814 | Minidoka..... | 521, 044 | Cherokee..... | 1 116, 781 |
| Kaibab..... | 769, 894 | Nespece..... | 1, 658, 759 | Nantahala..... | 1 248, 877 |
| Prescott..... | 1, 164, 988 | Payette..... | 1, 204, 150 | Pisgah..... | |
| Sitgreaves..... | 639, 635 | Pend Oreille..... | 674, 579 | Unaka..... | |
| Tonto..... | 2, 559, 865 | St. Joe..... | 551, 170 | Oklahoma: Wichita..... | 61, 480 |
| Tusayan..... | 1, 271, 170 | Salmon..... | 1, 664, 026 | Oregon..... | 13, 199, 388 |
| Arkansas..... | 963, 287 | Sawtooth..... | 1, 158, 259 | Cascade..... | 1, 023, 510 |
| Arkansas..... | 1 663, 378 | Selwyn..... | 1, 689, 157 | Crater..... | 805, 049 |
| Ozark..... | 1 299, 909 | Targhee..... | 1, 030, 847 | Deschutes..... | 1, 294, 743 |
| California..... | 19, 143, 640 | Weiser..... | 565, 945 | Fremont..... | 849, 264 |
| Angeles..... | 829, 499 | Illinois: Savanna..... | 10, 710 | Klamath..... | 8, 723 |
| California..... | 820, 105 | Kentucky: Knox..... | 22, 000 | Malheur..... | 1, 048, 666 |
| Cleveland..... | 549, 575 | Maine: White Mountain..... | 32, 256 | Mount Hood..... | 1, 058, 879 |
| Crater..... | 48, 218 | Maryland: Meade..... | 4, 725 | Ochoco..... | 717, 994 |
| Eldorado..... | 552, 518 | Michigan: Mich- igan..... | 126, 762 | Santiam..... | 610, 918 |
| Inyo..... | 1, 636, 750 | Minnesota..... | 991, 106 | Siskiyou..... | 1, 052, 783 |
| Klamath..... | 1, 525, 257 | Minnesota: Superior..... | 800, 161 | Shuslaw..... | 547, 436 |
| Lassen..... | 943, 366 | Montana..... | 15, 872, 610 | Umatilla..... | 915, 461 |
| Modoc..... | 1, 462, 532 | Absaroka..... | 841, 086 | Umpqua..... | 1, 009, 687 |
| Mono..... | 795, 786 | Bearfoot..... | 659, 919 | Whitman..... | 957, 240 |
| Plumas..... | 1, 109, 864 | Beaverhead..... | 1, 339, 273 | Pennsylvania..... | 124, 135 |
| Santa Barbara..... | 2, 022, 126 | Bitterroot..... | 1, 047, 071 | Allgheny..... | 103, 205 |
| Sequoia..... | 1, 450, 484 | Blackfoot..... | 836, 967 | Tobyhanna..... | 20, 870 |
| Shasta..... | 853, 786 | Cabinet..... | 829, 077 | Porto Rico: Lu- quillo..... | 12, 443 |
| Sierra..... | 1, 493, 400 | Custer..... | 517, 267 | South Carolina..... | 39, 748 |
| Siskiyou..... | 329, 384 | Deerlodge..... | 829, 158 | Jackson..... | 20, 225 |
| Sierra..... | 810, 657 | Flathead..... | 1, 721, 478 | Nantahala..... | 19, 523 |
| Tahoe..... | 500, 306 | Gallatin..... | 575, 189 | South Dakota..... | 1, 064, 252 |
| Trinity..... | 1, 410, 027 | Helena..... | 681, 291 | Black Hills..... | 482, 025 |
| Colorado..... | 13, 249, 150 | Jefferson..... | 1, 040, 636 | Custer..... | 73, 526 |
| Arapaho..... | 635, 900 | Kootenai..... | 1, 331, 513 | Harney..... | 508, 701 |
| Cochetopa..... | 908, 787 | Lewis and Clark..... | 810, 731 | Tennessee..... | 267, 939 |
| Colorado..... | 828, 403 | Lolo..... | 850, 677 | Cherokee..... | 141, 628 |
| Grand Mesa..... | 659, 264 | Madison..... | 931, 020 | Pisgah..... | 19, 247 |
| Gunnison..... | 905, 159 | Missoula..... | 1, 030, 257 | Unaka..... | 107, 064 |
| Hayden..... | 65, 769 | Nebraska: Nebraska..... | 205, 945 | Utah..... | 7, 455, 070 |
| Holy Cross..... | 1, 124, 329 | Nevada..... | 4, 977, 106 | Ashley..... | 979, 739 |
| La Sal..... | 26, 631 | Dixie..... | 56, 324 | Cache..... | 282, 803 |
| Leadville..... | 927, 444 | Eldorado..... | 400 | Dixie..... | 795, 834 |
| Montezuma..... | 696, 583 | Humboldt..... | 1, 324, 170 | Fishlake..... | 1, 362, 600 |
| Pike..... | 1, 084, 936 | Inyo..... | 60, 376 | La Sal..... | 504, 291 |
| Rio Grande..... | 1, 135, 778 | Mono..... | 464, 102 | Manti..... | 725, 897 |
| Routt..... | 148, 558 | Nevada..... | 1, 175, 222 | Minidoka..... | 70, 155 |
| San Isabel..... | 598, 936 | Tahoe..... | 13, 853 | Powell..... | 1, 050, 462 |
| San Juan..... | 1, 239, 361 | Tolyaba..... | 1, 882, 659 | Uinta..... | 1, 076, 978 |
| Uncompahgre..... | 778, 341 | New Hampshire: White Mountain..... | 407, 252 | Wasatch..... | 608, 261 |
| White River..... | 884, 974 | New Jersey: Dix..... | 6, 785 | | |
| Florida: Florida..... | 342, 771 | New Mexico..... | 8, 482, 815 | | |
| Georgia..... | 238, 638 | Apache..... | 886, 867 | | |
| Benning..... | 78, 560 | Carson..... | 1, 067, 092 | | |
| Cherokee..... | 70, 196 | Coronado..... | 125, 352 | | |
| Nantahala..... | 89, 782 | | | | |

1 Figures include acreage acquired under Weeks law.

2 Forest lies in more than one State.

3 Nantahala includes 3,302,000 acres and Pisgah 8,067 acres transferred from Treasury Department.

TABLE 764.—National forests: Net areas of forests, by States, June 30, 1925—Con.

| State and forest | Net area | State and forest | Net area | State and forest | Net area |
|--------------------------------|--------------|--------------------------------|--------------|-----------------------------------|---------------|
| | <i>Acres</i> | | <i>Acres</i> | | <i>Acres</i> |
| Virginia..... | 516, 597 | Washington—Con. | | Wyoming—Contd. | |
| Eustis..... | 4, 220 | Mount Baker..... | 1, 460, 697 | Bighorn..... | 1, 125, 632 |
| Humphreys..... | 3, 184 | Olympic..... | 1, 630, 847 | Black Hills ¹ | 144, 416 |
| Leo..... | 7, 177 | Rainier..... | 1, 278, 954 | Caribou ¹ | 6, 315 |
| Monongahela ¹ | 10, 414 | Snoqualmie..... | 689, 674 | Hayden ¹ | 323, 124 |
| Natural Bridge..... | 142, 721 | Umatilla ¹ | 313, 439 | Medicine Bow..... | 550, 911 |
| Shenandoah ¹ | 303, 750 | Wenatchee..... | 838, 184 | Shoshone..... | 1, 583, 988 |
| Unaka ¹ | 45, 131 | West Virginia..... | 219, 125 | Targhee ¹ | 345, 570 |
| Washington..... | 9, 714, 238 | Monongahela ¹ | 160, 488 | Teton..... | 1, 880, 812 |
| Chelan..... | 1, 835, 855 | Shenandoah ¹ | 58, 637 | Washakie..... | 860, 326 |
| Columbia..... | 764, 928 | Wyoming..... | 8, 600, 101 | Wyoming..... | 1, 667, 540 |
| Colville..... | 746, 135 | Ashley ¹ | 6, 460 | Total (159 national forests)..... | 158, 305, 056 |
| Kaniksui ¹ | 257, 607 | | | | |

Forest Service in Cooperation with General Land Office.

¹ Forest lies in more than one State.

TABLE 765.—National forests: Construction, improvement, and maintenance of roads and trails from forest road appropriations and other Federal and cooperative funds, by States, June 30, 1925

| State | Fiscal year 1925 | | Total to June 30, 1925 | | | | | | Expenditure to June 30, 1925 | | |
|---------------------|------------------|--------------|------------------------|--------------|--------------|--------------|--|-----------------|------------------------------|-------------------|-----------------|
| | Constructed | | Constructed | | Maintained | | | | Federal funds | Cooperative funds | Total funds |
| | Roads | Trails | Roads | Trails | Roads | Trails | | | | | |
| | <i>Miles</i> | <i>Miles</i> | <i>Miles</i> | <i>Miles</i> | <i>Miles</i> | <i>Miles</i> | | | <i>Dollars</i> | <i>Dollars</i> | <i>Dollars</i> |
| Alabama..... | | | | | 43.0 | | | 16, 640.11 | | | 16, 640.11 |
| Alaska..... | 19.0 | 57.4 | 145.3 | 225.6 | 170.2 | 225.6 | | 1, 985, 730.29 | 188, 894.72 | | 2, 174, 625.01 |
| Arizona..... | 147.9 | 112.1 | 579.9 | 1, 292.0 | 1, 268.0 | 1, 491.0 | | 2, 573, 337.85 | 740, 400.39 | | 3, 313, 738.24 |
| Arkansas..... | 52.5 | 50.0 | 197.7 | 256.3 | 183.1 | 403.4 | | 553, 334.63 | 24, 647.73 | | 577, 982.36 |
| California..... | 235.2 | 279.6 | 927.9 | 1, 958.9 | 1, 860.9 | 3, 991.8 | | 6, 325, 787.15 | 2, 273, 302.27 | | 8, 599, 089.42 |
| Colorado..... | 132.7 | 820.2 | 803.9 | 2, 010.0 | 910.1 | 4, 006.1 | | 3, 259, 318.32 | 636, 977.23 | | 3, 896, 295.55 |
| Florida..... | 29.1 | | 91.7 | | 107.6 | 36.5 | | 167, 308.02 | 150, 851.89 | | 318, 219.91 |
| Georgia..... | | 2.0 | 13.5 | 168.6 | 32.5 | 168.6 | | 152, 988.84 | | | 152, 988.84 |
| Idaho..... | 144.0 | 608.3 | 1, 410.1 | 4, 073.2 | 1, 082.2 | 6, 148.0 | | 6, 305, 330.80 | 1, 252, 642.96 | | 7, 557, 973.76 |
| Kansas..... | | | 3.4 | | | | | 2, 111.51 | | | 2, 111.51 |
| Maine..... | | 1.8 | 5.0 | 35.3 | 7.6 | 35.3 | | 15, 916.90 | | | 15, 916.90 |
| Michigan..... | | | 40.4 | | 163.0 | | | 9, 502.08 | 243.45 | | 9, 745.53 |
| Minnesota..... | 23.5 | 7.0 | 181.5 | 73.7 | 189.0 | 290.0 | | 276, 600.41 | 134, 948.41 | | 411, 548.82 |
| Montana..... | 164.9 | 491.5 | 648.3 | 1, 692.6 | 913.2 | 5, 317.0 | | 3, 950, 386.71 | 498, 996.51 | | 4, 449, 383.22 |
| Nebraska..... | 3.5 | | 34.9 | | 19.0 | | | 37, 445.43 | | | 37, 445.43 |
| Nevada..... | 53.9 | 52.0 | 366.5 | 694.5 | 171.0 | 825.0 | | 719, 089.92 | 117, 260.44 | | 836, 350.36 |
| New Hampshire..... | 2.9 | 13.7 | 17.2 | 49.2 | 38.9 | 801.1 | | 92, 509.09 | 15, 181.16 | | 107, 690.25 |
| New Mexico..... | 102.6 | 104.0 | 435.9 | 1, 182.3 | 923.7 | 1, 182.0 | | 2, 053, 685.05 | 229, 422.11 | | 2, 283, 107.16 |
| North Carolina..... | 29.5 | 83.3 | 82.5 | 543.1 | 173.8 | 543.1 | | 328, 093.93 | 35, 924.14 | | 364, 018.07 |
| North Dakota..... | | | 1.0 | | | | | 67.76 | | | 67.76 |
| Oklahoma..... | 5.2 | 1.4 | 24.0 | 16.4 | 32.7 | | | 37, 495.67 | 8, 475.11 | | 45, 970.78 |
| Oregon..... | 237.2 | 439.6 | 1, 602.8 | 1, 711.0 | 2, 577.0 | 5, 127.4 | | 6, 177, 370.89 | 3, 942, 754.71 | | 10, 120, 125.60 |
| Pennsylvania..... | 16.0 | | 29.0 | | 16.0 | | | 11, 368.49 | 1, 005.00 | | 12, 373.49 |
| Porto Rico..... | | | 16.3 | 30.3 | | 30.3 | | 9, 518.77 | | | 9, 518.77 |
| South Carolina..... | | | 16.3 | 4.0 | 49.9 | | | 62, 044.27 | 13, 515.55 | | 75, 559.80 |
| South Dakota..... | 22.6 | 14.0 | 190.8 | 34.6 | 187.6 | 10.5 | | 436, 189.73 | 156, 712.93 | | 592, 902.66 |
| Tennessee..... | 28.2 | 46.9 | 42.4 | 414.6 | 15.5 | 381.7 | | 152, 208.42 | 93, 525.66 | | 245, 734.08 |
| Utah..... | 97.2 | 267.7 | 807.5 | 2, 069.0 | 654.7 | 1, 102.9 | | 1, 893, 784.39 | 654, 134.82 | | 2, 547, 919.21 |
| Virginia..... | 28.5 | 80.7 | 64.2 | 640.4 | 152.1 | 619.2 | | 282, 068.83 | 30, 789.66 | | 312, 858.49 |
| Washington..... | 83.9 | 335.8 | 547.7 | 1, 191.5 | 554.7 | 4, 452.5 | | 3, 890, 719.35 | 1, 251, 524.90 | | 5, 142, 244.25 |
| West Virginia..... | 17.7 | 13.0 | 18.7 | 179.8 | 20.0 | 189.8 | | 31, 854.22 | | | 31, 854.22 |
| Wyoming..... | 122.0 | 244.5 | 722.3 | 949.9 | 1, 461.8 | 2, 279.3 | | 2, 341, 951.75 | 288, 005.44 | | 2, 629, 957.19 |
| Total..... | 1, 799.7 | 4, 065.5 | 10, 022.3 | 21, 490.8 | 13, 977.8 | 38, 858.1 | | 44, 151, 779.07 | 12, 740, 135.17 | | 56, 891, 914.24 |

Forest Service.

TABLE 766.—National forests, State forest lands, and municipal forests: Areas, by States, December 31, 1925¹

| State | National forests ² | State forest land | | | | Municipal and county forests and parks | Aggregate |
|---------------------------------|-------------------------------|----------------------|--------------|----------------------|--------------|--|--------------|
| | | Forests | Parks | Other | Total | | |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> |
| Alabama..... | 124,404 | ----- | ----- | 175,000 | 175,000 | 19,232 | 314,636 |
| Arizona..... | 11,234,870 | ----- | ----- | 36,790 | 36,790 | ----- | 11,271,660 |
| Arkansas..... | 963,287 | ----- | ----- | ----- | ----- | 963,287 | 963,287 |
| California..... | 19,143,840 | ----- | 12,845 | 50,000 | 62,845 | 7,640 | 19,214,125 |
| Colorado..... | 13,249,150 | ----- | ----- | 126,600 | 126,600 | 44,449 | 13,420,199 |
| Connecticut..... | ----- | 20,000 | 7,000 | 2,000 | 29,000 | 15,543 | 44,543 |
| District of Columbia..... | ----- | ----- | ----- | ----- | ----- | 3,424 | 3,424 |
| Florida..... | 342,771 | ----- | 1,920 | ----- | 1,920 | ----- | 344,691 |
| Georgia..... | 238,538 | ----- | ----- | ----- | ----- | ----- | 238,538 |
| Idaho..... | 19,071,962 | 700,000 | 7,200 | 200,000 | 907,200 | 160 | 19,979,322 |
| Illinois..... | 10,710 | ----- | 1,220 | ----- | 1,220 | 30,578 | 42,508 |
| Indiana..... | ----- | 3,547 | 4,430 | 10,500 | 18,477 | ----- | 18,477 |
| Iowa..... | ----- | ----- | 7,000 | 5,000 | 12,000 | ----- | 12,000 |
| Kansas..... | ----- | ----- | 245 | ----- | 245 | 200 | 445 |
| Kentucky..... | 22,660 | 3,624 | ----- | 15,000 | 18,624 | ----- | 41,284 |
| Louisiana..... | ----- | 2,200 | ----- | ³ 202,000 | 204,200 | ----- | 204,200 |
| Maine..... | 32,256 | 100 | 25 | 330,000 | 330,125 | 835 | 363,216 |
| Maryland..... | 4,725 | 3,835 | ----- | 2,000 | 5,835 | 14,770 | 25,330 |
| Massachusetts..... | ----- | 97,000 | 12,000 | 48,000 | 157,000 | 52,603 | 209,603 |
| Michigan..... | 128,762 | 333,000 | 7,745 | 739,000 | 1,079,745 | 3,495 | 1,210,012 |
| Minnesota..... | 991,106 | 350,000 | 38,279 | 650,000 | 1,038,279 | 7,635 | 2,037,020 |
| Missouri..... | ----- | ----- | 25,500 | 46,000 | 71,500 | ----- | 71,500 |
| Montana..... | 15,872,610 | 566,000 | ----- | ----- | 566,000 | ----- | 16,438,610 |
| Nebraska..... | 205,945 | ----- | 747 | 500 | 1,247 | 14,000 | 221,192 |
| Nevada..... | 4,977,106 | ----- | ----- | ----- | ----- | ----- | 4,977,106 |
| New Hampshire..... | 407,252 | 20,538 | ----- | 575 | 21,113 | 10,612 | 438,977 |
| New Jersey..... | 6,785 | 18,954 | 16,000 | 4,000 | 38,954 | 35,230 | 80,999 |
| New Mexico..... | 8,492,315 | ----- | ----- | 185,000 | 185,000 | ----- | 8,607,315 |
| New York..... | 15,954 | 2,026,741 | 83,212 | 15,500 | 2,125,453 | 179,574 | 2,311,881 |
| North Carolina..... | 365,668 | ----- | 1,724 | ⁴ 66,600 | 57,324 | 37,257 | 490,239 |
| North Dakota..... | ----- | 250 | 17,300 | 17,300 | 17,550 | ----- | 17,550 |
| Ohio..... | ----- | 33,773 | 32,510 | 22,900 | 89,183 | 13,867 | 103,050 |
| Oklahoma..... | 61,480 | ----- | 27,300 | 27,300 | 27,300 | ----- | 88,780 |
| Oregon..... | 13,190,388 | ----- | 640 | 77,868 | 78,508 | 166,406 | 13,444,302 |
| Pennsylvania..... | 124,135 | 1,131,885 | 9,541 | 2,624 | 1,144,060 | 14,996 | 1,283,181 |
| Rhode Island..... | ----- | ----- | ----- | ----- | ----- | 104 | 104 |
| South Carolina..... | 39,748 | ----- | ----- | ----- | ----- | ----- | 39,748 |
| South Dakota..... | 1,064,252 | ----- | ----- | ⁵ 80,000 | 80,000 | ----- | 1,144,252 |
| Tennessee..... | 267,939 | ----- | ----- | 22,110 | 22,110 | ----- | 290,049 |
| Texas..... | ----- | 5,632 | 550 | 50,000 | 56,182 | 1,500 | 57,682 |
| Utah..... | 7,455,070 | ----- | ----- | 66,000 | 66,000 | 1,710 | 7,522,780 |
| Vermont..... | ----- | 30,504 | 160 | 713 | 31,377 | 5,963 | 37,340 |
| Virginia..... | 516,597 | 588 | ----- | 1,500 | 2,088 | 9,700 | 528,385 |
| Washington..... | 9,714,238 | 40,763 | 6,500 | 1,200,000 | 1,247,263 | 14,964 | 10,976,465 |
| West Virginia..... | 219,125 | 15,393 | ----- | ----- | 15,393 | ----- | 234,518 |
| Wisconsin..... | ----- | 97,000 | 91,000 | 150,000 | 338,000 | (*) | 338,000 |
| Wyoming..... | 8,500,101 | ----- | ----- | 23,009 | 23,009 | ----- | 8,523,101 |
| Confidential United States..... | 137,048,330 | 5,501,077 | 368,243 | 4,670,380 | 10,539,700 | 697,447 | 148,285,480 |
| Alaska..... | 21,334,274 | ----- | ----- | ----- | ----- | ----- | 21,334,274 |
| Hawaii..... | ----- | ⁷ 579,905 | ----- | ----- | 579,905 | ----- | 579,905 |
| Porto Rico..... | 12,443 | 40,000 | ----- | 30,000 | 70,000 | ----- | 82,443 |
| Total..... | 158,395,066 | 6,120,982 | 368,243 | 4,700,380 | 11,189,666 | 697,447 | 170,282,108 |

Forest Service.

¹ Few, if any, of the public forests are entirely covered with saw timber.² Net area as of June 30, 1925. These figures do not, of course, include the forested land within Indian reservations, national parks, national monuments, some military reservations, and the unreserved public domain.³ Mostly marsh, game preserves, and public shooting grounds.⁴ Of this, 77,000 acres is State swamp land.⁵ Described as "forest and park" land.⁶ Practically all villages and cities have forested areas or parks for recreation.⁷ Net area as of Dec. 31, 1924.

TABLE 767.—Woodland on farms: Areas, by States and lumber regions, 1880, 1910, 1920, and 1925¹

| State and region | 1880, wood- land ¹ | 1910, wood- land ¹ | 1920 | | | 1925 | | |
|---------------------|-------------------------------------|-------------------------------------|------------------------------|---------------------------|-------------------------------------|---------------------------|-------------------------------|-------------------------------------|
| | | | Timber- land ² | Other forested area | Total wood- land ¹ | Wood- land pastured | Wood- land not pastured | Total wood- land ¹ |
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> |
| Alabama..... | 10,430,727 | 9,444,764 | 2,501,297 | 5,799,880 | 8,301,177 | 1,921,815 | 3,844,582 | 5,766,397 |
| Arizona..... | 13,399 | 100,061 | 54,512 | 469,136 | 523,648 | 413,995 | 47,397 | 461,392 |
| Arkansas..... | 7,861,409 | 8,511,510 | 2,359,478 | 5,036,550 | 7,396,028 | 1,676,965 | 3,791,628 | 5,468,593 |
| California..... | 1,072,810 | 4,541,767 | 572,039 | 3,680,248 | 4,252,287 | 4,227,435 | 447,489 | 4,674,924 |
| Colorado..... | 44,117 | 891,698 | 142,929 | 1,272,491 | 1,415,420 | 1,146,647 | 238,516 | 1,385,163 |
| Connecticut..... | 646,673 | 757,743 | 72,630 | 611,089 | 683,719 | 356,652 | 373,271 | 729,923 |
| Delaware..... | 279,099 | 252,032 | 40,187 | 170,471 | 222,658 | 10,389 | 188,180 | 198,566 |
| Dist. Columbia..... | 3,321 | 889 | 49 | 779 | 828 | 96 | 130 | 276 |
| Florida..... | 2,186,601 | 3,007,638 | 548,858 | 2,231,832 | 2,780,790 | 814,782 | 1,663,111 | 2,477,888 |
| Georgia..... | 18,269,225 | 13,002,741 | 2,693,340 | 7,798,508 | 10,491,848 | 2,324,067 | 4,738,073 | 7,062,160 |
| Idaho..... | 11,892 | 584,556 | 173,849 | 647,027 | 820,876 | 647,448 | 97,422 | 744,870 |
| Illinois..... | 4,935,575 | 3,147,879 | 458,464 | 2,644,115 | 3,102,579 | 1,897,166 | 738,642 | 2,635,808 |
| Indiana..... | 5,935,308 | 5,370,791 | 809,824 | 2,331,218 | 3,141,042 | 1,882,395 | 861,032 | 2,743,427 |
| Iowa..... | 2,755,290 | 2,314,115 | 152,442 | 2,142,832 | 2,295,274 | 1,970,588 | 242,695 | 2,123,283 |
| Kansas..... | 991,187 | 1,205,910 | 41,364 | 1,271,729 | 1,313,093 | 652,047 | 354,064 | 1,006,111 |
| Kentucky..... | 10,106,072 | 6,951,626 | 1,821,572 | 4,196,708 | 6,018,280 | 1,207,842 | 3,627,926 | 4,835,708 |
| Louisiana..... | 4,557,332 | 4,310,561 | 683,483 | 2,930,557 | 3,614,040 | 677,327 | 1,740,392 | 2,417,719 |
| Maine..... | 2,682,296 | 2,775,021 | 643,901 | 1,803,696 | 2,447,597 | 975,545 | 1,503,343 | 2,478,888 |
| Maryland..... | 1,634,019 | 1,467,333 | 305,758 | 1,021,463 | 1,327,221 | 187,182 | 949,310 | 1,136,493 |
| Massachusetts..... | 1,004,099 | 1,064,553 | 248,343 | 782,043 | 1,030,386 | 482,453 | 632,219 | 1,114,672 |
| Michigan..... | 4,452,205 | 2,927,554 | 442,647 | 2,774,353 | 3,217,000 | 2,407,170 | 894,631 | 3,301,801 |
| Minnesota..... | 2,030,726 | 3,922,391 | 529,392 | 3,953,294 | 4,482,656 | 3,549,866 | 1,187,067 | 4,746,933 |
| Mississippi..... | 8,144,323 | 7,883,558 | 1,597,249 | 5,417,649 | 7,014,898 | 2,036,111 | 3,449,006 | 5,485,117 |
| Missouri..... | 10,137,790 | 8,918,672 | 2,139,530 | 6,414,327 | 8,533,857 | 4,779,928 | 2,626,064 | 7,406,000 |
| Montana..... | 3,078 | 595,870 | 149,482 | 1,496,980 | 1,646,462 | 1,311,615 | 233,753 | 1,545,368 |
| Nebraska..... | 321,560 | 803,206 | 30,537 | 870,396 | 900,933 | 657,525 | 226,258 | 883,783 |
| Nevada..... | 18,697 | 48,209 | 2,015 | 26,622 | 28,637 | 77,371 | 9,213 | 86,594 |
| New Hampshire..... | 1,296,529 | 1,502,389 | 427,115 | 872,723 | 1,299,838 | 779,501 | 536,743 | 1,316,244 |
| New Jersey..... | 708,092 | 538,181 | 74,753 | 380,015 | 454,708 | 43,610 | 253,542 | 297,152 |
| New Mexico..... | 219,224 | 1,491,025 | 67,163 | 1,750,297 | 1,817,460 | 2,144,857 | 170,138 | 2,314,995 |
| New York..... | 5,195,795 | 4,436,145 | 1,027,708 | 3,132,796 | 4,160,567 | 2,023,332 | 7,81,080 | 3,804,412 |
| North Carolina..... | 13,868,086 | 12,451,739 | 2,107,021 | 8,192,526 | 10,299,547 | 1,388,459 | 7,090,679 | 8,479,138 |
| North Dakota..... | (7) | 421,877 | 8,789 | 671,077 | 679,836 | 337,240 | 173,522 | 510,762 |
| Ohio..... | 5,982,507 | 3,285,376 | 860,844 | 2,338,085 | 3,198,929 | 1,854,319 | 973,060 | 2,827,409 |
| Oklahoma..... | | 3,598,910 | 229,472 | 3,976,699 | 4,206,171 | 3,022,717 | 458,078 | 3,480,795 |
| Oregon..... | 1,424,417 | 2,237,826 | 759,464 | 1,550,132 | 2,309,596 | 2,144,263 | 519,041 | 2,663,004 |
| Pennsylvania..... | 5,810,331 | 4,281,439 | 1,196,136 | 2,847,766 | 4,043,902 | 1,397,597 | 2,136,381 | 3,533,978 |
| Rhode Island..... | 182,666 | 185,009 | 30,219 | 100,243 | 130,462 | 50,093 | 94,831 | 144,924 |
| South Carolina..... | 7,255,121 | 6,339,141 | 1,284,162 | 4,018,413 | 5,302,575 | 1,008,359 | 2,584,006 | 3,592,365 |
| South Dakota..... | 8,80,264 | 383,144 | 14,344 | 521,839 | 636,183 | 289,051 | 112,724 | 401,775 |
| Tennessee..... | 11,232,876 | 8,007,733 | 2,213,221 | 4,866,948 | 7,080,169 | 1,356,867 | 4,223,189 | 5,580,047 |
| Texas..... | 15,851,365 | 27,658,413 | 1,065,989 | 13,466,924 | 14,582,913 | 17,180,001 | 1,590,250 | 18,770,251 |
| Utah..... | 2,305 | 145,510 | 8,408 | 204,354 | 212,762 | 97,357 | 63,871 | 161,228 |
| Vermont..... | 1,503,467 | 1,566,698 | 473,717 | 954,592 | 1,428,309 | 1,030,810 | 517,369 | 1,548,179 |
| Virginia..... | 9,128,601 | 8,414,680 | 2,160,030 | 5,757,382 | 7,907,352 | 1,331,719 | 5,522,928 | 6,854,647 |
| Washington..... | 437,696 | 1,541,551 | 337,551 | 1,475,510 | 1,813,061 | 1,317,170 | 538,413 | 1,855,583 |
| West Virginia..... | 6,180,350 | 3,968,839 | 1,134,786 | 2,334,659 | 3,469,444 | 905,394 | 2,263,631 | 3,169,025 |
| Wisconsin..... | 4,768,040 | 5,877,680 | 643,504 | 4,858,404 | 5,401,810 | 4,031,416 | 1,216,711 | 5,645,127 |
| Wyoming..... | 510 | 262,152 | 34,980 | 386,876 | 421,806 | 370,749 | 74,412 | 445,161 |
| Total..... | 190,255,744 | 190,865,553 | 35,270,527 | 132,460,267 | 167,730,794 | 82,797,318 | 67,600,704 | 150,398,022 |

¹ Woodland comprises all farm woodlots, natural or planted, and cutover land with young growth. It excludes lands covered with chaparral or woody shrubs.² Timberland is that part of the total forested area on farms which is covered with trees mostly of saw-log sizes.³ See South Dakota.⁴ Figures for Dakota Territory.

TABLE 767.—*Woodland on farms: Areas, by States and lumber regions, 1880, 1910, 1920, and 1925—Continued*

| State and region | 1880, wood- land ¹ | 1910 wood- land ¹ | 1920 | | | 1925 | | |
|----------------------------------|-------------------------------------|------------------------------------|------------------------------|---------------------------|-------------------------------------|---------------------------|-------------------------------|-------------------------------------|
| | | | Timber- land ² | Other forested area | Total wood- land ¹ | Wood- land pastured | Wood- land not pastured | Total wood- land ¹ |
| LUMBER REGIONS | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> |
| Northeastern..... | 20,946,387 | 18,828,682 | 4,546,576 | 12,683,679 | 17,230,255 | 7,337,258 | 8,966,449 | 16,303,707 |
| Lake..... | 11,251,037 | 12,227,525 | 1,515,543 | 11,586,023 | 13,101,566 | 10,388,452 | 3,298,409 | 13,686,861 |
| Central..... | 54,610,478 | 37,651,213 | 9,438,241 | 25,128,059 | 34,564,300 | 13,883,908 | 15,313,585 | 26,197,493 |
| N. C. pine..... | 30,249,808 | 27,205,561 | 5,541,213 | 17,968,261 | 23,509,474 | 3,728,537 | 15,197,613 | 18,926,150 |
| Southern pine..... | 65,300,962 | 77,394,095 | 11,679,166 | 46,658,699 | 58,337,865 | 29,653,806 | 21,275,120 | 50,928,925 |
| Pacific (north)..... | 1,862,113 | 3,779,377 | 1,097,015 | 3,025,642 | 4,122,657 | 3,461,433 | 1,058,054 | 4,519,487 |
| Pacific (south)..... | 1,691,507 | 4,589,976 | 574,054 | 3,706,870 | 4,280,924 | 4,304,806 | 456,702 | 4,761,508 |
| Rocky Moun- tain (north)..... | 15,570 | 1,180,426 | 323,331 | 2,144,007 | 2,467,338 | 1,959,063 | 331,175 | 2,290,238 |
| Rocky Moun- tain (south)..... | 279,555 | 2,880,440 | 307,942 | 4,083,154 | 4,391,096 | 4,173,605 | 594,334 | 4,767,939 |
| Prairie..... | 4,148,307 | 5,128,252 | 247,446 | 5,477,873 | 5,728,319 | 3,906,451 | 1,109,263 | 5,015,714 |

Forest Service. Compiled from Census data.

¹ Woodland comprises all farm woodlots, natural or planted, and cutover land with young growth. It excludes lands covered with chaparral or woody shrubs.² Timberland is that part of the total forested area on farms which is covered with trees mostly of saw-log sizes.TABLE 768.—*Total stand and saw timber of the United States and Alaska, 1920*

| Region | Stand | | | | Saw timber | | |
|-----------------------------------|-----------------------------------|---------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | Total | | On saw timber areas | On cord- wood areas | Total | Soft- woods | Hard- woods |
| | <i>Million cubic feet</i> | <i>Per cent</i> | <i>Million cubic feet</i> | <i>Million cubic feet</i> | <i>Million board feet</i> | <i>Million board feet</i> | <i>Million board feet</i> |
| New England..... | 20,850 | 3 | 15,492 | 5,358 | 49,799 | 38,490 | 11,319 |
| Middle Atlantic..... | 24,897 | 3 | 17,126 | 7,771 | 44,857 | 15,353 | 29,504 |
| Lake..... | 50,584 | 7 | 41,534 | 9,050 | 110,110 | 40,760 | 69,350 |
| Central..... | 85,118 | 11 | 61,319 | 23,799 | 144,470 | 11,318 | 133,152 |
| South Atlantic and East Gulf..... | 95,158 | 13 | 73,060 | 23,098 | 220,577 | 136,827 | 83,750 |
| Lower Mississippi Valley..... | 118,364 | 16 | 95,252 | 23,112 | 280,908 | 148,308 | 132,600 |
| Rocky Mountain..... | 61,893 | 8 | 53,755 | 8,138 | 223,141 | 223,141 | (¹) |
| Pacific coast..... | 287,724 | 39 | 274,874 | 12,850 | 1,141,031 | 1,141,031 | (¹) |
| United States..... | 745,588 | 100 | 632,412 | 113,176 | 2,214,893 | 1,755,218 | 459,675 |
| Alaska..... | (²) | | (²) | (²) | 102,000 | 100,000 | 2,000 |
| United States and Alaska..... | 745,588 | 100 | 632,412 | 113,176 | 2,316,893 | 1,855,218 | 461,675 |

Forest Service. Compiled from "Forest Resources of the World" and other sources.

¹ Relatively small quantities of hardwoods. No estimates available.² No estimate.³ Figures only approximations, due to the lack of knowledge, particularly of the forests of interior Alaska.

TABLE 769.—*Forest planting: Cumulative record, by principal agencies and States, through calendar year 1925*

[Fractions of acres rounded to nearest entire number]

| State | Principal agencies | | | | | | | Total |
|---------------------|------------------------------------|---------|-----------------------------|---------------------------------------|----------------------------------|----------------------|--------------------------|-----------|
| | Forest Service on national forests | States | Municipalities ¹ | Industrial organizations ¹ | Other organizations ¹ | Schools and colleges | Individuals ¹ | |
| | Acres | Acres | Acres | Acres | Acres | Acres | Acres | Acres |
| Alabama..... | 18 | | | | | | 100 | 118 |
| Arizona..... | 1,637 | | | | | | 200 | 1,837 |
| Arkansas..... | 772 | | | | | | 500 | 1,272 |
| California..... | 6,576 | 60 | 1,292 | 8,200 | 6 | | 50,000 | 66,134 |
| Colorado..... | 24,526 | | 100 | 50 | | | 9,900 | 34,576 |
| Connecticut..... | | 1,100 | 1,220 | 4,850 | 20 | 10 | 4,060 | 11,260 |
| Delaware..... | | | | 2 | | | 8 | 10 |
| Florida..... | 956 | | | 50 | | | 150 | 1,156 |
| Georgia..... | | | | | | | 103 | 103 |
| Idaho..... | 43,896 | | | | | | 2,000 | 45,896 |
| Illinois..... | | | 255 | 176 | | | 40,000 | 40,431 |
| Indiana..... | | | | 3,640 | | | | 3,640 |
| Iowa..... | | 100 | | | | 25 | 219,875 | 220,000 |
| Kansas..... | 405 | | | | | | 182,650 | 183,055 |
| Kentucky..... | | | | 1,600 | | | 200 | 1,800 |
| Louisiana..... | | | | 15,000 | | | 1,000 | 16,000 |
| Maine..... | | | | 9,500 | | | 500 | 10,000 |
| Maryland..... | | 53 | 532 | 15 | | 55 | 288 | 923 |
| Massachusetts..... | | 18,000 | 4,000 | 4,000 | | | 14,000 | 40,000 |
| Michigan..... | 12,513 | 25,430 | | 7,380 | | | (?) | 45,323 |
| Minnesota..... | 9,252 | 2,050 | 300 | 40 | | | 170,000 | 181,642 |
| Mississippi..... | | 30 | | | | | 25 | 55 |
| Missouri..... | | | | 1,500 | | | 8,500 | 10,000 |
| Montana..... | 27,227 | | | | | | 1,000 | 28,227 |
| Nebraska..... | 10,982 | | | | | | 203,000 | 213,982 |
| Nevada..... | 696 | | | | | | 25 | 721 |
| New Hampshire..... | 43 | 1,200 | 1,200 | 2,500 | | 100 | 3,800 | 8,843 |
| New Jersey..... | | 194 | 602 | 1,448 | 4 | 15 | 1,239 | 3,502 |
| New Mexico..... | 4,590 | | | | | | 500 | 2,090 |
| New York..... | | 35,063 | 11,623 | 9,264 | 2,799 | 536 | 37,027 | 96,312 |
| North Carolina..... | 110 | | 1 | 90 | | | 4,500 | 4,701 |
| North Dakota..... | 303 | | | | | | 52,750 | 53,053 |
| Ohio..... | | 635 | 1,170 | 931 | 40 | 150 | 3,970 | 6,896 |
| Oklahoma..... | 19 | | | | | | 2,500 | 2,519 |
| Oregon..... | 31,354 | | | 660 | | | | 32,014 |
| Pennsylvania..... | 11 | 24,205 | 1,600 | 18,100 | 1,000 | 500 | 31,000 | 76,416 |
| Rhode Island..... | | | | | 60 | | 340 | 400 |
| South Carolina..... | | | | 53 | | 3 | 10 | 66 |
| South Dakota..... | 11,738 | | | | | | 122,000 | 133,738 |
| Tennessee..... | | | | | | | 50 | 50 |
| Texas..... | | | | 100 | | | 3,600 | 3,700 |
| Utah..... | 8,110 | | 40 | | | | 100 | 8,250 |
| Vermont..... | | 1,900 | 826 | 1,605 | 89 | 400 | 4,474 | 9,294 |
| Virginia..... | 115 | | 1 | 2 | | 15 | 103 | 236 |
| Washington..... | 16,838 | | 160 | 200 | | | | 17,198 |
| West Virginia..... | 228 | | | 470 | | | 60 | 758 |
| Wisconsin..... | | 3,500 | | | | | 2,000 | 5,500 |
| Wyoming..... | 1,962 | | | | | | 1,000 | 2,962 |
| Total..... | 211,877 | 113,520 | 24,922 | 91,428 | 4,018 | 1,809 | 1,179,087 | 1,626,659 |
| Porto Rico..... | | 478 | | 124 | | 15 | 385 | 1,002 |

Forest Service.

¹ It is impossible to obtain accurate figures for areas planted by agencies other than the Federal Government or the States. The best estimates have been used. They came from State foresters, State colleges, and agricultural experiment stations, and from reliable local sources.

¹ Considerable planting in Michigan of which there is no record.

TABLE 770.—National forests: Fires: Number by location, causes, and classification, by cost of suppression and damage, 1925

| State and district | Location of origin of fires | | | | Causes of fires | | | | | | Classification of fires according to cost of suppression and resources damaged | | | | | |
|---------------------------------------|-----------------------------|------------------|-----------------|---------------------------|-----------------|------------|------------|---------|---------------|-------------|--|----------------|----------------|------------------|--------------------|--------------|
| | Inside forest | | Outside forest | | Nature-caused | Man-caused | | | | | | \$25 and under | \$101 to \$300 | \$501 to \$1,000 | \$1,001 to \$5,000 | Over \$5,000 |
| | On national forest lands | On private lands | Entered forests | Confined to outside areas | | Rail-roads | Camp fires | Smokers | Brush-burning | Inopen-land | Lumbering | Miscellaneous | | | | |
| Year | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Total | 1910 | 3,438 | 850 | 913 | 5,201 | 724 | 1,704 | 688 | 1,184 | 307 | 902 | 51 | 241 | | | |
| 1916 | 3,417 | 1,389 | 127 | 722 | 5,655 | 1,337 | 541 | 990 | 1,019 | 481 | 708 | 358 | 221 | | | |
| 1917 | 4,589 | 1,834 | 229 | 1,162 | 7,814 | 2,133 | 1,003 | 1,258 | 1,365 | 537 | 952 | 193 | 324 | | | |
| 1918 | 3,616 | 1,044 | 119 | 794 | 5,573 | 2,457 | 618 | 943 | 1,638 | 381 | 257 | 104 | 175 | | | |
| 1919 | 4,117 | 1,361 | 139 | 1,183 | 6,800 | 2,197 | 701 | 1,466 | 1,155 | 360 | 339 | 278 | 304 | | | |
| 1920 | 3,968 | 1,192 | 86 | 832 | 6,078 | 3,081 | 508 | 1,053 | 1,435 | 248 | 245 | 211 | 247 | | | |
| 1921 | 3,432 | 1,155 | 134 | 1,110 | 5,851 | 4,451 | 643 | 1,738 | 1,674 | 365 | 662 | 156 | 292 | | | |
| 1922 | 4,141 | 1,187 | 146 | 901 | 6,375 | 2,323 | 381 | 843 | 1,110 | 236 | 870 | 156 | 456 | 1,014 | 517 | 114 |
| 1923 | 3,233 | 1,145 | 139 | 651 | 5,168 | 2,082 | 234 | 539 | 858 | 188 | 914 | 148 | 195 | 3,800 | 375 | 54 |
| 1924 | 5,375 | 1,489 | 248 | 1,135 | 8,247 | 3,421 | 397 | 876 | 1,551 | 309 | 1,177 | 210 | 356 | 5,200 | 868 | 182 |
| 1925 | 5,603 | 1,528 | 167 | 965 | 8,263 | 5,001 | 274 | 664 | 943 | 214 | 894 | 150 | 223 | 5,862 | 633 | 117 |
| Average of 10-year period (1916-1925) | 4,151 | 1,332 | 154 | 946 | 6,883 | 2,545 | 530 | 1,040 | 972 | 332 | 691 | 197 | 276 | 4,859 | 1,238 | 65 |
| Alabama | 31 | 16 | 5 | 1 | 53 | 2 | 8 | 3 | 11 | 4 | 7 | 2 | 16 | 43 | 9 | 1 |
| Alaska | 37 | | | 1 | 38 | | 29 | 2 | 6 | | | 1 | | 34 | 2 | 1 |
| Arizona | 540 | 25 | 2 | 5 | 572 | 460 | | 28 | 63 | 1 | 3 | 5 | 12 | 487 | 58 | 3 |
| Arkansas | 261 | 220 | 46 | 122 | 669 | 32 | 4 | 30 | 20 | 19 | 534 | 4 | 17 | 263 | 143 | 7 |
| California | 1,175 | 427 | 29 | 284 | 1,915 | 1,378 | 34 | 88 | 201 | 25 | 97 | 36 | 56 | 1,375 | 353 | 18 |
| Colorado | 79 | 23 | | 11 | 113 | 46 | 10 | 21 | 20 | 7 | 1 | 3 | 5 | 76 | 30 | 7 |
| Florida | 34 | 59 | 3 | 4 | 100 | 2 | | 1 | 34 | 12 | 34 | 17 | 9 | 85 | 13 | 2 |
| Idaho | 1,332 | 132 | 4 | 81 | 1,649 | 1,369 | 7 | 69 | 43 | 18 | 3 | 11 | 9 | 1,215 | 189 | 89 |
| Michigan | 7 | 9 | 6 | 15 | 37 | 5 | | | 13 | 6 | | 1 | 1 | 1 | 1 | 1 |
| Minnesota | 17 | 19 | 3 | 5 | 44 | 4 | 2 | 5 | 13 | 17 | 1 | 2 | 2 | 14 | 11 | 2 |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|-------|-----|----|-----|-------|-------|----|-----|-----|----|-----|----|----|-------|-----|-----|----|----|----|
| Montana..... | 344 | 111 | 8 | 119 | 582 | 356 | 66 | 62 | 63 | 12 | 4 | 10 | 9 | 438 | 83 | 37 | 8 | 11 | 5 |
| Nebraska..... | 8 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 10 | 1 | 1 | 1 | 1 | 1 |
| Nevada..... | 2 | 5 | 1 | 1 | 8 | 8 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 8 | 1 | 1 | 1 | 1 |
| New Hampshire..... | 219 | 30 | 3 | 14 | 266 | 171 | 29 | 29 | 53 | 3 | 2 | 1 | 7 | 198 | 33 | 11 | 4 | 3 | 3 |
| New Mexico..... | 60 | 43 | 24 | 8 | 135 | 11 | 12 | 14 | 11 | 12 | 59 | 5 | 11 | 73 | 41 | 16 | 3 | 2 | 1 |
| North Carolina..... | 821 | 166 | 5 | 180 | 1,172 | 774 | 25 | 169 | 129 | 21 | 23 | 12 | 19 | 891 | 194 | 62 | 14 | 8 | 3 |
| Oregon..... | 21 | 19 | 1 | 1 | 41 | 4 | 11 | 4 | 19 | 1 | 1 | 2 | 4 | 21 | 9 | 5 | 4 | 2 | 2 |
| Pennsylvania..... | 48 | 7 | 1 | 6 | 61 | 39 | 4 | 2 | 6 | 3 | 4 | 1 | 2 | 48 | 8 | 4 | 1 | 1 | 1 |
| South Dakota..... | 100 | 95 | 1 | 7 | 207 | 14 | 19 | 18 | 15 | 14 | 100 | 11 | 16 | 109 | 57 | 29 | 5 | 3 | 1 |
| Tennessee..... | 30 | 1 | 1 | 1 | 32 | 15 | 14 | 6 | 1 | 4 | 3 | 1 | 2 | 30 | 2 | 2 | 1 | 1 | 1 |
| Utah..... | 37 | 18 | 4 | 3 | 62 | 14 | 4 | 2 | 12 | 10 | 6 | 4 | 10 | 37 | 18 | 7 | 1 | 1 | 1 |
| Washington..... | 325 | 92 | 13 | 92 | 522 | 263 | 17 | 98 | 85 | 19 | 5 | 21 | 14 | 305 | 101 | 57 | 23 | 19 | 17 |
| West Virginia..... | 8 | 11 | 3 | 4 | 26 | 8 | 7 | 1 | 2 | 5 | 6 | 1 | 4 | 12 | 10 | 3 | 1 | 1 | 1 |
| Wyoming..... | 41 | 1 | 1 | 1 | 42 | 18 | 1 | 13 | 9 | 1 | 1 | 1 | 4 | 36 | 5 | 1 | 1 | 1 | 1 |
| District 1..... | 1,164 | 225 | 12 | 155 | 1,556 | 1,242 | 70 | 90 | 84 | 25 | 7 | 21 | 17 | 1,167 | 205 | 110 | 22 | 20 | 23 |
| District 2..... | 175 | 58 | 10 | 38 | 281 | 100 | 26 | 40 | 59 | 33 | 6 | 5 | 12 | 176 | 65 | 33 | 3 | 4 | 5 |
| District 3..... | 714 | 55 | 5 | 19 | 823 | 618 | 3 | 57 | 114 | 4 | 5 | 6 | 19 | 670 | 91 | 25 | 7 | 6 | 1 |
| District 4..... | 582 | 19 | 2 | 46 | 648 | 546 | 3 | 50 | 28 | 10 | 5 | 1 | 6 | 557 | 68 | 18 | 1 | 1 | 1 |
| District 5..... | 1,175 | 427 | 29 | 284 | 1,915 | 1,378 | 34 | 88 | 201 | 25 | 97 | 36 | 56 | 1,375 | 353 | 140 | 25 | 18 | 4 |
| District 6..... | 1,146 | 258 | 18 | 272 | 1,694 | 1,037 | 42 | 88 | 214 | 40 | 28 | 33 | 33 | 1,196 | 365 | 119 | 37 | 27 | 20 |
| District 7..... | 580 | 486 | 91 | 150 | 1,307 | 80 | 70 | 70 | 137 | 77 | 746 | 47 | 80 | 687 | 373 | 208 | 23 | 12 | 3 |
| District 8..... | 37 | 1 | 1 | 1 | 38 | 29 | 29 | 2 | 6 | 1 | 1 | 1 | 1 | 34 | 2 | 2 | 2 | 1 | 1 |

Forest Service.

1. Classed as "unknown."

2. For certain items the average is for a four-year period rather than the full time.

TABLE 771.—Forest fires: Number by causes, United States, 1924

| Group and State | Year | Number of fires, by causes | | | | | | | | | |
|---------------------|-------|----------------------------|-----------|------------|---------|---------------|------------|-----------|---------------|---------|--------|
| | | Lightning | Railroads | Camp fires | Smokers | Brush burning | Incendiary | Lumbering | Miscellaneous | Unknown | Total |
| United States..... | 1916 | 3,434 | 4,599 | 3,951 | ..... | 6,623 | 6,112 | 2,754 | 2,191 | 11,329 | 41,003 |
| | 1917 | 2,923 | 6,209 | 5,182 | ..... | 5,668 | 5,416 | 2,594 | 8,526 | 8,526 | 38,303 |
| | 1918 | 3,065 | 4,467 | 3,441 | ..... | 3,256 | 3,317 | 1,406 | 1,959 | 6,249 | 26,161 |
| | 1919 | 2,721 | 3,820 | 4,041 | ..... | 3,106 | 3,125 | 1,435 | 2,039 | 6,718 | 27,005 |
| | 1920 | 3,956 | 4,818 | 3,679 | ..... | 3,188 | 3,078 | 1,724 | 1,781 | 5,929 | 28,153 |
| | 1921 | 2,188 | 5,315 | 7,638 | ..... | 4,358 | 5,336 | 1,926 | 8,770 | 8,770 | 38,435 |
| | 1922 | 3,933 | 7,139 | 5,272 | 5,694 | 7,492 | 10,201 | 2,684 | 4,074 | 8,362 | 51,891 |
| | 1923 | 3,605 | 9,666 | 6,519 | 7,625 | 14,077 | 20,496 | 4,904 | 7,030 | 5,907 | 78,829 |
| | 1924 | 5,436 | 8,431 | 7,954 | 12,854 | 15,881 | 20,845 | 5,385 | 7,058 | 8,077 | 91,921 |
| 9-year average..... | | 3,449 | 6,020 | 8,272 | ..... | 7,129 | 8,576 | 2,759 | 3,422 | 7,520 | 47,147 |
| Northeastern: | 1924 | | | | | | | | | | |
| Softwood subgroup— | | | | | | | | | | | |
| Maine..... | 11 | 26 | 71 | 8 | 8 | 21 | 6 | 11 | 6 | 6 | 220 |
| New Hampshire..... | 14 | 299 | 19 | 175 | 39 | 3 | 3 | 15 | 69 | 105 | 733 |
| Vermont..... | 1 | 15 | 5 | 39 | 21 | 6 | 6 | 6 | 10 | 22 | 125 |
| New York..... | 15 | 140 | 68 | 241 | 91 | 40 | 40 | 9 | 300 | ..... | 904 |
| Hardwood subgroup— | | | | | | | | | | | |
| Massachusetts..... | 2 | 997 | 17 | 803 | 441 | 86 | 86 | 4 | 501 | 884 | 3,735 |
| Rhode Island..... | 2 | 1 | 18 | 5 | 2 | 2 | 2 | 1 | 3 | 31 | 63 |
| Connecticut..... | 1 | 298 | 156 | 203 | 149 | 19 | 19 | 2 | 36 | 36 | 179 |
| New Jersey..... | ..... | 443 | 22 | 135 | 72 | ..... | ..... | ..... | 65 | 434 | 1,171 |
| Appalachian: | | | | | | | | | | | |
| Pennsylvania..... | 8 | 341 | 162 | 501 | 90 | 123 | 123 | 7 | 207 | 359 | 1,998 |
| Delaware..... | 17 | 4 | 13 | 8 | ..... | ..... | ..... | 5 | 18 | 80 | ..... |
| Maryland..... | 15 | 47 | 36 | 33 | 21 | 45 | 45 | 5 | 15 | 64 | 208 |
| Virginia..... | 4 | 139 | 81 | 108 | 167 | 35 | 61 | 30 | 30 | 211 | 836 |
| West Virginia..... | 2 | 114 | 11 | 132 | 35 | 98 | 184 | 20 | 20 | ..... | 596 |
| Southeastern: | | | | | | | | | | | |
| North Carolina..... | 8 | 235 | 290 | 161 | 671 | 335 | 335 | 130 | 165 | 674 | 2,679 |
| South Carolina..... | 49 | 61 | 34 | 66 | 1,579 | 336 | 336 | 204 | 90 | 90 | 2,369 |
| Georgia..... | 476 | 607 | 932 | 2,973 | 2,861 | 715 | 2,861 | 353 | 353 | ..... | 19,240 |
| Florida..... | 25 | 86 | 327 | 154 | 998 | 142 | 2,663 | 142 | 220 | ..... | 4,615 |
| Alabama..... | 132 | 1,399 | 135 | 2,504 | 2,588 | 1,896 | 3,848 | 1,896 | 1,729 | 3,379 | 17,533 |
| Mississippi..... | 15 | 393 | 314 | 541 | 977 | 496 | 496 | 82 | 182 | ..... | 13,000 |
| East Mississippi: | | | | | | | | | | | |
| Ohio..... | 1 | 33 | 11 | 8 | 21 | 18 | 18 | ..... | 8 | 39 | 139 |
| Indiana..... | 25 | 89 | 64 | 208 | 84 | 44 | 44 | 5 | 36 | 36 | 546 |
| Illinois..... | 38 | 112 | 203 | 82 | 80 | 74 | 74 | 12 | 91 | ..... | 697 |
| Kentucky..... | 36 | 102 | 209 | 103 | 248 | 270 | 270 | 43 | 87 | ..... | 1,084 |
| Tennessee..... | 1 | 86 | 126 | 47 | 78 | 472 | 472 | 38 | 64 | 143 | 1,055 |

| | | | | | | | | |
|------------------------|-------|-------|-------|-------|--------|-------|-------|---------|
| West Mississippi: | 91 | 207 | 171 | 315 | 1,167 | 29 | 172 | 2,215 |
| Missouri..... | 63 | 1,095 | 1,021 | 1,376 | 4,927 | 377 | 574 | 110,000 |
| Arkansas..... | 273 | 357 | 1,04 | 295 | 177 | 48 | 159 | 1,046 |
| Oklahoma..... | 46 | 120 | 97 | 201 | 812 | 235 | 342 | 3,496 |
| Louisiana..... | 23 | 339 | 374 | 403 | 509 | 628 | 354 | 5,088 |
| Texas..... | 18 | 183 | 1,574 | 509 | 821 | 628 | 354 | 214 |
| Lake States: | | | | | | | | |
| Michigan..... | 6 | 342 | 480 | 464 | 10 | 56 | 106 | 1,896 |
| Wisconsin..... | 16 | 7 | 15 | 22 | 1 | 4 | 3 | 158 |
| Minnesota..... | 11 | 197 | 161 | 374 | 46 | 7 | 140 | 1,145 |
| Prairie: | | | | | | | | |
| Iowa..... | | | | | | | | |
| North Dakota..... | | | 24 | 2 | 11 | 2 | 2 | 94 |
| South Dakota..... | 48 | 3 | | | | | | 3 |
| Nebraska..... | 3 | | | | | | | |
| Kansas..... | | | | | | | | |
| Rocky Mountain: | | | | | | | | |
| Northern subgroup— | | | | | | | | |
| Montana..... | 269 | 159 | 141 | 63 | 150 | 27 | 20 | 904 |
| Idaho..... | 570 | 188 | 272 | 147 | 23 | 79 | 74 | 1,880 |
| Wyoming..... | 27 | 44 | 22 | 5 | 1 | 1 | 5 | 1,106 |
| Southern subgroup— | | | | | | | | |
| Colorado..... | 33 | 47 | 66 | 9 | 2 | 3 | 16 | 207 |
| Arizona..... | 418 | 48 | 102 | 11 | 8 | 19 | 16 | 625 |
| New Mexico..... | 97 | 19 | 51 | 3 | 10 | 5 | 10 | 106 |
| Nevada..... | | 2 | 9 | 9 | 1 | 1 | 4 | 90 |
| Utah..... | 27 | 19 | 27 | 3 | 9 | 1 | 11 | 98 |
| Pacific: | | | | | | | | |
| Washington..... | 406 | 410 | 384 | 287 | 50 | 167 | 178 | 1,994 |
| Oregon..... | 1,132 | 64 | 147 | 147 | 432 | 78 | 372 | 3,232 |
| California..... | 785 | 315 | 687 | 182 | 307 | 81 | 186 | 2,657 |
| SUMMARY BY GROUPS | | | | | | | | |
| Northeastern: | | | | | | | | |
| Softwood subgroup..... | 41 | 163 | 463 | 172 | 55 | 41 | 385 | 1,967 |
| Hardwood subgroup..... | 3 | 196 | 1,159 | 667 | 107 | 7 | 605 | 5,962 |
| Appalachian..... | 31 | 294 | 789 | 321 | 301 | 262 | 250 | 3,778 |
| Southeastern..... | 705 | 2,015 | 3,719 | 9,786 | 10,639 | 3,129 | 2,739 | 38,496 |
| West Mississippi..... | 101 | 604 | 448 | 511 | 678 | 98 | 286 | 182 |
| Lake States..... | 423 | 1,090 | 3,273 | 2,696 | 7,904 | 1,317 | 1,601 | 21,815 |
| Prairie..... | 17 | 555 | 479 | 800 | 57 | 67 | 258 | 358 |
| Rocky Mountain: | | | | | | | | |
| Northern subgroup..... | 1,166 | 391 | 435 | 215 | 174 | 107 | 90 | 2,880 |
| Southern subgroup..... | 575 | 135 | 249 | 35 | 30 | 29 | 57 | 1,146 |
| Pacific..... | 2,323 | 1,144 | 1,609 | 616 | 789 | 325 | 736 | 7,883 |

Forest Service.

: Based in part on office estimates.

TABLE 772.—Timber removed annually from forests of the United States

| Kind of material | Timber removed | | Approximate value or cost ¹ | Equivalent in lumber which could have been saved from same trees | | | Equivalent in standing timber | | |
|---|-------------------|-------------|--|--|--------------|--------------|-------------------------------|--------------|--------------|
| | Unit | Quantity | | Hardwoods | Softwoods | Total | Hardwoods | Softwoods | Total |
| Fuel wood | Cords | 100,000,000 | Dollars | M board feet | M board feet | M board feet | M cubic feet | M cubic feet | M cubic feet |
| Lumber, dimension material, and sawed ties | M board feet | 37,700,000 | 475,000,000 | 3,500,000 | 1,600,000 | 5,100,000 | 6,450,000 | 2,850,000 | 9,300,000 |
| Fencing | | | 1,138,917,000 | 9,425,000 | 28,275,000 | 37,700,000 | 2,064,075 | 6,192,225 | 8,256,300 |
| Files, hewed | Number of posts | 900,000,000 | 225,000,000 | 165,000 | 660,000 | 825,000 | 360,000 | 1,440,000 | 1,800,000 |
| Pulpwood | Number of posts | 70,000,000 | 33,000,000 | 1,680,000 | 420,000 | 2,100,000 | 672,000 | 188,000 | 860,000 |
| Miner timbers | Cords | 5,000,000 | 79,730,000 | 185,000 | 2,715,000 | 2,900,000 | 185,700 | 532,300 | 718,000 |
| Coopage | Cubic feet | 283,000,000 | 56,913,000 | 436,500 | 438,500 | 875,000 | 197,775 | 197,775 | 395,550 |
| Light staves | M staves | 350,000 | 19,250,000 | 398,000 | 133,000 | 532,000 | 57,450 | 29,100 | 116,550 |
| Tight heading | M sets | 24,000 | 12,000,000 | 141,800 | 36,200 | 178,000 | 27,000 | 8,000 | 35,000 |
| Slack staves | M staves | 1,200,000 | 15,000,000 | 240,400 | 121,700 | 362,000 | 57,900 | 28,400 | 86,300 |
| Slack heading | M sets | 60,000 | 10,800,000 | 106,500 | 166,500 | 273,000 | 57,400 | 36,500 | 93,900 |
| Hoops | Thousands | 120,000 | 1,800,000 | 21,500 | | 21,500 | 7,080 | | 7,080 |
| Shingles | do | 9,000,000 | 37,710,000 | | 900,000 | 900,000 | | 108,000 | 108,000 |
| Distillation wood | Cords | 1,400,000 | 9,268,000 | 185,000 | | 185,000 | 120,000 | 12,000 | 132,000 |
| Veneer logs | M feet, log scale | 576,000 | 25,073,000 | 587,520 | 103,080 | 690,600 | 60,000 | 15,860 | 75,860 |
| Tanning extract wood | Cords | 1,000,000 | 10,230,000 | 87,000 | | 87,000 | 64,000 | | 64,000 |
| Poles | Number | 4,250,000 | 10,625,000 | 197,700 | 200,000 | 397,700 | 11,700 | 43,550 | 55,250 |
| Vehicle stock, woodenware, handles, furniture, etc. | M board feet | 200,000 | 7,288,000 | 197,700 | 2,300 | 200,000 | 43,070 | 750 | 43,820 |
| Piling | Number of pieces | 1,500,000 | 6,000,000 | 40,000 | 140,000 | 180,000 | 7,800 | 31,200 | 39,000 |
| Excelsior wood | Cords | 200,000 | 1,800,000 | 60,000 | 15,000 | 75,000 | 18,720 | 4,560 | 23,280 |
| Export logs and hewn timbers | M board feet | 100,000 | 3,445,000 | 90,000 | 50,000 | 140,000 | 9,200 | 9,200 | 18,400 |
| Lath | Thousands | 2,000,000 | 9,620,000 | | | | | | |
| Total | | | 2,232,015,000 | 17,635,920 | 35,307,780 | 52,943,700 | 10,604,860 | 11,900,640 | 22,505,500 |
| Destroyed by fire ² | M cubic feet | 1,080,000 | 10,000,000 | 500,000 | 1,750,000 | 2,250,000 | 330,000 | 750,000 | 1,080,000 |
| Destroyed by insects, disease, and windfall | do | 1,300,000 | 12,000,000 | 1,000,000 | 4,000,000 | 5,000,000 | 325,000 | 975,000 | 1,300,000 |
| Grand total | | | 2,254,015,000 | 19,135,920 | 41,057,780 | 60,193,700 | 11,259,860 | 13,625,640 | 24,785,500 |
| | | | | | | | | | 100.00 |

Forest Service. Averages of recent years.

¹ Based on values of approximately 1919, milled products at the mill, fuel at point of production, all others at point of consumption except exports (declared valuation).² These figures express mainly that part of the damage done by fire which can be readily stated in dollars, namely, the loss of merchantable timber. Other damages suffered are the loss of young growth and forage, the injury of trees, resulting in admitting the inroads of insects and disease, the deterioration of forest types resulting from the decrease of valuable species which are sensitive to fire, accelerated run-off followed by soil erosion and irregular stream flow, destruction of animals, fish, and birds, and the prevention of recreational uses. One of the most menacing features of the present forest situation is the lowered productivity of forest soils, sometimes amounting to absolute sterility, which results from the action of fire.

TABLE 773.—National forests: Grazing—Carrying capacity, stock grazed, and receipts, by States, 1924

| State and district | Carrying capacity | | | Stock actually grazed | | | Receipts from grazing |
|---------------------|-------------------|-----------------|---------|-----------------------|-----------------|--------|-----------------------|
| | Cattle and horses | Sheep and goats | Swine | Cattle and horses | Sheep and goats | Swine | |
| | Number | Number | Number | Number | Number | Number | Dollars |
| Alabama..... | 2,000 | | | 77 | | | 55.40 |
| Arizona..... | 285,195 | 259,277 | | 276,151 | 262,492 | 295 | 296,191.26 |
| Arkansas..... | 67,890 | 121,970 | 169,806 | 1,364 | 23 | 81 | 830.39 |
| California..... | 218,982 | 518,357 | | 192,123 | 432,614 | 277 | 176,235.10 |
| Colorado..... | 388,968 | 1,084,830 | | 304,135 | 880,441 | 95 | 238,651.94 |
| Florida..... | 7,500 | 18,700 | 17,000 | 724 | 582 | 28 | 321.26 |
| Georgia..... | 3,005 | 1,230 | 1,743 | 187 | 60 | 18 | 187.19 |
| Idaho..... | 166,203 | 1,543,331 | | 144,586 | 1,330,835 | | 259,259.18 |
| Maine..... | 26 | | | 13 | | | 10.47 |
| Michigan..... | | | | | | | |
| Minnesota..... | | | | | | | |
| Montana..... | 170,123 | 602,557 | | 140,209 | 569,896 | | 134,011.18 |
| Nebraska..... | 16,000 | | | 12,457 | | | 11,069.80 |
| Nevada..... | 77,803 | 370,479 | | 75,044 | 334,912 | 1 | 93,742.51 |
| New Hampshire..... | 324 | | | 166 | | | 132.01 |
| New Mexico..... | 158,386 | 344,076 | | 111,135 | 263,875 | 176 | 142,032.81 |
| North Carolina..... | 4,592 | 1,887 | 3,535 | 901 | 78 | 24 | 836.65 |
| Oklahoma..... | 3,135 | | | 3,525 | | | 6,774.50 |
| Oregon..... | 140,415 | 666,607 | | 118,897 | 624,848 | 8 | 163,283.17 |
| Pennsylvania..... | 500 | | | | | | |
| South Carolina..... | 445 | 230 | 349 | 38 | 13 | 4 | 34.32 |
| South Dakota..... | 39,574 | 15,965 | | 26,522 | 8,819 | | 16,436.37 |
| Tennessee..... | 2,751 | 560 | 685 | | 31 | | 174.35 |
| Utah..... | 157,919 | 757,246 | | 153,011 | 766,793 | 526 | 199,745.42 |
| Virginia..... | 7,490 | 2,435 | 465 | 1,482 | 171 | 2 | 1,283.20 |
| Washington..... | 31,356 | 261,203 | | 20,438 | 208,605 | | 46,108.11 |
| West Virginia..... | 2,777 | 7,487 | 353 | 629 | 1,566 | 25 | 928.75 |
| Wyoming..... | 150,320 | 701,893 | | 120,289 | 648,728 | | 127,231.21 |
| Total..... | 2,102,769 | 7,280,356 | 193,995 | 1,722,271 | 6,330,376 | 1,560 | 1,915,561.49 |
| District 1..... | 185,276 | 796,917 | | 159,400 | 634,403 | | 151,049.55 |
| District 2..... | 491,202 | 1,481,750 | | 405,024 | 1,232,146 | 90 | 316,958.49 |
| District 3..... | 439,981 | 600,353 | | 382,930 | 522,859 | 471 | 433,679.90 |
| District 4..... | 490,983 | 2,767,000 | | 421,671 | 2,641,100 | 532 | 609,217.71 |
| District 5..... | 220,507 | 553,451 | | 193,866 | 468,693 | 275 | 183,147.09 |
| District 6..... | 172,685 | 926,350 | | 149,206 | 828,651 | 10 | 209,939.36 |
| District 7..... | 102,435 | 154,535 | 193,995 | 9,274 | 2,524 | 182 | 11,568.49 |

Forest Service.

TABLE 774.—*Production of lumber, by States, 1899, 1909, 1919, 1922-1924*

[Thousand feet—i. e., 000 omitted]

| State | 1899 | 1909 | 1919 | 1922 | 1923 | 1924 |
|---------------------|----------------|------------------|----------------|------------------|------------------|------------------|
| | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity |
| Alabama..... | 1, 101, 386 | 1, 691, 001 | 1, 798, 746 | 1, 487, 608 | 1, 786, 493 | 1, 873, 403 |
| Arizona..... | 36, 182 | 62, 731 | 73, 055 | 88, 800 | 130, 042 | 142, 512 |
| Arkansas..... | 1, 623, 987 | 2, 111, 300 | 1, 772, 187 | 1, 882, 052 | 1, 537, 535 | 1, 536, 285 |
| California..... | 737, 035 | 1, 143, 507 | 1, 259, 363 | 1, 720, 556 | 1, 218, 094 | 1, 066, 496 |
| Colorado..... | 133, 746 | 141, 710 | 64, 864 | 38, 917 | 38, 233 | 42, 014 |
| Connecticut..... | 108, 093 | 168, 371 | 86, 708 | 53, 188 | 59, 187 | 48, 209 |
| Delaware..... | 35, 955 | 55, 440 | 27, 437 | 14, 139 | 16, 190 | 13, 851 |
| Florida..... | 790, 373 | 1, 201, 734 | 1, 137, 432 | 980, 014 | 1, 110, 333 | 1, 089, 429 |
| Georgia..... | 1, 311, 917 | 1, 342, 249 | 803, 965 | 809, 391 | 1, 149, 391 | 1, 206, 599 |
| Idaho..... | 65, 363 | 645, 800 | 765, 388 | 857, 581 | 1, 072, 390 | 1, 017, 960 |
| Illinois..... | 388, 469 | 170, 181 | 64, 628 | 24, 387 | 28, 312 | 32, 623 |
| Indiana..... | 1, 036, 999 | 556, 418 | 282, 487 | 148, 509 | 189, 415 | 193, 391 |
| Iowa..... | 352, 411 | 132, 021 | 18, 493 | 6, 131 | 10, 278 | 12, 148 |
| Kansas..... | 10, 665 | 4, 716 | 2, 840 | 3, 657 | 3, 804 | 5, 550 |
| Kentucky..... | 774, 651 | 860, 712 | 512, 078 | 210, 360 | 190, 033 | 193, 870 |
| Louisiana..... | 1, 115, 366 | 3, 551, 918 | 3, 163, 871 | 3, 386, 000 | 3, 554, 212 | 3, 396, 940 |
| Maine..... | 784, 647 | 1, 111, 565 | 590, 116 | 362, 224 | 375, 676 | 369, 615 |
| Maryland..... | 183, 711 | 267, 839 | 113, 362 | 64, 358 | 62, 571 | 68, 110 |
| Massachusetts..... | 344, 190 | 361, 200 | 166, 841 | 94, 656 | 127, 561 | 129, 619 |
| Michigan..... | 3, 018, 338 | 1, 889, 724 | 875, 891 | 656, 952 | 833, 295 | 793, 636 |
| Minnesota..... | 2, 342, 338 | 1, 561, 508 | 699, 639 | 511, 744 | 551, 592 | 527, 962 |
| Mississippi..... | 1, 206, 265 | 2, 572, 669 | 2, 390, 135 | 2, 267, 695 | 2, 690, 976 | 2, 506, 975 |
| Missouri..... | 723, 754 | 660, 159 | 321, 383 | 201, 849 | 178, 810 | 188, 426 |
| Montana..... | 255, 685 | 308, 582 | 287, 378 | 303, 458 | 420, 917 | 350, 335 |
| Nebraska..... | 4, 655 | (¹) | 505 | (¹) | (¹) | (¹) |
| Nevada..... | 725 | (²) | 20, 335 | (³) | (³) | (³) |
| New Hampshire..... | 572, 447 | 649, 606 | 338, 777 | 180, 706 | 265, 009 | 265, 474 |
| New Jersey..... | 74, 118 | 61, 620 | 36, 888 | 9, 553 | 15, 867 | 12, 542 |
| New Mexico..... | 30, 880 | 91, 987 | 80, 808 | 126, 449 | 120, 461 | 125, 422 |
| New York..... | 878, 448 | 681, 440 | 357, 764 | 222, 257 | 235, 903 | 237, 581 |
| North Carolina..... | 1, 286, 638 | 2, 177, 715 | 1, 654, 435 | 936, 248 | 1, 095, 925 | 1, 071, 912 |
| Ohio..... | 990, 497 | 542, 904 | 280, 076 | 136, 877 | 151, 522 | 155, 016 |
| Oklahoma..... | 22, 104 | 225, 730 | 169, 403 | 149, 323 | 136, 174 | 154, 503 |
| Oregon..... | 734, 538 | 1, 898, 965 | 2, 577, 403 | 3, 023, 768 | 3, 966, 063 | 3, 665, 547 |
| Pennsylvania..... | 2, 333, 278 | 1, 462, 771 | 630, 471 | 333, 289 | 361, 068 | 343, 049 |
| Rhode Island..... | 18, 528 | 25, 480 | 11, 030 | 3, 030 | 4, 017 | 3, 750 |
| South Carolina..... | 460, 429 | 897, 660 | 621, 679 | 854, 799 | 1, 070, 397 | 878, 517 |
| South Dakota..... | * 33, 734 | 31, 057 | 42, 970 | 35, 395 | 48, 618 | 51, 465 |
| Tennessee..... | 950, 958 | 1, 223, 849 | 792, 132 | 485, 979 | 661, 436 | 658, 888 |
| Texas..... | 1, 232, 404 | 2, 099, 130 | 1, 379, 774 | 1, 542, 708 | 1, 559, 263 | 1, 528, 490 |
| Utah..... | 17, 548 | 12, 638 | 11, 917 | 6, 827 | 7, 728 | 7, 378 |
| Vermont..... | 375, 809 | 351, 571 | 218, 479 | 95, 967 | 119, 970 | 126, 884 |
| Virginia..... | 959, 119 | 2, 101, 716 | 1, 098, 038 | 617, 463 | 770, 771 | 696, 064 |
| Washington..... | 1, 429, 032 | 3, 862, 916 | 4, 961, 220 | 5, 836, 277 | 6, 677, 656 | 6, 267, 343 |
| West Virginia..... | 778, 051 | 1, 472, 942 | 763, 103 | 554, 277 | 636, 514 | 614, 289 |
| Wisconsin..... | 3, 389, 166 | 2, 025, 038 | 1, 116, 338 | 775, 540 | 1, 007, 414 | 1, 016, 506 |
| Wyoming..... | 16, 963 | 28, 602 | 8, 674 | 7, 850 | 8, 130 | 14, 430 |
| All other..... | * 6, 711 | * 11, 230 | | | | |
| United States..... | * 35, 084, 166 | 44, 509, 761 | * 34, 552, 076 | * 31, 568, 888 | * 37, 165, 505 | * 35, 930, 986 |

¹ Includes cut of Nevada.² Includes cut of Nebraska.³ Included in "All other."⁴ Included with Kansas.⁵ Included with California.⁶ Includes cut of North Dakota.⁷ Reported as cut of Alaska.⁸ Includes cut of Nebraska and Nevada.⁹ Includes both merchant and custom sawing.¹⁰ Includes 2,655 mills cutting less than 50,000 feet each per year.¹¹ Mills cutting less than 50,000 feet each year excluded.¹² Excludes custom mills.

TABLE 774.—*Production of lumber, by States, 1899, 1909, 1919, 1922-1924—Continued*

[Thousand feet—1 e., 000 omitted]

| State | 1899 | 1909 | 1919 | 1922 | 1923 | 1924 |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|
| REGIONS | | | | | | |
| Northeastern..... | Quantity 5,709,224 | Quantity 5,197,012 | Quantity 2,583,873 | Quantity 1,423,377 | Quantity, 1,631,111 | Quantity 1,618,693 |
| Central..... | 5,643,379 | 5,487,165 | 3,015,887 | 1,762,298 | 2,045,042 | 2,036,512 |
| Southern..... | 8,403,802 | 14,795,731 | 12,704,483 | 11,974,771 | 13,524,375 | 13,502,594 |
| North Carolina pine..... | 2,712,186 | 5,177,091 | 3,374,152 | 2,408,540 | 2,937,093 | 2,645,483 |
| Lake..... | 8,749,842 | 5,476,270 | 2,691,868 | 1,944,236 | 2,392,301 | 2,338,104 |
| North Pacific..... | 2,163,570 | 5,761,911 | 7,538,623 | 8,860,045 | 10,643,739 | 9,932,890 |
| South Pacific..... | 737,790 | 1,143,507 | 1,279,668 | 1,720,556 | 2,118,094 | 1,996,496 |
| N. Rocky Mountain..... | 321,048 | 954,382 | 1,052,766 | 1,161,039 | 1,499,847 | 1,368,295 |
| S. Rocky Mountain..... | 235,319 | 337,668 | 245,918 | 268,843 | 311,203 | 331,756 |
| Prairie..... | 13 408,036 | 13 179,024 | 64,806 | 45,183 | 62,700 | 69,163 |

Forest Service. Compiled from Bureau of the Census reports.

Regions.—Northeastern: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

Central: Illinois, Indiana, Kentucky, Missouri, Ohio, Tennessee, West Virginia.

Southern: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, Texas.

North Carolina pine: North Carolina, South Carolina, Virginia.

Lake: Michigan, Minnesota, Wisconsin.

North Pacific: Oregon, Washington.

South Pacific: California, Nevada.

South Rocky Mountain: Idaho, Montana.

North Rocky Mountain: Arizona, Colorado, New Mexico, Utah, Wyoming.

Prairie: Iowa, Kansas, Nebraska, North Dakota, South Dakota.

¹³ Includes "All other."

TABLE 775.—Lumber production: Principal kinds reported, by States and regions, 1924

[Thousand feet—i. e., 000 omitted]

| State | Num- ber of active mills report- ing | Aggre- gate | Softwoods | | | | | | | | | | | | | | |
|-----------------------|---|----------------|------------|----------------|----------------|---------------------------|-----------|---------------|---------|---------|--------------|---------|--------------|---------|---------------|------------------------|--------------------|
| | | | Total | Yellow pine | Douglas fir | Western yellow pine | Hemlock | White pine | Cypress | Spruce | Red- wood | Cedar | White fir | Larch | Sugar pine | Lodge- pole pine | Bal- sam fir |
| United States | 14,729 | 33,990,966 | 29,405,685 | 12,486,590 | 7,461,750 | 2,602,710 | 1,578,969 | 1,530,675 | 877,120 | 717,375 | 604,292 | 330,270 | 319,145 | 305,546 | 245,688 | 23,523 | 22,012 |
| Alabama | 1,066 | 1,873,403 | 1,676,470 | 1,683,159 | | | | | 6,912 | | | 6,408 | | | | | |
| Arizona | 26 | 142,512 | 142,512 | | 80 | 142,357 | | | | | | | 75 | | | | |
| Arkansas | 572 | 1,536,235 | 901,802 | 828,854 | | | | | 72,525 | | | 423 | | | | | |
| California and Nevada | 189 | 1,996,486 | 1,996,045 | | 222,252 | 735,901 | | | | 1,161 | 660,512 | 32,967 | 203,590 | 238,265 | | 1,407 | |
| Colorado | 122 | 42,014 | 41,931 | | 3,167 | 18,357 | | | | 9,960 | | 3 | 885 | | | 9,596 | |
| Connecticut | 108 | 48,209 | 12,222 | | | | 3,375 | 8,821 | | | | 26 | | | | | |
| Delaware | 41 | 13,851 | 11,112 | | | | | | | | | | | | | | |
| Florida | 220 | 1,069,429 | 1,072,795 | 836,988 | | | | | 285,707 | 1 | | 100 | | | | | |
| Georgia | 1,036 | 1,205,899 | 1,064,533 | 1,010,930 | | | 1,017 | 3,677 | 68,896 | | | 10 | | | | | |
| Idaho | 159 | 1,017,960 | 1,017,134 | | 86,214 | 343,917 | 1,281 | 376,225 | 11,866 | | | 25,022 | 82,134 | 90,004 | | 451 | |
| Illinois | 77 | 32,623 | 1,272 | 276 | | | | | 996 | | | | | | | | |
| Indiana | 336 | 193,391 | 45 | | | | | | | | | 45 | | | | | |
| Iowa | 31 | 12,148 | 9 | | | | | 1 | | 8 | | 1,703 | | | | | |
| Kentucky | 345 | 193,879 | 17,518 | 7,310 | | | 3,319 | 1,621 | 3,565 | | | 219 | | | | | |
| Louisiana | 323 | 3,396,940 | 2,685,099 | 2,395,216 | | | | | 299,664 | | | | | | | | |
| Maine | 446 | 369,615 | 330,205 | | | | 37,935 | 146,020 | | 129,111 | | 5,730 | | 96 | | 11,313 | |
| Maryland | 185 | 68,110 | 29,270 | 27,523 | | | 3,345 | 1,376 | 25 | | | | | | | | |
| Massachusetts | 166 | 129,619 | 92,578 | | | | 9,593 | 80,562 | | 2,255 | | 213 | | | | 2,965 | |
| Michigan | 170 | 793,636 | 244,568 | | | | 199,980 | 30,163 | | 6,193 | | 2,867 | | 2,840 | | 2,683 | |
| Minnesota | 168 | 527,962 | 462,645 | | | | 750 | 438,824 | | 15,069 | | 340 | | 5,009 | | | |
| Mississippi | 849 | 2,804,975 | 2,295,539 | 2,199,716 | | | | | 39,798 | | | 25 | | | | | |
| Missouri | 290 | 188,426 | 70,281 | 24,426 | | | | | 45,833 | | | 2 | | | | | |
| Montana | 103 | 330,330 | 350,330 | | 64,050 | 137,358 | 731 | 9,494 | | 4,011 | | 780 | 323 | 141,075 | | 2,518 | |
| New Hampshire | 261 | 285,474 | 296,196 | | | | 29,645 | 155,539 | | 49,621 | | 15 | | 36 | | 1,340 | |
| New Jersey | 58 | 12,542 | 4,458 | 4,098 | | | 145 | 20 | | | | 196 | | | | | |
| New Mexico | 68 | 125,422 | 125,332 | | 18,555 | 95,091 | | | | | | | 7,937 | | | | |
| New York | 764 | 237,581 | 90,071 | 223 | | | 37,172 | 35,265 | | | | 114 | | 72 | | 318 | |
| North Carolina | 1,125 | 1,071,912 | 878,990 | 817,190 | | | 13,069 | 9,238 | | | | 3,390 | | | | | |
| Ohio | 389 | 155,016 | 155,442 | | | | 142 | 299 | | | | 1 | | | | | |
| Oklahoma | 79 | 154,503 | 147,027 | | | | | | 29 | | | | | | | | |

| | 410 | 3,665,547 | 3,660,191 | 2,478,583 | 740,787 | 115,449 | 2,323 | 203,526 | 43,780 | 44,369 | 9,135 | 14,808 | 7,423 | 6 |
|------------------------------|-------|------------|------------|------------|-----------|---------|---------|---------|---------|---------|--------|---------|--------|--------|
| Oregon..... | 737 | 343,049 | 126,052 | 1,672 | ..... | 104,707 | 19,610 | 47 | ..... | 6 | ..... | 10 | ..... | ..... |
| Pennsylvania..... | 8 | 3,759 | 1,365 | ..... | ..... | ..... | 1,365 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Rhode Island..... | 453 | 878,617 | 736,440 | 703,850 | ..... | ..... | ..... | 50,576 | ..... | 14 | ..... | ..... | ..... | ..... |
| South Carolina..... | 51 | 51,465 | 51,405 | ..... | 51,405 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| South Dakota..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Tennessee..... | 008 | 658,888 | 118,257 | 51,637 | ..... | 32,034 | 4,260 | 21,381 | 3,243 | 6,402 | ..... | ..... | ..... | ..... |
| Texas..... | 229 | 1,528,490 | 1,355,412 | 1,348,327 | ..... | ..... | ..... | 7,082 | ..... | 3 | ..... | ..... | ..... | ..... |
| Utah..... | 60 | 7,378 | 7,005 | ..... | ..... | ..... | 65 | 2,284 | ..... | 311 | 416 | ..... | 1,136 | ..... |
| Vermont..... | 296 | 126,884 | 70,573 | 669 | 2,433 | 16,334 | 19,822 | 30,869 | ..... | 302 | ..... | 9 | ..... | 3,166 |
| Virginia..... | 905 | 696,034 | 431,481 | 403,326 | ..... | 14,419 | 8,104 | 4,574 | 666 | ..... | ..... | ..... | ..... | ..... |
| Washington..... | 579 | 6,267,843 | 6,262,052 | 4,597,213 | 333,209 | 826,710 | 86,652 | 164,835 | 195,659 | 14,070 | 43,174 | ..... | ..... | ..... |
| West Virginia..... | 281 | 614,289 | 124,405 | 1,430 | ..... | 84,082 | 2,641 | 37,215 | ..... | 37 | ..... | ..... | ..... | ..... |
| Wisconsin..... | 235 | 1,016,506 | 453,183 | ..... | ..... | 346,755 | 88,696 | 6,152 | ..... | 2,525 | 8,413 | ..... | 642 | ..... |
| Wyoming..... | 42 | 14,436 | 14,389 | 967 | 1,865 | ..... | ..... | 3,071 | ..... | 10 | ..... | ..... | 8,446 | ..... |
| All other..... | 3 | 5,550 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| REGIONS | | | | | | | | | | | | | | |
| Northeastern..... | 3,070 | 1,618,693 | 1,004,101 | ..... | ..... | 239,221 | 468,400 | 26 | 228,820 | 6,611 | ..... | 223 | ..... | 10,172 |
| Lake..... | 593 | 2,338,104 | 1,160,390 | 44,628 | ..... | 547,485 | 557,683 | 27,394 | ..... | 5,732 | ..... | 13,262 | ..... | 5,840 |
| Central..... | 2,316 | 2,096,612 | 333,290 | 88,379 | ..... | 119,577 | 8,821 | 70,795 | 40,458 | 8,190 | ..... | ..... | ..... | ..... |
| North Carolina pine..... | 2,533 | 2,646,483 | 2,068,917 | 1,928,266 | ..... | 27,518 | 17,342 | 75,683 | 16,212 | 3,796 | ..... | ..... | ..... | ..... |
| Southern pine..... | 4,374 | 13,692,594 | 11,172,715 | 10,430,217 | ..... | 1,017 | 3,677 | 730,616 | ..... | 7,188 | ..... | ..... | ..... | ..... |
| Pacific (north)..... | 989 | 9,652,800 | 9,922,243 | 7,075,796 | 1,073,966 | 942,159 | 88,977 | ..... | 368,361 | 23,805 | 57,982 | 7,423 | 6 | ..... |
| Pacific (south)..... | 189 | 1,996,496 | 1,966,045 | 222,252 | 738,901 | ..... | ..... | ..... | 1,161 | 540,512 | 32,687 | 238,265 | 1,407 | ..... |
| Rocky Mountains (north)..... | 202 | 1,368,295 | 1,367,464 | 140,264 | 481,276 | 2,012 | 385,709 | ..... | 15,897 | 25,802 | 82,457 | 231,079 | 2,096 | ..... |
| Rocky Mountains (south)..... | 318 | 331,756 | 331,170 | 28,438 | 290,133 | ..... | 65 | ..... | ..... | 6 | 9,323 | ..... | 19,141 | ..... |
| Prairie..... | 85 | 60,163 | 51,414 | ..... | 51,405 | ..... | 1 | ..... | 19,064 | ..... | ..... | ..... | ..... | ..... |

1 Kansas and Nebraska.

TABLE 775.—Lumber production: Principal kinds reported, by States and regions, 1924—Continued

[Thousand feet—i. e., 000 omitted]

| State | Hardwoods | | | | | | | | | | | | | | | | |
|----------------------------|-----------|-----------|-----------|---------|---------|---------------|----------|---------|---------|----------|---------|---------|------------|---------|--------|----------|-----------|
| | Total | Oak | Red gum | Maple | Birch | Yellow poplar | Chestnut | Tupelo | Elm | Basswood | Beech | Ash | Cottonwood | Hickory | Walnut | Sycamore | All other |
| United States..... | 6,525,901 | 2,078,977 | 1,070,724 | 857,253 | 381,567 | 350,727 | 312,989 | 235,259 | 209,439 | 200,456 | 194,444 | 183,149 | 166,913 | 85,596 | 68,379 | 27,547 | 103,882 |
| Alabama..... | 196,924 | 58,914 | 60,077 | 642 | 51 | 34,006 | 1,015 | 25,423 | 1,755 | 300 | 1,324 | 5,452 | 3,156 | 3,111 | 99 | 1,295 | 214 |
| Arizona..... | 634,458 | 377,445 | 223,006 | 18,379 | 36 | 603 | 8,440 | 23,080 | 154 | 2,004 | 24,540 | 28,738 | 14,449 | 1,060 | 8,504 | 4,006 | 326 |
| Arkansas..... | 451 | 121 | | | | | | | | | | | 83 | 1 | | | |
| California and Nevada..... | 88 | | | | | | | | | | | | | | | | |
| Colorado..... | | | | | | | | | | | | | | | | | |
| Connecticut..... | 35,867 | 14,686 | | 3,089 | 1,944 | 375 | 14,143 | | 303 | 135 | 266 | 694 | 59 | 878 | 18 | 3 | 4 |
| Delaware..... | 2,738 | 2,065 | 245 | | | 105 | 25 | 286 | 3 | | | | | | | | |
| Florida..... | 16,634 | 852 | 3,488 | 15 | | 4,360 | | 4,471 | 3 | | 44 | 1,305 | 618 | 1,580 | 20 | 607 | 16 |
| Georgia..... | 122,065 | 36,391 | 29,307 | 1,052 | 8 | 36,393 | 1,429 | 7,103 | 914 | 58 | 179 | 6,107 | 826 | 1,163 | 20 | | 657 |
| Idaho..... | | | | | | | | | | | | | | | | | |
| Illinois..... | 31,351 | 12,701 | 2,639 | 1,856 | 191 | 653 | 8 | 761 | 2,542 | 33 | 1,700 | 1,258 | 941 | 681 | 3,762 | 1,554 | 381 |
| Indiana..... | 193,246 | 66,457 | 2,991 | 37,464 | 91 | 5,416 | 309 | 403 | 19,819 | 4,692 | 26,867 | 6,540 | 1,241 | 4,820 | 11,119 | 3,421 | 1,066 |
| Iowa..... | 12,139 | 1,438 | | 210 | 35 | | | 1,037 | 1,047 | 494 | | 878 | 2,284 | 20 | 7,399 | 28 | 28 |
| Kentucky..... | 176,351 | 99,449 | 5,919 | 4,446 | 221 | 20,900 | 7,793 | 806 | 1,146 | 2,943 | 10,724 | 4,678 | 1,556 | 10,569 | 4,614 | 717 | 690 |
| Louisiana..... | 701,841 | 217,856 | 252,539 | 591 | | 7,960 | | 109,709 | 12,740 | 59 | 2,814 | 35,667 | 13,861 | 5,180 | 4,414 | 1,681 | 49,780 |
| Maine..... | 39,410 | 2,331 | | 4,946 | 26,027 | 112 | 200 | | 212 | 1,112 | 3,765 | 597 | 78 | 30 | | | 3 |
| Maryland..... | 38,840 | 18,447 | 998 | 4,888 | 1,944 | | 1,270 | 7,375 | 142 | 8 | 955 | 1,167 | 103 | 4 | 858 | 186 | 3 |
| Massachusetts..... | 37,048 | 7,468 | | 3,137 | 3,031 | 146 | 11,980 | | 75 | 189 | 1,444 | 1,095 | 60 | 75 | 26 | | 8,317 |
| Michigan..... | 549,058 | 4,830 | | 336,973 | 83,433 | 33 | | 28,833 | 55,350 | 28,194 | 7,038 | 84 | 1,928 | 84 | 72 | 59 | 221 |
| Minnesota..... | 65,317 | 4,238 | | 512 | 3,063 | | | 1,739 | 4,671 | 25 | 680 | | 49,979 | 7 | 10 | | 4 |
| Mississippi..... | 567,436 | 190,867 | 234,499 | 3,110 | 132 | 26,321 | 2 | 22,250 | 19,851 | 78 | 2,466 | 12,800 | 34,679 | 3,786 | 33 | 3,328 | 13,144 |
| Missouri..... | 118,145 | 65,455 | 12,690 | 7,085 | 55 | 97 | | 1,418 | 7,968 | 137 | 30 | 2,728 | 6,589 | 604 | 10,885 | 1,076 | 1,285 |
| Montana..... | 5 | | | | | | | | | | | | | | | | |
| New Hampshire..... | 29,278 | 5,451 | | 5,174 | 12,424 | 187 | 2,949 | | 33 | 439 | 2,021 | 588 | 15 | 2 | 54 | 1 | 400 |
| New Jersey..... | 8,064 | 5,279 | 74 | 215 | 39 | | 1,107 | 18 | 22 | | | 74 | | | | | |
| New Mexico..... | 90 | | | | | | | | | | | | 90 | | | | |
| New York..... | 147,510 | 15,417 | 10 | 49,195 | 18,993 | 435 | 8,180 | 65 | 3,128 | 7,848 | 24,983 | 6,178 | 677 | 512 | 690 | 13 | 11,708 |
| North Carolina..... | 192,916 | 81,973 | 25,369 | 8,365 | 1,200 | 1,294 | 37,477 | 5,394 | 10 | 5,822 | 378 | 2,681 | 627 | 940 | 225 | 40 | 2,131 |
| Ohio..... | 154,574 | 65,485 | 1,296 | 26,064 | 135 | 3,862 | 6,214 | 111 | 7,419 | 3,114 | 13,929 | 5,544 | 538 | 3,619 | 14,944 | 988 | 1,304 |
| Oklahoma..... | 77,447 | 3,910 | 1,545 | 26 | | | 24 | 2431 | | 24 | | | 439 | 38 | 10 | 302 | 15 |

| | | | | | | | | | | | | | | |
|-------------------------------------|-----------|---------|---------|---------|---------|---------|--------|--------|---------|--------|--------|--------|--------|--------|
| Oregon..... | 5,354 | 229 | 1,728 | 3,373 | 35,710 | 136 | 849 | 3,589 | 32,235 | 1,076 | 1,143 | 2,963 | 9 | 1,180 |
| Pennsylvania..... | 216,997 | 85,936 | 451 | 4,750 | 35,710 | 136 | 849 | 3,589 | 32,235 | 4,280 | 84 | 2,963 | 227 | 1,088 |
| Rhode Island..... | 2,394 | 1,294 | 240 | 10 | 825 | | | | | 15 | 10 | | | |
| South Carolina..... | 122,077 | 12,812 | 3,861 | 16,963 | 24,259 | 1,036 | 1,036 | | 310 | 7,642 | 283 | | | 116 |
| South Dakota..... | 60 | | | | | | | | | | 60 | | | |
| Tennessee..... | 540,631 | 257,856 | 83,450 | 1,717 | 68,038 | 29,047 | 3,066 | 16,801 | 7,363 | 17,123 | 5,561 | 18,476 | 4,657 | 2,948 |
| Texas..... | 173,078 | 77,457 | 67,174 | 9 | 45 | | 13,304 | 588 | 53 | 5,639 | 629 | 1,573 | 53 | 154 |
| Utah..... | 173,372 | 77,225 | | 3 | | | | | | 144 | | | | |
| Vermont..... | 56,311 | 3,068 | 21,956 | 16,859 | 190 | 264 | | 548 | 3,739 | 7,716 | 599 | 5 | | 83 |
| Virginia..... | 294,573 | 151,134 | 9,854 | 5,986 | 31,749 | 43,431 | 6,477 | 29 | 5,751 | 2,685 | 864 | 1,366 | 351 | 3,002 |
| Washington..... | 5,201 | | | 762 | 575 | | | | | 1 | 1,426 | | | |
| West Virginia..... | 488,884 | 204,972 | 643 | 53,039 | 9,242 | 103,433 | 1,181 | 123 | 19,037 | 15,377 | 65 | 7,721 | 1,962 | 2,527 |
| Wisconsin..... | 563,323 | 22,326 | | 186,071 | 133,378 | | 56,245 | 74,263 | 1,258 | 13,890 | 5,759 | 3 | 2 | 2,463 |
| Wyoming..... | 41 | 1 | | | | | | | | 40 | 40 | | | 88 |
| All other States ¹ | 5,550 | | | | | | | | | 150 | 150 | | 5,400 | |
| REGIONS | | | | | | | | | | | | | | |
| Northeastern..... | 614,892 | 161,452 | 1,778 | 133,201 | 84,621 | | 639 | 5,180 | 17,986 | 73,809 | 14,959 | 5,463 | 1,196 | 22,462 |
| Lake..... | 1,177,792 | 31,414 | | 333,557 | 282,458 | 33 | | 88,837 | 134,110 | 78,477 | 21,556 | 94 | 84 | 23,323 |
| Central..... | 1,703,292 | 772,435 | 109,628 | 145,634 | 164,380 | 146,864 | 7,746 | 53,598 | 35,507 | 75,990 | 41,959 | 46,520 | 51,983 | 10,068 |
| North Carolina pine..... | 579,566 | 245,919 | 87,603 | 18,224 | 1,918 | 60,928 | 35,130 | 1,075 | 3,373 | 11,220 | 3,816 | 2,619 | 10,989 | 5,133 |
| Southern pine..... | 2,419,879 | 863,722 | 871,628 | 23,834 | 272 | 109,642 | 2,446 | 59,412 | 11,786 | 92,201 | 82,615 | 30,880 | 1,729 | 61,835 |
| Pacific (north)..... | 10,647 | | | 2,490 | 575 | | | | | 1,077 | 2,569 | | 9 | 3,707 |
| Pacific (south)..... | | 121 | | | | | | | | | 2 | | 1 | 326 |
| Rocky Mountain (north)..... | 831 | | | | | | | | | | 831 | | | |
| Rocky Mountain (south)..... | 896 | | | | | | | | | | 357 | | | |
| Prairie..... | 17,479 | 1,438 | | 310 | 33 | | | 1,037 | 494 | 57 | 1,476 | 20 | 12,799 | 28 |

Bureau of the Census and the Forest Service.

¹ Kansas and Nebraska.

TABLE 76.—*Lumber: Distribution of softwood and hardwood, by producing States and regions, to States using, 1924*

| State | Domestic distribution ¹ | Distribution in thousand feet to— | | | | | | |
|------------------------|------------------------------------|-----------------------------------|---------|----------|------------|----------|-------------|----------|
| | | Alabama | Arizona | Arkansas | California | Colorado | Connecticut | Delaware |
| Alabama | 1,766,095 | 1,404,921 | | | 2,043 | 164 | 8,121 | 5,100 |
| Arizona | 143,265 | | 137,835 | 3,176 | 9,770 | 3,277 | | |
| Arkansas | 1,404,721 | 40 | 176 | 280,344 | 8,832 | 1,901 | 5,502 | 288 |
| California | 1,750,435 | 159 | 7,962 | 1,803 | 1,197,144 | 6,717 | 5,197 | 165 |
| Colorado | 31,354 | | | | | 29,767 | | |
| Connecticut | 48,678 | | | | | | 43,590 | |
| Delaware | 14,290 | | | | | | | 4,577 |
| Florida | 891,331 | 23,119 | | | | | 13,503 | 1,673 |
| Georgia | 1,128,340 | 7,769 | | | | | 24,385 | 8,010 |
| Idaho | 1,023,687 | | 51 | 48 | 1,306 | 15,302 | 20,115 | 418 |
| Illinois | 33,192 | | | | | | | |
| Indiana | 190,040 | | | | 1,673 | | | |
| Iowa | 9,877 | | | | 19 | 2 | 101 | |
| Kansas and Nebraska | 5,034 | | | | | | | |
| Kentucky | 181,862 | 54 | | | 1,325 | 40 | 101 | 182 |
| Louisiana | 3,114,040 | 6,273 | 61 | 70,873 | 10,580 | 1,499 | 7,934 | 1,417 |
| Maine | 337,446 | | | | | | 13,030 | |
| Maryland | 68,993 | | | | | | | 585 |
| Massachusetts | 122,150 | | | | | | 16,877 | |
| Michigan | 718,487 | | | | 799 | | 198 | |
| Minnesota | 505,025 | 21 | | | | | 129 | 56 |
| Mississippi | 2,338,819 | 54,045 | 39 | 640 | 5,955 | 1,454 | 8,259 | 1,094 |
| Missouri | 181,457 | | | 487 | 1,272 | 402 | 150 | 34 |
| Montana | 322,808 | | | | 70 | 11,895 | 7,130 | |
| Nevada | 7,125 | | | | 801 | 40 | | |
| New Hampshire | 233,078 | | | | | | 2,769 | |
| New Jersey | 12,412 | | | | | | | |
| New Mexico | 103,657 | | 337 | | 149 | 27,062 | | |
| New York | 232,991 | | | | | | 1,901 | 3 |
| North Carolina | 1,064,683 | | | | | | 14,272 | 12,072 |
| Ohio | 147,183 | 42 | | | 91 | | | |
| Oklahoma | 158,029 | | | 3,271 | 281 | 164 | 229 | |
| Oregon | 3,115,918 | 2,223 | 18,208 | 100 | 1,127,412 | 49,059 | 23,180 | 590 |
| Pennsylvania | 321,382 | | | | | | 4,057 | 62 |
| Rhode Island | 3,759 | | | | | | 1,102 | |
| South Carolina | 890,529 | | | | | | 27,011 | 6,351 |
| South Dakota | 48,697 | | | | | | | |
| Tennessee | 634,491 | 198 | 36 | 33 | 4,656 | 104 | 991 | 3,582 |
| Texas | 1,450,388 | 421 | | 3,849 | 2,042 | 840 | 574 | 532 |
| Utah | 7,378 | | | | | | | |
| Vermont | 117,325 | | | | | | 3,110 | |
| Virginia | 674,709 | | | | | | 5,841 | 4,877 |
| Washington | 5,132,398 | 394 | 505 | 922 | 1,098,546 | 111,148 | 23,510 | 1,061 |
| West Virginia | 553,091 | | | | 177 | | 8,438 | 1,781 |
| Wisconsin | 977,184 | 694 | 42 | 45 | 2,012 | 406 | 1,033 | |
| Wyoming | 14,430 | | | | | | | |
| Total | 32,292,293 | 500,378 | 65,252 | 365,660 | 3,476,755 | 261,265 | 292,340 | 55,659 |
| REGION | | | | | | | | |
| Northeastern | 1,512,534 | | | | | | 186,436 | 1,577 |
| Lake | 2,200,096 | 715 | 42 | 45 | 2,811 | 406 | 1,360 | 56 |
| Central | 1,921,316 | 294 | 36 | 520 | 8,994 | 546 | 9,680 | 5,579 |
| North Carolina pine | 2,629,921 | | | | | | 47,124 | 28,300 |
| Southern pine | 12,311,763 | 1,406,588 | 276 | 358,977 | 29,733 | 6,022 | 68,507 | 18,713 |
| Pacific (north) | 8,248,316 | 2,617 | 18,713 | 1,031 | 2,225,958 | 160,207 | 46,690 | 2,251 |
| Pacific (south) | 1,757,660 | 159 | 7,962 | 1,863 | 1,197,945 | 6,757 | 5,197 | 165 |
| Rocky Mountain (north) | 1,346,495 | | 51 | 48 | 1,376 | 27,197 | 27,245 | 418 |
| Rocky Mountain (south) | 300,064 | | 28,172 | 3,176 | 9,919 | 60,126 | | |
| Prairie | 63,608 | | | | 19 | 2 | 101 | |

¹ Domestic distribution is total distribution less foreign exports, or the sum of intrastate and interstate distribution.² Intrastate distribution.³ Includes intrastate distribution of the State named above.

TABLE 776.—Lumber: Distribution of softwood and hardwood, by producing States and regions, to States using, 1924—Continued

| State | Distribution in thousand feet to— | | | | | | | | |
|-----------------------------|-----------------------------------|---------|---------|---------|-----------|---------|---------|---------|----------|
| | District of Columbia | Florida | Georgia | Idaho | Illinois | Indiana | Iowa | Kansas | Kentucky |
| Alabama..... | 7,325 | 6,789 | 37,804 | ----- | 120,000 | 78,046 | 6,143 | ----- | 95,380 |
| Arizona..... | ----- | ----- | ----- | ----- | 22,807 | 8,374 | 6,396 | 7,608 | ----- |
| Arkansas..... | 76 | ----- | 834 | ----- | 230,085 | 83,255 | 37,209 | 61,832 | 9,651 |
| California..... | 862 | 1,177 | 148 | ----- | 47,834 | 11,138 | 68,670 | 14,870 | 958 |
| Colorado..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Connecticut..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Delaware..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Florida..... | 2,271 | 435,111 | 14,591 | ----- | 25,938 | 20,253 | 593 | 101 | 11,790 |
| Georgia..... | 6,277 | 126,332 | 290,880 | ----- | 7,651 | 8,876 | 460 | ----- | 2,601 |
| Idaho..... | 688 | 61 | ----- | 137,508 | 68,094 | 5,368 | 41,409 | 8,092 | 769 |
| Illinois..... | ----- | ----- | ----- | ----- | 15,269 | 5,286 | 171 | ----- | 442 |
| Indiana..... | 2 | ----- | ----- | ----- | 12,960 | 116,219 | 1,320 | 32 | 2,918 |
| Iowa..... | ----- | ----- | ----- | ----- | 2,470 | 23 | 3,855 | ----- | ----- |
| Kansas and Nebraska..... | ----- | ----- | ----- | ----- | 1,200 | 18 | 30 | 191 | 17 |
| Kentucky..... | ----- | ----- | ----- | ----- | 9,127 | 20,538 | 567 | ----- | 69,800 |
| Louisiana..... | 1,308 | 322 | 2,249 | 2,571 | 324,666 | 144,150 | 52,199 | 101,374 | 40,319 |
| Maine..... | ----- | ----- | 676 | ----- | 39 | ----- | ----- | ----- | ----- |
| Maryland..... | ----- | ----- | ----- | ----- | ----- | 1,513 | ----- | ----- | ----- |
| Massachusetts..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Michigan..... | ----- | ----- | 254 | ----- | 104,801 | 10,201 | 659 | 107 | 254 |
| Minnesota..... | ----- | ----- | ----- | ----- | 97,192 | 9,329 | 10,694 | 131 | ----- |
| Mississippi..... | 8,827 | 187 | 4,748 | ----- | 341,615 | 169,414 | 10,477 | 7,715 | 137,379 |
| Missouri..... | ----- | ----- | ----- | ----- | 40,570 | 16,408 | 5,359 | 1,975 | 695 |
| Montana..... | 25 | ----- | ----- | 1,974 | 38,145 | 1,528 | 18,219 | 3,383 | ----- |
| Nevada..... | ----- | ----- | ----- | ----- | 200 | ----- | 320 | 80 | ----- |
| New Hampshire..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| New Jersey..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| New Mexico..... | ----- | ----- | ----- | ----- | 2,415 | ----- | 104 | 10,233 | ----- |
| New York..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| North Carolina..... | 5,915 | 18 | ----- | ----- | 1,880 | 2,242 | ----- | ----- | 8,551 |
| Ohio..... | ----- | ----- | ----- | ----- | 8,618 | 7,875 | 228 | ----- | 813 |
| Oklahoma..... | ----- | ----- | ----- | ----- | 20,104 | 5,924 | 3,951 | 4,860 | 199 |
| Oregon..... | 2,914 | 449 | 1 | 20,143 | 168,495 | 15,508 | 134,206 | 23,262 | 666 |
| Pennsylvania..... | 36 | ----- | ----- | ----- | 467 | 493 | ----- | ----- | ----- |
| Rhode Island..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| South Carolina..... | 10,879 | 5,148 | 7,445 | ----- | 1,012 | 1,765 | ----- | ----- | 811 |
| South Dakota..... | ----- | ----- | ----- | ----- | ----- | ----- | 6,048 | ----- | ----- |
| Tennessee..... | 710 | 512 | 411 | ----- | 40,508 | 41,283 | 7,978 | 1,495 | 24,324 |
| Texas..... | 59 | ----- | 14 | ----- | 185,063 | 67,986 | 10,167 | 65,172 | 3,691 |
| Utah..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Vermont..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Virginia..... | 1,838 | ----- | ----- | ----- | 3,289 | 5,164 | 282 | ----- | 2,250 |
| Washington..... | 1,280 | 464 | 450 | 24,332 | 244,677 | 50,816 | 164,533 | 103,918 | 8,011 |
| West Virginia..... | 1,772 | ----- | ----- | ----- | 66,447 | 11,434 | 47 | ----- | 3,454 |
| Wisconsin..... | ----- | 23 | 213 | 29 | 200,029 | 25,071 | 6,441 | 442 | 461 |
| Wyoming..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Total..... | 53,064 | 576,593 | 300,727 | 186,567 | 2,454,267 | 954,592 | 608,634 | 420,893 | 426,213 |
| REGION..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Northeastern..... | 36 | ----- | 676 | ----- | 506 | 2,006 | ----- | ----- | ----- |
| Lake..... | ----- | 23 | 467 | 29 | 402,022 | 53,001 | 17,704 | 680 | 715 |
| Central..... | 2,484 | 512 | 411 | ----- | 193,499 | 219,128 | 15,670 | 3,502 | 102,446 |
| North Carolina pine..... | 18,632 | 5,166 | 7,445 | ----- | 6,181 | 9,171 | 282 | ----- | 11,612 |
| Southern pine..... | 26,143 | 568,741 | 351,120 | 2,571 | 1,255,722 | 577,912 | 130,199 | 245,074 | 301,019 |
| Pacific (north)..... | 4,194 | 913 | 460 | 44,475 | 413,172 | 66,324 | 298,738 | 127,180 | 8,677 |
| Pacific (south)..... | 862 | 1,177 | 148 | ----- | 48,034 | 11,138 | 68,990 | 14,960 | 958 |
| Rocky Mountain (north)..... | 713 | 61 | ----- | 139,482 | 106,239 | 6,896 | 59,628 | 11,475 | 769 |
| Rocky Mountain (south)..... | ----- | ----- | ----- | ----- | 25,222 | 8,374 | 6,500 | 17,841 | ----- |
| Prairie..... | ----- | ----- | ----- | ----- | 3,670 | 41 | 10,838 | 191 | 17 |

* Intrastate distribution.

* Includes intrastate distribution of the State named above.

TABLE 776.—Lumber: Distribution of softwood and hardwood, by producing States and regions, to States using, 1924—Continued

| State | Distribution in thousand feet to— | | | | | | | | |
|-----------------------------|-----------------------------------|---------|----------|---------------|-----------|-----------|-------------|----------|---------|
| | Louisiana | Maine | Maryland | Massachusetts | Michigan | Minnesota | Mississippi | Missouri | Montana |
| Alabama..... | 3,664 | 1,378 | 29,943 | 47,806 | 54,558 | 1,120 | 345 | 20,134 | ----- |
| Arizona..... | 77 | ----- | ----- | ----- | 3,176 | ----- | ----- | 19,284 | ----- |
| Arkansas..... | 11,906 | 6,750 | 5,880 | 28,466 | 165,150 | 3,816 | 14,799 | 136,776 | ----- |
| California..... | 964 | 762 | 3,348 | 11,792 | 27,835 | 38,957 | 243 | 43,304 | 130 |
| Colorado..... | ----- | ----- | ----- | 3,916 | ----- | ----- | ----- | ----- | ----- |
| Connecticut..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Delaware..... | ----- | ----- | 385 | ----- | ----- | ----- | ----- | ----- | ----- |
| Florida..... | 806 | 10,351 | 33,829 | 36,009 | 6,988 | ----- | 73 | 1,440 | ----- |
| Georgia..... | ----- | 1,777 | 22,928 | 44,078 | 24,115 | 34 | ----- | 197 | ----- |
| Idaho..... | ----- | 594 | 2,770 | 25,026 | 77,352 | 68,266 | ----- | 10,567 | 27,187 |
| Illinois..... | ----- | ----- | ----- | 33 | 5,174 | 145 | 1,064 | 275 | ----- |
| Indiana..... | ----- | ----- | 504 | 2,517 | 22,064 | 536 | ----- | 370 | ----- |
| Iowa..... | ----- | ----- | 247 | 180 | 522 | 60 | ----- | 78 | ----- |
| Kansas and Nebraska..... | ----- | ----- | 12 | 144 | 1,440 | 48 | ----- | 360 | ----- |
| Kentucky..... | 18 | ----- | 535 | 2,624 | 23,416 | 336 | ----- | 64 | ----- |
| Louisiana..... | 549,228 | 948 | 4,135 | 25,947 | 168,318 | 4,088 | 14,973 | 182,129 | ----- |
| Maine..... | ----- | 156,899 | 174 | 103,890 | 59 | ----- | ----- | ----- | 39 |
| Maryland..... | ----- | ----- | 36,373 | 1,297 | 1,081 | ----- | ----- | ----- | ----- |
| Massachusetts..... | ----- | ----- | ----- | 100,008 | ----- | ----- | ----- | ----- | ----- |
| Michigan..... | ----- | ----- | ----- | 2,827 | 468,497 | 12,266 | ----- | 623 | ----- |
| Minnesota..... | ----- | 24 | ----- | 217 | 24,078 | 203,894 | ----- | 1,877 | ----- |
| Mississippi..... | 72,936 | 595 | 15,466 | 20,380 | 133,110 | 4,726 | 340,966 | 66,998 | 2,073 |
| Missouri..... | 103 | ----- | 164 | ----- | 11,021 | 1,962 | ----- | 77,776 | ----- |
| Montana..... | ----- | 70 | 23 | 1,744 | 10,045 | 27,723 | ----- | 4,956 | 122,074 |
| Nevada..... | ----- | ----- | ----- | ----- | 80 | ----- | ----- | ----- | ----- |
| New Hampshire..... | ----- | 20,181 | ----- | 71,763 | ----- | ----- | ----- | ----- | ----- |
| New Jersey..... | ----- | ----- | ----- | ----- | 961 | ----- | ----- | 7,083 | ----- |
| New Mexico..... | ----- | 249 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| New York..... | ----- | 136 | 21 | 6,100 | ----- | ----- | ----- | ----- | ----- |
| North Carolina..... | ----- | 3,560 | 77,406 | 23,409 | 2,523 | ----- | ----- | ----- | ----- |
| Ohio..... | ----- | ----- | 1,129 | 445 | 7,486 | 526 | ----- | 291 | ----- |
| Oklahoma..... | ----- | 371 | 25 | 1,545 | 10,529 | 788 | 37 | 12,451 | ----- |
| Oregon..... | 474 | 2,527 | 1,996 | 25,113 | 71,387 | 91,288 | ----- | 24,982 | 4,580 |
| Pennsylvania..... | ----- | 105 | 443 | 4,470 | 594 | ----- | ----- | ----- | ----- |
| Rhode Island..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| South Carolina..... | ----- | 2,319 | 64,906 | 54,049 | 971 | ----- | ----- | ----- | ----- |
| South Dakota..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 1,155 | ----- |
| Tennessee..... | 1,937 | 65 | 2,705 | 8,853 | 40,554 | 2,780 | 18 | 5,723 | ----- |
| Texas..... | 31,429 | 100 | 2,043 | 3,566 | 63,944 | 864 | 1,184 | 105,220 | ----- |
| Utah..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Vermont..... | ----- | 607 | 54 | 34,116 | 197 | ----- | ----- | ----- | ----- |
| Virginia..... | ----- | 1,226 | 50,751 | 11,091 | 11,436 | ----- | ----- | ----- | ----- |
| Washington..... | 802 | 6,552 | 5,007 | 60,773 | 77,388 | 326,848 | 161 | 59,336 | 43,223 |
| West Virginia..... | ----- | 428 | 21,819 | 11,200 | 64,437 | 258 | ----- | 32 | ----- |
| Wisconsin..... | 27 | 22 | 207 | 1,896 | 137,366 | 38,283 | 104 | 1,916 | 36 |
| Wyoming..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Total..... | 674,421 | 218,687 | 385,288 | 777,320 | 1,717,852 | 830,212 | 373,967 | 785,397 | 199,342 |
| REGION..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Northeastern..... | 177,928 | 37,450 | 325,560 | 1,981 | 629,941 | 254,443 | 104 | 4,416 | 39 |
| Lake..... | 27 | 46 | 207 | 4,940 | ----- | ----- | ----- | ----- | 36 |
| Central..... | 2,090 | 493 | 26,856 | 25,702 | 174,152 | 6,543 | 1,082 | 84,531 | ----- |
| North Carolina pine..... | ----- | 7,105 | 193,063 | 88,549 | 14,980 | ----- | ----- | ----- | ----- |
| Southern pine..... | 669,969 | 22,270 | 114,249 | 207,797 | 626,712 | 16,036 | 372,377 | 525,345 | 2,073 |
| Pacific (north)..... | 1,276 | 9,379 | 7,063 | 85,886 | 148,775 | 418,136 | 161 | 84,318 | 47,803 |
| Pacific (south)..... | 964 | 762 | 3,348 | 11,792 | 27,915 | 38,957 | 243 | 43,304 | 130 |
| Rocky Mountain (north)..... | ----- | 684 | 2,793 | 26,770 | 87,397 | 95,989 | ----- | 15,523 | 149,261 |
| Rocky Mountain (south)..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Prairie..... | 77 | 240 | ----- | ----- | 4,137 | ----- | ----- | 26,867 | ----- |
| ----- | 18 | ----- | 259 | 324 | 1,962 | 108 | ----- | 1,593 | ----- |

* Intrastate distribution.

* Includes intrastate distribution of the State named above.

TABLE 776.—Lumber: Distribution of softwood and hardwood, by producing States and regions, to States using, 1924—Continued

| State | Distribution in thousand feet to— | | | | | | | |
|-----------------------------|-----------------------------------|--------|---------------|------------|------------|-----------|----------------|--------------|
| | Ne-braska | Nevada | New Hampshire | New Jersey | New Mexico | New York | North Carolina | North Dakota |
| Alabama..... | 33 | | 11,307 | 49,104 | | 101,276 | 30,307 | 3,192 |
| Arizona..... | 3,283 | | | | 2,511 | 3,175 | | |
| Arkansas..... | 11,567 | | 2,806 | 1,201 | 40 | 38,245 | 4,601 | |
| California..... | 8,781 | 13,819 | 2,163 | 11,133 | 1,173 | 47,366 | 303 | |
| Colorado..... | 1,587 | | | | | | | |
| Connecticut..... | | | | | | 301 | | |
| Delaware..... | | | 385 | 8,030 | | | | |
| Florida..... | 171 | | 1,093 | 30,100 | | 81,251 | 3,927 | |
| Georgia..... | | | 605 | 69,179 | | 125,805 | 18,538 | |
| Idaho..... | 35,722 | 48 | 2,224 | 47,808 | | 95,148 | | 16,110 |
| Illinois..... | | | | | | 124 | | |
| Indiana..... | | | | 1,137 | | 10,826 | 2 | |
| Iowa..... | 102 | | | 223 | | 977 | 88 | |
| Kansas and Nebraska..... | 50 | | | 252 | | 1,106 | | |
| Kentucky..... | | | | 1,985 | | 9,324 | 60 | |
| Louisiana..... | 18,066 | | 1,463 | 36,895 | 5,324 | 142,161 | 15,053 | |
| Maine..... | | | 12,082 | 3,202 | | 25,442 | | |
| Maryland..... | | | | 382 | | 9,006 | | |
| Massachusetts..... | | | 673 | | | 2,351 | | |
| Michigan..... | 41 | | | | | 27,052 | 127 | |
| Minnesota..... | 21 | | | 2,602 | | 21,504 | | 1,327 |
| Mississippi..... | 2,853 | | 796 | 17,531 | | 105,716 | 30,561 | 459 |
| Missouri..... | 214 | | | 48 | | 2,999 | 18 | |
| Montana..... | 11,226 | | 194 | 1,299 | | 10,949 | | 6,482 |
| Nevada..... | | 5,524 | | | | | | |
| New Hampshire..... | | | 123,915 | 461 | | 2,557 | | |
| New Jersey..... | | | | 11,546 | | 896 | | |
| New Mexico..... | 257 | | | | 40,217 | 204 | | |
| New York..... | | | 370 | 2,819 | | 215,442 | | |
| North Carolina..... | | | 2,551 | 75,839 | | 159,408 | 380,979 | |
| Ohio..... | | | 105 | 2,177 | | 10,764 | 1,420 | 824 |
| Oklahoma..... | 973 | | 29 | | | 1,836 | | |
| Oregon..... | 53,785 | 19,024 | 1,400 | 27,317 | 4,260 | 197,414 | 281 | 6,110 |
| Pennsylvania..... | | | 58 | 7,097 | | 66,285 | | |
| Rhode Island..... | | | | | | | | |
| South Carolina..... | | | 2,023 | 101,319 | | 158,022 | 56,049 | |
| South Dakota..... | 17,230 | | | | | | | |
| Tennessee..... | | | 174 | 15,792 | 203 | 53,713 | 30,087 | |
| Texas..... | 3,374 | | 148 | 11,199 | 3,294 | 26,439 | 234 | |
| Utah..... | | | | | | | | |
| Vermont..... | | | 3,315 | 195 | | 3,302 | | |
| Virginia..... | | | 1,092 | 21,088 | | 50,751 | 1,044 | |
| Washington..... | 148,632 | 6,480 | 3,462 | 60,913 | 2,016 | 625,831 | 975 | 80,852 |
| West Virginia..... | | | 1,101 | 25,833 | | 57,530 | 97 | |
| Wisconsin..... | 483 | 19 | 24 | 5,068 | 20 | 26,524 | | 425 |
| Wyoming..... | | | | | | | | |
| Total..... | 318,451 | 44,420 | 175,558 | 650,742 | 59,064 | 2,519,052 | 574,751 | 121,781 |
| REGION | | | | | | | | |
| Northeastern..... | | | 140,798 | 33,741 | | 325,582 | | |
| Lake..... | 545 | 19 | 24 | 7,579 | 20 | 75,080 | 127 | 1,752 |
| Central..... | 214 | | 1,380 | 46,972 | 203 | 145,280 | 31,684 | 824 |
| North Carolina pine..... | | | 5,666 | 198,246 | | 308,181 | 438,072 | |
| Southern pine..... | 37,037 | | 18,247 | 215,268 | 8,658 | 622,729 | 103,221 | 3,651 |
| Pacific (north)..... | 202,417 | 25,510 | 4,862 | 88,239 | 6,282 | 823,275 | 1,256 | 92,962 |
| Pacific (south)..... | 8,781 | 18,843 | 2,163 | 11,133 | 1,173 | 47,366 | 308 | |
| Rocky Mountain (north)..... | 46,948 | 48 | 2,418 | 49,107 | | 106,097 | | 22,592 |
| Rocky Mountain (south)..... | 5,127 | | | | 42,728 | 3,379 | | |
| Prairie..... | 17,352 | | | 475 | | 2,083 | 88 | |

* Intrastate distribution.

* Includes intrastate distribution of the State named above.

TABLE 776.—Lumber: Distribution of softwood and hardwood, by producing States and regions, to States using, 1924—Continued

| State | Distribution in thousand feet to— | | | | | | | |
|-----------------------------|-----------------------------------|----------|---------|--------------|--------------|----------------|--------------|-----------|
| | Ohio | Oklahoma | Oregon | Pennsylvania | Rhode Island | South Carolina | South Dakota | Tennessee |
| Alabama..... | 239,250 | 158 | 55 | 188,437 | 12,898 | 6,115 | 3,820 | 100,710 |
| Arizona..... | 5,302 | 1,568 | | 60 | | | | |
| Arkansas..... | 89,628 | 57,695 | 169 | 51,534 | 6,685 | 1,013 | 367 | 31,320 |
| California..... | 40,794 | 12,213 | 1,499 | 36,847 | 1,336 | 170 | | 1,745 |
| Colorado..... | | | | | | | | |
| Connecticut..... | | | | | 871 | | | |
| Delaware..... | | | | 250 | | | | |
| Florida..... | 53,535 | | | 48,068 | 9,384 | 4,661 | | 6,027 |
| Georgia..... | 20,815 | | | 166,448 | 5,647 | 15,084 | | 33,074 |
| Idaho..... | 45,687 | 1,400 | 1,399 | 73,243 | 3,374 | | 19,998 | 708 |
| Illinois..... | 2,142 | | | 518 | | | | |
| Indiana..... | 11,201 | | | 2,561 | 25 | | | 134 |
| Iowa..... | 159 | | | 476 | | | | |
| Kansas and Nebraska..... | 78 | | | 30 | | | | |
| Kentucky..... | 18,812 | | 212 | 6,165 | 34 | | | 5,506 |
| Louisiana..... | 210,811 | 107,357 | 142 | 94,713 | 3,621 | 254 | 299 | 53,267 |
| Maine..... | 8,795 | | | 3,010 | 7,746 | | | |
| Maryland..... | 591 | | | 4,818 | | | | |
| Massachusetts..... | | | | | 2,188 | | | |
| Michigan..... | 14,022 | | 763 | 5,685 | | | 161 | 224 |
| Minnesota..... | 30,637 | 107 | | 12,171 | 24 | | 181 | 80 |
| Mississippi..... | 276,856 | 14,087 | 405 | 163,182 | 1,282 | 5,694 | 45 | 215,645 |
| Missouri..... | 6,943 | 34 | 82 | 1,661 | 132 | | | 1,871 |
| Montana..... | 1,768 | 405 | | 23,858 | 295 | | 8,243 | 25 |
| Nevada..... | | 80 | | | | | | |
| New Hampshire..... | | | | | 5,169 | | | |
| New Jersey..... | | | | | | | | |
| New Mexico..... | 204 | 4,571 | | 204 | | | | |
| New York..... | | | | 5,561 | 450 | | | |
| North Carolina..... | 15,819 | | | 185,247 | 301 | 1,781 | | 12,003 |
| Ohio..... | 90,910 | | | 8,145 | | | | 56 |
| Oklahoma..... | 6,683 | 70,463 | | 4,756 | 490 | | 69 | 665 |
| Oregon..... | 40,506 | 4,783 | 685,176 | 54,859 | 8,219 | 255 | 15,750 | 1,167 |
| Pennsylvania..... | 9,051 | | | 226,058 | 439 | | | |
| Rhode Island..... | | | | | 2,667 | | | |
| South Carolina..... | 18,837 | | | 154,801 | 3,906 | 117,315 | | 1,554 |
| South Dakota..... | | | | | | | 23,304 | |
| Tennessee..... | 97,734 | 130 | 169 | 76,848 | 645 | 1,539 | 39 | 148,445 |
| Texas..... | 53,324 | 81,302 | | 15,767 | 592 | | 80 | 4,359 |
| Utah..... | | | | | | | | |
| Vermont..... | 13 | | | 1,452 | 1,995 | | | |
| Virginia..... | 20,736 | | | 208,914 | 2,121 | | | 1,285 |
| Washington..... | 49,233 | 8,115 | 64,012 | 145,961 | 10,161 | 1,749 | 94,408 | 1,716 |
| West Virginia..... | 56,980 | | | 87,664 | 1,876 | 44 | | |
| Wisconsin..... | 28,567 | 52 | 29 | 14,938 | 39 | 125 | 845 | 484 |
| Wyoming..... | | | | | | | | |
| Total..... | 1,687,423 | 364,520 | 754,112 | 2,054,800 | 95,652 | 155,801 | 162,669 | 621,630 |
| REGION | | | | | | | | |
| Northeastern..... | 18,450 | | | 241,149 | 21,515 | | | |
| Lake..... | 79,226 | 189 | 792 | 32,794 | 63 | 126 | 1,187 | 788 |
| Central..... | 284,722 | 164 | 463 | 183,462 | 2,712 | 1,583 | 89 | 155,512 |
| North Carolina pine..... | 64,592 | | | 548,962 | 6,418 | 119,096 | | 14,842 |
| Southern pine..... | 966,902 | 331,062 | 771 | 722,895 | 41,599 | 32,814 | 4,680 | 445,067 |
| Pacific (north)..... | 89,739 | 12,898 | 749,188 | 200,820 | 18,370 | 2,004 | 110,158 | 2,883 |
| Pacific (south)..... | 40,794 | 12,213 | 1,499 | 36,847 | 1,336 | 179 | | 1,745 |
| Rocky Mountain (north)..... | 47,455 | 1,808 | 1,399 | 87,101 | 3,639 | | 23,241 | 798 |
| Rocky Mountain (south)..... | 6,506 | 6,139 | | 284 | | | | |
| Prairie..... | 287 | | | 506 | | | 23,364 | |

* Intrastate distribution.

* Includes intrastate distribution of the State named above.

TABLE 776.—Lumber: Distribution of softwood and hardwood, by producing States and regions, to States using, 1924—Continued

| State | Distribution in thousand feet to— | | | | | | | |
|-----------------------------|-----------------------------------|---------|----------|-----------|-------------|---------------|-----------|----------|
| | Texas | Utah | Vermont | Virginia | Washington | West Virginia | Wisconsin | Wyoming |
| Alabama..... | 875 | 82 | 253 | 42,770 | 88 | 38,803 | 6,019 | ----- |
| Arizona..... | 5,030 | ----- | ----- | ----- | ----- | ----- | 556 | ----- |
| Arkansas..... | 47,481 | 30 | 4,515 | 1,361 | 24 | 3,510 | 17,309 | 46 |
| California..... | 24,414 | 1,895 | 889 | 2,047 | 312 | 1,665 | 39,788 | 8,375 |
| Colorado..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Connecticut..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Delaware..... | ----- | ----- | ----- | ----- | ----- | 65 | ----- | ----- |
| Florida..... | ----- | ----- | 344 | 8,218 | ----- | 5,130 | 965 | ----- |
| Georgia..... | ----- | ----- | 1,589 | 74,605 | ----- | 12,126 | 1,455 | ----- |
| Idaho..... | 502 | 18,139 | 1,075 | 83 | 77,250 | 7,244 | 51,250 | 14,224 |
| Illinois..... | ----- | ----- | ----- | ----- | 27 | ----- | 2,522 | ----- |
| Indiana..... | 45 | 40 | ----- | 496 | 15 | 12 | 2,531 | ----- |
| Iowa..... | ----- | ----- | ----- | ----- | ----- | ----- | 315 | ----- |
| Kansas and Nebraska..... | 19 | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Kentucky..... | 414 | ----- | ----- | 994 | 245 | 2,856 | 6,496 | ----- |
| Louisiana..... | 648,655 | 231 | 3,134 | 1,560 | 508 | 22,742 | 26,467 | 157 |
| Maine..... | ----- | ----- | 2,303 | ----- | ----- | ----- | ----- | ----- |
| Maryland..... | ----- | ----- | ----- | ----- | ----- | 13,397 | ----- | ----- |
| Massachusetts..... | ----- | ----- | 53 | ----- | ----- | ----- | ----- | ----- |
| Michigan..... | ----- | ----- | ----- | ----- | 254 | ----- | 59,672 | ----- |
| Minnesota..... | ----- | ----- | ----- | 21 | ----- | 1,028 | 81,780 | ----- |
| Mississippi..... | 793 | 295 | 1,834 | 48,839 | 1,165 | 37,295 | 13,828 | ----- |
| Missouri..... | 70 | ----- | ----- | 162 | 128 | 5,280 | 3,932 | 20 |
| Montana..... | ----- | 2,187 | 168 | 25 | 1,755 | 1,144 | 11,162 | 7,049 |
| Nevada..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| New Hampshire..... | ----- | ----- | 6,263 | ----- | ----- | ----- | ----- | ----- |
| New Jersey..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| New Mexico..... | 9,340 | 56 | ----- | ----- | ----- | ----- | ----- | ----- |
| New York..... | ----- | ----- | 151 | ----- | ----- | 37 | ----- | ----- |
| North Carolina..... | ----- | ----- | ----- | 71,497 | ----- | 7,373 | 37 | ----- |
| Ohio..... | 77 | ----- | ----- | 249 | 56 | 4,176 | 680 | ----- |
| Oklahoma..... | 1,743 | ----- | 169 | ----- | ----- | 194 | 1,184 | 26 |
| Oregon..... | 7,128 | 63,968 | 2,349 | 2,001 | 17,003 | 4,089 | 66,533 | 23,444 |
| Pennsylvania..... | ----- | ----- | 21 | ----- | ----- | 1,646 | ----- | ----- |
| Rhode Island..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| South Carolina..... | ----- | ----- | 425 | 77,778 | 696 | 15,047 | ----- | ----- |
| South Dakota..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Tennessee..... | 286 | ----- | 170 | 8,669 | 130 | 1,615 | 8,708 | ----- |
| Texas..... | 3 683,489 | ----- | 199 | ----- | ----- | 992 | 7,197 | 26 |
| Utah..... | ----- | 3 7,378 | ----- | ----- | ----- | ----- | ----- | ----- |
| Vermont..... | ----- | ----- | 3 68,909 | ----- | ----- | ----- | ----- | ----- |
| Virginia..... | ----- | ----- | 465 | 240,633 | ----- | 18,701 | 834 | ----- |
| Washington..... | 10,540 | 44,497 | 4,567 | 4,889 | 3 1,199,481 | 10,260 | 78,648 | 53,678 |
| West Virginia..... | ----- | ----- | 860 | 2,380 | 162 | 3 125,064 | 1,767 | ----- |
| Wisconsin..... | 612 | 29 | 71 | 560 | 71 | 10,600 | 3 470,684 | 115 |
| Wyoming..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- | 3 14,439 |
| Total..... | 1,441,214 | 138,823 | 100,905 | 592,846 | 1,299,370 | 352,680 | 962,309 | 122,190 |
| REGION | | | | | | | | |
| Northeastern..... | ----- | ----- | 3 77,820 | ----- | ----- | 15,734 | ----- | ----- |
| Lake..... | 612 | 29 | 71 | 581 | 325 | 11,628 | 3 612,136 | 115 |
| Central..... | 892 | 40 | 1,039 | 12,959 | 763 | 3 139,003 | 26,636 | 20 |
| North Carolina Pine..... | ----- | ----- | 890 | 3 389,908 | 696 | 41,121 | 871 | ----- |
| Southern pine..... | 3 1,382,736 | 644 | 12,037 | 180,353 | 1,785 | 120,792 | 74,414 | 255 |
| Pacific (north)..... | 17,668 | 108,455 | 6,916 | 6,890 | 3 1,216,484 | 14,349 | 145,181 | 77,122 |
| Pacific (south)..... | 24,414 | 1,895 | 889 | 2,047 | 312 | 1,665 | 39,788 | 8,375 |
| Rocky Mountain (north)..... | 502 | 20,326 | 1,243 | 108 | 79,005 | 8,388 | 62,412 | 21,873 |
| Rocky Mountain (south)..... | 14,370 | 3 7,434 | ----- | ----- | ----- | ----- | 556 | 3 14,430 |
| Prairie..... | 20 | ----- | ----- | ----- | ----- | ----- | 315 | ----- |

Forest Service in cooperation with the Bureau of the Census.

The total of each State column is the lumber consumed in that State.

3 Intrastate distribution.

3 Includes intrastate distribution of the State named above.

TABLE 777.—Lumber: Average prices, Douglas fir and southern yellow pine, f. o. b. mill, 1913–1925

| Period | Douglas fir | | Southern yellow pine | | Period | Douglas fir | | Southern yellow pine | |
|----------------|-----------------|-----------------------|----------------------|-----------------------|----------------|-----------------|-----------------------|----------------------|-----------------------|
| | Price per M ft. | Price index, 1913=100 | Price per M ft. | Price index, 1913=100 | | Price per M ft. | Price index, 1913=100 | Price per M ft. | Price index, 1913=100 |
| | | | | | 1922 | | | | |
| 1913..... | Dollars 11.44 | 100.0 | Dollars 14.77 | 100.0 | July..... | 24.18 | 211.3 | Dollars 27.19 | 184.9 |
| 1914..... | 10.58 | 92.5 | 13.68 | 92.6 | August..... | 24.83 | 217.0 | 28.47 | 192.8 |
| 1915..... | 9.80 | 85.5 | 13.02 | 88.2 | September..... | 27.13 | 237.2 | 31.24 | 211.5 |
| 1916..... | 11.63 | 101.7 | 16.12 | 109.2 | October..... | 27.97 | 244.5 | 31.71 | 214.7 |
| 1917..... | 16.93 | 147.9 | 21.13 | 143.1 | November..... | 25.82 | 225.7 | 30.61 | 207.2 |
| | | | | | December..... | 26.49 | 231.6 | 30.61 | 207.2 |
| | | | | | 1923 | | | | |
| 1918..... | 21.21 | 186.3 | 26.45 | 179.1 | January..... | 28.54 | 249.5 | 30.42 | 205.9 |
| 1919..... | 25.83 | 225.9 | 33.94 | 229.8 | February..... | 29.42 | 257.2 | 32.81 | 222.1 |
| 1920..... | 36.78 | 323.3 | 44.74 | 302.9 | March..... | 30.22 | 264.2 | 33.71 | 228.2 |
| 1921..... | 19.98 | 174.7 | 21.18 | 143.4 | April..... | 31.46 | 275.0 | 33.38 | 226.0 |
| 1922..... | 23.90 | 208.9 | 26.44 | 179.0 | May..... | 31.02 | 271.2 | 33.85 | 229.2 |
| | | | | | June..... | 30.36 | 265.4 | 32.40 | 210.4 |
| | | | | | 1924 | | | | |
| 1923..... | 28.93 | 252.9 | 30.81 | 208.6 | July..... | 27.68 | 241.9 | 31.14 | 210.8 |
| 1924..... | 23.14 | 202.3 | 28.16 | 190.7 | August..... | 26.97 | 235.7 | 30.82 | 208.6 |
| 1925..... | 21.63 | 189.1 | 28.81 | 191.7 | September..... | 27.18 | 237.5 | 27.53 | 186.4 |
| | | | | | October..... | 27.24 | 238.1 | 28.77 | 194.7 |
| 1920..... | 41.98 | 366.0 | 52.21 | 353.5 | November..... | 28.97 | 253.2 | 27.83 | 188.4 |
| January..... | 46.31 | 404.8 | 57.94 | 392.3 | December..... | 26.94 | 235.5 | 26.56 | 179.8 |
| February..... | 46.66 | 407.0 | 61.60 | 417.1 | | | | | |
| March..... | 43.15 | 377.1 | 57.53 | 389.5 | 1924..... | 28.30 | 247.4 | 29.40 | 199.1 |
| April..... | 40.21 | 351.2 | 54.65 | 370.0 | January..... | 26.33 | 230.2 | 30.16 | 204.1 |
| May..... | 36.05 | 315.1 | 40.05 | 271.2 | February..... | 24.69 | 215.8 | 29.83 | 202.0 |
| | | | | | March..... | 24.39 | 213.2 | 29.14 | 197.3 |
| July..... | 33.69 | 294.5 | 41.34 | 279.9 | April..... | 22.40 | 195.8 | 27.55 | 186.5 |
| August..... | 32.86 | 287.2 | 43.42 | 294.0 | May..... | 22.99 | 201.0 | 27.36 | 185.2 |
| September..... | 31.29 | 273.4 | 41.09 | 278.2 | | | | | |
| October..... | 27.57 | 241.0 | 34.44 | 233.2 | July..... | 21.93 | 191.7 | 25.91 | 175.4 |
| November..... | 24.05 | 210.0 | 26.67 | 180.6 | August..... | 22.42 | 196.0 | 27.77 | 188.0 |
| December..... | 22.61 | 197.6 | 25.88 | 175.2 | September..... | 21.50 | 188.6 | 29.46 | 199.5 |
| | | | | | October..... | 21.10 | 184.5 | 26.71 | 180.8 |
| 1921..... | 20.20 | 177.6 | 21.35 | 144.6 | November..... | 21.48 | 187.7 | 25.81 | 174.7 |
| January..... | 18.85 | 164.7 | 21.18 | 143.4 | December..... | 21.82 | 190.7 | 30.13 | 204.0 |
| February..... | 17.59 | 153.2 | 20.92 | 141.7 | | | | | |
| March..... | 16.87 | 147.3 | 20.36 | 137.9 | 1925..... | 22.52 | 196.9 | 29.43 | 199.3 |
| April..... | 16.42 | 143.2 | 20.82 | 140.9 | January..... | 22.19 | 194.0 | 29.66 | 200.8 |
| May..... | 15.90 | 143.5 | 22.32 | 151.1 | February..... | 21.99 | 192.2 | 29.02 | 196.5 |
| | | | | | March..... | 21.60 | 188.8 | 28.29 | 191.5 |
| July..... | 15.28 | 133.4 | 20.75 | 140.5 | April..... | 21.70 | 189.7 | 27.07 | 183.3 |
| August..... | 14.98 | 130.8 | 20.40 | 138.1 | May..... | 21.24 | 185.7 | 26.58 | 180.0 |
| September..... | 14.86 | 129.8 | 20.61 | 139.5 | | | | | |
| October..... | 15.97 | 139.6 | 21.59 | 146.2 | July..... | 21.18 | 185.1 | 27.55 | 186.5 |
| November..... | 17.07 | 149.2 | 23.14 | 156.7 | August..... | 22.25 | 194.5 | 28.56 | 193.4 |
| December..... | 17.75 | 155.1 | 21.77 | 147.4 | September..... | 21.39 | 187.0 | 30.50 | 206.5 |
| | | | | | October..... | 21.28 | 186.0 | 28.17 | 190.7 |
| 1922..... | 18.73 | 163.7 | 22.68 | 153.6 | November..... | 21.33 | 186.5 | 27.14 | 183.8 |
| January..... | 22.75 | 198.9 | 22.61 | 153.1 | December..... | 21.05 | 184.0 | 29.01 | 196.4 |
| February..... | 22.40 | 195.8 | 22.27 | 151.5 | | | | | |
| March..... | 20.44 | 178.7 | 22.78 | 154.2 | | | | | |
| April..... | 21.10 | 184.4 | 24.85 | 168.2 | | | | | |
| May..... | 23.24 | 203.1 | 29.07 | 196.8 | | | | | |
| June..... | | | | | | | | | |

Forest Service. Compiled from reports of actual sales.

TABLE 778.—Cross-ties: Number purchased, by kinds of wood, 1905-1911, 1915, 1923

| Kind of wood | 1905 | 1906 | 1907 | 1908 | 1909 | * 1910 | 1911 | 1915 | 1923 |
|---------------------------------------|----------------|------------------|------------------|----------------------------|------------------|------------------|------------------|--------------|------------------|
| Oak | 34, 677, 304 | 45, 357, 874 | 61, 757, 000 | 48, 110, 000 | 57, 132, 000 | 68, 382, 000 | 59, 508, 000 | 49, 333, 881 | 62, 915, 237 |
| Southern pine..... | 1 13, 351, 037 | 13, 841, 210 | 34, 215, 000 | 21, 530, 000 | 21, 385, 000 | 26, 294, 000 | 24, 263, 000 | 14, 115, 681 | 22, 046, 467 |
| Douglas fir..... | 3, 683, 276 | 7, 248, 562 | 14, 525, 000 | 7, 988, 000 | 9, 667, 000 | 11, 629, 000 | 11, 263, 000 | 6, 930, 910 | 15, 316, 571 |
| Cypress..... | 3, 483, 746 | 5, 104, 496 | 6, 780, 000 | 3, 457, 000 | 4, 580, 000 | 5, 394, 000 | 5, 857, 000 | 4, 478, 012 | 5, 243, 885 |
| Chestnut..... | 4, 717, 604 | 6, 888, 675 | 7, 851, 000 | 8, 074, 000 | 6, 023, 000 | 7, 790, 000 | 7, 542, 000 | 4, 546, 352 | 4, 419, 782 |
| Eastern larch (tamarack) | 3, 060, 082 | 2, 576, 559 | 4, 562, 000 | 4, 025, 000 | 3, 311, 000 | 5, 163, 000 | 4, 138, 000 | 2, 606, 794 | 4, 220, 194 |
| Cedar..... | 6, 962, 827 | 7, 083, 442 | 8, 954, 000 | 8, 172, 000 | 6, 777, 000 | 7, 305, 000 | 8, 015, 000 | 5, 122, 103 | 3, 676, 228 |
| Hemlock..... | 1, 713, 090 | 2, 058, 198 | 2, 367, 000 | 3, 120, 000 | 2, 642, 000 | 3, 408, 000 | 3, 686, 000 | 839, 662 | 3, 477, 740 |
| Gum..... | 25, 500 | ..... | 15, 000 | 262, 000 | 378, 000 | 1, 621, 000 | 1, 283, 000 | 485, 466 | 3, 060, 708 |
| Maple..... | ..... | ..... | ..... | 151, 000 | 158, 000 | 1, 773, 000 | 1, 183, 000 | 1, 069, 547 | 3, 083, 007 |
| Redwood | 590, 852 | 1, 248, 629 | 2, 032, 000 | 871, 000 | 2, 088, 000 | 2, 165, 000 | 1, 820, 000 | 563, 685 | 2, 492, 445 |
| Beech..... | 34, 227 | ..... | 52, 000 | 192, 000 | 195, 000 | 798, 000 | 1, 109, 000 | 1, 173, 490 | 2, 276, 221 |
| Western yellow pine..... | ..... | 3, 969, 605 | 5, 019, 000 | 3, 053, 000 | 6, 797, 000 | 4, 612, 000 | 2, 696, 000 | 1, 402, 836 | 1, 339, 507 |
| Western larch..... | 311, 120 | (¹) | (¹) | (²) | (¹) | (²) | (¹) | 1, 251, 304 | (¹) |
| Lodgepole pine..... | ..... | 354, 738 | ..... | ..... | ..... | ..... | ..... | 1, 316, 819 | 949, 451 |
| Birch..... | 35, 600 | ..... | ..... | ..... | ..... | ..... | ..... | 465, 815 | 369, 154 |
| All other..... | * 383, 062 | * 2, 201, 454 | 5, 574, 000 | 3, 421, 000 | 2, 603, 000 | 2, 895, 000 | 2, 632, 000 | 1, 361, 694 | 1, 141, 480 |
| Total | * 77, 961, 227 | 102, 834, 042 | 153, 703, 000 | 112, 466, 000 ¹ | 123, 751, 000 | 148, 231, 000 | 138, 033, 000 | 97, 106, 651 | 135, 976, 117 |

Forest Service and Census bulletins.

¹ Includes western pine, white pine, and lodgepole pine.² Included with southern pine.³ Included with eastern larch.⁴ Includes 146,198 spruce cross-ties.⁵ Includes 373,337 white pine cross-ties.⁶ Steam railroads only.

TABLE 779.—Veneers: Wood consumed in manufacture, by kinds, 1905-1911, 1919, 1921, 1923

| Kind of wood | Quantity (M feet log scale) | | | | | | | | | |
|--------------------|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1905 | 1906 | 1907 | 1908 | 1909 | 1910 | 1911 | 1919 | 1921 | 1923 |
| Domestic: | | | | | | | | | | |
| Red gum..... | 39,573 | 73,062 | 102,932 | 119,485 | 129,930 | 158,157 | 136,542 | 198,641 | 146,740 | 220,703 |
| Yellow pine..... | 12,688 | 45,581 | 52,450 | 42,342 | 48,143 | 40,324 | 35,400 | 67,071 | 42,185 | 65,100 |
| Birch..... | 12,643 | 16,823 | 18,079 | 17,769 | 24,643 | 27,633 | 24,011 | 37,070 | 37,070 | 43,066 |
| Cottonwood..... | 16,357 | 29,063 | 33,174 | 33,904 | 30,842 | 33,149 | 34,911 | 36,789 | 27,882 | 40,404 |
| Tupelo..... | 314 | 8,311 | 15,097 | 16,442 | 18,476 | 26,548 | 20,976 | 34,175 | 21,494 | 36,366 |
| Yellow poplar..... | 26,164 | 21,619 | 28,764 | 22,898 | 28,836 | 33,812 | 25,835 | 32,653 | 18,370 | 45,376 |
| Douglas fir..... | | 370 | 90 | 333 | 1,111 | 2,006 | 6,262 | 10,404 | 16,518 | 55,123 |
| White oak..... | 1,725 | 5,121 | 3,952 | 5,176 | 2,400 | 2,724 | 4,121 | 14,060 | 15,443 | 15,452 |
| Maple..... | 16,129 | 38,848 | 27,872 | 20,700 | 28,742 | 33,005 | 41,742 | 30,554 | 11,852 | 12,940 |
| | 20,246 | 30,084 | 28,175 | 27,886 | 35,444 | 39,471 | 29,762 | 15,725 | 10,619 | 23,310 |
| Elm..... | 5,544 | 12,122 | 12,615 | 12,714 | 16,254 | 17,372 | 18,340 | 9,378 | 7,698 | 9,570 |
| Basswood..... | 11,376 | 15,659 | 13,561 | 11,609 | 13,715 | 11,003 | 11,602 | 11,134 | 5,977 | 8,771 |
| Spruce..... | | 6,477 | 6,060 | 5,413 | 4,111 | 6,271 | 9,108 | 11,355 | 4,807 | 11,273 |
| Red oak..... | 4,955 | 8,109 | 4,629 | 4,449 | 6,661 | 9,769 | 9,297 | 3,161 | 4,407 | 12,834 |
| Sycamore..... | 576 | 4,530 | 3,554 | 5,279 | 4,404 | 2,548 | 2,316 | 1,802 | 3,675 | 4,182 |
| Cypress..... | | | | 153 | 202 | | (1) | 1,924 | 2,659 | 3,617 |
| Cedar..... | | | | 104 | 101 | | (1) | (1) | 2,394 | 11,137 |
| Beech..... | 1,400 | 5,324 | 4,367 | 8,515 | 9,950 | 10,550 | 12,023 | 3,922 | 2,140 | 5,210 |
| Magnolia..... | | | 90 | 315 | 232 | | (1) | 283 | 994 | 1,439 |
| Western pine..... | | | | (1) | (1) | | (1) | 1,539 | 985 | 4,531 |
| Ash..... | 2,461 | 5,214 | 2,818 | 2,490 | 2,773 | 2,356 | 2,491 | 3,254 | 559 | 1,114 |
| Chestnut..... | (1) | | 400 | 1,138 | 1,577 | 1,726 | 1,539 | (1) | (1) | (1) |
| Redwood..... | | | | | | | | (1) | 439 | |
| Willow..... | | | | (1) | 60 | | (1) | (1) | 207 | 1,322 |
| All other..... | 2,965 | 2,869 | 2,200 | 3,410 | 2,884 | 2,611 | 6,716 | 1,069 | 471 | 2,214 |
| Imported: | | | | | | | | | | |
| Mahogany..... | | | 6,722 | 11,487 | 16,057 | 8,773 | 4,790 | 27,028 | 11,452 | 6,664 |
| Spanish cedar..... | | | 1,000 | 6,558 | 5,140 | 5,069 | 5,348 | 4,771 | 2,202 | 2,714 |
| All other..... | | | | 1,973 | 3,353 | 2,662 | 1,557 | | 119 | 2,961 |
| Total..... | 181,140 | 329,186 | 345,523 | 382,542 | 435,981 | 477,479 | 444,866 | 575,381 | 400,388 | 645,763 |

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1 Included in "all other" domestic.

TABLE 780.—*Pulp wood: Consumption, by kinds of wood, by States, 1924*

[Quantities in cords of 128 cubic feet]

| State | Num- ber of estab- lish- ments | Spruce | | Hem- lock | Yellow pine | Poplar | | Balsam fir | Yellow poplar | White fir | Jack pine | Tama- rack or larch | Gum | Bass- wood | All other | Slabs and other mill waste | Total |
|-------------------------------------|--|---------------|---------------|--------------|----------------|---------------|---------------|---------------|------------------|--------------|--------------|------------------------------|--------|---------------|--------------|--|-----------|
| | | Do- mestic | Im- ported | | | Do- mestic | Im- ported | | | | | | | | | | |
| Maine..... | 32 | 834,762 | 121,536 | 21,903 | ..... | 102,298 | 45,509 | 81,951 | ..... | ..... | ..... | ..... | ..... | 2,592 | 21,151 | 2,540 | 1,294,172 |
| Wisconsin..... | 43 | 294,106 | 68,331 | 525,990 | ..... | 3,332 | ..... | 92,579 | ..... | ..... | 65,774 | 47,779 | ..... | ..... | 23 | 2,729 | 1,071,284 |
| New York..... | 73 | 214,533 | 478,249 | 30,914 | ..... | 28,265 | 74,015 | 76,705 | ..... | ..... | ..... | ..... | ..... | 3,875 | 648 | 483 | 905,767 |
| Pennsylvania..... | 13 | 31,117 | 68,332 | 16,107 | 53,603 | 44,331 | 37,380 | 10,000 | 13,481 | ..... | ..... | ..... | 20,233 | ..... | 42,909 | 44,473 | 406,866 |
| New Hampshire..... | 8 | 218,926 | 23,979 | 1,500 | ..... | ..... | 11 | 5,350 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 13,625 | 269,391 |
| Virginia..... | 7 | 27,305 | 23,855 | 38,270 | 117,148 | 8,340 | ..... | 35,011 | 34,177 | ..... | ..... | ..... | 981 | 491 | 8,093 | 4,776 | 288,946 |
| Michigan..... | 12 | 70,234 | 57,992 | 58,091 | ..... | 96 | ..... | ..... | ..... | ..... | 9,045 | 12,201 | ..... | ..... | 167 | ..... | 281,837 |
| Minnesota..... | 7 | 184,640 | 18,612 | ..... | ..... | 12,709 | ..... | 5,709 | ..... | ..... | 958 | 14,679 | ..... | ..... | 992 | 295 | 238,592 |
| Washington..... | 6 | 41,361 | 412 | 112,553 | ..... | ..... | ..... | ..... | ..... | 46,966 | ..... | ..... | ..... | ..... | 22,861 | 6,146 | 230,299 |
| Louisiana..... | 4 | ..... | ..... | ..... | 106,593 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 106,593 |
| West Virginia..... | 4 | 33,040 | ..... | 3,207 | 4,311 | 1,420 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 16,821 | 59,799 |
| Vermont..... | 6 | 33,193 | 5,081 | 105 | ..... | 349 | ..... | 5,713 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 46,441 | 46,441 |
| Massachusetts..... | 3 | 40,215 | 2,226 | ..... | ..... | 5,456 | 464 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 48,371 |
| California and Oregon..... | 6 | 36,409 | ..... | 123,224 | ..... | ..... | ..... | ..... | ..... | 46,330 | ..... | ..... | ..... | ..... | ..... | ..... | 205,908 |
| All other States ¹ | 13 | 11,721 | 13,888 | 33,495 | 141,306 | 11,469 | ..... | ..... | 80,379 | ..... | ..... | ..... | 16,248 | 1,300 | 82,898 | 28,022 | 420,756 |
| United States..... | 239 | 2,079,182 | 890,523 | 963,359 | 427,961 | 218,036 | 157,363 | 313,018 | 128,037 | 93,296 | 75,775 | 74,659 | 37,462 | 8,248 | 180,186 | 113,960 | 5,708,062 |

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¹ Delaware, 1 establishment; District of Columbia, 1; Georgia, 1; Maryland, 2; Mississippi, 1; North Carolina, 2; Ohio, 2; South Carolina, 1; Tennessee, 1; Texas, 1.

TABLE 781.—Wood pulp: Production, by States, 1899, 1904, 1907-1911, 1914, 1916-1924

[Quantities in tons of 2,000 pounds]

| Year | California | Maine | Massachusetts | Michigan | Minnesota | New Hampshire | New York | North Carolina | Ohio | Oregon | Pennsylvania | Vermont | Virginia | Washington | West Virginia | Wisconsin | All other | Total |
|------|------------|---------|---------------|----------|-----------|---------------|----------|----------------|--------|--------|--------------|---------|----------|------------|---------------|-----------|-----------|-----------|
| 1900 | | 231,619 | 24,964 | 20,707 | (1) | 119,590 | 394,635 | | 13,805 | 1,154 | 85,433 | 64,951 | 6,117 | | 13,471 | 137,068 | 65,961 | 1,179,525 |
| 1904 | 7,500 | 456,921 | 28,445 | 38,612 | 22,479 | 173,888 | 606,014 | | 26,274 | 31,549 | 83,114 | 60,747 | 42,307 | | 28,695 | 241,337 | 70,686 | 1,921,768 |
| 1907 | (1) | 653,385 | 27,811 | 64,166 | 34,286 | 250,721 | 731,278 | (1) | 31,235 | 61,366 | 143,663 | 74,246 | 49,070 | (1) | 47,525 | 299,784 | 78,473 | 2,547,879 |
| 1908 | (1) | 490,365 | 20,626 | 54,288 | 32,572 | 181,338 | 596,658 | 36,024 | 31,253 | 64,852 | 124,377 | 107,067 | 35,443 | (1) | 46,966 | 268,461 | 96,637 | 2,118,947 |
| 1909 | | 603,852 | 23,804 | 64,369 | 37,295 | 212,599 | 696,323 | 53,026 | 26,977 | 83,692 | 135,525 | 59,356 | 48,641 | (1) | 48,797 | 324,509 | 79,741 | 2,491,406 |
| 1910 | (1) | 607,842 | 27,452 | 66,150 | 32,328 | 251,408 | 709,860 | 59,292 | 16,932 | 82,230 | 154,700 | 59,566 | 50,335 | (1) | 48,319 | 282,456 | 94,846 | 2,533,976 |
| 1911 | (1) | 623,242 | 30,522 | 70,188 | 33,582 | 245,974 | 773,607 | 62,967 | 14,496 | 90,842 | 147,624 | 67,311 | 47,272 | (1) | 55,043 | 334,363 | 89,141 | 2,686,134 |
| 1914 | | | | | | | | | | | | | | | | | | |
| 1916 | 188,752 | 852,276 | 19,247 | 94,601 | 138,799 | 341,365 | 787,397 | 35,348 | (1) | (1) | 216,964 | 73,813 | 68,596 | (1) | 58,913 | 451,651 | 102,250 | 3,435,001 |
| 1917 | 213,813 | 898,798 | 30,802 | 96,623 | 146,353 | 266,645 | 798,616 | 64,548 | (1) | (1) | 215,060 | 94,975 | 75,972 | (1) | 54,813 | 456,129 | 102,792 | 3,509,939 |
| 1918 | 168,654 | 872,779 | 30,674 | 101,036 | 121,444 | 229,774 | 749,176 | 54,169 | (1) | (1) | 195,451 | 83,548 | 89,898 | (1) | 48,261 | 473,890 | 115,110 | 3,313,861 |
| 1919 | 123,990 | 916,764 | 32,611 | 106,194 | 126,560 | 232,134 | 811,968 | 61,161 | 10,449 | (1) | 215,686 | 85,945 | 86,529 | (1) | 38,195 | 506,549 | 100,252 | 3,517,952 |
| 1920 | 148,877 | 942,730 | 34,687 | 132,776 | 170,216 | 239,634 | 830,045 | 64,773 | 12,549 | (1) | 238,013 | 96,666 | 81,620 | (1) | 35,821 | 548,528 | 144,604 | 3,821,704 |
| 1921 | 124,494 | 710,329 | 22,064 | 108,532 | 117,934 | 152,797 | 606,869 | (1) | (1) | (1) | 167,310 | 41,945 | (1) | (1) | 27,623 | 488,501 | 217,042 | 2,875,601 |
| 1922 | 156,218 | 862,672 | 27,797 | 148,912 | 162,200 | 179,135 | 675,325 | (1) | (1) | (1) | 217,115 | 54,668 | (1) | (1) | 19,051 | 564,696 | 351,486 | 3,521,644 |
| 1923 | 162,653 | 901,007 | 31,369 | 138,034 | 170,609 | 188,328 | 760,190 | (1) | (1) | (1) | 226,900 | 70,840 | (1) | (1) | 23,072 | 577,963 | 390,730 | 3,788,672 |
| 1924 | 146,894 | 895,451 | 30,409 | 145,565 | 141,165 | 151,863 | 755,156 | (1) | (1) | (1) | 216,862 | 45,587 | (1) | (1) | 27,703 | 609,081 | 394,991 | 3,723,286 |

Bureau of the Census and Forest Service.

* Included in "all other."

* Includes Delaware, Illinois, Indiana, Maryland, South Carolina, and Texas.

* Includes Delaware, Maryland, South Carolina, and Texas.

* 4,117 tons of unclassified pulp not included.

* Not reported by States.

* Total includes screenings.

* Included in California.

* Includes Delaware, Georgia, Louisiana, Maryland, Mississippi, South Carolina, and Texas.

* Includes Delaware, District of Columbia, Georgia, Louisiana, Maryland, Mississippi, South Carolina, Tennessee, and Texas.

* Includes Delaware, District of Columbia, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Ohio, South Carolina, Tennessee, Texas.

TABLE 782.—Wood pulp: International trade, average 1909-1913, annual 1922-1924

[Thousand pounds—l. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|-----------|-----------|-----------|-----------|-----------|------------------|-----------|
| | Average 1909-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Austria | | | 24,272 | 100,501 | | | | |
| Austria-Hungary | 13,366 | 205,364 | | | | | | |
| Canada | 9,481 | 606,203 | 34,601 | 1,636,493 | 34,458 | 1,750,718 | 48,994 | 1,563,966 |
| Finland | 526 | 230,881 | 1 | 549,231 | 64 | 614,375 | | 952,344 |
| Germany | 112,660 | 384,709 | 158,765 | 162,972 | 70,008 | 246,650 | 75,135 | 337,509 |
| Norway | 164,911 | 1,437,078 | 176,169 | 1,334,497 | 80,073 | 1,547,596 | | 1,473,056 |
| Sweden | 9,515 | 1,822,023 | 7,489 | 2,686,200 | 18,152 | 2,305,812 | 11,237 | 3,114,471 |
| Switzerland | 21,059 | 13,072 | 12,601 | 25,003 | 20,115 | 29,642 | 14,465 | 23,317 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina | 52,016 | | 31,245 | | 34,000 | | 35,641 | |
| Belgium | 291,254 | 80,647 | 258,140 | 7,411 | 211,171 | 4,856 | 214,099 | 4,055 |
| Denmark | 110,866 | | 99,689 | 202 | 125,774 | | 115,292 | |
| France | 836,899 | 1,720 | 857,586 | 119 | 831,410 | 357 | 865,399 | 707 |
| Italy | 179,267 | 485 | 197,253 | 1,128 | 145,998 | 3,229 | 230,095 | 3,136 |
| Japan | 79,260 | | 148,694 | 70 | 80,015 | 6 | 134,430 | 9 |
| Netherlands | | | 99,826 | 670 | 81,822 | 2,183 | 101,473 | 7,822 |
| Russia | 56,072 | 52,735 | | | | | | |
| Spain | 92,770 | | 144,379 | | 109,128 | | 153,749 | |
| United Kingdom | 1,891,006 | | 2,067,249 | 703 | 2,534,482 | 152 | 2,742,862 | 22 |
| United States | 1,007,239 | 24,309 | 2,517,921 | 49,000 | 2,768,183 | 46,135 | 3,050,195 | 64,196 |
| Other countries | 28,796 | 73,281 | 51,107 | 127,513 | 64,640 | 134,445 | 21,127 | 538,284 |
| Total | 4,856,963 | 4,938,507 | 6,886,987 | 6,581,813 | 7,209,393 | 6,686,156 | 7,714,193 | 8,082,894 |

Division of Statistical and Historical Research. Official sources. All kinds of pulp from wood are included, but no pulp made from other fibrous substances.

¹ Four-year average.

² Six months.

TABLE 783.—Wood pulp, sulphite, domestic, unbleached: Average wholesale price per 100 pounds, New York, 1914-1925.

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average ¹ |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------|
| | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. | Dolls. |
| 1914 | 2.125 | 2.100 | 2.050 | 2.050 | 2.050 | 2.075 | 2.075 | 2.000 | 2.375 | 2.325 | 2.325 | 2.325 | 2.156 |
| 1915 | 2.125 | 2.050 | 2.150 | 2.100 | 2.100 | 2.100 | 2.075 | 2.075 | 2.075 | 2.150 | 2.350 | 2.119 | |
| 1916 | 2.675 | 2.575 | 2.850 | 3.150 | 3.625 | 3.625 | 3.625 | 3.875 | 4.250 | 5.125 | 5.375 | 3.815 | |
| 1917 | 5.375 | 5.525 | 5.400 | 5.475 | 5.475 | 5.475 | 4.975 | 5.375 | 3.975 | 3.225 | 2.800 | 4.813 | |
| 1918 | 2.800 | 2.800 | 2.913 | 3.285 | 3.594 | 4.250 | 4.280 | 4.325 | 4.638 | 4.975 | 4.500 | 3.975 | 3.837 |
| 1919 | 3.698 | 3.500 | 3.500 | 3.400 | 3.375 | 3.375 | 3.375 | 3.563 | 3.625 | 3.625 | 3.625 | 3.625 | 3.522 |
| 1920 | 3.625 | 3.625 | 3.825 | 5.719 | 6.938 | 7.400 | 8.250 | 8.250 | 8.250 | 8.125 | 7.750 | 6.960 | 6.579 |
| Av. 1914-1920 | 3.188 | 3.168 | 3.241 | 3.597 | 3.890 | 4.043 | 4.089 | 4.152 | 4.870 | 4.275 | 4.100 | 3.917 | 3.834 |
| 1921 | 6.000 | 4.659 | 4.075 | 3.344 | 3.875 | 3.625 | 3.438 | 2.625 | 2.625 | 2.625 | 2.625 | 2.625 | 3.495 |
| 1922 | 2.545 | 2.525 | 2.525 | 2.525 | 2.525 | 2.525 | 2.525 | 2.525 | 2.538 | 2.635 | 2.675 | 2.675 | 2.562 |
| 1923 | 2.675 | 2.675 | 2.731 | 2.888 | 3.155 | 3.225 | 3.225 | 3.200 | 3.113 | 3.105 | 2.913 | 2.704 | 2.973 |
| 1924 | 2.610 | 2.625 | 2.625 | 2.625 | 2.625 | 2.600 | 2.610 | 2.525 | 2.505 | 2.506 | 2.569 | 2.625 | 2.579 |
| 1925 | 2.625 | 2.625 | 2.600 | 2.600 | 2.600 | 2.660 | 2.675 | 2.675 | 2.675 | 2.725 | 2.800 | 2.900 | 2.682 |
| Av. 1921-1925 | 3.299 | 3.021 | 2.911 | 2.796 | 2.956 | 2.927 | 2.878 | 2.710 | 2.691 | 2.719 | 2.716 | 2.706 | 2.858 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

¹ Derived from the figures upon which the monthly averages are based.

TABLE 784.—*Turpentine and rosin: Production from crude gum, by States, certain years, 1899–1923*

· TURPENTINE

| Year | Alabama | Florida | Georgia | Louisiana | Mississippi | North Carolina | South Carolina | Texas | Total |
|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> |
| 1899 | 3,703,900 | 11,838,900 | 15,289,550 | 215,200 | 3,213,350 | 1,994,150 | 1,478,450 | | 37,733,500 |
| 1904 | 3,108,118 | 12,872,869 | 9,542,316 | 245,300 | 3,160,371 | 993,665 | 764,412 | | 30,637,051 |
| 1907 | 3,544,300 | 15,572,700 | 10,119,500 | 1,134,100 | 2,232,500 | 916,400 | 586,950 | 74,350 | 34,180,800 |
| 1908 | 3,744,050 | 17,030,300 | 10,347,800 | 1,696,250 | 2,277,850 | 732,300 | 559,800 | 200,650 | 36,589,000 |
| 1909 | 2,840,212 | 13,809,785 | 8,056,752 | 1,231,254 | 1,588,786 | 781,197 | 460,186 | 220,752 | 28,988,964 |
| 1910 | 2,350,000 | 14,900,000 | 6,950,000 | 950,000 | 1,750,000 | 850,000 | | | 27,750,000 |
| 1914 | 2,721,777 | 12,363,232 | 6,228,041 | 2,252,118 | 2,385,054 | 182,378 | 201,221 | 647,160 | 26,980,981 |
| 1919 | 2,037,005 | 6,992,489 | 3,997,310 | 1,885,231 | 1,749,812 | 67,150 | 58,440 | 906,404 | 17,693,841 |
| 1921 | 2,827,782 | 8,298,850 | 7,034,333 | 2,910,163 | 2,690,834 | 22,186 | 278,080 | 346,626 | 24,378,554 |
| 1922 | 2,076,431 | 8,258,899 | 7,131,222 | 2,387,745 | 2,013,865 | 354,025 | | 171,450 | 22,394,187 |
| 1923 | 2,101,661 | 9,746,739 | 10,056,733 | 2,126,646 | 2,432,207 | 710,594 | | | 27,174,580 |

ROSIN

[Barrels of 500 lbs.]

| Year | Alabama | Florida | Georgia | Louisiana | Mississippi | North Carolina | South Carolina | Texas | Total |
|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> | <i>Barrels</i> |
| 1899 | 233,125 | 733,910 | 903,053 | 13,352 | 229,527 | 207,954 | 114,012 | | 2,434,933 |
| 1904 | 201,863 | 809,705 | 618,782 | 16,813 | 203,187 | 65,136 | 40,188 | | 1,994,674 |
| 1907 | 234,358 | 993,647 | 657,202 | 70,754 | 142,972 | 94,304 | 42,032 | 4,261 | 2,239,620 |
| 1908 | 250,269 | 1,081,964 | 673,713 | 109,650 | 155,514 | 73,808 | 40,390 | 16,050 | 2,401,438 |
| 1909 | 173,467 | 871,219 | 506,298 | 78,112 | 107,805 | 46,519 | 28,785 | 15,555 | 1,827,760 |
| 1910 | 173,000 | 1,018,000 | 487,000 | 46,000 | 119,000 | 63,000 | | | 1,906,000 |
| 1914 | 163,099 | 733,772 | 347,931 | 150,793 | 154,115 | 13,239 | 9,655 | 41,639 | 1,615,643 |
| 1919 | 120,839 | 486,432 | 234,660 | 112,900 | 115,964 | 4,086 | 3,550 | 60,179 | 1,138,660 |
| 1921 | 192,149 | 549,907 | 488,650 | 205,854 | 185,375 | 1,321 | 17,142 | 21,226 | 1,661,624 |
| 1922 | 133,702 | 556,355 | 467,349 | 166,912 | 139,159 | 23,701 | | 12,360 | 1,490,538 |
| 1923 | 151,641 | 660,009 | 627,305 | 145,223 | 162,231 | 43,678 | | | 1,790,037 |

Forest Service. Compiled from census publications. Calendar years except as otherwise noted. Additional production of turpentine distilled from wood in 1923 was 2,607,364 gallons. Additional production of rosin distilled from wood in 1923 was 200,778 barrels.

¹ Includes Texas.

² Includes South Carolina.

³ Crop year beginning Apr. 1.

⁴ Includes South Carolina and Texas.

TABLE 785.—*Turpentine and rosin production in the United States, 1910–1925*

| Year beginning Apr. 1— | Turpentine | | | Rosin | | |
|------------------------|----------------|----------------|----------------|--------------------------|--------------------------|--------------------------|
| | Gum | Wood | Total | Gum | Wood | Total |
| | <i>Gallons</i> | <i>Gallons</i> | <i>Gallons</i> | <i>Barrels, 500 lbs.</i> | <i>Barrels, 500 lbs.</i> | <i>Barrels, 500 lbs.</i> |
| 1910 | 29,750,000 | 750,000 | 30,500,000 | 1,979,000 | 14,000 | 1,994,000 |
| 1911 | 31,900,000 | 1,000,000 | 32,900,000 | 2,126,000 | 23,000 | 2,149,000 |
| 1912 | 34,000,000 | 1,200,000 | 35,200,000 | 2,267,000 | 98,000 | 2,365,000 |
| 1913 | 32,000,000 | 1,250,000 | 33,250,000 | 2,132,000 | 130,000 | 2,262,000 |
| 1914 | 27,000,000 | 576,000 | 27,576,000 | 1,706,000 | 34,000 | 1,740,000 |
| 1915 | 23,500,000 | 700,000 | 24,200,000 | 1,565,000 | 40,000 | 1,605,000 |
| 1916 | 26,750,000 | 1,000,000 | 27,750,000 | 1,782,000 | 89,000 | 1,871,000 |
| 1917 | 23,700,000 | 1,800,000 | 25,500,000 | 1,631,000 | 160,000 | 1,691,000 |
| 1918 | 17,050,000 | 1,300,000 | 18,350,000 | 1,115,000 | 123,000 | 1,238,000 |
| 1919 | 18,300,000 | 1,535,000 | 19,835,000 | 1,237,000 | 158,000 | 1,395,000 |
| 1920 | 24,450,000 | 1,750,000 | 26,200,000 | 1,677,000 | 180,000 | 1,757,000 |
| 1921 | 24,378,000 | 442,000 | 24,820,000 | 1,662,000 | 83,000 | 1,715,000 |
| 1922 | 22,395,000 | 1,859,000 | 24,254,000 | 1,500,000 | 152,000 | 1,652,000 |
| 1923 | 27,175,000 | 2,607,000 | 29,782,000 | 1,790,000 | 201,000 | 1,991,000 |
| 1924 | 26,072,000 | 3,261,000 | 29,333,000 | 1,721,000 | 268,000 | 1,979,000 |
| 1925 | 28,923,000 | 3,123,000 | 32,046,000 | 1,679,000 | 289,000 | 1,868,000 |

Bureau of Chemistry.

¹ Trade estimates.

² Statistics compiled by Bureau of the Census.

³ Statistics compiled by Bureau of Chemistry.

⁴ Turpentine and Rosin Producers Association Statistics.

⁵ Figures for wood turpentine in 1925 incomplete; do not include destructively distilled wood turpentine.

TABLE 786.—Turpentine and rosin: Stocks, United States, March 31, 1919-1925

| TURPENTINE | | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Stocks | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>Casks, 60 gal.</i> | <i>Casks, 60 gal.</i> | <i>Casks, 60 gal.</i> | <i>Casks, 60 gal.</i> | <i>Casks, 60 gal.</i> | <i>Casks, 60 gal.</i> | <i>Casks, 60 gal.</i> |
| Stocks at stills..... | 24, 050 | 28, 394 | 30, 429 | 20, 732 | 12, 194 | 22, 441 | 19, 151 |
| Stocks at wood distillation plants..... | 1, 965 | 2, 000 | 5, 000 | 2, 850 | 5, 994 | 9, 500 | 13, 052 |
| Stocks at primary southern ports..... | 122, 853 | 84, 519 | 60, 916 | 24, 069 | 21, 040 | 29, 982 | 31, 590 |
| Stocks at eastern ports and distributing points..... | 1, 513 | 2, 363 | 2, 258 | 1, 675 | 2, 652 | 3, 439 | 2, 803 |
| Stocks at central distributing points..... | 5, 771 | 14, 558 | 10, 364 | 8, 195 | 10, 881 | 14, 232 | 12, 044 |
| Stocks at western ports and distributing points..... | 2, 751 | 2, 634 | 848 | 900 | 2, 225 | 8, 426 | 4, 742 |
| Stocks at plants of consuming industries..... | 28, 500 | 26, 340 | 30, 528 | 26, 717 | 16, 670 | 18, 692 | 25, 300 |
| Total..... | 187, 403 | 110, 808 | 140, 343 | 85, 168 | 71, 656 | 106, 532 | 98, 769 |

| ROSIN | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Stocks | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>Barrels, 500 lbs.</i> | <i>Barrels, 500 lbs.</i> | <i>Barrels, 500 lbs.</i> | <i>Barrels, 500 lbs.</i> | <i>Barrels, 500 lbs.</i> | <i>Barrels, 500 lbs.</i> | <i>Barrels, 500 lbs.</i> |
| Stocks at stills..... | 130, 035 | 138, 535 | 327, 055 | 499, 797 | 474, 829 | 345, 214 | 150, 045 |
| Stocks at wood distillation plants..... | 12, 304 | 23, 000 | 40, 000 | 19, 143 | 25, 063 | 50, 000 | 45, 462 |
| Stocks at primary southern ports..... | 326, 933 | 211, 238 | 432, 237 | 347, 730 | 278, 414 | 307, 543 | 225, 188 |
| Stocks at eastern ports and distributing points..... | 81, 440 | 23, 417 | 11, 063 | 11, 359 | 8, 078 | 14, 060 | 8, 134 |
| Stocks at central distributing points..... | 22, 608 | 28, 514 | 35, 567 | 40, 043 | 46, 038 | 28, 881 | 19, 435 |
| Stocks at western ports and distributing points..... | 1, 743 | 777 | 275 | 6, 447 | 1, 340 | 1, 492 | 2, 188 |
| Stocks at plants of consuming industries..... | 203, 000 | 290, 045 | 217, 302 | 263, 488 | 297, 843 | 264, 558 | 195, 636 |
| Total..... | 778, 063 | 715, 526 | 1, 063, 499 | 1, 190, 007 | 1, 132, 505 | 1, 011, 748 | 646, 088 |

Bureau of Chemistry. Compiled from reports of Bureau of Chemistry and Bureau of the Census.

† Turpentine and Rosin Producers Association estimates.

TABLE 787.—Turpentine (spirits): Average wholesale price per gallon (in barrels), New York, 1909-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average, ¹ |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1909..... | 0. 415 | 0. 450 | 0. 425 | 0. 405 | 0. 402 | 0. 425 | 0. 462 | 0. 518 | 0. 595 | 0. 620 | 0. 602 | 0. 570 | 0. 491 |
| 1910..... | . 592 | . 632 | . 630 | . 630 | . 625 | . 592 | . 672 | . 715 | . 745 | . 765 | . 810 | . 785 | . 683 |
| 1911..... | . 808 | . 872 | . 912 | 1. 070 | . 772 | . 568 | . 560 | . 525 | . 548 | . 535 | . 492 | . 484 | . 679 |
| 1912..... | . 540 | . 495 | . 500 | . 505 | . 530 | . 480 | . 479 | . 462 | . 425 | . 428 | . 420 | . 380 | . 470 |
| 1913..... | . 425 | . 452 | . 455 | . 458 | . 408 | . 405 | . 398 | . 382 | . 422 | . 415 | . 452 | . 462 | . 428 |
| Av. 1909-1913..... | . 556 | . 580 | . 584 | . 614 | . 547 | . 494 | . 514 | . 520 | . 547 | . 553 | . 555 | . 536 | . 550 |
| 1914..... | . 458 | . 510 | . 480 | . 488 | . 460 | . 472 | . 498 | . 480 | . 422 | . 478 | . 458 | . 477 | . 473 |
| 1915..... | . 452 | . 445 | . 450 | . 472 | . 488 | . 435 | . 430 | . 420 | . 398 | . 415 | . 538 | . 570 | . 459 |
| 1916..... | . 572 | . 578 | . 530 | . 552 | . 410 | . 435 | . 415 | . 408 | . 465 | . 462 | . 480 | . 525 | . 491 |
| 1917..... | . 550 | . 540 | . 513 | . 488 | . 520 | . 448 | . 420 | . 428 | . 423 | . 485 | . 535 | . 505 | . 488 |
| 1918..... | . 490 | . 474 | . 439 | . 426 | . 507 | . 636 | . 700 | . 622 | . 661 | . 658 | . 798 | . 716 | . 594 |
| 1919..... | . 755 | . 709 | . 720 | . 773 | . 831 | 1. 095 | 1. 178 | 1. 724 | 1. 683 | 1. 600 | 1. 689 | 1. 656 | 1. 201 |
| 1920..... | 1. 885 | 1. 985 | 2. 238 | 2. 575 | 2. 475 | 1. 868 | 1. 599 | 1. 624 | 1. 473 | 1. 230 | 1. 098 | . 790 | 1. 734 |
| Av. 1914-1920..... | . 737 | . 749 | . 707 | . 825 | . 813 | . 770 | . 748 | . 824 | . 789 | . 761 | . 799 | . 748 | . 777 |
| 1921..... | . 724 | . 609 | . 584 | . 591 | . 717 | . 604 | . 613 | . 633 | . 718 | . 755 | . 810 | . 814 | . 681 |
| 1922..... | . 909 | . 903 | . 809 | . 866 | . 944 | 1. 110 | 1. 207 | 1. 194 | 1. 208 | 1. 530 | 1. 578 | 1. 403 | 1. 150 |
| 1923..... | 1. 522 | 1. 493 | 1. 548 | 1. 524 | 1. 167 | 1. 046 | . 943 | . 951 | . 971 | 1. 007 | . 954 | . 938 | 1. 171 |
| 1924..... | 1. 007 | 1. 022 | 1. 024 | . 965 | . 901 | . 844 | . 837 | . 896 | . 887 | . 880 | . 851 | . 837 | . 912 |
| 1925..... | . 929 | . 938 | . 918 | . 958 | 1. 060 | . 990 | . 999 | 1. 013 | 1. 121 | 1. 128 | 1. 116 | 1. 017 | 1. 013 |
| Av. 1921-1925..... | 1. 018 | . 993 | . 989 | . 981 | . 955 | . 919 | . 914 | . 937 | . 999 | 1. 060 | 1. 062 | 1. 002 | . 985 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

¹ Derived from the figures upon which the monthly averages are based.

TABLE 788.—Turpentine (spirits): International trade, average 1909-1913, annual 1922-1924

[Thousand gallons—i. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|----------|----------|----------|----------|----------|------------------|----------|
| | Average 1909-1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| France..... | 48 | 2,594 | 18 | 2,370 | 100 | 2,376 | 77 | 2,704 |
| Greece..... | 2 | 368 | | 288 | | 297 | | 465 |
| Russia..... | 273 | 2,322 | | | | | | |
| Spain..... | | 1,156 | 6 | 1,297 | 32 | 835 | 15 | 1,780 |
| Sweden..... | 134 | 62 | 110 | 300 | 147 | 203 | 149 | 300 |
| United States..... | | 17,808 | | 9,309 | | 11,478 | | 11,510 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 554 | | 427 | | 617 | | 393 | |
| Australia..... | 504 | | 635 | (*) | 855 | (*) | | |
| Austria..... | | | | | 123 | 125 | 261 | 88 |
| Austria-Hungary..... | 2,581 | 53 | | | | | | |
| Belgium..... | 1,932 | 1,144 | 959 | 174 | 763 | 34 | 723 | 65 |
| Brazil..... | 4311 | | 399 | | 368 | | | |
| Canada..... | 1,175 | | 1,267 | 1 | 1,082 | 5 | 1,173 | 8 |
| Chile..... | 198 | | 97 | | 189 | | | |
| Czechoslovakia..... | | | 542 | 14 | 766 | 86 | 744 | |
| Denmark..... | 117 | (*) | 176 | (*) | 180 | (*) | 191 | (*) |
| Germany..... | 9,308 | 460 | 2,036 | 127 | 1,518 | 145 | 2,612 | 142 |
| Italy..... | 940 | 3 | 852 | 16 | 1,044 | 12 | 1,023 | 24 |
| Netherlands..... | 3,998 | 2,750 | 1,225 | 34 | 1,227 | 28 | 1,160 | 76 |
| New Zealand..... | 178 | | 76 | | 158 | | 102 | |
| Switzerland..... | 466 | 9 | 571 | | 678 | | 659 | |
| United Kingdom..... | 7,782 | | 6,079 | 165 | 6,974 | 168 | 6,561 | 191 |
| Union of South Africa..... | 181 | | 158 | | 253 | | 53 | |
| Other countries..... | 428 | 154 | 512 | 204 | 1,044 | 290 | 1,126 | 800 |
| Total..... | 31,200 | 28,943 | 16,134 | 14,419 | 18,088 | 16,082 | 17,011 | 17,232 |

Division of Statistical and Historical Research. Official sources. "Spirits of turpentine" includes only "spirits" or "oil" of turpentine and, for Russia, skipidar; it excludes crude turpentine, pitch, and for Russia, turpentine.

* Six months.

* Year beginning July 1.

* Less than 500 gallons.

* Four-year average.

TABLE 789.—Rosin, common to good, strained: Average wholesale price per barrel, New York, 1909-1925

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1909..... | Dols. 3.275 | Dols. 3.325 | Dols. 3.175 | Dols. 3.275 | Dols. 3.300 | Dols. 3.250 | Dols. 3.000 | Dols. 3.250 | Dols. 3.500 | Dols. 4.250 | Dols. 4.225 | Dols. 4.175 | Dols. 3.500 |
| 1910..... | 4.200 | 4.400 | 4.550 | 4.650 | 4.500 | 4.500 | 5.300 | 6.050 | 6.100 | 6.400 | 6.100 | 6.050 | 5.233 |
| 1911..... | 6.200 | 6.750 | 7.450 | 8.500 | 7.750 | 6.750 | 6.250 | 5.400 | 6.250 | 6.400 | 6.600 | 6.300 | 6.717 |
| 1912..... | 7.150 | 6.850 | 6.700 | 6.900 | 6.500 | 6.500 | 6.450 | 6.475 | 6.850 | 6.000 | 6.500 | 6.375 | 6.612 |
| 1913..... | 5.950 | 5.750 | 5.500 | 5.500 | 4.750 | 4.800 | 4.000 | 4.250 | 4.200 | 4.000 | 4.000 | 4.100 | 4.817 |
| A. v. 1909-1913..... | 5.355 | 5.375 | 5.675 | 5.765 | 5.360 | 5.170 | 5.000 | 5.085 | 5.380 | 5.530 | 5.485 | 5.400 | 5.382 |
| 1914..... | 4.000 | 4.400 | 4.250 | 4.150 | 4.100 | 4.050 | 4.200 | 3.950 | 3.750 | 3.850 | 3.750 | 3.750 | 4.017 |
| 1915..... | 3.600 | 3.500 | 3.400 | 3.400 | 3.350 | 3.200 | 3.450 | 3.250 | 3.700 | 4.800 | 6.000 | 3.737 | |
| 1916..... | 5.950 | 6.750 | 5.400 | 5.200 | 4.300 | 5.100 | 5.500 | 6.650 | 6.150 | 6.250 | 6.550 | 6.800 | 5.830 |
| 1917..... | 6.600 | 6.550 | 6.275 | 6.000 | 6.300 | 6.300 | 6.000 | 5.850 | 6.000 | 6.800 | 6.850 | 7.175 | 6.332 |
| 1918..... | 7.120 | 6.969 | 6.588 | 6.070 | 7.725 | 9.981 | 11.000 | 11.525 | 13.644 | 15.155 | 15.958 | 14.940 | 10.584 |
| 1919..... | 14.250 | 13.463 | 12.325 | 12.185 | 12.050 | 14.275 | 16.450 | 17.850 | 17.330 | 17.127 | 17.475 | 17.070 | 15.201 |
| 1920..... | 18.588 | 18.123 | 18.080 | 18.500 | 19.750 | 16.700 | 12.413 | 13.900 | 13.713 | 12.827 | 11.830 | 9.063 | 15.278 |
| A. v. 1914-1920..... | 8.587 | 8.394 | 8.045 | 7.929 | 8.268 | 8.515 | 8.430 | 8.996 | 9.120 | 9.386 | 9.002 | 9.257 | 8.720 |
| 1921..... | 8.813 | 7.500 | 5.850 | 4.950 | 5.260 | 5.050 | 5.050 | 4.970 | 5.425 | 5.900 | 5.680 | 5.325 | 5.763 |
| 1922..... | 5.353 | 5.325 | 5.188 | 5.213 | 5.300 | 5.350 | 5.538 | 5.990 | 6.356 | 6.865 | 6.581 | 6.219 | 5.781 |
| 1923..... | 6.115 | 6.969 | 6.150 | 6.225 | 6.070 | 5.825 | 5.820 | 5.750 | 5.850 | 5.840 | 5.775 | 5.699 | 5.925 |
| 1924..... | 5.770 | 5.800 | 5.725 | 5.780 | 5.588 | 5.525 | 5.590 | 5.813 | 6.115 | 7.163 | 7.600 | 7.600 | 6.172 |
| 1925..... | 8.238 | 8.275 | 8.090 | 7.960 | 8.913 | 8.910 | 9.975 | 10.888 | 14.186 | 15.875 | 15.988 | 14.070 | 10.971 |
| A. v. 1921-1925..... | 6.858 | 6.574 | 6.201 | 6.024 | 6.226 | 6.132 | 6.395 | 6.682 | 7.586 | 8.209 | 8.815 | 7.777 | 6.917 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

* Derived from the figures upon which the monthly averages are based.

TABLE 790.—*Rosin: International trade, average 1909–1913, annual 1922–1924*
[Thousand pounds—1. e., 000 omitted]

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|----------|----------|----------|----------|----------|------------------|----------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports | Im-ports | Ex-ports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| China..... | — | — | — | 2, 179 | — | 1, 131 | — | 1, 474 |
| France..... | 2, 432 | 118, 286 | 908 | 120, 519 | 562 | 100, 235 | 2, 667 | 93, 078 |
| Greece..... | 35 | 10, 423 | — | 9, 359 | — | 7, 656 | — | 16, 661 |
| Spain..... | 1, 827 | 20, 073 | 290 | 24, 213 | 439 | 20, 958 | 1, 213 | 12, 366 |
| United States..... | — | 655, 520 | — | 399, 587 | — | 602, 344 | — | 726, 194 |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Argentina..... | 32, 719 | 1 45 | 33, 652 | — | 51, 140 | — | 62, 389 | — |
| Australia..... | 13, 724 | 1, 255 | 14, 401 | — | 14, 494 | — | — | — |
| Austria..... | 75, 705 | 2, 205 | 5, 572 | — | 6, 296 | — | 9, 966 | 1, 330 |
| Austria-Hungary..... | 47, 163 | 32, 830 | 31, 250 | 13, 724 | 17, 365 | 3, 974 | 19, 540 | 1, 800 |
| Brazil..... | 36, 903 | — | 31, 682 | — | 19, 066 | — | — | — |
| British India..... | 6, 171 | — | 2, 020 | — | 2, 808 | — | 3, 365 | — |
| Canada..... | 25, 506 | — | 27, 210 | — | 30, 868 | — | 27, 767 | — |
| Chile..... | 7, 410 | — | 4, 167 | — | 4, 319 | — | — | — |
| Cuba..... | 4, 123 | — | 3, 692 | — | 4, 726 | — | — | — |
| Czechoslovakia..... | — | — | 14, 872 | 60 | 21, 084 | 83 | 32, 541 | — |
| Denmark..... | 3, 236 | — | 4, 149 | 1 | 4, 645 | 1 | 5, 221 | — |
| Dutch East Indies..... | 15, 089 | — | 16, 345 | — | 22, 578 | 39 | 19, 184 | 1 13 |
| Finland..... | 6, 027 | 144 | 5, 756 | 872 | 4, 072 | 392 | 3, 607 | 1, 493 |
| Germany..... | 233, 100 | 50, 110 | 92, 180 | 1, 105 | 72, 310 | 2, 648 | 93, 473 | 3, 470 |
| Italy..... | 34, 171 | 33 | 41, 637 | 170 | 40, 863 | 263 | 61, 891 | 541 |
| Japan..... | 10, 073 | — | 21, 687 | — | 42, 169 | — | 41, 174 | — |
| Netherlands..... | 73, 991 | 59, 366 | 9, 952 | 75 | 12, 002 | 84 | 14, 561 | 434 |
| Norway..... | 6, 732 | — | 4, 515 | 117 | 5, 523 | 123 | 5, 068 | — |
| Rumania..... | 5, 034 | 1 | — | — | 10, 159 | — | 7, 819 | — |
| Russia..... | 68, 429 | — | — | — | — | — | — | — |
| Sweden..... | 3, 896 | 12 | 10, 775 | 96 | 14, 304 | 12 | 14, 296 | 13 |
| Switzerland..... | 4, 983 | 8 | 4, 903 | 5 | 7, 353 | — | 6, 130 | — |
| United Kingdom..... | 166, 075 | — | 130, 915 | — | 153, 837 | — | 172, 221 | — |
| Other countries..... | 15, 965 | 70 | 16, 505 | 135 | 16, 515 | 103 | 22, 209 | 227 |
| Total..... | 900, 441 | 950, 341 | 535, 125 | 573, 120 | 590, 306 | 747, 752 | 625, 502 | 859, 004 |

Division of Statistical and Historical Research. Official sources. For rosin only the resinous substance known as "rosin" in the exports of the United States is taken.

¹ Six months.

² Four-year average.

³ Year beginning July 1.

⁴ Java and Madura only.

⁵ One year only.

⁶ Three-year average.

TABLE 791.—*Wood distillation: Quantity distilled, by States, 1899, 1904–1911, 1914, 1919, 1921, 1923*

| State | 1899 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|-----------------------------|----------|-------------|----------|-------------|-------------|----------|-------------|
| HARDWOOD CONSUMPTION | | | | | | | |
| Michigan..... | Cords | Cords | Cords | Cords | Cords | Cords | Cords |
| Michigan..... | — | — | 239, 992 | 541, 119 | 602, 216 | 310, 910 | 457, 362 |
| New York..... | — | — | 119, 937 | 91, 380 | 127, 150 | 68, 071 | 139, 041 |
| Pennsylvania..... | — | — | 242, 519 | 390, 752 | 358, 489 | 302, 703 | 368, 126 |
| Wisconsin..... | — | — | (1) | (1) | (1) | (1) | (1) |
| All other..... | — | — | 57, 322 | 121, 645 | 131, 916 | 196, 948 | 185, 318 |
| SOFTWOOD CONSUMPTION | | | | | | | |
| Alabama..... | — | — | — | 3, 236 | (1) | (1) | 46, 478 |
| Florida..... | — | — | — | 10, 100 | 11, 224 | 15, 480 | 25, 318 |
| Georgia..... | — | — | 8, 925 | 14, 986 | 9, 409 | 18, 513 | 21, 400 |
| Louisiana..... | — | — | (1) | (1) | (1) | (1) | (1) |
| North Carolina..... | — | — | 4, 624 | 16, 332 | 28, 278 | 5, 221 | 6, 059 |
| South Carolina..... | — | — | 1, 970 | 2, 972 | (1) | (1) | 5, 721 |
| All other..... | — | — | 1, 450 | 2, 608 | 13, 438 | 59, 998 | 10, 334 |
| Total..... | 490, 939 | 1, 049, 503 | 676, 739 | 1, 105, 130 | 1, 282, 120 | 977, 844 | 1, 285, 157 |

¹ Included in "all other hardwood."

² Included in "all other softwood."

³ Includes mill waste and sawdust not shown by States.

TABLE 791.—Wood distillation: Quantity distilled, by States, 1899, 1904–1911, 1914, 1919, 1921, 1923—Continued

| State | 1910 | 1911 | 1914 | 1919 | 1921 | 1923 |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| HARDWOOD CONSUMPTION | | | | | | |
| | <i>Cords</i> | <i>Cords</i> | <i>Cords</i> | <i>Cords</i> | <i>Cords</i> | <i>Cords</i> |
| Michigan..... | 518, 342 | 396, 916 | ..... | 648, 910 | 142, 251 | 434, 163 |
| New York..... | 129, 161 | 132, 400 | ..... | 104, 493 | 55, 371 | 98, 049 |
| Pennsylvania..... | 398, 616 | 364, 539 | ..... | 281, 320 | 175, 235 | 336, 817 |
| Wisconsin..... | (1) | (1) | ..... | 60, 544 | 22, 846 | 55, 293 |
| All other..... | 211, 878 | 165, 100 | ..... | 91, 210 | 37, 520 | 106, 015 |
| SOFTWOOD CONSUMPTION | | | | | | |
| Alabama..... | 64, 963 | (2) | ..... | 41, 416 | 2, 320 | 34, 117 |
| Florida..... | 52, 144 | 41, 499 | ..... | 86, 065 | 10, 447 | 97, 865 |
| Georgia..... | 25, 412 | 29, 824 | ..... | 103, 964 | 23, 265 | 84, 633 |
| Louisiana..... | 7, 818 | (2) | ..... | 18, 005 | 9, 197 | 77, 317 |
| North Carolina..... | 6, 713 | 5, 474 | ..... | 5, 955 | 2, 353 | 7, 490 |
| South Carolina..... | 30, 954 | 38, 136 | ..... | ..... | ..... | ..... |
| All other..... | 4, 438 | 47, 471 | ..... | 793 | 1, 668 | 38, 355 |
| Total..... | 1, 450, 439 | 1, 221, 359 | 1, 042, 517 | 1, 442, 675 | 482, 503 | 1, 370, 120 |

Fore at Service. Compiled from the Bureau of the Census bulletins.

¹ Included in "all other hardwood."² Included in "all other softwood."**TABLE 792.—Rubber, Para Island, fine: Average wholesale price per pound, New York, 1909–1925**

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Average |
|--------------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> | <i>Dols.</i> |
| 1909..... | 1.155 | 1.155 | 1.215 | 1.185 | 1.232 | 1.335 | 1.430 | 1.845 | 1.710 | 1.985 | 1.810 | 1.715 | 1.481 |
| 1910..... | 1.695 | 1.790 | 1.995 | 2.600 | 2.600 | 2.295 | 2.250 | 2.070 | 1.800 | 1.370 | 1.190 | 1.235 | 1.908 |
| 1911..... | 1.150 | 1.180 | 1.580 | 1.360 | 1.130 | .940 | .925 | 1.040 | 1.080 | 1.050 | .940 | .950 | 1.110 |
| 1912..... | .875 | 1.060 | 1.085 | 1.145 | 1.100 | 1.045 | 1.010 | 1.045 | 1.135 | 1.065 | .975 | .980 | 1.032 |
| 1913..... | 1.005 | .975 | .915 | .835 | .780 | .835 | .815 | .730 | .760 | .715 | .675 | .645 | .807 |
| Av. 1909–1913..... | 1.190 ¹ | 1.232 | 1.358 | 1.425 | 1.368 | 1.290 | 1.286 | 1.346 | 1.297 | 1.237 | 1.118 | 1.105 | 1.272 |
| 1914..... | .605 | .655 | .695 | .695 | .725 | .610 | .575 | .580 | .600 | .525 | .495 | .630 | .616 |
| 1915..... | .710 | .550 | .535 | .535 | .545 | .545 | .535 | .522 | .500 | .508 | .548 | .655 | .557 |
| 1916..... | .885 | .685 | .705 | .695 | .660 | .590 | .590 | .585 | .582 | .665 | .670 | .720 | .669 |
| 1917..... | .700 | .680 | .750 | .740 | .725 | .725 | .705 | .613 | .595 | .568 | .505 | .468 | .648 |
| 1918..... | .501 | .479 | .483 | .516 | .566 | .590 | .590 | .590 | .590 | .572 | .570 | .548 | .549 |
| 1919..... | .525 | .491 | .482 | .478 | .474 | .474 | .475 | .475 | .480 | .483 | .483 | .479 | .433 |
| 1920..... | .463 | .432 | .412 | .411 | .404 | .385 | .353 | .303 | .253 | .217 | .192 | .180 | .333 |
| Av. 1914–1920..... | .627 | .567 | .580 | .551 | .586 | .560 | .546 | .524 | .514 | .505 | .495 | .526 | .551 |
| 1921..... | .173 | .168 | .180 | .178 | .179 | .164 | .164 | .165 | .174 | .210 | .215 | .211 | .182 |
| 1922..... | .193 | .163 | .161 | .171 | .176 | .169 | .172 | .176 | .171 | .196 | .219 | .223 | .183 |
| 1923..... | .272 | .307 | .290 | .274 | .249 | .250 | .239 | .238 | .246 | .215 | .204 | .203 | .248 |
| 1924..... | .199 | .191 | .171 | .168 | .173 | .164 | .170 | .211 | .227 | .262 | .286 | .315 | .212 |
| 1925..... | .318 | .307 | .346 | .340 | .420 | .619 | .825 | .663 | .590 | .773 | .853 | .764 | .569 |
| Av. 1921–1925..... | .231 | .227 | .230 | .226 | .239 | .273 | .314 | .291 | .282 | .331 | .355 | .343 | .279 |

Division of Statistical and Historical Research. Compiled from Bureau of Labor Statistics reports.

¹ Derived from the figures upon which the monthly averages are based.

TABLE 793.—*Rubber: International trade, average 1909–1913, annual 1922–1924*

(Thousand pounds—1. e., 000 omitted)

| Country | Year ended Dec. 31 | | | | | | | |
|--------------------------------------|--------------------|---------|-----------|-----------|-----------|-----------|------------------|---------|
| | Average 1909–1913 | | 1922 | | 1923 | | 1924 preliminary | |
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| PRINCIPAL EXPORTING COUNTRIES | | | | | | | | |
| Angola..... | | 5,620 | | 174 | | 198 | | |
| Belgian Congo..... | | 7,755 | | 2,443 | | 1,413 | | 14,300 |
| Bolivia..... | | 8,395 | | 6,786 | | 6,568 | | 6,237 |
| Brazil..... | | 84,608 | 168 | 43,180 | | 38,980 | | 47,549 |
| British India..... | | 1,604 | 1 | 10,875 | | 14,371 | | 17,241 |
| British Malaya..... | 153,472 | 85,435 | 79,788 | 558,389 | 13 | 564,765 | 129 | 584,123 |
| British North Borneo ¹ | | 331 | | 8,390 | | 9,571 | | 10,417 |
| Ceylon..... | 1,299 | 10,953 | 5,475 | 104,505 | 5,645 | 83,851 | 6,863 | 81,040 |
| Dutch East Indies..... | 1 | 7,679 | | 226,237 | | 301,849 | | 95,078 |
| Ecuador..... | | 1,040 | | | | 1,297 | | 72 |
| French Congo..... | (9) | 3,797 | | 1,536 | | 1,209 | | |
| French Guinea..... | 1241 | 3,937 | 143 | 1,666 | 131 | 1,231 | | 12,527 |
| French Indo-China..... | 1 | 398 | 12 | 10,192 | 14 | 12,558 | 17 | 14,982 |
| Gold Coast..... | | 2,393 | | 116 | | 1313 | | 1273 |
| Kamerun..... | | 6,409 | | 1,236 | | 1,677 | | 12,134 |
| Nigeria..... | | 3,054 | | 275 | | 478 | | 1,340 |
| Peru..... | | 5,030 | | 1,331 | | 4 | | 198 |
| Sarawak Territory ¹ | 550 | 11,674 | | 9,405 | | 8,200 | | 14,385 |
| Senegal..... | 74 | 1,087 | | 121 | (1, 3) | 145 | 121 | 119 |
| Venezuela..... | | 772 | 65 | 2 | 76 | | 40 | |
| PRINCIPAL IMPORTING COUNTRIES | | | | | | | | |
| Austria..... | | | 5,430 | 407 | 5,396 | 969 | 5,410 | 646 |
| Austria-Hungary..... | 6,696 | 1,619 | | | | | | |
| Belgium..... | 25,891 | 20,749 | 5,310 | 4,932 | 7,411 | 2,18 | 7,973 | 1,940 |
| Canada..... | 3,945 | | 21,076 | | 29,696 | () | 32,300 | |
| Czechoslovakia..... | | | 1,655 | 152 | 1,603 | 127 | 4,075 | 113 |
| Denmark..... | 250 | | 194 | | 794 | 110 | 1,062 | 13 |
| France..... | 32,704 | 21,615 | 59,746 | 5,198 | 71,840 | 10,482 | 90,749 | 13,248 |
| Germany..... | 42,004 | 9,844 | 63,483 | 1,779 | 43,538 | 2,056 | 52,592 | 1,684 |
| Hungary..... | | | 701 | 5 | 985 | 3 | 1,624 | 135 |
| Italy..... | | 225 | 14,435 | 32 | 19,244 | 226 | 19,878 | 248 |
| Japan..... | 8,381 | | 37,142 | | 38,793 | | 44,281 | |
| Netherlands..... | 10,822 | 7,172 | 19,628 | 28,153 | 17,791 | 16,016 | 12,864 | 11,672 |
| Russia..... | 19,131 | | 15,345 | | 15,381 | | 14,548 | |
| Spain..... | 1,067 | | 5,103 | | 4,870 | | 3,985 | |
| Sweden..... | 1,695 | 1 | 2,774 | 125 | 3,076 | 141 | 3,917 | 123 |
| Switzerland..... | 391 | 725 | 450 | 210 | 552 | 260 | 646 | 359 |
| United Kingdom..... | 43,141 | | 26,262 | | 28,449 | | 25,872 | |
| United States..... | 100,180 | | 674,410 | | 692,483 | | 734,845 | |
| Other countries..... | 5,790 | 72,353 | 3,381 | 3,091 | 4,387 | 4,213 | 6,815 | 3,956 |
| Total..... | 356,592 | 386,504 | 1,031,053 | 1,029,745 | 1,138,539 | 1,087,790 | 1,250,680 | 920,841 |

Division of Statistical and Historical Research. Official sources except where otherwise noted. Figures for rubber include "India rubber", so-called, caoutchouc, caucho, jebe (Peru), hule (Mexico), borracha, assaranduba, amabeira, manicoba, sorva and seringa (Brazil), gomelastiek (Dutch East Indies), caura, ser nambi (Venezuela).

¹ International Institute of Agriculture.

² Three-year average.

³ One year only.

⁴ Java and Madura only.

⁵ Less than 500 pounds.

⁶ Four-year average.

⁷ Two-year average.

⁸ Six months.

⁹ Reexports in excess of imports.

METEOROLOGICAL STATISTICS

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925

| Station | Normal for Jan. | January monthly mean temperature | | | | | | | | | | | |
|-----------------------|-----------------|----------------------------------|------|-------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 12.8 | 9.7 | 16.4 | 15.1 | 12.4 | 6.4 | 15.6 | 4.6 | 16.2 | 11.0 | 8.7 | 13.9 | 7.0 |
| Boston, Mass. | 27.9 | 28.7 | 33.0 | 33.0 | 30.2 | 21.0 | 33.2 | 21.0 | 32.1 | 27.2 | 27.0 | 31.9 | 27.2 |
| Buffalo, N. Y. | 24.6 | 27.9 | 25.3 | 32.0 | 24.4 | 14.1 | 31.0 | 15.6 | 29.1 | 23.2 | 25.4 | 24.4 | 21.7 |
| Canton, N. Y. | 16.3 | 13.0 | 19.4 | 25.0 | 14.4 | 7.6 | 22.0 | 4.1 | 20.9 | 12.8 | 10.8 | 18.0 | 8.2 |
| Trenton, N. J. | 30.5 | 32.2 | 34.0 | 35.5 | 32.4 | 20.4 | 34.8 | 23.2 | 33.4 | 28.4 | 31.0 | 32.0 | 29.4 |
| Pittsburgh, Pa. | 30.7 | 34.4 | 30.6 | 37.5 | 31.6 | 18.6 | 34.4 | 24.4 | 34.6 | 28.4 | 33.4 | 28.7 | 29.8 |
| Scranton, Pa. | 26.6 | 28.2 | 30.2 | 33.6 | 28.4 | 17.4 | 31.7 | 18.7 | 29.4 | 24.1 | 26.8 | 26.0 | 24.1 |
| Cincinnati, Ohio | 30.3 | 37.8 | 31.4 | 37.6 | 32.4 | 16.3 | 35.2 | 25.4 | 35.0 | 29.2 | 36.5 | 26.8 | 30.8 |
| Cleveland, Ohio | 26.5 | 32.0 | 26.0 | 34.8 | 27.3 | 15.0 | 32.6 | 18.0 | 32.0 | 25.6 | 30.2 | 24.0 | 21.6 |
| Evansville, Ind. | 33.5 | 39.6 | 31.5 | 38.6 | 36.3 | 19.4 | 38.5 | 30.4 | 39.4 | 32.3 | 40.8 | 28.9 | 31.6 |
| Indianapolis, Ind. | 28.4 | 34.6 | 26.8 | 33.8 | 30.6 | 14.6 | 34.0 | 22.2 | 34.3 | 26.7 | 34.6 | 23.5 | 29.0 |
| Chicago, Ill. | 25.1 | 32.4 | 24.1 | 28.8 | 24.2 | 13.3 | 31.0 | 18.8 | 32.4 | 24.8 | 30.8 | 19.8 | 25.9 |
| Peoria, Ill. | 23.1 | 32.2 | 21.0 | 27.2 | 24.4 | 10.4 | 29.2 | 18.6 | 32.2 | 23.8 | 31.8 | 19.0 | 23.5 |
| Grand Rapids, Mich. | 24.5 | 29.0 | 23.3 | 28.7 | 22.8 | 12.5 | 30.0 | 16.0 | 30.5 | 23.6 | 26.2 | 20.3 | 22.2 |
| Marquette, Mich. | 16.3 | 21.8 | 16.3 | 17.4 | 12.6 | 5.8 | 24.6 | 9.2 | 23.4 | 17.2 | 19.2 | 10.5 | 17.9 |
| Madison, Wis. | 16.7 | 25.9 | 15.4 | 20.2 | 13.8 | 5.6 | 24.1 | 10.0 | 25.4 | 17.0 | 22.0 | 11.4 | 14.4 |
| Duluth, Minn. | 7.9 | 15.4 | 9.2 | 5.1 | 3.1 | 0.8 | 17.8 | 3.0 | 16.6 | 8.6 | 13.0 | 0.8 | 9.6 |
| St. Paul, Minn. | 12.6 | 21.2 | 12.4 | 10.4 | 6.8 | 3.7 | 21.8 | 7.0 | 21.4 | 12.8 | 17.6 | 7.1 | 13.6 |
| Des Moines, Iowa | 20.1 | 29.6 | 20.8 | 20.8 | 20.0 | 11.8 | 29.8 | 18.4 | 30.4 | 22.6 | 29.3 | 17.0 | 22.6 |
| Dubuque, Iowa | 19.1 | 28.2 | 17.2 | 21.6 | 16.6 | 18.2 | 25.9 | 13.4 | 28.5 | 19.7 | 25.8 | 13.6 | 21.6 |
| St. Louis, Mo. | 31.1 | 39.7 | 29.6 | 34.1 | 34.8 | 18.8 | 37.8 | 28.4 | 39.2 | 30.2 | 39.5 | 26.6 | 33.0 |
| Springfield, Mo. | 33.5 | 39.5 | 32.2 | 33.8 | 36.0 | 18.4 | 36.6 | 31.4 | 39.8 | 31.8 | 42.7 | 28.4 | 33.2 |
| Bismarck, N. Dak. | 7.8 | 17.9 | 12.2 | -5.0 | 6.3 | 1.4 | 24.4 | 7.4 | 18.8 | 8.4 | 12.3 | 6.2 | 12.0 |
| Devils Lake, N. Dak. | 0.3 | 9.6 | 2.6 | -8.2 | -3.0 | -4.6 | 14.4 | -2.3 | 10.6 | 4.1 | 0.0 | -0.6 | 5.4 |
| Pierre, S. Dak. | 16.0 | 25.5 | 15.6 | 2.4 | 14.8 | 8.0 | 29.7 | 19.0 | 27.9 | 13.6 | 24.9 | 11.8 | 13.6 |
| North Platte, Nebr. | 22.0 | 34.0 | 20.1 | 15.0 | 22.8 | 14.8 | 28.6 | 28.9 | 30.1 | 21.6 | 32.9 | 21.4 | 20.2 |
| Omaha, Nebr. | 21.9 | 30.6 | 21.6 | 17.2 | 22.6 | 12.7 | 31.0 | 23.2 | 32.0 | 23.6 | 32.5 | 17.4 | 22.5 |
| Concordia, Kans. | 26.4 | 36.2 | 26.5 | 21.5 | 28.8 | 15.3 | 33.6 | 30.2 | 36.2 | 27.0 | 37.2 | 20.8 | 23.0 |
| Dodge City, Kans. | 29.0 | 39.4 | 30.6 | 23.8 | 31.3 | 21.1 | 31.0 | 32.8 | 36.4 | 28.6 | 39.0 | 28.1 | 28.8 |
| Iola, Kans. | 27.6 | 37.2 | 30.4 | 28.5 | 33.7 | 17.6 | 33.6 | 30.5 | 38.4 | 30.0 | 40.6 | 27.1 | 28.4 |
| Washington, D. C. | 33.4 | 38.6 | 35.6 | 39.8 | 35.0 | 23.7 | 38.1 | 28.7 | 30.6 | 32.0 | 36.8 | 35.0 | 32.0 |
| Lynchburg, Va. | 37.5 | 42.0 | 38.4 | 43.2 | 39.4 | 27.0 | 41.0 | 34.4 | 39.0 | 35.1 | 39.8 | 36.2 | 37.4 |
| Norfolk, Va. | 40.6 | 44.1 | 42.2 | 47.0 | 42.8 | 31.6 | 43.8 | 37.4 | 43.6 | 39.0 | 43.9 | 42.2 | 41.0 |
| Parkersburg, W. Va. | 32.6 | 37.6 | 31.9 | 38.8 | 33.2 | 20.3 | 35.6 | 28.4 | 37.4 | 31.8 | 37.0 | 30.2 | 33.0 |
| Charlotte, N. C. | 41.2 | 43.8 | 41.6 | 47.6 | 46.1 | 32.4 | 45.0 | 39.8 | 42.2 | 40.2 | 44.6 | 40.0 | 40.5 |
| Charleston, S. C. | 49.9 | 50.0 | 40.7 | 55.9 | 54.0 | 42.4 | 51.1 | 51.0 | 51.8 | 47.4 | 53.7 | 48.9 | 50.6 |
| Atlanta, Ga. | 42.6 | 45.1 | 41.9 | 48.8 | 47.9 | 34.8 | 43.8 | 42.7 | 45.0 | 48.2 | 48.2 | 43.1 | 43.1 |
| Thomasville, Ga. | 51.0 | 52.2 | 51.0 | 60.1 | 58.2 | 46.6 | 51.4 | 53.9 | 55.6 | 51.6 | 56.8 | 49.4 | 55.0 |
| Jacksonville, Fla. | 55.4 | 55.2 | 55.0 | 62.4 | 61.2 | 50.0 | 55.3 | 57.3 | 58.0 | 53.4 | 59.2 | 53.7 | 58.0 |
| Miami, Fla. | 67.3 | 64.4 | 67.0 | 72.0 | 69.8 | 62.8 | 65.1 | 68.6 | 67.8 | 67.8 | 68.8 | 69.5 | 73.0 |
| Memphis, Tenn. | 40.9 | 46.1 | 39.4 | 46.2 | 44.7 | 27.6 | 43.0 | 39.3 | 47.2 | 40.0 | 49.2 | 36.4 | 41.6 |
| Nashville, Tenn. | 38.6 | 42.6 | 36.2 | 44.6 | 41.8 | 26.4 | 40.1 | 38.6 | 43.2 | 38.9 | 45.0 | 33.4 | 39.9 |
| Birmingham, Ala. | 45.1 | 47.4 | 42.8 | 51.2 | 49.4 | 36.6 | 43.9 | 46.2 | 49.3 | 45.0 | 51.8 | 40.0 | 46.6 |
| Mobile, Ala. | 51.5 | 53.6 | 49.6 | 57.2 | 57.2 | 45.7 | 49.6 | 53.6 | 56.0 | 53.0 | 58.4 | 47.4 | 53.1 |
| New Orleans, La. | 54.2 | 56.6 | 51.8 | 61.3 | 59.8 | 48.1 | 51.2 | 56.0 | 59.2 | 56.0 | 61.0 | 49.4 | 55.8 |
| Shreveport, La. | 47.0 | 52.6 | 45.2 | 51.6 | 50.5 | 38.2 | 46.0 | 46.2 | 53.4 | 44.6 | 55.9 | 42.8 | 46.1 |
| Amarillo, Tex. | 35.3 | 45.4 | 34.0 | 35.2 | 36.6 | 30.7 | 28.7 | 35.2 | 41.0 | 34.0 | 40.2 | 35.1 | 36.0 |
| Brownsville, Tex. | 59.8 | 62.6 | 58.8 | 67.2 | 62.6 | 58.0 | 56.0 | 58.2 | 65.8 | 67.8 | 67.6 | 55.2 | 58.8 |
| El Paso, Tex. | 45.0 | 48.4 | 41.2 | 50.4 | 44.8 | 41.5 | 40.7 | 44.5 | 48.6 | 43.5 | 49.1 | 42.2 | 41.8 |
| Fort Worth, Tex. | 45.4 | 53.0 | 45.4 | 46.2 | 43.6 | 36.8 | 45.8 | 45.0 | 51.4 | 43.0 | 55.5 | 41.4 | 43.4 |
| Galveston, Tex. | 53.8 | 57.0 | 51.2 | 58.4 | 56.6 | 47.8 | 50.6 | 45.0 | 58.2 | 52.0 | 62.0 | 50.4 | 51.7 |
| San Antonio, Tex. | 52.3 | 56.4 | 50.6 | 56.2 | 55.2 | 47.0 | 49.7 | 49.4 | 58.4 | 49.4 | 62.0 | 47.4 | 50.5 |
| Oklahoma City, Okla. | 32.4 | 45.4 | 37.1 | 33.4 | 39.0 | 25.0 | 34.4 | 35.2 | 43.0 | 35.2 | 47.8 | 34.4 | 31.2 |
| Little Rock, Ark. | 41.4 | 47.0 | 40.2 | 45.2 | 45.0 | 28.6 | 43.2 | 40.8 | 47.2 | 39.8 | 49.7 | 36.9 | 41.8 |
| Havre, Mont. | 12.9 | 18.8 | 11.4 | -13.3 | 11.2 | 10.8 | 34.1 | 13.0 | 26.0 | 13.8 | 19.4 | 11.0 | 17.0 |
| Kalispell, Mont. | 20.4 | 29.2 | 20.2 | 4.4 | 20.1 | 21.8 | 26.8 | 24.2 | 26.1 | 16.9 | 27.4 | 17.9 | 27.3 |
| Cheyenne, Wyo. | 25.5 | 31.4 | 25.8 | 17.6 | 21.8 | 19.8 | 31.8 | 33.5 | 28.2 | 21.0 | 32.2 | 24.7 | 26.6 |
| Sheridan, Wyo. | 18.9 | 29.2 | 17.8 | -1.8 | 18.2 | 15.6 | 27.9 | 22.8 | 27.6 | 11.6 | 28.4 | 14.2 | 24.6 |
| Pueblo, Colo. | 29.9 | 38.6 | 29.6 | 27.1 | 30.1 | 22.8 | 30.8 | 35.0 | 35.4 | 26.1 | 39.0 | 27.8 | 26.7 |
| Santa Fe, N. Mex. | 28.8 | 33.5 | 24.4 | 30.6 | 28.0 | 26.2 | 24.4 | 33.9 | 32.4 | 28.0 | 34.9 | 27.0 | 25.4 |
| Phoenix, Ariz. | 51.2 | 54.8 | 50.0 | 50.8 | 49.0 | 49.6 | 50.8 | 53.3 | 52.0 | 48.6 | 55.4 | 50.4 | 52.0 |
| Modena, Utah | 26.7 | 32.2 | 24.2 | 24.4 | 13.6 | 28.2 | 25.6 | 28.7 | 28.7 | 16.6 | 33.6 | 24.4 | 24.4 |
| Salt Lake City, Utah | 29.2 | 35.2 | 28.2 | 20.4 | 21.2 | 20.4 | 32.0 | 30.8 | 35.7 | 22.2 | 30.0 | 25.0 | 23.9 |
| Winnemucca, Nev. | 28.6 | 34.6 | 29.3 | 22.1 | 11.8 | 31.8 | 29.2 | 31.5 | 32.6 | 14.8 | 30.4 | 20.7 | 31.4 |
| Boise, Idaho | 29.8 | 37.8 | 27.6 | 27.4 | 23.2 | 34.4 | 32.8 | 30.1 | 34.8 | 20.6 | 35.5 | 23.6 | 32.6 |
| Seattle, Wash. | 39.5 | 43.2 | 40.6 | 31.0 | 38.0 | 43.7 | 41.4 | 40.2 | 40.4 | 35.5 | 40.4 | 41.0 | 42.6 |
| Walla Walla, Wash. | 32.7 | 45.6 | 30.8 | 18.6 | 34.0 | 39.8 | 36.8 | 31.6 | 37.8 | 23.0 | 40.8 | 30.7 | 41.0 |
| Portland, Oreg. | 39.4 | 45.8 | 39.2 | 29.6 | 39.6 | 45.4 | 42.2 | 39.4 | 41.6 | 35.2 | 42.8 | 38.5 | 44.8 |
| Roseburg, Oreg. | 41.2 | 45.4 | 40.3 | 35.8 | 38.0 | 45.8 | 41.3 | 41.2 | 42.0 | 37.2 | 46.2 | 41.5 | 45.8 |
| Eureka, Calif. | 46.9 | 49.6 | 48.8 | 43.0 | 42.6 | 38.4 | 49.0 | 47.9 | 45.6 | 43.2 | 46.9 | 48.0 | 48.2 |
| Fresno, Calif. | 46.2 | 50.8 | 47.7 | 45.6 | 42.8 | 46.4 | 48.2 | 48.2 | 46.4 | 41.7 | 46.2 | 46.7 | 48.0 |
| Los Angeles, Calif. | 54.6 | 56.8 | 55.9 | 50.8 | 51.2 | 55.7 | 60.2 | 58.6 | 54.1 | 53.4 | 58.1 | 58.5 | 57.6 |
| Sacramento, Calif. | 45.8 | 48.6 | 46.3 | 43.6 | 42.4 | 47.5 | 46.2 | 46.8 | 46.2 | 40.6 | 43.8 | 45.1 | 47.0 |
| San Diego, Calif. | 54.3 | 56.3 | 55.2 | 52.5 | 51.6 | 54.4 | 56.6 | 54.6 | 53.6 | 52.5 | 56.3 | 55.2 | 54.4 |
| San Francisco, Calif. | 49.9 | 51.5 | 50.8 | 47.0 | 47.6 | 52.7 | 51.2 | 52.2 | 49.5 | 46.8 | 48.1 | 50.2 | 51.4 |

¹ Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for Feb. | February monthly mean temperature | | | | | | | | | | | |
|-----------------------|-----------------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 12.4 | 5.9 | 20.4 | 11.9 | 9.1 | 10.2 | 18.2 | 15.0 | 16.3 | 14.8 | 7.3 | 10.0 | 23.4 |
| Hoston, Mass. | 28.8 | 24.3 | 33.2 | 25.5 | 25.8 | 26.9 | 32.6 | 27.6 | 32.6 | 32.0 | 23.4 | 26.6 | 38.0 |
| Buffalo, N. Y. | 24.3 | 16.9 | 29.6 | 18.9 | 18.0 | 23.1 | 28.8 | 19.8 | 29.4 | 27.1 | 20.7 | 21.4 | 30.8 |
| Canton, N. Y. | 18.0 | 8.3 | 20.6 | 11.6 | 9.8 | 15.6 | 21.8 | 15.4 | 20.9 | 20.1 | 9.2 | 10.0 | 25.1 |
| Canton, N. Y. | 30.7 | 25.6 | 36.0 | 27.8 | 28.5 | 30.0 | 34.4 | 28.3 | 34.2 | 34.2 | 26.4 | 20.6 | 40.2 |
| Pittsburgh, Pa. | 32.3 | 24.3 | 36.8 | 26.8 | 27.0 | 32.7 | 33.5 | 28.2 | 35.6 | 35.2 | 27.4 | 20.3 | 39.2 |
| Scranton, Pa. | 27.3 | 19.8 | 33.2 | 23.6 | 24.1 | 26.8 | 32.3 | 24.8 | 31.6 | 31.5 | 23.0 | 25.7 | 35.9 |
| Cincinnati, Ohio. | 32.8 | 27.4 | 40.1 | 29.6 | 29.0 | 34.5 | 34.4 | 30.6 | 37.0 | 36.0 | 28.3 | 31.6 | 40.3 |
| Cleveland, Ohio. | 27.4 | 19.8 | 32.8 | 23.0 | 21.3 | 28.2 | 31.3 | 24.5 | 32.1 | 31.7 | 23.8 | 25.4 | 33.8 |
| Evansville, Ind. | 36.3 | 29.9 | 41.2 | 34.3 | 32.5 | 37.3 | 37.7 | 35.0 | 40.0 | 38.9 | 32.6 | 35.6 | 43.2 |
| Indianapolis, Ind. | 31.1 | 21.8 | 37.0 | 28.0 | 25.1 | 31.9 | 33.2 | 29.2 | 36.2 | 33.4 | 26.0 | 30.5 | 37.8 |
| Chicago, Ill. | 27.4 | 20.2 | 34.5 | 25.0 | 19.8 | 27.2 | 30.5 | 25.8 | 33.4 | 29.4 | 22.3 | 28.8 | 32.1 |
| Peoria, Ill. | 25.9 | 19.3 | 35.4 | 24.4 | 20.8 | 27.9 | 30.8 | 27.6 | 34.4 | 29.9 | 23.2 | 28.0 | 33.2 |
| Grand Rapids, Mich. | 23.7 | 15.8 | 31.1 | 21.1 | 17.4 | 22.4 | 28.5 | 21.2 | 30.0 | 27.5 | 19.6 | 24.0 | 28.8 |
| Marquette, Mich. | 16.3 | 11.6 | 25.4 | 13.9 | 6.4 | 12.8 | 23.3 | 15.0 | 23.5 | 17.0 | 12.4 | 21.0 | 18.7 |
| Madison, Wis. | 19.1 | 12.1 | 27.7 | 17.1 | 11.1 | 19.5 | 23.7 | 18.4 | 26.4 | 20.3 | 15.0 | 23.2 | 25.0 |
| Duluth, Minn. | 11.4 | 2.7 | 20.6 | 7.0 | 1.8 | 10.8 | 13.8 | 12.4 | 19.0 | 7.6 | 5.4 | 17.7 | 15.2 |
| St. Paul, Minn. | 15.8 | 8.6 | 25.5 | 11.5 | 6.2 | 17.4 | 17.0 | 15.5 | 23.8 | 11.0 | 9.8 | 21.2 | 21.1 |
| Des Moines, Iowa. | 23.7 | 19.7 | 31.0 | 21.3 | 19.2 | 26.4 | 26.5 | 25.3 | 33.2 | 26.4 | 22.4 | 27.2 | 30.7 |
| Dubuque, Iowa. | 22.2 | 15.8 | 30.2 | 20.1 | 14.2 | 23.0 | 25.7 | 21.1 | 29.8 | 23.8 | 18.3 | 25.7 | 27.7 |
| St. Louis, Mo. | 34.8 | 27.4 | 40.5 | 32.8 | 30.4 | 35.6 | 36.7 | 34.8 | 42.1 | 36.4 | 30.4 | 35.6 | 40.8 |
| Springfield, Mo. | 35.2 | 31.2 | 39.8 | 34.0 | 33.0 | 37.6 | 35.8 | 36.9 | 42.4 | 38.2 | 32.0 | 36.1 | 41.5 |
| Bismarck, N. Dak. | 10.3 | 5.3 | 20.0 | 11.8 | 1.8 | 14.2 | 10.0 | 17.2 | 22.8 | 2.2 | 7.2 | 24.5 | 20.0 |
| Devils Lake, N. Dak. | 4.5 | -3.6 | 15.4 | 3.2 | -5.8 | 8.6 | 3.6 | 8.0 | 15.4 | -0.4 | 2.0 | 16.4 | 12.2 |
| Pieter, S. Dak. | 18.6 | 10.4 | 23.4 | 19.2 | 10.4 | 20.2 | 14.0 | 20.1 | 22.3 | 9.6 | 17.7 | 26.4 | 28.2 |
| North Platte, Nebr. | 26.6 | 23.3 | 29.7 | 28.8 | 26.8 | 29.1 | 23.6 | 29.6 | 34.3 | 24.3 | 26.2 | 32.4 | 35.7 |
| Omaha, Nebr. | 25.5 | 21.4 | 31.0 | 23.6 | 21.6 | 27.5 | 27.8 | 28.9 | 35.8 | 24.8 | 25.6 | 29.8 | 31.6 |
| Concordia, Kans. | 29.8 | 26.6 | 35.1 | 28.2 | 28.6 | 32.6 | 30.9 | 33.9 | 39.6 | 31.0 | 30.0 | 34.2 | 37.4 |
| Dodge City, Kans. | 33.2 | 30.0 | 39.0 | 34.9 | 32.1 | 37.5 | 31.0 | 35.1 | 38.7 | 34.0 | 32.0 | 35.0 | 41.3 |
| Iola, Kans. | 32.2 | 30.0 | 39.6 | 32.2 | 31.8 | 34.8 | 35.1 | 36.8 | 41.8 | 36.4 | 32.2 | 36.0 | 40.0 |
| Washington, D. C. | 35.3 | 30.1 | 38.8 | 34.2 | 32.8 | 36.8 | 37.2 | 32.7 | 39.0 | 38.0 | 32.6 | 34.2 | 43.0 |
| Lynchburg, Va. | 40.3 | 35.2 | 42.2 | 38.3 | 36.9 | 41.2 | 39.8 | 35.4 | 41.4 | 42.0 | 37.8 | 37.8 | 46.6 |
| Norfolk, Va. | 42.7 | 38.6 | 45.4 | 41.1 | 38.8 | 43.7 | 42.6 | 38.0 | 45.0 | 44.8 | 39.2 | 40.5 | 49.2 |
| Parkersburg, W. Va. | 34.2 | 27.6 | 39.7 | 30.0 | 30.8 | 36.8 | 35.8 | 32.1 | 38.2 | 38.4 | 31.2 | 33.4 | 40.4 |
| Charlotte, N. C. | 43.9 | 39.6 | 45.7 | 43.6 | 42.9 | 48.6 | 42.8 | 39.8 | 45.5 | 48.4 | 42.2 | 40.6 | 50.6 |
| Charleston, S. C. | 52.4 | 48.6 | 51.5 | 52.0 | 50.8 | 55.2 | 51.6 | 48.2 | 53.6 | 56.4 | 50.3 | 49.5 | 55.6 |
| Atlanta, Ga. | 45.3 | 43.1 | 45.8 | 44.1 | 44.4 | 50.8 | 44.4 | 41.8 | 48.1 | 50.1 | 43.7 | 42.2 | 51.1 |
| Thomasville, Ga. | 55.0 | 51.4 | 52.8 | 54.4 | 53.2 | 60.5 | 53.8 | 50.6 | 56.4 | 61.2 | 55.6 | 52.6 | 58.0 |
| Jacksonville, Fla. | 58.0 | 55.3 | 57.2 | 56.8 | 56.8 | 62.8 | 57.6 | 53.9 | 59.8 | 62.0 | 58.0 | 51.6 | 60.2 |
| Miami, Fla. | 68.8 | 67.4 | 65.6 | 65.7 | 61.8 | 70.4 | 66.6 | 64.2 | 68.8 | 70.3 | 69.8 | 64.0 | 68.9 |
| Memphis, Tenn. | 44.3 | 40.2 | 46.0 | 42.5 | 42.8 | 48.8 | 44.6 | 43.6 | 47.6 | 47.2 | 41.0 | 42.8 | 49.7 |
| Nashville, Tenn. | 41.8 | 38.9 | 44.0 | 39.1 | 39.8 | 44.7 | 41.2 | 39.6 | 47.6 | 47.2 | 38.5 | 38.8 | 47.4 |
| Birmingham, Ala. | 48.0 | 44.4 | 47.8 | 45.6 | 47.8 | 52.6 | 46.0 | 44.5 | 50.0 | 52.8 | 45.8 | 42.2 | 52.0 |
| Mobile, Ala. | 54.7 | 52.0 | 53.3 | 53.0 | 54.4 | 59.4 | 53.6 | 53.2 | 56.0 | 59.4 | 53.6 | 52.4 | 57.1 |
| New Orleans, La. | 57.3 | 53.2 | 56.2 | 56.6 | 58.8 | 63.0 | 56.6 | 56.6 | 60.2 | 62.7 | 57.0 | 55.2 | 61.2 |
| Shreveport, La. | 50.9 | 46.4 | 51.4 | 50.6 | 51.6 | 55.1 | 49.6 | 51.8 | 53.6 | 54.0 | 48.4 | 49.0 | 56.2 |
| Anaheim, Tex. | 38.1 | 38.2 | 41.4 | 43.5 | 40.6 | 44.0 | 37.9 | 40.0 | 45.1 | 46.8 | 36.3 | 40.6 | 46.6 |
| Brownsville, Tex. | 62.6 | 62.8 | 64.3 | 64.8 | 66.3 | 65.2 | 62.6 | 65.4 | 63.8 | 66.7 | 62.5 | 62.0 | 66.8 |
| El Paso, Tex. | 49.0 | 49.0 | 47.8 | 53.4 | 48.8 | 51.8 | 46.0 | 53.4 | 49.4 | 50.5 | 46.2 | 48.9 | 53.4 |
| Fort Worth, Tex. | 48.3 | 44.3 | 52.2 | 48.8 | 49.9 | 53.0 | 47.3 | 50.4 | 52.0 | 52.5 | 46.4 | 47.4 | 55.9 |
| Galveston, Tex. | 56.3 | 52.8 | 56.9 | 58.3 | 57.2 | 57.0 | 55.4 | 58.8 | 58.0 | 59.9 | 56.3 | 55.6 | 60.6 |
| San Antonio, Tex. | 55.4 | 53.2 | 58.4 | 58.6 | 57.6 | 56.6 | 53.0 | 57.7 | 58.4 | 58.2 | 52.0 | 54.4 | 61.5 |
| Oklahoma City, Okla. | 39.6 | 36.7 | 43.8 | 39.3 | 39.1 | 43.1 | 40.2 | 42.2 | 44.2 | 42.8 | 38.0 | 40.7 | 46.2 |
| Little Rock, Ark. | 44.9 | 41.8 | 46.4 | 44.0 | 44.8 | 48.0 | 45.0 | 46.2 | 49.0 | 48.2 | 42.4 | 44.1 | 50.0 |
| Havre, Mont. | 13.6 | 7.6 | 16.6 | 14.2 | 6.8 | 17.8 | 14.9 | 21.3 | 28.8 | 0.4 | 13.6 | 29.4 | 23.4 |
| Kalispell, Mont. | 23.3 | 22.3 | 28.4 | 24.4 | 22.0 | 21.7 | 23.0 | 25.9 | 30.2 | 15.4 | 17.0 | 33.0 | 35.8 |
| Cheyenne, Wyo. | 27.3 | 26.3 | 31.2 | 31.8 | 27.2 | 29.4 | 25.6 | 26.8 | 30.2 | 23.9 | 23.9 | 31.6 | 34.6 |
| Sheridan, Wyo. | 22.4 | 20.6 | 22.5 | 22.0 | 20.6 | 23.1 | 21.6 | 27.0 | 31.9 | 11.4 | 18.8 | 28.1 | 31.0 |
| Pueblo, Colo. | 32.9 | 32.0 | 36.5 | 36.0 | 35.4 | 37.4 | 30.9 | 34.8 | 38.2 | 33.2 | 26.6 | 38.8 | 40.6 |
| Santa Fe, N. Mex. | 33.1 | 32.6 | 32.4 | 36.9 | 32.8 | 35.8 | 27.2 | 34.8 | 34.8 | 32.2 | 22.2 | 35.4 | 35.8 |
| Phoenix, Ariz. | 55.1 | 55.1 | 53.8 | 59.6 | 53.8 | 55.2 | 51.2 | 57.6 | 57.6 | 54.4 | 55.3 | 58.8 | 60.6 |
| Mojave, Utah. | 31.0 | 32.6 | 31.8 | 36.1 | 26.2 | 31.8 | 29.4 | 31.8 | 34.6 | 29.0 | 22.0 | 37.3 | 37.6 |
| Salt Lake City, Utah. | 33.8 | 34.5 | 38.2 | 36.0 | 28.6 | 31.7 | 34.2 | 34.4 | 36.8 | 29.8 | 26.6 | 30.2 | 40.2 |
| Winnamucca, Nev. | 33.5 | 36.4 | 37.6 | 37.4 | 28.9 | 32.1 | 33.4 | 37.5 | 36.8 | 25.9 | 27.7 | 39.9 | 40.2 |
| Boise, Idaho. | 34.8 | 36.0 | 40.8 | 38.6 | 30.5 | 38.0 | 35.8 | 35.4 | 35.3 | 31.9 | 30.7 | 42.0 | 42.0 |
| Seattle, Wash. | 41.1 | 42.3 | 44.5 | 41.9 | 39.3 | 40.0 | 40.8 | 40.3 | 42.9 | 39.4 | 37.3 | 46.0 | 45.6 |
| Walla Walla, Wash. | 37.1 | 36.3 | 42.0 | 32.6 | 36.9 | 38.7 | 39.0 | 37.1 | 40.7 | 33.4 | 29.8 | 46.4 | 47.0 |
| Portland, Oreg. | 42.1 | 43.4 | 45.4 | 42.2 | 41.5 | 41.6 | 42.6 | 42.2 | 45.2 | 39.9 | 37.4 | 48.0 | 46.4 |
| Roseburg, Oreg. | 43.4 | 44.5 | 45.0 | 48.8 | 41.2 | 43.4 | 43.2 | 41.2 | 46.4 | 41.0 | 41.8 | 48.1 | 47.6 |
| Eureka, Calif. | 47.2 | 47.9 | 48.4 | 50.4 | 44.2 | 47.0 | 47.0 | 46.0 | 47.8 | 45.0 | 45.7 | 50.3 | 50.8 |
| Fresno, Calif. | 51.1 | 52.2 | 52.2 | 54.9 | 51.4 | 51.4 | 49.5 | 52.2 | 51.5 | 49.6 | 50.2 | 56.4 | 54.4 |
| Los Angeles, Calif. | 55.5 | 59.4 | 54.7 | 58.7 | 55.3 | 56.0 | 53.6 | 57.6 | 57.4 | 54.0 | 56.6 | 62.6 | 57.7 |
| Sacramento, Calif. | 50.1 | 51.1 | 51.0 | 53.8 | 50.0 | 49.3 | 48.4 | 50.4 | 50.9 | 47.1 | 50.2 | 55.2 | 52.1 |
| San Diego, Calif. | 55.1 | 57.4 | 55.4 | 56.4 | 54.7 | 55.1 | 53.6 | 54.8 | 55.2 | 53.7 | 55.2 | 59.0 | 56.6 |
| San Francisco, Calif. | 52.2 | 54.0 | 52.8 | 55.8 | 52.0 | 51.8 | 51.6 | 52.8 | 52.9 | 50.2 | 52.2 | 57.0 | 55.2 |

¹ Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for Mar. | March monthly mean temperature | | | | | | | | | | | |
|-----------------------|-----------------------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 23.5 | 25.2 | 23.2 | 18.8 | 25.0 | 23.3 | 28.7 | 27.5 | 32.2 | 28.5 | 17.6 | 27.0 | 29.0 |
| Boston, Mass. | 35.6 | 36.7 | 35.8 | 30.6 | 37.2 | 36.7 | 40.8 | 39.2 | 46.2 | 39.8 | 33.9 | 37.4 | 43.0 |
| Buffalo, N. Y. | 31.1 | 30.1 | 27.8 | 27.1 | 33.2 | 34.7 | 35.5 | 36.0 | 41.6 | 35.2 | 29.2 | 32.1 | 35.8 |
| Canton, N. Y. | 27.7 | 26.0 | 25.2 | 19.0 | 28.4 | 28.4 | 29.8 | 30.7 | 37.3 | 32.0 | 20.6 | 28.8 | 34.1 |
| Trenton, N. J. | 39.1 | 35.6 | 36.0 | 32.2 | 39.2 | 41.8 | 43.0 | 40.4 | 50.0 | 41.2 | 38.3 | 39.3 | 45.0 |
| Pittsburgh, Pa. | 39.6 | 36.8 | 33.2 | 24.1 | 40.6 | 44.6 | 42.2 | 42.6 | 50.7 | 43.0 | 38.6 | 37.0 | 42.4 |
| Soranton, Pa. | 35.7 | 34.1 | 31.6 | 28.9 | 36.4 | 39.6 | 39.1 | 38.2 | 45.8 | 38.7 | 34.2 | 35.8 | 40.0 |
| Cincinnati, Ohio. | 40.9 | 40.6 | 37.5 | 38.9 | 43.0 | 47.6 | 43.7 | 44.0 | 52.4 | 44.8 | 40.4 | 37.7 | 44.8 |
| Cleveland, Ohio. | 34.6 | 34.0 | 30.4 | 30.1 | 37.3 | 40.2 | 37.1 | 40.0 | 45.6 | 38.8 | 34.8 | 33.0 | 39.0 |
| Evansville, Ind. | 45.9 | 42.0 | 39.0 | 43.6 | 47.2 | 52.2 | 47.7 | 46.6 | 55.6 | 48.6 | 42.0 | 40.0 | 48.9 |
| Indianapolis, Ind. | 40.0 | 37.7 | 35.3 | 37.9 | 41.6 | 47.4 | 42.6 | 42.3 | 49.9 | 43.6 | 38.2 | 35.6 | 43.2 |
| Chicago, Ill. | 36.3 | 35.7 | 34.8 | 34.6 | 38.8 | 42.2 | 38.5 | 40.2 | 45.8 | 39.4 | 33.0 | 34.6 | 39.7 |
| Peoria, Ill. | 37.0 | 36.8 | 34.1 | 37.4 | 40.0 | 45.6 | 40.8 | 41.5 | 47.3 | 41.2 | 34.2 | 34.8 | 41.1 |
| Grand Rapids, Mich. | 33.4 | 32.0 | 31.4 | 28.8 | 35.0 | 38.4 | 35.4 | 36.1 | 41.0 | 36.7 | 28.7 | 32.2 | 36.4 |
| Marquette, Mich. | 24.8 | 25.0 | 26.5 | 19.6 | 25.3 | 31.7 | 28.6 | 28.0 | 28.4 | 29.8 | 17.8 | 27.7 | 27.8 |
| Madison, Wis. | 30.6 | 30.4 | 29.6 | 28.6 | 31.8 | 37.9 | 33.2 | 34.0 | 37.4 | 34.1 | 24.7 | 29.0 | 35.1 |
| Duluth, Minn. | 23.7 | 23.2 | 23.5 | 18.9 | 23.2 | 31.4 | 23.9 | 25.3 | 24.6 | 26.2 | 13.5 | 25.3 | 28.2 |
| St. Paul, Minn. | 29.1 | 30.8 | 28.0 | 26.2 | 27.3 | 38.3 | 30.6 | 30.6 | 33.7 | 32.3 | 21.0 | 30.4 | 34.6 |
| Des Moines, Iowa. | 35.9 | 37.2 | 31.2 | 37.6 | 37.5 | 45.0 | 39.0 | 39.8 | 44.2 | 40.6 | 31.5 | 33.2 | 41.2 |
| Dubuque, Iowa. | 34.0 | 34.6 | 32.0 | 33.6 | 34.8 | 41.6 | 36.6 | 37.2 | 41.2 | 37.4 | 27.6 | 32.0 | 38.4 |
| St. Louis, Mo. | 44.1 | 43.5 | 38.5 | 45.0 | 46.6 | 52.6 | 47.1 | 46.6 | 54.0 | 46.2 | 41.9 | 39.8 | 48.6 |
| Springfield, Mo. | 45.2 | 44.0 | 35.5 | 47.8 | 47.0 | 52.6 | 48.4 | 45.5 | 52.8 | 45.2 | 39.3 | 38.3 | 50.1 |
| Bismarck, N. Dak. | 25.2 | 27.6 | 24.3 | 24.7 | 24.3 | 36.5 | 19.1 | 26.0 | 27.8 | 27.3 | 21.4 | 26.8 | 31.6 |
| Devils Lake, N. Dak. | 18.5 | 23.0 | 23.8 | 17.0 | 21.8 | 34.2 | 14.4 | 19.1 | 21.0 | 25.6 | 12.4 | 24.2 | 24.6 |
| Pierre, S. Dak. | 31.5 | 32.3 | 20.8 | 34.6 | 20.6 | 42.7 | 29.4 | 32.0 | 38.0 | 33.8 | 29.4 | 29.2 | 38.6 |
| North Platte, Nebr. | 36.6 | 38.3 | 26.8 | 43.0 | 33.0 | 45.4 | 37.0 | 37.9 | 43.4 | 38.8 | 34.2 | 29.0 | 42.8 |
| Omaha, Nebr. | 37.0 | 37.4 | 30.0 | 39.5 | 38.5 | 47.1 | 40.5 | 41.6 | 45.6 | 40.6 | 32.7 | 33.3 | 43.2 |
| Concordia, Kans. | 41.0 | 41.3 | 30.6 | 44.5 | 41.6 | 48.4 | 42.0 | 44.8 | 47.6 | 41.8 | 37.9 | 35.2 | 46.6 |
| Dodge City, Kans. | 42.8 | 43.7 | 32.6 | 48.1 | 41.8 | 49.4 | 43.8 | 45.0 | 49.1 | 41.0 | 40.0 | 33.6 | 49.2 |
| Iola, Kans. | 42.4 | 45.4 | 34.6 | 47.1 | 45.8 | 51.0 | 47.8 | 46.4 | 52.1 | 45.6 | 41.7 | 39.0 | 49.7 |
| Washington, D. C. | 42.6 | 39.4 | 41.8 | 37.9 | 43.4 | 48.4 | 46.4 | 45.5 | 55.5 | 45.4 | 45.4 | 42.6 | 46.4 |
| Lynchburg, Va. | 47.3 | 42.0 | 41.2 | 44.6 | 46.6 | 52.3 | 49.4 | 47.4 | 57.1 | 48.8 | 47.9 | 45.5 | 49.2 |
| Norfolk, Va. | 48.2 | 42.4 | 42.4 | 44.1 | 47.2 | 52.6 | 50.4 | 50.0 | 58.1 | 51.2 | 49.6 | 46.8 | 51.4 |
| Parkersburg, W. Va. | 42.8 | 38.9 | 35.4 | 39.4 | 42.2 | 47.8 | 44.6 | 45.2 | 53.3 | 46.7 | 42.1 | 40.0 | 45.8 |
| Charlotte, N. C. | 50.4 | 46.2 | 43.1 | 49.8 | 50.3 | 55.8 | 52.0 | 49.8 | 59.6 | 53.2 | 49.2 | 48.6 | 54.2 |
| Charleston, S. C. | 57.4 | 51.2 | 49.6 | 55.2 | 59.4 | 62.0 | 59.5 | 54.6 | 65.1 | 59.0 | 59.6 | 54.0 | 59.2 |
| Atlanta, Ga. | 52.0 | 48.6 | 43.6 | 50.7 | 52.6 | 59.2 | 54.0 | 49.6 | 61.1 | 53.6 | 52.1 | 48.9 | 55.3 |
| Thomasville, Ga. | 60.2 | 55.8 | 52.2 | 58.2 | 62.8 | 65.0 | 63.0 | 57.4 | 68.2 | 62.0 | 61.0 | 58.4 | 63.2 |
| Jacksonville, Fla. | 62.6 | 65.7 | 55.8 | 59.5 | 65.6 | 67.6 | 63.8 | 59.5 | 70.0 | 64.8 | 60.4 | 58.2 | 64.0 |
| Miami, Fla. | 72.0 | 68.4 | 63.0 | 65.8 | 72.4 | 72.4 | 71.7 | 67.6 | 73.8 | 72.8 | 73.8 | 68.8 | 70.0 |
| Memphis, Tenn. | 62.3 | 49.3 | 42.7 | 52.0 | 53.5 | 58.1 | 55.8 | 51.8 | 61.4 | 52.9 | 49.8 | 46.0 | 56.6 |
| Nashville, Tenn. | 49.2 | 46.0 | 41.5 | 47.2 | 50.9 | 56.3 | 50.4 | 45.5 | 59.0 | 51.3 | 49.6 | 43.6 | 52.8 |
| Birmingham, Ala. | 55.4 | 50.1 | 45.4 | 52.8 | 56.2 | 61.8 | 55.5 | 52.1 | 64.0 | 55.4 | 54.0 | 50.2 | 57.2 |
| Mobile, Ala. | 59.7 | 55.1 | 52.4 | 59.9 | 63.4 | 65.9 | 61.6 | 57.8 | 66.8 | 60.2 | 58.8 | 56.0 | 62.2 |
| New Orleans, La. | 62.8 | 57.6 | 55.0 | 63.8 | 66.1 | 68.9 | 64.0 | 60.3 | 70.6 | 62.5 | 61.6 | 58.7 | 65.2 |
| Shreveport, La. | 58.3 | 55.0 | 47.2 | 60.6 | 58.4 | 62.5 | 58.2 | 56.9 | 65.7 | 57.1 | 55.0 | 50.3 | 60.7 |
| Amarillo, Tex. | 46.9 | 47.3 | 37.2 | 53.7 | 46.2 | 52.6 | 46.4 | 47.2 | 52.0 | 45.3 | 42.8 | 38.9 | 53.4 |
| Brownsville, Tex. | 68.2 | 63.4 | 59.0 | 71.4 | 69.5 | 71.2 | 69.2 | 66.4 | 74.3 | 68.7 | 65.0 | 65.6 | 69.5 |
| El Paso, Tex. | 55.8 | 53.1 | 49.3 | 60.4 | 63.5 | 66.2 | 54.6 | 63.6 | 59.3 | 53.6 | 51.2 | 51.6 | 60.1 |
| Fort Worth, Tex. | 57.7 | 55.5 | 46.8 | 62.4 | 58.3 | 62.2 | 56.1 | 56.4 | 63.4 | 56.4 | 53.6 | 50.8 | 62.2 |
| Galveston, Tex. | 62.4 | 57.2 | 53.8 | 65.8 | 63.3 | 66.6 | 60.7 | 60.0 | 68.0 | 61.6 | 59.6 | 58.8 | 66.2 |
| San Antonio, Tex. | 62.8 | 58.8 | 53.2 | 68.6 | 63.6 | 66.6 | 61.0 | 60.4 | 67.0 | 61.6 | 58.6 | 58.6 | 67.6 |
| Oklahoma City, Okla. | 50.0 | 50.0 | 38.4 | 54.4 | 51.0 | 55.5 | 51.0 | 50.1 | 56.6 | 49.0 | 46.2 | 41.8 | 56.0 |
| Little Rock, Ark. | 53.0 | 51.0 | 43.2 | 54.8 | 54.0 | 58.8 | 53.8 | 53.0 | 61.3 | 52.4 | 49.6 | 47.3 | 58.8 |
| Havre, Mont. | 27.1 | 33.8 | 24.9 | 34.4 | 22.0 | 35.6 | 17.4 | 27.6 | 28.8 | 26.8 | 30.6 | 28.0 | 30.9 |
| Kalispell, Mont. | 32.9 | 35.4 | 37.1 | 35.4 | 26.2 | 36.1 | 32.8 | 31.2 | 33.3 | 29.9 | 32.6 | 34.1 | 35.9 |
| Cheyenne, Wyo. | 33.1 | 34.0 | 27.6 | 38.6 | 25.6 | 40.8 | 33.7 | 31.5 | 37.6 | 33.8 | 28.2 | 21.6 | 37.3 |
| Sheridan, Wyo. | 32.7 | 34.6 | 30.2 | 38.0 | 24.0 | 37.4 | 33.0 | 30.4 | 35.6 | 32.2 | 28.9 | 23.2 | 36.8 |
| Pueblo, Colo. | 41.6 | 41.2 | 35.0 | 48.5 | 37.6 | 48.4 | 41.6 | 40.5 | 47.0 | 41.6 | 36.7 | 31.8 | 47.4 |
| Santa Fe, N. Mex. | 39.7 | 39.4 | 35.8 | 43.6 | 35.6 | 42.8 | 37.6 | 37.4 | 42.6 | 36.4 | 34.0 | 31.8 | 43.4 |
| Phoenix, Ariz. | 60.7 | 63.6 | 58.6 | 64.0 | 55.2 | 59.4 | 57.5 | 58.4 | 64.7 | 57.0 | 53.9 | 50.6 | 65.0 |
| Modena, Utah. | 38.2 | 41.8 | 36.8 | 42.6 | 31.0 | 40.5 | 36.8 | 35.3 | 42.0 | 36.4 | 34.8 | 30.6 | 39.2 |
| Salt Lake City, Utah. | 41.7 | 45.0 | 45.1 | 46.3 | 33.0 | 45.4 | 42.6 | 39.2 | 46.2 | 36.8 | 37.0 | 36.6 | 44.8 |
| Winnemucca, Nev. | 40.0 | 44.6 | 43.2 | 44.2 | 32.8 | 42.2 | 39.2 | 38.5 | 43.8 | 33.9 | 37.5 | 35.7 | 41.6 |
| Boise, Idaho. | 42.7 | 46.0 | 47.2 | 46.0 | 33.2 | 45.5 | 42.8 | 40.8 | 45.2 | 38.8 | 40.6 | 39.0 | 44.7 |
| Seattle, Wash. | 44.9 | 47.6 | 50.0 | 44.4 | 41.0 | 44.0 | 44.7 | 44.4 | 44.6 | 41.5 | 44.0 | 44.4 | 44.9 |
| Wallula Walla, Wash. | 46.1 | 49.4 | 49.7 | 47.7 | 39.8 | 49.0 | 46.8 | 45.2 | 47.2 | 48.2 | 46.6 | 44.4 | 47.8 |
| Portland, Oreg. | 46.9 | 51.1 | 52.6 | 47.0 | 42.6 | 46.7 | 48.2 | 45.8 | 48.0 | 43.3 | 47.2 | 45.8 | 47.4 |
| Roseburg, Oreg. | 47.1 | 51.8 | 51.5 | 48.4 | 42.6 | 48.0 | 47.4 | 44.8 | 48.4 | 45.2 | 47.2 | 45.6 | 48.4 |
| Eureka, Calif. | 48.3 | 49.3 | 52.1 | 48.6 | 43.8 | 48.5 | 47.6 | 47.0 | 49.8 | 47.1 | 47.4 | 46.6 | 47.9 |
| Fresno, Calif. | 55.0 | 58.9 | 58.4 | 57.4 | 51.3 | 56.4 | 52.7 | 52.7 | 56.8 | 52.6 | 56.8 | 54.4 | 56.8 |
| Los Angeles, Calif. | 57.5 | 63.0 | 61.4 | 62.0 | 56.7 | 59.1 | 55.6 | 56.8 | 59.4 | 55.6 | 60.1 | 56.4 | 59.8 |
| Sacramento, Calif. | 54.3 | 58.1 | 57.4 | 56.6 | 50.8 | 53.6 | 51.2 | 51.0 | 55.0 | 50.8 | 56.4 | 52.8 | 54.5 |
| San Diego, Calif. | 58.7 | 61.4 | 59.4 | 59.2 | 54.6 | 58.5 | 55.0 | 55.6 | 57.5 | 54.6 | 58.4 | 56.6 | 57.2 |
| San Francisco, Calif. | 54.2 | 58.4 | 57.9 | 56.6 | 51.7 | 54.9 | 52.6 | 52.6 | 54.6 | 52.4 | 56.8 | 54.5 | 55.4 |

¹ Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for April | April monthly mean temperature | | | | | | | | | | | |
|-----------------------|------------------------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 36.4 | 31.5 | 40.8 | 29.2 | 35.1 | 39.7 | 36.4 | 36.0 | 43.0 | 39.4 | 34.9 | 35.6 | 39.0 |
| Boston, Mass. | 46.4 | 45.3 | 50.8 | 45.6 | 44.0 | 47.8 | 46.8 | 45.0 | 51.8 | 48.7 | 48.2 | 47.2 | 49.8 |
| Buffalo, N. Y. | 42.8 | 40.2 | 46.8 | 42.8 | 40.4 | 42.4 | 42.5 | 39.8 | 51.3 | 44.8 | 40.4 | 41.1 | 44.7 |
| Canton, N. Y. | 42.5 | 39.5 | 50.0 | 43.8 | 40.5 | 42.3 | 39.3 | 40.2 | 48.5 | 43.6 | 39.6 | 40.5 | 42.2 |
| Trenton, N. J. | 49.8 | 48.5 | 54.9 | 48.8 | 49.1 | 50.1 | 49.9 | 47.8 | 56.6 | 51.6 | 50.2 | 49.4 | 51.8 |
| Pittsburgh, Pa. | 51.2 | 49.4 | 55.5 | 49.2 | 49.6 | 49.3 | 51.0 | 47.0 | 56.9 | 52.6 | 49.8 | 49.8 | 54.4 |
| Scranton, Pa. | 48.1 | 46.2 | 53.9 | 47.2 | 47.6 | 48.1 | 47.9 | 45.4 | 55.6 | 48.6 | 48.3 | 46.2 | 49.4 |
| Cincinnati, Ohio | 52.4 | 53.9 | 58.4 | 51.6 | 51.2 | 50.9 | 52.6 | 48.0 | 56.2 | 55.6 | 51.7 | 53.8 | 58.2 |
| Cleveland, Ohio. | 46.2 | 45.4 | 51.8 | 45.9 | 45.4 | 45.8 | 47.0 | 42.6 | 53.9 | 48.6 | 45.8 | 45.3 | 50.6 |
| Evansville, Ind. | 56.7 | 55.4 | 61.9 | 54.2 | 55.9 | 53.0 | 57.6 | 52.8 | 58.8 | 59.2 | 55.9 | 58.4 | 62.8 |
| Indianapolis, Ind. | 52.1 | 51.9 | 58.0 | 50.5 | 49.2 | 48.9 | 52.2 | 46.8 | 55.8 | 54.2 | 49.9 | 53.4 | 57.0 |
| Chicago, Ill. | 47.7 | 48.3 | 56.3 | 48.0 | 44.8 | 44.0 | 48.0 | 43.0 | 54.2 | 48.7 | 46.6 | 49.0 | 52.6 |
| Peoria, Ill. | 50.9 | 51.2 | 58.8 | 49.8 | 47.4 | 45.8 | 51.3 | 44.2 | 54.3 | 52.5 | 49.4 | 53.5 | 57.8 |
| Grand Rapids, Mich. | 47.0 | 45.6 | 53.8 | 46.7 | 43.1 | 44.0 | 45.6 | 41.1 | 52.6 | 48.0 | 45.0 | 45.6 | 51.8 |
| Marquette, Mich. | 37.8 | 35.1 | 47.4 | 38.4 | 33.4 | 37.5 | 39.2 | 32.9 | 44.6 | 37.9 | 36.6 | 36.6 | 43.0 |
| Madison, Wis. | 45.4 | 45.1 | 54.0 | 45.3 | 42.4 | 41.6 | 45.8 | 40.4 | 50.6 | 45.8 | 44.0 | 45.2 | 51.5 |
| Duluth, Minn. | 37.0 | 33.6 | 45.4 | 38.0 | 33.2 | 36.3 | 39.2 | 31.6 | 48.0 | 37.2 | 37.5 | 36.6 | 42.0 |
| St. Paul, Minn. | 45.0 | 44.4 | 55.8 | 43.8 | 42.2 | 43.6 | 45.5 | 38.8 | 50.4 | 45.2 | 43.7 | 43.6 | 52.6 |
| Des Moines, Iowa. | 50.1 | 50.4 | 59.4 | 48.6 | 46.8 | 46.8 | 49.3 | 43.9 | 52.8 | 50.8 | 45.2 | 52.3 | 58.2 |
| Dubuque, Iowa. | 48.6 | 48.5 | 57.7 | 48.2 | 46.4 | 44.2 | 49.0 | 42.8 | 52.2 | 48.8 | 47.0 | 49.4 | 54.8 |
| St. Louis, Mo. | 56.1 | 56.4 | 63.2 | 54.4 | 53.7 | 51.1 | 57.5 | 51.2 | 58.1 | 58.2 | 55.0 | 58.4 | 62.6 |
| Springfield, Mo. | 52.1 | 48.1 | 51.5 | 41.0 | 38.5 | 43.0 | 43.4 | 34.6 | 43.4 | 44.8 | 41.1 | 41.0 | 51.0 |
| Bismarck, N. Dak. | 42.1 | 43.1 | 51.5 | 41.0 | 38.5 | 43.0 | 43.4 | 34.6 | 43.4 | 44.8 | 41.1 | 41.0 | 51.0 |
| Devils Lake, N. Dak. | 38.2 | 37.4 | 48.3 | 37.8 | 36.1 | 41.2 | 40.5 | 31.2 | 39.2 | 41.8 | 37.4 | 37.1 | 46.6 |
| Pierre, S. Dak. | 46.8 | 47.4 | 54.8 | 44.6 | 42.6 | 45.2 | 46.2 | 38.1 | 48.1 | 49.2 | 47.0 | 46.0 | 55.2 |
| North Platte, Nebr. | 48.6 | 50.0 | 55.0 | 47.8 | 44.8 | 42.7 | 47.5 | 40.5 | 48.6 | 48.1 | 48.1 | 50.0 | 51.0 |
| Omaha, Nebr. | 51.2 | 51.8 | 60.0 | 49.5 | 47.9 | 47.4 | 49.1 | 44.2 | 54.2 | 52.6 | 51.2 | 53.4 | 60.0 |
| Concordia, Kans. | 53.5 | 54.2 | 59.6 | 50.2 | 51.0 | 47.6 | 51.0 | 45.6 | 54.6 | 54.4 | 53.7 | 54.6 | 60.3 |
| Dodge City, Kans. | 53.6 | 54.2 | 58.8 | 50.2 | 51.4 | 47.8 | 52.6 | 48.8 | 53.8 | 53.0 | 54.1 | 53.4 | 59.6 |
| Iola, Kans. | 54.2 | 55.0 | 61.0 | 52.6 | 53.8 | 51.7 | 55.8 | 52.1 | 56.2 | 57.2 | 56.5 | 57.0 | 61.9 |
| Washington, D. C. | 53.3 | 53.5 | 59.4 | 53.4 | 54.2 | 53.2 | 53.8 | 52.6 | 59.2 | 55.6 | 53.6 | 51.9 | 56.9 |
| Lynchburg, Va. | 57.3 | 56.7 | 59.8 | 54.7 | 57.4 | 53.3 | 55.6 | 53.4 | 59.1 | 57.8 | 55.8 | 54.1 | 59.6 |
| Norfolk, Va. | 56.8 | 55.8 | 60.2 | 56.4 | 57.6 | 50.4 | 56.9 | 57.3 | 61.2 | 59.7 | 57.2 | 55.4 | 59.2 |
| Parkersburg, W. Va. | 53.4 | 53.9 | 57.3 | 52.5 | 52.6 | 51.6 | 52.9 | 50.6 | 57.6 | 56.2 | 52.6 | 53.6 | 57.0 |
| Charlotte, N. C. | 59.8 | 60.6 | 61.8 | 59.0 | 62.3 | 57.4 | 60.0 | 57.8 | 61.6 | 61.0 | 59.0 | 58.8 | 63.9 |
| Charleston, S. C. | 64.5 | 65.2 | 63.3 | 64.0 | 67.2 | 63.5 | 64.4 | 64.0 | 68.3 | 68.2 | 64.1 | 64.0 | 68.8 |
| Atlanta, Ga. | 61.0 | 61.8 | 64.4 | 60.0 | 63.7 | 57.9 | 61.7 | 58.6 | 61.0 | 62.8 | 60.2 | 59.2 | 66.4 |
| Thomasville, Ga. | 66.7 | 68.6 | 66.4 | 65.9 | 68.1 | 64.5 | 66.4 | 61.4 | 66.4 | 69.8 | 67.7 | 67.4 | 69.7 |
| Jacksonville, Fla. | 68.7 | 70.1 | 66.9 | 67.6 | 69.6 | 67.0 | 67.8 | 68.8 | 67.8 | 71.4 | 69.2 | 67.9 | 69.7 |
| Miami, Fla. | 74.2 | 74.6 | 69.5 | 70.2 | 72.0 | 73.6 | 72.6 | 75.0 | 74.0 | 75.8 | 74.9 | 75.0 | 72.2 |
| Memphis, Tenn. | 61.8 | 61.1 | 65.9 | 60.2 | 61.7 | 60.0 | 61.7 | 59.4 | 61.0 | 64.0 | 61.5 | 62.0 | 68.2 |
| Nashville, Tenn. | 59.0 | 58.8 | 63.5 | 57.2 | 59.7 | 57.0 | 59.2 | 56.2 | 59.2 | 61.6 | 58.3 | 59.3 | 64.2 |
| Birmingham, Ala. | 63.3 | 62.6 | 66.0 | 61.2 | 64.0 | 60.4 | 62.8 | 61.2 | 62.6 | 66.2 | 62.2 | 62.0 | 68.2 |
| Mohile, Ala. | 66.2 | 67.8 | 66.5 | 64.8 | 66.6 | 64.8 | 65.6 | 66.4 | 65.8 | 70.2 | 67.8 | 66.6 | 70.0 |
| New Orleans, La. | 68.8 | 68.9 | 68.8 | 67.8 | 68.2 | 67.8 | 68.1 | 69.1 | 68.2 | 73.3 | 69.7 | 69.1 | 72.4 |
| Shreveport, La. | 65.8 | 64.7 | 67.3 | 63.5 | 63.8 | 63.8 | 65.2 | 64.4 | 63.1 | 67.8 | 66.0 | 65.4 | 70.9 |
| Amrillo, Tex. | 55.8 | 56.0 | 57.0 | 52.9 | 54.8 | 53.2 | 54.5 | 51.0 | 55.0 | 54.8 | 56.0 | 55.1 | 61.1 |
| Brownsville, Tex. | 73.7 | 71.6 | 71.4 | 72.5 | 74.4 | 76.2 | 74.3 | 75.8 | 74.4 | 78.4 | 75.7 | 73.6 | 75.0 |
| El Paso, Tex. | 63.4 | 64.0 | 62.7 | 62.7 | 62.3 | 62.0 | 65.0 | 60.1 | 61.0 | 61.6 | 63.6 | 61.4 | 67.6 |
| Fort Worth, Tex. | 65.0 | 63.2 | 66.2 | 62.3 | 63.8 | 63.4 | 65.0 | 63.6 | 62.8 | 65.3 | 66.0 | 65.2 | 72.3 |
| Galveston, Tex. | 68.7 | 66.7 | 66.1 | 67.0 | 67.8 | 68.3 | 68.4 | 67.3 | 67.4 | 71.6 | 69.4 | 67.2 | 72.2 |
| San Antonio, Tex. | 69.1 | 66.8 | 67.5 | 67.6 | 69.0 | 68.9 | 68.4 | 69.4 | 67.5 | 70.2 | 69.2 | 69.2 | 74.2 |
| Oklahoma City, Okla. | 59.8 | 58.0 | 63.0 | 55.4 | 57.6 | 56.0 | 58.8 | 56.2 | 58.7 | 60.0 | 59.3 | 60.0 | 68.3 |
| Little Rock, Ark. | 62.1 | 61.8 | 65.5 | 60.6 | 61.2 | 60.7 | 61.6 | 60.2 | 60.4 | 64.2 | 62.4 | 62.6 | 68.2 |
| Havre, Mont. | 43.7 | 44.9 | 53.6 | 43.8 | 39.4 | 42.8 | 47.2 | 36.0 | 43.1 | 42.7 | 43.2 | 42.8 | 47.1 |
| Kalispell, Mont. | 43.6 | 44.8 | 49.2 | 43.5 | 39.9 | 42.6 | 46.4 | 39.2 | 42.1 | 40.1 | 42.6 | 42.9 | 47.0 |
| Cheyenne, Wyo. | 40.9 | 40.2 | 46.0 | 40.2 | 36.4 | 34.8 | 41.7 | 31.6 | 38.8 | 38.2 | 39.6 | 39.4 | 45.2 |
| Sheridan, Wyo. | 43.4 | 43.2 | 52.0 | 43.2 | 40.1 | 37.2 | 45.2 | 36.4 | 43.0 | 40.3 | 40.2 | 41.5 | 48.2 |
| Fueblo, Colo. | 50.1 | 49.0 | 53.4 | 48.6 | 46.8 | 45.6 | 43.6 | 43.6 | 48.0 | 48.0 | 51.0 | 48.4 | 54.4 |
| Santa Fe, N. Mex. | 46.7 | 48.0 | 47.7 | 46.6 | 46.1 | 45.0 | 45.0 | 40.8 | 43.4 | 44.3 | 45.6 | 45.6 | 50.6 |
| Phoenix, Ariz. | 67.0 | 68.5 | 66.4 | 68.2 | 64.2 | 67.5 | 69.2 | 64.6 | 66.1 | 63.2 | 66.6 | 65.0 | 70.8 |
| Moena, Utah. | 46.0 | 46.8 | 48.2 | 48.2 | 42.6 | 44.6 | 49.0 | 43.1 | 43.0 | 40.2 | 44.4 | 45.8 | 46.7 |
| Salt Lake City, Utah. | 49.6 | 51.8 | 56.4 | 51.6 | 45.6 | 47.6 | 52.1 | 44.0 | 47.0 | 44.4 | 47.1 | 49.6 | 51.7 |
| Winnemucca, Nev. | 46.7 | 48.6 | 50.4 | 49.0 | 44.4 | 45.5 | 48.8 | 43.6 | 45.1 | 41.4 | 45.2 | 46.8 | 49.2 |
| Boise, Idaho. | 50.4 | 51.2 | 55.3 | 51.4 | 46.4 | 48.8 | 51.8 | 45.4 | 47.0 | 45.0 | 49.4 | 49.8 | 52.7 |
| Seattle, Wash. | 49.4 | 51.4 | 52.6 | 49.0 | 46.8 | 50.0 | 49.6 | 45.6 | 47.5 | 46.6 | 51.0 | 49.0 | 50.6 |
| Walla Walla, Wash. | 53.1 | 53.4 | 56.9 | 53.1 | 49.0 | 53.2 | 54.0 | 49.0 | 50.2 | 49.2 | 54.1 | 52.8 | 57.2 |
| Portland, Oreg. | 51.8 | 53.8 | 55.6 | 53.0 | 49.4 | 52.8 | 53.4 | 48.2 | 50.8 | 48.7 | 54.2 | 53.0 | 54.2 |
| Roseburg, Oreg. | 51.0 | 53.5 | 54.4 | 52.6 | 50.0 | 52.0 | 53.0 | 49.2 | 50.8 | 48.6 | 52.8 | 53.3 | 53.6 |
| Eureka, Calif. | 49.9 | 51.9 | 52.3 | 50.2 | 49.0 | 50.7 | 50.5 | 48.0 | 48.4 | 46.1 | 51.0 | 49.7 | 50.9 |
| Fresno, Calif. | 60.2 | 60.8 | 60.0 | 62.4 | 59.3 | 61.8 | 62.4 | 59.4 | 59.2 | 57.4 | 58.3 | 62.0 | 60.6 |
| Los Angeles, Calif. | 59.4 | 62.8 | 60.4 | 62.4 | 57.9 | 61.7 | 60.9 | 58.8 | 59.0 | 57.6 | 59.4 | 60.4 | 60.0 |
| Sacramento, Calif. | 58.1 | 58.8 | 58.3 | 61.0 | 57.8 | 59.2 | 58.8 | 57.1 | 57.6 | 56.4 | 57.1 | 60.6 | 58.0 |
| San Diego, Calif. | 58.5 | 61.4 | 59.7 | 60.2 | 57.0 | 60.4 | 59.2 | 57.6 | 57.4 | 56.3 | 59.0 | 59.4 | 58.6 |
| San Francisco, Calif. | 55.0 | 58.2 | 57.1 | 57.6 | 55.1 | 57.2 | 56.0 | 54.9 | 55.0 | 53.5 | 56.1 | 57.4 | 57.0 |

¹Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for May | May monthly mean temperature | | | | | | | | | | | |
|-----------------------|----------------|------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 49.5 | 52.1 | 47.6 | 49.9 | 43.2 | 54.4 | 51.0 | 50.0 | 53.4 | 52.6 | 48.6 | 47.2 | 47.6 |
| Boston, Mass. | 57.1 | 60.4 | 56.6 | 58.6 | 50.7 | 63.2 | 59.1 | 54.6 | 58.0 | 61.4 | 57.6 | 56.2 | 57.4 |
| Buffalo, N. Y. | 54.6 | 54.2 | 51.1 | 52.8 | 47.4 | 58.0 | 54.0 | 53.2 | 56.8 | 60.2 | 52.6 | 48.3 | 49.0 |
| Canton, N. Y. | 56.2 | 57.2 | 50.7 | 53.9 | 46.8 | 58.2 | 54.8 | 55.0 | 57.6 | 58.5 | 51.1 | 49.2 | 50.0 |
| Trenton, N. J. | 61.1 | 64.1 | 58.4 | 62.2 | 54.6 | 65.2 | 62.0 | 58.0 | 60.3 | 64.2 | 60.6 | 57.2 | 59.4 |
| Pittsburgh, Pa. | 62.4 | 62.8 | 58.0 | 63.2 | 54.6 | 67.6 | 60.8 | 59.6 | 62.4 | 65.0 | 60.1 | 55.4 | 56.2 |
| Syracuse, Pa. | 59.4 | 61.5 | 54.6 | 60.4 | 51.6 | 64.6 | 60.0 | 57.2 | 60.1 | 62.2 | 58.1 | 55.0 | 55.6 |
| Cincinnati, Ohio. | 63.1 | 66.8 | 60.2 | 64.5 | 56.6 | 68.8 | 60.1 | 60.8 | 64.6 | 66.8 | 61.2 | 57.2 | 58.6 |
| Cleveland, Ohio. | 57.9 | 60.0 | 54.2 | 58.0 | 51.2 | 64.4 | 58.4 | 55.6 | 59.8 | 61.3 | 54.6 | 52.4 | 53.6 |
| Evansville, Ind. | 66.7 | 67.9 | 65.2 | 68.0 | 60.4 | 71.9 | 63.8 | 65.6 | 69.1 | 70.4 | 64.8 | 60.2 | 63.2 |
| Indianapolis, Ind. | 62.9 | 65.6 | 59.7 | 63.4 | 56.0 | 68.8 | 59.4 | 61.0 | 65.3 | 67.5 | 60.6 | 56.0 | 59.6 |
| Chicago, Ill. | 58.5 | 62.3 | 54.1 | 59.3 | 52.6 | 63.7 | 55.2 | 55.4 | 61.7 | 63.8 | 64.4 | 54.4 | 54.7 |
| Peoria, Ill. | 61.7 | 65.0 | 58.6 | 61.4 | 55.6 | 66.4 | 58.2 | 60.8 | 65.1 | 65.6 | 61.0 | 55.5 | 57.8 |
| Grand Rapids, Mich. | 58.0 | 60.0 | 53.3 | 57.8 | 51.7 | 61.8 | 56.4 | 57.1 | 62.2 | 64.0 | 56.8 | 50.7 | 51.8 |
| Marquette, Mich. | 49.0 | 54.4 | 45.6 | 48.7 | 44.8 | 50.8 | 50.2 | 50.4 | 51.6 | 54.9 | 49.4 | 44.1 | 46.6 |
| Madison, Wis. | 57.6 | 60.3 | 51.8 | 57.3 | 52.0 | 61.0 | 55.2 | 56.6 | 60.4 | 63.6 | 57.0 | 51.2 | 54.4 |
| Duluth, Minn. | 47.3 | 53.2 | 44.2 | 47.4 | 46.0 | 46.9 | 50.5 | 51.0 | 50.5 | 51.4 | 48.9 | 45.8 | 48.2 |
| St. Paul, Minn. | 57.9 | 59.9 | 52.2 | 56.6 | 54.8 | 59.8 | 58.0 | 59.0 | 59.8 | 62.5 | 58.6 | 49.8 | 54.3 |
| Des Moines, Iowa. | 61.3 | 64.0 | 57.3 | 61.7 | 57.3 | 67.2 | 59.8 | 61.2 | 65.4 | 64.3 | 60.7 | 55.7 | 59.4 |
| Dubuque, Iowa. | 60.3 | 62.6 | 54.8 | 60.0 | 54.8 | 64.9 | 57.8 | 58.8 | 63.6 | 64.8 | 60.0 | 53.8 | 56.6 |
| St. Louis, Mo. | 67.0 | 69.4 | 64.6 | 68.0 | 60.6 | 70.8 | 63.0 | 64.8 | 68.5 | 69.4 | 64.1 | 59.4 | 63.3 |
| Springfield, Mo. | 64.5 | 65.6 | 63.2 | 65.8 | 59.1 | 68.6 | 62.0 | 65.0 | 65.4 | 66.4 | 62.4 | 57.7 | 61.2 |
| Hismarck, N. Dak. | 54.5 | 55.6 | 51.0 | 52.8 | 42.6 | 54.2 | 56.0 | 54.4 | 54.8 | 57.6 | 56.2 | 49.2 | 55.6 |
| Devils Lake, N. Dak. | 52.7 | 54.8 | 50.7 | 50.3 | 51.0 | 48.9 | 55.7 | 54.4 | 54.2 | 56.8 | 54.5 | 45.6 | 52.6 |
| Pierre, S. Dak. | 58.0 | 59.0 | 53.6 | 56.9 | 54.8 | 59.2 | 68.4 | 66.9 | 58.2 | 60.3 | 58.5 | 53.2 | 69.1 |
| North Platte, Nebr. | 58.7 | 59.8 | 55.2 | 58.2 | 52.6 | 61.1 | 58.2 | 57.8 | 61.0 | 59.5 | 57.2 | 53.2 | 64.2 |
| Omaha, Nebr. | 62.4 | 64.4 | 58.9 | 63.0 | 57.6 | 72.8 | 61.7 | 65.9 | 64.6 | 64.6 | 60.9 | 55.7 | 61.2 |
| Concordia, Kans. | 63.2 | 64.4 | 60.0 | 63.2 | 57.6 | 67.8 | 61.1 | 61.4 | 65.8 | 64.2 | 60.2 | 57.4 | 62.0 |
| Dodge City, Kans. | 63.5 | 62.8 | 59.4 | 63.6 | 57.0 | 67.0 | 61.2 | 61.6 | 64.8 | 63.6 | 60.8 | 57.0 | 63.9 |
| Iola, Kans. | 64.5 | 65.6 | 62.4 | 66.0 | 58.8 | 68.8 | 63.3 | 66.2 | 67.6 | 67.6 | 63.6 | 60.0 | 62.6 |
| Washington, D. C. | 63.7 | 67.0 | 62.5 | 66.7 | 59.6 | 69.6 | 64.6 | 60.0 | 62.3 | 66.8 | 63.4 | 60.0 | 60.6 |
| Lynchburg, Va. | 67.3 | 68.4 | 65.4 | 69.0 | 60.7 | 70.0 | 65.0 | 61.8 | 63.3 | 67.2 | 63.8 | 61.4 | 61.3 |
| Norfolk, Va. | 66.2 | 68.3 | 66.0 | 69.2 | 62.4 | 70.5 | 67.9 | 61.4 | 63.0 | 67.9 | 65.6 | 65.2 | 64.4 |
| Parkersburg, W. Va. | 63.8 | 64.8 | 61.6 | 65.9 | 57.6 | 69.0 | 63.0 | 61.4 | 64.2 | 66.0 | 62.2 | 57.7 | 58.8 |
| Charlotte, N. C. | 68.9 | 70.6 | 69.3 | 72.6 | 63.6 | 72.3 | 69.0 | 65.6 | 60.0 | 69.4 | 66.2 | 60.0 | 66.2 |
| Charleston, S. C. | 72.7 | 72.5 | 75.5 | 74.4 | 70.2 | 73.2 | 74.2 | 68.8 | 70.5 | 73.6 | 70.7 | 72.4 | 71.0 |
| Atlanta, Ga. | 69.9 | 71.2 | 71.5 | 72.6 | 64.0 | 72.2 | 67.7 | 67.1 | 68.4 | 69.0 | 65.8 | 65.8 | 68.0 |
| Thomasville, Ga. | 74.0 | 75.2 | 77.8 | 76.4 | 70.3 | 74.3 | 72.7 | 72.8 | 72.2 | 75.3 | 72.2 | 71.9 | 73.2 |
| Jacksonville, Fla. | 75.0 | 74.8 | 77.8 | 75.6 | 73.1 | 74.2 | 74.8 | 71.9 | 72.9 | 76.4 | 72.3 | 74.0 | 72.5 |
| Miami, Fla. | 78.6 | 77.6 | 78.0 | 76.7 | 75.6 | 76.2 | 76.4 | 76.2 | 74.6 | 77.2 | 76.0 | 77.7 | 75.9 |
| Memphis, Tenn. | 70.6 | 70.6 | 71.2 | 73.0 | 64.2 | 74.6 | 67.0 | 70.5 | 70.7 | 72.4 | 68.0 | 64.8 | 68.2 |
| Nashville, Tenn. | 68.2 | 68.2 | 70.1 | 70.5 | 61.8 | 71.0 | 68.0 | 69.7 | 68.4 | 69.9 | 65.6 | 62.4 | 64.8 |
| Birmingham, Ala. | 71.1 | 70.6 | 73.1 | 72.7 | 65.0 | 73.2 | 68.0 | 69.8 | 71.0 | 71.6 | 69.0 | 66.7 | 69.6 |
| Mobile, Ala. | 74.4 | 74.6 | 74.6 | 72.7 | 66.9 | 72.8 | 75.1 | 72.3 | 74.1 | 72.6 | 71.0 | 72.3 | 72.3 |
| New Orleans, La. | 75.4 | 75.5 | 77.4 | 77.1 | 72.2 | 76.0 | 74.0 | 78.0 | 74.3 | 75.7 | 74.3 | 74.2 | 74.8 |
| Shreveport, La. | 73.6 | 72.5 | 74.6 | 73.8 | 67.7 | 75.2 | 70.1 | 75.2 | 73.6 | 75.3 | 71.4 | 68.6 | 73.0 |
| Amarillo, Tex. | 64.1 | 63.2 | 61.5 | 67.0 | 58.2 | 67.5 | 61.8 | 64.1 | 65.4 | 65.0 | 63.8 | 60.7 | 65.0 |
| Brownsville, Tex. | 78.6 | 78.7 | 78.8 | 80.3 | 77.6 | 79.4 | 80.2 | 80.8 | 78.2 | 81.4 | 80.6 | 77.4 | 77.6 |
| El Paso, Tex. | 71.5 | 71.2 | 69.6 | 72.9 | 66.6 | 69.8 | 72.0 | 73.1 | 71.9 | 73.0 | 74.0 | 72.2 | 73.4 |
| Fort Worth, Tex. | 72.3 | 70.2 | 72.7 | 72.8 | 66.8 | 75.2 | 69.8 | 73.4 | 73.4 | 74.1 | 73.4 | 69.0 | 73.8 |
| Galveston, Tex. | 74.8 | 74.6 | 75.5 | 75.0 | 71.6 | 75.2 | 73.0 | 76.6 | 74.8 | 77.3 | 76.0 | 72.9 | 75.2 |
| San Antonio, Tex. | 75.1 | 74.4 | 75.6 | 76.1 | 71.6 | 75.9 | 73.4 | 76.8 | 75.4 | 77.0 | 77.2 | 71.6 | 77.2 |
| Oklahoma City, Okla. | 67.7 | 65.8 | 65.3 | 69.1 | 62.4 | 71.0 | 65.7 | 68.6 | 69.6 | 68.8 | 66.3 | 63.3 | 67.0 |
| Little Rock, Ark. | 70.3 | 70.6 | 70.4 | 72.2 | 64.0 | 74.1 | 67.1 | 71.0 | 70.9 | 71.5 | 67.4 | 65.6 | 69.0 |
| Harre, Mont. | 53.4 | 54.7 | 52.7 | 49.4 | 52.8 | 51.6 | 56.7 | 53.7 | 53.8 | 53.8 | 55.4 | 53.0 | 56.2 |
| Kalispell, Mont. | 51.4 | 53.0 | 51.4 | 47.1 | 51.3 | 48.3 | 51.0 | 48.0 | 53.0 | 50.4 | 50.8 | 55.4 | 54.3 |
| Cheyenne, Wyo. | 50.3 | 51.1 | 46.4 | 48.6 | 43.0 | 50.7 | 51.2 | 49.4 | 50.4 | 49.8 | 50.3 | 45.8 | 52.5 |
| Eberhard, Wyo. | 50.7 | 52.4 | 50.5 | 49.0 | 48.3 | 50.0 | 54.8 | 51.2 | 53.4 | 52.4 | 53.4 | 49.8 | 54.5 |
| Pueblo, Colo. | 59.2 | 60.4 | 55.6 | 59.0 | 53.2 | 61.2 | 59.7 | 59.2 | 62.2 | 59.4 | 68.4 | 55.2 | 63.3 |
| Santa Fe, N. Mex. | 55.7 | 60.2 | 52.3 | 55.6 | 48.9 | 55.7 | 56.0 | 56.2 | 56.0 | 55.9 | 55.3 | 55.0 | 59.2 |
| Phoenix, Ariz. | 75.0 | 75.6 | 70.8 | 74.9 | 69.0 | 72.2 | 76.9 | 73.9 | 76.4 | 76.4 | 77.6 | 78.8 | 81.2 |
| Moens, Utah. | 63.5 | 56.6 | 50.8 | 51.7 | 48.0 | 51.0 | 58.8 | 54.4 | 52.0 | 53.2 | 55.2 | 57.8 | 58.2 |
| Salt Lake City, Utah. | 57.4 | 62.4 | 56.7 | 54.8 | 53.7 | 56.4 | 62.5 | 57.8 | 59.1 | 57.6 | 59.4 | 62.0 | 63.3 |
| Winnemucca, Nev. | 53.9 | 59.4 | 52.3 | 50.3 | 50.1 | 51.6 | 59.4 | 54.2 | 54.1 | 54.4 | 54.8 | 60.6 | 58.6 |
| Boise, Idaho. | 57.1 | 61.2 | 55.0 | 52.5 | 55.0 | 54.8 | 59.3 | 55.0 | 57.2 | 56.4 | 56.8 | 63.8 | 61.8 |
| Seattle, Wash. | 54.5 | 57.3 | 56.0 | 52.0 | 52.4 | 52.4 | 53.6 | 51.6 | 53.6 | 54.5 | 54.1 | 57.4 | 57.8 |
| Walla Walla, Wash. | 59.6 | 62.2 | 58.0 | 55.8 | 57.0 | 56.8 | 59.4 | 57.9 | 60.4 | 59.0 | 60.0 | 66.4 | 62.6 |
| Portland, Oreg. | 56.9 | 61.1 | 57.7 | 54.8 | 54.6 | 55.6 | 57.2 | 55.1 | 57.1 | 58.0 | 57.6 | 61.2 | 61.2 |
| Roseburg, Oreg. | 56.0 | 59.7 | 56.4 | 54.2 | 54.5 | 54.8 | 57.0 | 55.0 | 55.9 | 57.7 | 57.0 | 61.6 | 60.2 |
| Eureka, Calif. | 52.0 | 53.0 | 53.6 | 50.4 | 50.0 | 50.6 | 52.1 | 49.3 | 50.8 | 51.0 | 57.1 | 52.4 | 53.9 |
| Fresno, Calif. | 67.1 | 68.8 | 63.0 | 64.2 | 62.4 | 63.8 | 69.8 | 68.2 | 63.6 | 68.6 | 67.1 | 72.6 | 68.8 |
| Los Angeles, Calif. | 62.2 | 60.3 | 61.5 | 61.3 | 58.7 | 61.2 | 61.6 | 62.1 | 58.8 | 62.6 | 64.6 | 64.8 | 62.8 |
| Sacramento, Calif. | 63.3 | 62.8 | 59.8 | 61.4 | 59.8 | 61.8 | 65.2 | 65.0 | 60.7 | 65.9 | 63.3 | 69.5 | 63.9 |
| San Diego, Calif. | 60.8 | 60.2 | 60.6 | 60.8 | 58.4 | 60.8 | 61.0 | 59.8 | 58.4 | 60.3 | 62.2 | 63.0 | 62.3 |
| San Francisco, Calif. | 56.8 | 56.2 | 57.6 | 55.8 | 54.0 | 54.6 | 57.2 | 55.8 | 54.4 | 58.0 | 57.2 | 59.1 | 59.0 |

¹ Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for June | June monthly mean temperature | | | | | | | | | | | |
|-----------------------|-----------------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 58.9 | 56.3 | 58.8 | 57.5 | 58.1 | 55.0 | 63.8 | 59.8 | 60.0 | 61.1 | 60.4 | 57.8 | 59.6 |
| Boston, Mass. | 66.5 | 67.3 | 63.9 | 62.6 | 65.8 | 63.9 | 67.2 | 65.8 | 68.2 | 68.6 | 69.3 | 66.0 | 70.9 |
| Buffalo, N. Y. | 64.4 | 63.2 | 64.0 | 61.4 | 60.2 | 61.9 | 72.4 | 64.0 | 66.6 | 65.0 | 64.8 | 62.4 | 66.0 |
| Canton, N. Y. | 65.8 | 61.0 | 63.0 | 61.2 | 62.0 | 59.6 | 69.4 | 63.6 | 65.7 | 64.6 | 63.8 | 62.0 | 65.7 |
| Trenton, N. J. | 69.5 | 69.4 | 67.8 | 65.8 | 70.5 | 67.2 | 70.8 | 69.0 | 71.1 | 71.8 | 73.5 | 67.8 | 75.2 |
| Pittsburgh, Pa. | 70.7 | 71.0 | 67.1 | 65.3 | 67.6 | 68.0 | 75.0 | 68.5 | 73.0 | 71.2 | 71.6 | 68.6 | 73.1 |
| Scranton, Pa. | 67.8 | 66.8 | 65.8 | 63.0 | 66.8 | 65.4 | 71.7 | 66.9 | 69.4 | 68.7 | 70.2 | 65.4 | 71.2 |
| Cincinnati, Ohio | 71.2 | 76.2 | 69.3 | 67.3 | 69.0 | 70.4 | 75.3 | 70.4 | 75.4 | 73.7 | 72.0 | 71.4 | 76.1 |
| Cleveland, Ohio | 67.1 | 68.3 | 63.9 | 62.8 | 64.8 | 67.4 | 73.4 | 67.4 | 69.8 | 68.6 | 70.8 | 64.8 | 71.6 |
| Evansville, Ind. | 75.1 | 80.0 | 73.2 | 71.9 | 73.4 | 75.9 | 78.2 | 74.2 | 80.0 | 77.8 | 75.4 | 75.4 | 79.2 |
| Indianapolis, Ind. | 71.6 | 74.8 | 69.5 | 67.2 | 68.8 | 71.2 | 75.8 | 71.1 | 76.0 | 73.8 | 72.8 | 70.4 | 74.4 |
| Chicago, Ill. | 68.2 | 70.2 | 63.8 | 63.8 | 63.8 | 66.9 | 72.6 | 69.1 | 73.8 | 70.8 | 70.8 | 64.6 | 71.8 |
| Peoria, Ill. | 70.9 | 74.2 | 67.8 | 65.8 | 67.7 | 71.4 | 74.8 | 72.0 | 76.8 | 73.2 | 73.0 | 69.2 | 73.4 |
| Grand Rapids, Mich. | 67.8 | 67.6 | 63.4 | 62.5 | 62.6 | 66.2 | 74.2 | 69.2 | 73.4 | 69.6 | 71.8 | 65.2 | 70.4 |
| Marquette, Mich. | 58.9 | 58.8 | 55.2 | 52.9 | 52.0 | 57.2 | 62.3 | 58.0 | 65.2 | 60.0 | 60.2 | 56.0 | 60.4 |
| Madison, Wis. | 67.2 | 66.6 | 62.0 | 61.8 | 61.8 | 65.9 | 71.2 | 69.0 | 72.2 | 68.6 | 71.2 | 63.8 | 67.9 |
| Duluth, Minn. | 57.2 | 57.0 | 53.2 | 53.8 | 53.0 | 57.4 | 58.1 | 57.9 | 62.6 | 59.9 | 60.8 | 55.9 | 58.7 |
| St. Paul, Minn. | 67.1 | 66.2 | 62.4 | 62.7 | 62.8 | 66.3 | 70.0 | 68.0 | 73.5 | 68.3 | 70.0 | 63.6 | 66.2 |
| Des Moines, Iowa | 70.6 | 74.4 | 67.0 | 66.5 | 67.9 | 72.7 | 73.4 | 72.5 | 76.3 | 74.0 | 72.0 | 69.0 | 72.0 |
| Dubuque, Iowa | 69.4 | 69.8 | 64.7 | 64.0 | 65.2 | 68.7 | 72.8 | 70.9 | 75.0 | 71.2 | 72.7 | 66.0 | 70.2 |
| St. Louis, Mo. | 75.0 | 81.1 | 72.0 | 71.5 | 73.3 | 77.1 | 77.3 | 75.2 | 78.4 | 78.2 | 75.2 | 73.4 | 78.4 |
| Springfield, Mo. | 72.5 | 78.8 | 70.3 | 70.0 | 70.9 | 77.0 | 73.6 | 71.8 | 74.2 | 75.7 | 72.8 | 72.4 | 77.2 |
| Bismarck, N. Dak. | 63.7 | 64.0 | 58.2 | 59.2 | 61.9 | 65.8 | 69.0 | 64.4 | 71.2 | 66.2 | 66.6 | 60.4 | 63.2 |
| Devils Lake, N. Dak. | 62.6 | 61.6 | 55.4 | 57.5 | 59.2 | 61.2 | 66.1 | 62.4 | 66.9 | 63.8 | 67.0 | 59.0 | 60.8 |
| Pierre, S. Dak. | 68.5 | 68.8 | 63.1 | 63.5 | 65.3 | 71.7 | 71.0 | 66.6 | 76.0 | 70.5 | 68.7 | 64.2 | 67.6 |
| North Platte, Nebr. | 67.5 | 72.1 | 63.8 | 64.6 | 67.0 | 73.8 | 69.3 | 68.4 | 71.8 | 72.8 | 69.2 | 67.4 | 71.7 |
| Omaha, Nebr. | 71.6 | 75.2 | 67.6 | 68.0 | 69.6 | 76.1 | 73.4 | 73.1 | 77.4 | 75.6 | 72.4 | 69.0 | 73.6 |
| Concordia, Kans. | 73.0 | 77.3 | 68.3 | 69.2 | 72.6 | 78.9 | 72.8 | 73.3 | 75.8 | 76.0 | 73.0 | 72.4 | 77.1 |
| Dodge City, Kans. | 72.5 | 77.6 | 68.8 | 70.6 | 73.4 | 77.9 | 70.7 | 72.6 | 72.8 | 74.5 | 71.8 | 75.2 | 78.1 |
| Lola, Kans. | 73.4 | 78.6 | 71.1 | 71.4 | 73.2 | 79.3 | 74.8 | 73.0 | 76.7 | 76.6 | 75.2 | 75.7 | 79.9 |
| Washington, D. C. | 72.2 | 73.8 | 70.6 | 69.7 | 72.6 | 70.6 | 73.9 | 69.6 | 74.2 | 74.5 | 75.6 | 71.8 | 77.4 |
| Lynchburg, Va. | 74.6 | 76.6 | 71.6 | 71.0 | 72.8 | 71.2 | 73.4 | 71.9 | 74.3 | 74.8 | 75.6 | 72.1 | 77.5 |
| Norfolk, Va. | 74.4 | 75.0 | 71.3 | 72.1 | 74.2 | 72.6 | 73.4 | 74.3 | 74.8 | 75.9 | 72.7 | 73.9 | 77.8 |
| Parkersburg, W. Va. | 71.4 | 73.4 | 69.6 | 67.6 | 68.6 | 70.0 | 76.0 | 70.2 | 75.0 | 72.2 | 73.0 | 71.0 | 73.5 |
| Charlotte, N. C. | 75.5 | 79.8 | 73.1 | 74.1 | 75.2 | 75.2 | 75.8 | 75.6 | 78.0 | 77.6 | 77.0 | 77.0 | 80.4 |
| Charleston, S. C. | 78.9 | 80.6 | 78.0 | 78.0 | 77.6 | 78.6 | 77.4 | 78.4 | 80.0 | 79.8 | 78.6 | 81.2 | 79.8 |
| Atlanta, Ga. | 76.0 | 80.8 | 75.3 | 75.2 | 75.0 | 76.8 | 76.8 | 76.4 | 78.8 | 76.8 | 75.0 | 77.6 | 80.0 |
| Thomasville, Ga. | 79.5 | 83.2 | 81.1 | 78.6 | 79.4 | 80.3 | 78.6 | 79.0 | 80.6 | 80.0 | 77.6 | 80.6 | 80.2 |
| Jacksonville, Fla. | 79.9 | 82.8 | 79.8 | 79.4 | 79.2 | 79.8 | 77.4 | 78.6 | 80.0 | 80.0 | 78.8 | 81.2 | 79.4 |
| Miami, Fla. | 80.4 | 81.2 | 79.4 | 79.4 | 79.1 | 79.4 | 79.0 | 79.2 | 79.7 | 79.5 | 79.8 | 81.1 | 80.0 |
| Memphis, Tenn. | 77.6 | 84.2 | 76.6 | 75.9 | 76.1 | 80.4 | 78.8 | 76.5 | 80.6 | 79.8 | 77.0 | 78.6 | 83.2 |
| Nashville, Tenn. | 75.6 | 81.8 | 74.6 | 72.9 | 73.0 | 77.0 | 78.2 | 73.8 | 80.0 | 77.0 | 74.9 | 77.0 | 79.4 |
| Birmingham, Ala. | 77.9 | 81.9 | 77.4 | 76.2 | 77.0 | 79.1 | 78.2 | 76.7 | 82.0 | 78.1 | 77.0 | 78.9 | 81.6 |
| Mobile, Ala. | 80.3 | 83.7 | 81.6 | 79.6 | 78.9 | 82.0 | 80.0 | 79.8 | 81.2 | 80.8 | 78.8 | 81.5 | 80.0 |
| New Orleans, La. | 80.6 | 84.2 | 83.8 | 81.6 | 80.4 | 83.2 | 80.0 | 80.8 | 81.2 | 81.8 | 79.9 | 83.3 | 81.4 |
| Shreveport, La. | 80.7 | 83.9 | 80.7 | 79.4 | 80.2 | 83.6 | 77.8 | 78.5 | 80.4 | 80.8 | 79.7 | 82.5 | 84.2 |
| Amarillo, Tex. | 72.8 | 76.2 | 72.4 | 74.6 | 73.6 | 77.3 | 68.9 | 72.4 | 70.2 | 73.4 | 72.4 | 78.0 | 77.2 |
| Brownsville, Tex. | 82.4 | 82.6 | 84.4 | 84.4 | 83.5 | 84.5 | 82.6 | 81.5 | 82.6 | 82.8 | 83.0 | 82.6 | 82.2 |
| El Paso, Tex. | 79.6 | 78.9 | 81.6 | 83.8 | 80.8 | 80.4 | 77.6 | 77.4 | 79.6 | 81.4 | 81.4 | 84.8 | 80.2 |
| Fort Worth, Tex. | 79.9 | 83.0 | 80.3 | 80.2 | 80.6 | 84.1 | 76.7 | 78.3 | 78.8 | 80.2 | 80.6 | 83.4 | 85.3 |
| Galveston, Tex. | 80.7 | 82.3 | 82.6 | 81.0 | 80.3 | 82.8 | 77.4 | 79.6 | 80.6 | 81.2 | 81.4 | 81.5 | 80.8 |
| San Antonio, Tex. | 81.0 | 82.0 | 83.8 | 84.0 | 83.0 | 83.6 | 77.5 | 78.4 | 81.0 | 79.4 | 83.2 | 81.2 | 84.6 |
| Oklahoma City, Okla. | 76.0 | 80.8 | 73.7 | 74.6 | 76.9 | 81.3 | 73.8 | 74.6 | 76.0 | 77.9 | 76.9 | 80.4 | 82.6 |
| Little Rock, Ark. | 77.4 | 84.0 | 76.2 | 76.6 | 76.2 | 80.5 | 77.2 | 75.4 | 79.0 | 79.4 | 77.5 | 79.3 | 82.9 |
| Havre, Mont. | 62.0 | 60.7 | 56.8 | 59.3 | 59.6 | 67.2 | 67.6 | 61.8 | 67.8 | 65.6 | 63.8 | 58.9 | 63.4 |
| Kalispell, Mont. | 57.7 | 57.3 | 55.8 | 55.3 | 55.5 | 62.2 | 60.2 | 55.6 | 60.9 | 63.8 | 58.1 | 56.5 | 59.5 |
| Cheyenne, Wyo. | 60.4 | 61.4 | 54.6 | 58.4 | 58.2 | 65.1 | 62.6 | 59.4 | 61.6 | 63.8 | 59.4 | 60.2 | 61.2 |
| Sheridan, Wyo. | 61.1 | 61.1 | 55.6 | 59.0 | 58.0 | 67.0 | 68.0 | 60.8 | 66.6 | 64.6 | 61.8 | 58.2 | 61.2 |
| Pueblo, Colo. | 69.0 | 70.6 | 66.0 | 69.6 | 67.2 | 74.0 | 68.4 | 68.4 | 69.9 | 71.8 | 69.5 | 71.2 | 72.6 |
| Santa Fe, N. Mex. | 64.8 | 67.0 | 64.0 | 66.2 | 66.0 | 68.4 | 63.1 | 63.6 | 62.9 | 66.4 | 65.2 | 68.6 | 65.8 |
| Phoenix, Ariz. | 84.5 | 84.6 | 83.4 | 83.9 | 84.4 | 86.6 | 85.4 | 84.4 | 84.8 | 86.2 | 80.8 | 87.5 | 86.2 |
| Modena, Utah | 63.3 | 61.6 | 60.8 | 63.0 | 62.8 | 70.4 | 64.3 | 62.0 | 64.8 | 65.7 | 59.1 | 65.8 | 61.4 |
| Salt Lake City, Utah | 67.4 | 64.9 | 64.2 | 65.9 | 65.8 | 76.4 | 74.0 | 68.0 | 71.2 | 73.0 | 64.2 | 70.7 | 65.6 |
| Winnemucca, Nev. | 62.8 | 61.2 | 61.0 | 61.6 | 63.3 | 70.6 | 64.2 | 62.1 | 65.2 | 67.4 | 57.8 | 64.8 | 63.6 |
| Boise, Idaho | 65.3 | 63.0 | 61.8 | 61.8 | 62.6 | 73.2 | 66.4 | 64.1 | 68.2 | 70.3 | 62.6 | 66.8 | 66.4 |
| Seattle, Wash. | 59.0 | 59.8 | 59.8 | 58.8 | 57.2 | 61.6 | 57.5 | 58.6 | 59.8 | 60.8 | 60.6 | 59.9 | 60.1 |
| Walla Walla, Wash. | 66.5 | 64.9 | 66.1 | 64.4 | 64.8 | 73.1 | 66.4 | 65.0 | 70.4 | 73.9 | 69.0 | 69.2 | 70.0 |
| Portland, Oreg. | 62.4 | 61.4 | 62.6 | 62.0 | 61.8 | 67.1 | 60.6 | 62.1 | 64.4 | 66.5 | 62.5 | 64.3 | 63.4 |
| Roseburg, Oreg. | 62.5 | 61.3 | 62.0 | 61.4 | 62.1 | 67.4 | 60.6 | 62.4 | 64.8 | 67.0 | 63.0 | 65.2 | 63.8 |
| Eureka, Calif. | 54.3 | 52.8 | 54.0 | 52.8 | 52.6 | 54.3 | 53.6 | 54.3 | 52.2 | 55.6 | 54.3 | 54.1 | 55.2 |
| Fresno, Calif. | 75.8 | 78.6 | 75.0 | 73.2 | 77.0 | 82.5 | 75.6 | 74.9 | 76.0 | 76.5 | 69.4 | 77.4 | 77.0 |
| Los Angeles, Calif. | 66.4 | 64.6 | 66.7 | 63.6 | 68.6 | 69.8 | 68.7 | 65.8 | 68.6 | 67.7 | 63.6 | 68.2 | 67.4 |
| Sacramento, Calif. | 69.4 | 67.1 | 69.8 | 68.0 | 72.6 | 76.0 | 59.4 | 70.2 | 71.9 | 71.0 | 65.9 | 71.0 | 72.1 |
| San Diego, Calif. | 68.9 | 63.8 | 64.8 | 61.4 | 63.7 | 66.8 | 66.2 | 63.6 | 63.1 | 64.3 | 62.3 | 63.4 | 64.6 |
| San Francisco, Calif. | 58.5 | 56.6 | 58.9 | 57.4 | 58.6 | 59.2 | 57.8 | 60.2 | 61.4 | 60.0 | 57.2 | 59.8 | 60.7 |

¹Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for July | July monthly mean temperature | | | | | | | | | | | | |
|-----------------------|-----------------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|--|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | |
| Greenville, Me. | 65.4 | 63.4 | 63.6 | 67.4 | 66.4 | 66.0 | 66.6 | 63.6 | 70.6 | 64.6 | 62.0 | 65.2 | 62.6 | |
| Boston, Mass. | 71.7 | 68.6 | 70.1 | 72.6 | 73.3 | 71.0 | 74.0 | 72.4 | 73.2 | 72.0 | 70.0 | 73.8 | 72.4 | |
| Buffalo, N. Y. | 69.8 | 70.0 | 67.8 | 74.7 | 69.5 | 68.8 | 70.4 | 66.1 | 76.2 | 70.1 | 69.8 | 67.6 | 67.0 | |
| Canton, N. Y. | 70.5 | 66.6 | 67.2 | 72.5 | 70.0 | 69.1 | 69.1 | 66.0 | 76.4 | 68.7 | 66.2 | 67.4 | 65.5 | |
| Trenton, N. J. | 74.5 | 72.0 | 73.7 | 74.9 | 75.1 | 73.2 | 75.1 | 73.0 | 76.6 | 73.4 | 73.0 | 73.2 | 73.3 | |
| Pittsburgh, Pa. | 74.6 | 74.0 | 72.0 | 76.6 | 73.6 | 72.0 | 75.4 | 70.4 | 77.6 | 73.9 | 73.3 | 71.1 | 72.4 | |
| Scranton, Pa. | 71.7 | 70.4 | 70.4 | 74.2 | 72.7 | 70.4 | 72.4 | 69.6 | 76.0 | 71.4 | 70.8 | 69.8 | 69.4 | |
| Cincinnati, Ohio. | 75.1 | 79.2 | 73.5 | 78.7 | 74.0 | 72.4 | 77.0 | 72.8 | 79.7 | 75.4 | 76.6 | 72.4 | 74.0 | |
| Cleveland, Ohio. | 71.4 | 71.8 | 69.8 | 75.6 | 71.4 | 70.3 | 73.2 | 69.2 | 76.8 | 71.6 | 71.2 | 69.2 | 70.8 | |
| Evansville, Ind. | 78.9 | 82.2 | 77.0 | 82.0 | 78.2 | 76.6 | 82.1 | 77.8 | 84.0 | 79.5 | 80.2 | 75.6 | 79.6 | |
| Indianapolis, Ind. | 75.9 | 78.5 | 73.0 | 80.6 | 74.0 | 73.0 | 78.6 | 73.4 | 81.1 | 74.6 | 76.2 | 72.9 | 74.7 | |
| Chicago, Ill. | 73.9 | 75.0 | 70.2 | 78.4 | 72.2 | 71.2 | 77.0 | 71.5 | 81.2 | 73.3 | 74.4 | 70.2 | 73.0 | |
| Peoria, Ill. | 75.4 | 78.8 | 71.9 | 81.0 | 75.0 | 72.8 | 78.4 | 73.6 | 79.8 | 74.7 | 77.6 | 71.0 | 75.0 | |
| Grand Rapids, Mich. | 72.3 | 73.8 | 69.4 | 78.8 | 71.6 | 71.6 | 75.7 | 68.9 | 79.8 | 71.2 | 73.4 | 68.9 | 70.9 | |
| Marquette, Mich. | 64.9 | 66.4 | 60.2 | 70.4 | 64.6 | 62.9 | 68.4 | 62.2 | 72.4 | 63.0 | 65.0 | 61.8 | 63.3 | |
| Madison, Wis. | 72.1 | 73.8 | 67.7 | 78.1 | 71.8 | 70.3 | 74.8 | 69.1 | 78.1 | 69.6 | 74.2 | 68.3 | 70.7 | |
| Duluth, Minn. | 63.9 | 65.4 | 59.8 | 68.0 | 64.5 | 63.3 | 67.1 | 62.8 | 70.8 | 63.6 | 64.6 | 62.4 | 65.4 | |
| St. Paul, Minn. | 72.1 | 74.6 | 67.1 | 78.2 | 72.4 | 69.9 | 73.6 | 70.2 | 76.7 | 68.8 | 75.2 | 69.0 | 70.0 | |
| Des Moines, Iowa. | 75.4 | 78.6 | 71.0 | 81.4 | 76.6 | 75.6 | 79.8 | 73.8 | 79.6 | 73.0 | 78.2 | 71.9 | 76.3 | |
| Dubuque, Iowa. | 74.1 | 76.4 | 69.6 | 80.3 | 73.8 | 72.3 | 76.6 | 71.2 | 79.0 | 71.0 | 76.8 | 70.0 | 72.5 | |
| St. Louis, Mo. | 78.8 | 83.1 | 76.4 | 84.2 | 78.9 | 78.4 | 81.6 | 78.8 | 83.2 | 78.8 | 80.6 | 75.0 | 79.0 | |
| Springfield, Mo. | 76.8 | 78.8 | 74.0 | 80.6 | 76.5 | 76.2 | 78.6 | 76.0 | 79.2 | 76.4 | 77.2 | 73.2 | 76.6 | |
| Bismarck, N. Dak. | 69.3 | 71.3 | 62.6 | 75.0 | 73.2 | 68.0 | 73.3 | 71.0 | 74.2 | 67.9 | 73.3 | 67.5 | 68.6 | |
| Devils Lake, N. Dak. | 68.1 | 71.8 | 62.4 | 72.9 | 70.0 | 63.2 | 70.0 | 67.2 | 70.0 | 65.7 | 71.8 | 66.2 | 65.8 | |
| Pierre, S. Dak. | 75.3 | 78.7 | 67.5 | 80.1 | 78.2 | 73.2 | 76.8 | 73.1 | 77.3 | 72.0 | 77.0 | 71.6 | 73.9 | |
| North Platte, Nebr. | 72.9 | 76.0 | 69.4 | 80.0 | 76.2 | 74.7 | 77.2 | 74.8 | 76.8 | 72.7 | 75.9 | 72.6 | 76.2 | |
| Omaha, Nebr. | 76.7 | 79.4 | 71.3 | 83.0 | 79.0 | 77.2 | 81.8 | 76.4 | 79.6 | 74.0 | 79.5 | 73.2 | 78.0 | |
| Concordia, Kans. | 78.0 | 82.1 | 73.7 | 81.2 | 81.1 | 78.2 | 81.6 | 77.4 | 79.2 | 75.4 | 78.8 | 75.4 | 79.4 | |
| Dodge City, Kans. | 78.4 | 79.3 | 74.3 | 80.3 | 80.4 | 78.5 | 79.6 | 77.9 | 78.4 | 77.2 | 79.3 | 75.1 | 79.4 | |
| Iola, Kans. | 78.1 | 80.4 | 75.0 | 82.4 | 80.5 | 78.9 | 80.6 | 77.7 | 80.8 | 77.6 | 80.2 | 74.8 | 80.4 | |
| Washington, D. C. | 76.8 | 75.9 | 76.1 | 77.8 | 76.6 | 74.4 | 77.2 | 75.0 | 79.8 | 76.0 | 75.7 | 75.0 | 76.8 | |
| Lynchburg, Va. | 77.5 | 76.0 | 76.2 | 76.4 | 76.4 | 72.8 | 77.2 | 74.8 | 78.8 | 76.4 | 76.6 | 74.0 | 78.2 | |
| Norfolk, Va. | 78.7 | 76.7 | 77.4 | 77.4 | 77.2 | 75.0 | 77.8 | 76.4 | 79.8 | 78.0 | 77.0 | 76.6 | 79.6 | |
| Parkersburg, W. Va. | 75.4 | 76.0 | 73.7 | 77.7 | 74.4 | 72.6 | 77.2 | 72.0 | 78.6 | 75.3 | 74.7 | 72.6 | 74.5 | |
| Charlotte, N. C. | 78.4 | 78.4 | 79.4 | 76.0 | 77.4 | 76.0 | 78.6 | 77.8 | 79.5 | 78.8 | 78.6 | 77.0 | 81.4 | |
| Charleston, S. C. | 81.4 | 81.0 | 82.2 | 79.1 | 80.8 | 79.4 | 80.6 | 80.0 | 80.6 | 82.3 | 80.1 | 81.2 | 82.8 | |
| Atlanta, Ga. | 78.1 | 79.1 | 78.6 | 76.4 | 78.0 | 76.6 | 77.3 | 77.3 | 78.8 | 77.8 | 77.1 | 78.2 | 80.8 | |
| Thomasville, Ga. | 81.8 | 81.8 | 82.6 | 79.4 | 80.4 | 79.2 | 79.6 | 80.0 | 80.0 | 80.0 | 78.4 | 80.4 | 81.6 | |
| Jacksonville, Fla. | 82.1 | 82.0 | 81.8 | 80.4 | 81.0 | 79.0 | 81.0 | 80.2 | 79.4 | 82.0 | 80.0 | 81.2 | 82.2 | |
| Miami, Fla. | 81.9 | 81.2 | 81.9 | 80.8 | 81.0 | 80.4 | 80.8 | 81.2 | 81.2 | 80.6 | 80.7 | 82.0 | 82.5 | |
| Memphis, Tenn. | 80.7 | 83.2 | 79.8 | 82.2 | 79.0 | 79.0 | 82.1 | 79.4 | 82.6 | 80.0 | 80.2 | 79.8 | 82.2 | |
| Nashville, Tenn. | 79.1 | 81.4 | 78.6 | 78.8 | 77.2 | 76.2 | 80.6 | 77.6 | 80.0 | 78.2 | 78.5 | 78.5 | 80.4 | |
| Birmingham, Ala. | 80.2 | 80.8 | 79.4 | 77.8 | 79.5 | 77.6 | 79.0 | 78.8 | 81.8 | 79.5 | 78.5 | 79.8 | 81.4 | |
| Mobile, Ala. | 81.4 | 81.8 | 82.9 | 80.0 | 81.4 | 81.0 | 81.6 | 81.0 | 82.2 | 81.0 | 79.8 | 82.0 | 81.6 | |
| New Orleans, La. | 82.4 | 82.6 | 84.7 | 82.3 | 82.6 | 83.1 | 82.6 | 82.3 | 83.1 | 82.4 | 80.2 | 84.0 | 82.6 | |
| Shreveport, La. | 83.2 | 85.5 | 81.4 | 83.4 | 83.3 | 84.2 | 82.6 | 81.5 | 82.8 | 81.8 | 82.4 | 83.8 | 85.4 | |
| Amarillo, Tex. | 76.8 | 77.8 | 74.6 | 79.0 | 79.4 | 78.3 | 76.2 | 78.1 | 74.8 | 78.8 | 78.3 | 75.4 | 78.4 | |
| Brownsville, Tex. | 83.6 | 85.0 | 83.0 | 83.4 | 84.2 | 85.6 | 83.5 | 84.9 | 83.2 | 84.6 | 83.6 | 83.1 | 84.0 | |
| El Paso, Tex. | 81.1 | 78.0 | 81.1 | 81.3 | 83.9 | 81.0 | 79.4 | 82.6 | 79.8 | 81.9 | 82.1 | 81.0 | 82.4 | |
| Fort Worth, Tex. | 83.6 | 86.6 | 81.0 | 84.8 | 84.6 | 85.1 | 81.4 | 82.8 | 83.4 | 85.0 | 85.2 | 83.6 | 83.2 | |
| Galveston, Tex. | 83.4 | 83.0 | 83.0 | 82.8 | 83.3 | 83.6 | 82.0 | 82.2 | 82.2 | 82.0 | 81.8 | 82.7 | 82.9 | |
| San Antonio, Tex. | 83.8 | 85.6 | 84.8 | 82.8 | 84.8 | 85.2 | 80.7 | 83.8 | 83.6 | 84.1 | 83.6 | 82.6 | 86.0 | |
| Oklahoma City, Okla. | 80.6 | 85.2 | 78.2 | 82.0 | 82.6 | 82.8 | 81.4 | 80.0 | 80.3 | 82.0 | 84.0 | 79.2 | 83.2 | |
| Little Rock, Ark. | 80.9 | 82.7 | 80.0 | 83.6 | 80.4 | 80.4 | 82.2 | 80.4 | 82.2 | 80.6 | 80.0 | 79.9 | 81.5 | |
| Hayes, Mont. | 68.3 | 72.0 | 62.4 | 68.3 | 73.7 | 68.6 | 71.8 | 72.4 | 69.8 | 67.2 | 71.2 | 68.6 | 69.6 | |
| Kalspell, Mont. | 64.1 | 66.7 | 60.0 | 62.7 | 67.4 | 64.7 | 67.0 | 69.6 | 65.0 | 64.6 | 68.0 | 65.6 | 68.4 | |
| Cheyenne, Wyo. | 66.7 | 66.6 | 62.3 | 69.1 | 67.4 | 65.7 | 69.8 | 65.8 | 68.6 | 65.5 | 67.5 | 65.8 | 68.0 | |
| Sheridan, Wyo. | 67.3 | 70.4 | 61.2 | 70.8 | 71.2 | 66.4 | 72.6 | 68.6 | 69.6 | 66.0 | 72.9 | 66.0 | 69.4 | |
| Pueblo, Colo. | 74.2 | 73.2 | 71.1 | 76.1 | 76.0 | 73.8 | 76.0 | 74.4 | 74.2 | 74.9 | 75.0 | 74.2 | 75.1 | |
| Santa Fe, N. Mex. | 69.0 | 67.0 | 67.6 | 68.8 | 71.5 | 69.3 | 67.8 | 68.7 | 67.1 | 70.2 | 69.7 | 67.8 | 69.8 | |
| Phoenix, Ariz. | 80.8 | 88.8 | 87.3 | 89.0 | 90.0 | 88.3 | 88.2 | 90.6 | 89.2 | 90.6 | 88.2 | 90.2 | 92.7 | |
| Modena, Utah | 76.6 | 69.0 | 69.2 | 69.2 | 74.5 | 68.8 | 73.4 | 69.8 | 71.9 | 72.1 | 72.0 | 70.4 | 72.0 | |
| Salt Lake City, Utah. | 75.7 | 75.2 | 75.2 | 76.8 | 79.0 | 75.6 | 80.3 | 78.6 | 77.4 | 76.6 | 73.8 | 77.5 | 78.8 | |
| Winnemucca, Nev. | 70.6 | 72.0 | 69.7 | 69.3 | 75.9 | 70.4 | 74.0 | 70.6 | 72.0 | 71.4 | 72.2 | 72.1 | 74.4 | |
| Boise, Idaho. | 72.9 | 75.2 | 70.6 | 70.5 | 77.4 | 74.4 | 75.6 | 76.2 | 74.1 | 75.6 | 75.4 | 74.0 | 78.0 | |
| Seattle, Wash. | 63.1 | 64.2 | 64.9 | 61.1 | 68.4 | 63.0 | 63.0 | 64.2 | 66.8 | 62.9 | 64.4 | 63.5 | 65.0 | |
| Walla Walla, Wash. | 74.0 | 77.2 | 75.0 | 69.8 | 72.2 | 75.1 | 76.4 | 76.5 | 73.8 | 78.0 | 76.0 | 75.4 | 79.0 | |
| Portland, Oreg. | 66.7 | 68.6 | 67.2 | 64.2 | 69.0 | 67.8 | 68.0 | 68.0 | 65.7 | 68.2 | 67.8 | 67.0 | 69.8 | |
| Roseburg, Oreg. | 64.7 | 69.6 | 67.8 | 64.8 | 71.2 | 67.0 | 69.3 | 67.8 | 66.9 | 71.0 | 68.6 | 68.3 | 71.4 | |
| Fresno, Calif. | 55.5 | 54.1 | 56.8 | 56.4 | 54.8 | 55.4 | 54.2 | 56.9 | 53.8 | 55.1 | 58.2 | 54.6 | 56.8 | |
| San Jose, Calif. | 82.1 | 80.5 | 80.3 | 79.5 | 86.0 | 79.9 | 82.9 | 79.4 | 83.9 | 83.8 | 79.8 | 80.5 | 83.8 | |
| Los Angeles, Calif. | 70.2 | 66.8 | 70.0 | 66.8 | 72.3 | 69.9 | 71.0 | 71.2 | 71.8 | 69.5 | 70.0 | 69.4 | 72.2 | |
| Sacramento, Calif. | 73.2 | 71.0 | 72.8 | 74.2 | 78.6 | 72.2 | 72.8 | 71.6 | 75.3 | 75.9 | 73.6 | 72.2 | 75.4 | |
| San Diego, Calif. | 67.2 | 65.8 | 67.5 | 65.0 | 68.9 | 68.0 | 68.6 | 67.0 | 68.4 | 67.7 | 67.0 | 67.0 | 70.2 | |
| San Francisco, Calif. | 58.5 | 57.0 | 60.2 | 60.0 | 59.8 | 58.8 | 57.0 | 57.8 | 59.8 | 60.2 | 60.8 | 59.0 | 61.2 | |

¹ Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for Aug. | August monthly mean temperature | | | | | | | | | | | |
|-----------------------|-----------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Mo. | 62.6 | 61.9 | 61.4 | 65.2 | 64.7 | 62.6 | 60.8 | 66.6 | 61.0 | 63.2 | 59.2 | 63.6 | 63.5 |
| Boston, Mass. | 69.9 | 70.4 | 69.1 | 71.8 | 72.8 | 70.4 | 68.8 | 72.0 | 69.8 | 70.4 | 69.4 | 71.8 | 71.2 |
| Buffalo, N. Y. | 68.6 | 68.8 | 66.2 | 71.6 | 68.2 | 70.6 | 66.9 | 70.2 | 68.3 | 68.2 | 67.2 | 67.8 | 69.4 |
| Canton, N. Y. | 67.8 | 65.6 | 64.5 | 69.2 | 67.8 | 67.0 | 65.2 | 69.0 | 66.8 | 66.2 | 64.5 | 65.8 | 67.0 |
| Trenton, N. J. | 73.0 | 74.4 | 70.9 | 74.0 | 74.8 | 75.4 | 70.6 | 72.4 | 70.2 | 71.0 | 71.6 | 73.4 | 72.2 |
| Pittsburgh, Pa. | 72.9 | 73.2 | 69.1 | 74.2 | 72.2 | 76.6 | 70.0 | 71.6 | 70.2 | 70.8 | 71.0 | 72.2 | 72.3 |
| Seranton, Pa. | 59.8 | 70.8 | 67.4 | 71.8 | 71.5 | 73.3 | 67.0 | 70.8 | 67.8 | 68.7 | 68.4 | 69.3 | 69.0 |
| Cincinnati, Ohio | 73.6 | 76.7 | 68.6 | 76.3 | 73.2 | 78.6 | 73.2 | 71.2 | 72.8 | 73.7 | 74.0 | 74.3 | 71.0 |
| Cleveland, Ohio | 70.0 | 71.8 | 67.1 | 72.4 | 69.8 | 74.5 | 69.8 | 69.9 | 69.3 | 69.6 | 69.0 | 70.0 | 70.9 |
| Evansville, Ind. | 77.4 | 78.0 | 71.4 | 79.0 | 76.6 | 82.4 | 77.2 | 75.6 | 77.0 | 77.8 | 78.4 | 78.2 | 79.4 |
| Indianapolis, Ind. | 73.7 | 74.6 | 67.5 | 76.8 | 72.5 | 78.4 | 73.4 | 72.0 | 73.2 | 74.4 | 73.2 | 73.4 | 74.3 |
| Chicago, Ill. | 72.8 | 74.2 | 69.6 | 76.6 | 70.4 | 75.7 | 73.4 | 71.0 | 72.8 | 73.2 | 70.8 | 71.0 | 73.6 |
| Peoria, Ill. | 72.5 | 75.4 | 67.2 | 76.0 | 70.8 | 77.5 | 71.9 | 72.2 | 73.8 | 74.5 | 73.4 | 72.7 | 73.9 |
| Grand Rapids, Mich. | 69.7 | 71.0 | 65.2 | 72.8 | 68.6 | 74.1 | 69.8 | 69.9 | 70.6 | 71.2 | 68.2 | 68.0 | 71.6 |
| Marquette, Mich. | 63.8 | 63.0 | 60.4 | 66.7 | 60.4 | 63.6 | 65.2 | 62.8 | 64.2 | 64.8 | 60.8 | 63.4 | 67.8 |
| Madison, Wis. | 69.8 | 70.3 | 63.8 | 72.8 | 67.0 | 72.6 | 69.0 | 68.8 | 70.0 | 71.2 | 67.9 | 68.2 | 70.6 |
| Duluth, Minn. | 62.6 | 62.0 | 61.0 | 65.1 | 59.8 | 64.6 | 65.0 | 63.6 | 63.6 | 64.2 | 60.3 | 61.9 | 67.5 |
| St. Paul, Minn. | 69.4 | 68.8 | 65.4 | 71.6 | 66.5 | 70.4 | 68.5 | 69.2 | 70.0 | 72.0 | 66.9 | 67.0 | 71.3 |
| Des Moines, Iowa | 73.1 | 75.9 | 67.3 | 75.8 | 70.9 | 78.7 | 73.4 | 71.4 | 73.2 | 74.8 | 71.4 | 73.6 | 73.8 |
| Dubuque, Iowa | 71.7 | 72.8 | 65.6 | 75.0 | 68.6 | 74.6 | 70.8 | 69.6 | 71.6 | 72.5 | 69.6 | 70.0 | 72.2 |
| St. Louis, Mo. | 77.5 | 78.9 | 70.4 | 78.7 | 75.3 | 82.6 | 77.1 | 75.1 | 77.5 | 79.1 | 77.9 | 78.2 | 78.3 |
| Springfield, Mo. | 75.7 | 76.4 | 68.8 | 78.8 | 72.8 | 80.0 | 77.2 | 72.4 | 77.0 | 77.0 | 78.6 | 77.0 | 77.2 |
| Bismarck, N. Dak. | 67.3 | 64.5 | 65.2 | 67.4 | 66.6 | 68.8 | 70.6 | 70.4 | 70.2 | 72.6 | 65.4 | 65.9 | 63.6 |
| Devils Lake, N. Dak. | 65.1 | 63.2 | 64.6 | 65.6 | 64.4 | 65.2 | 67.0 | 68.4 | 65.5 | 70.0 | 62.8 | 63.4 | 67.8 |
| Pierre, S. Dak. | 72.8 | 71.9 | 68.0 | 71.6 | 71.0 | 74.2 | 75.1 | 70.8 | 74.0 | 76.6 | 69.8 | 72.4 | 73.2 |
| North Platte, Nebr. | 70.8 | 74.0 | 68.2 | 74.0 | 69.4 | 74.0 | 73.0 | 70.9 | 73.0 | 76.8 | 70.2 | 74.6 | 73.9 |
| Omaha, Nebr. | 74.4 | 77.0 | 68.4 | 76.5 | 71.8 | 80.8 | 75.0 | 72.6 | 75.6 | 77.7 | 72.9 | 76.0 | 73.5 |
| Concordia, Kans. | 76.6 | 79.3 | 70.1 | 78.7 | 72.8 | 82.5 | 77.0 | 72.8 | 78.9 | 80.6 | 76.2 | 79.5 | 77.2 |
| Dodge City, Kans. | 77.7 | 77.1 | 70.9 | 78.6 | 73.6 | 80.6 | 78.4 | 72.4 | 77.8 | 80.0 | 77.9 | 79.0 | 79.0 |
| Iola, Kans. | 76.3 | 74.4 | 70.0 | 80.9 | 74.1 | 83.8 | 78.4 | 74.0 | 78.4 | 79.4 | 80.8 | 78.4 | 79.6 |
| Washington, D. C. | 75.0 | 76.4 | 74.0 | 75.2 | 75.9 | 77.6 | 73.6 | 74.8 | 72.8 | 73.1 | 74.4 | 74.8 | 72.0 |
| Lynchburg, Va. | 75.6 | 76.3 | 74.2 | 75.3 | 75.4 | 77.6 | 73.9 | 73.7 | 74.5 | 72.8 | 74.8 | 76.0 | 74.0 |
| Norfolk, Va. | 77.4 | 78.2 | 78.0 | 76.9 | 77.8 | 79.6 | 76.6 | 76.8 | 76.4 | 75.0 | 77.4 | 77.6 | 76.2 |
| Parkersburg, W. Va. | 73.9 | 74.9 | 69.8 | 75.2 | 73.6 | 78.6 | 72.4 | 72.9 | 74.2 | 72.3 | 73.0 | 74.9 | 74.2 |
| Charlotte, N. C. | 77.1 | 77.7 | 76.0 | 77.6 | 76.8 | 78.8 | 77.0 | 71.9 | 75.1 | 74.9 | 74.4 | 80.0 | 78.2 |
| Charleston, S. C. | 81.0 | 81.3 | 82.0 | 81.8 | 80.2 | 82.2 | 81.0 | 80.2 | 80.8 | 78.1 | 81.8 | 82.2 | 81.2 |
| Atlanta, Ga. | 77.0 | 76.8 | 77.2 | 78.0 | 75.4 | 78.8 | 76.4 | 75.1 | 76.7 | 75.8 | 77.4 | 80.4 | 79.8 |
| Thomasville, Ga. | 81.0 | 81.0 | 82.2 | 81.0 | 80.4 | 80.4 | 80.8 | 80.0 | 81.0 | 79.4 | 79.9 | 82.0 | 80.9 |
| Jacksonville, Fla. | 81.7 | 82.0 | 82.8 | 81.6 | 81.2 | 81.2 | 81.5 | 80.0 | 80.5 | 78.8 | 81.3 | 82.0 | 80.2 |
| Miami, Fla. | 79.4 | 81.6 | 82.6 | 80.6 | 81.7 | 82.6 | 80.0 | 81.0 | 81.2 | 81.6 | 82.2 | 81.6 | 82.1 |
| Memphis, Tenn. | 79.4 | 78.7 | 75.9 | 80.8 | 77.8 | 82.6 | 80.4 | 77.4 | 80.8 | 79.7 | 80.5 | 81.6 | 81.4 |
| Nashville, Tenn. | 77.8 | 77.6 | 74.1 | 78.4 | 75.6 | 81.2 | 77.6 | 75.0 | 78.0 | 76.8 | 76.4 | 79.6 | 79.4 |
| Birmingham, Ala. | 79.2 | 78.0 | 77.6 | 79.2 | 77.8 | 81.5 | 78.6 | 77.2 | 80.3 | 79.4 | 78.4 | 82.6 | 81.0 |
| Mobile, Ala. | 81.0 | 80.6 | 81.4 | 82.0 | 81.0 | 81.2 | 81.9 | 80.2 | 82.5 | 81.1 | 80.6 | 83.8 | 82.4 |
| New Orleans, La. | 82.2 | 81.8 | 82.7 | 83.4 | 82.6 | 82.0 | 83.2 | 81.3 | 84.2 | 83.0 | 82.0 | 85.8 | 82.6 |
| Shreveport, La. | 82.0 | 80.5 | 78.4 | 83.2 | 80.6 | 83.4 | 82.6 | 79.8 | 84.0 | 82.1 | 83.0 | 86.0 | 84.0 |
| Amarillo, Tex. | 75.7 | 75.6 | 71.4 | 76.6 | 74.0 | 78.0 | 77.6 | 71.6 | 76.4 | 81.6 | 77.2 | 78.2 | 74.8 |
| Brownsville, Tex. | 83.9 | 85.1 | 86.0 | 82.6 | 85.4 | 85.7 | 86.2 | 86.2 | 84.2 | 84.8 | 84.4 | 85.0 | 84.2 |
| El Paso, Tex. | 79.2 | 78.5 | 77.7 | 77.8 | 79.2 | 77.4 | 81.0 | 77.0 | 80.4 | 82.6 | 78.8 | 82.7 | 77.8 |
| Fort Worth, Tex. | 83.0 | 80.0 | 79.1 | 83.6 | 84.2 | 87.0 | 82.0 | 82.1 | 86.4 | 85.2 | 85.2 | 87.0 | 84.1 |
| Galveston, Tex. | 83.0 | 82.2 | 81.3 | 83.0 | 83.5 | 82.7 | 84.4 | 82.8 | 83.6 | 83.1 | 82.4 | 85.2 | 82.8 |
| San Antonio, Tex. | 83.5 | 82.6 | 82.5 | 82.0 | 85.6 | 85.1 | 82.2 | 82.9 | 85.2 | 85.8 | 84.2 | 86.0 | 84.0 |
| Oklahoma City, Okla. | 79.7 | 79.6 | 73.4 | 83.0 | 77.7 | 85.6 | 82.0 | 75.5 | 82.9 | 84.4 | 83.6 | 83.0 | 81.2 |
| Little Rock, Ark. | 78.2 | 78.2 | 75.3 | 81.8 | 77.7 | 82.8 | 81.0 | 77.4 | 81.4 | 81.4 | 81.5 | 82.8 | 81.1 |
| Havre, Mont. | 75.3 | 64.4 | 70.0 | 69.9 | 65.5 | 66.6 | 70.4 | 69.6 | 69.0 | 70.0 | 65.0 | 64.8 | 65.7 |
| Kalspell, Mont. | 62.8 | 63.1 | 69.1 | 61.6 | 63.5 | 60.1 | 65.0 | 63.6 | 64.0 | 65.8 | 64.0 | 61.2 | 61.8 |
| Cheyenne, Wyo. | 65.6 | 65.4 | 61.0 | 63.8 | 61.4 | 65.0 | 68.0 | 62.8 | 65.6 | 69.0 | 63.7 | 66.4 | 64.0 |
| Sheridan, Wyo. | 65.4 | 65.1 | 65.4 | 65.9 | 64.0 | 65.8 | 69.2 | 67.0 | 68.0 | 71.1 | 64.4 | 64.5 | 66.6 |
| Pueblo, Colo. | 72.7 | 72.6 | 67.9 | 71.9 | 70.4 | 73.9 | 74.6 | 69.8 | 72.8 | 76.5 | 70.8 | 74.6 | 71.6 |
| Santa Fe, N. Mex. | 67.4 | 66.8 | 65.4 | 66.8 | 67.8 | 67.8 | 69.0 | 65.0 | 66.0 | 70.7 | 65.8 | 68.0 | 65.6 |
| Phoenix, Ariz. | 88.5 | 89.2 | 89.1 | 87.0 | 87.2 | 84.6 | 88.6 | 86.4 | 87.1 | 89.4 | 87.2 | 89.4 | 87.2 |
| Modena, Utah | 69.2 | 68.8 | 69.7 | 65.8 | 69.4 | 66.5 | 71.3 | 69.0 | 68.4 | 69.6 | 67.2 | 68.8 | 66.1 |
| Salt Lake City, Utah | 74.5 | 75.6 | 78.0 | 72.9 | 73.9 | 72.4 | 77.4 | 73.7 | 74.6 | 76.2 | 73.0 | 75.4 | 73.0 |
| Winnemucca, Nev. | 69.3 | 70.6 | 72.0 | 66.4 | 71.0 | 65.7 | 71.2 | 68.6 | 69.8 | 67.8 | 67.8 | 68.1 | 66.6 |
| Boise, Idaho | 71.8 | 72.8 | 78.2 | 70.4 | 74.0 | 67.3 | 74.4 | 72.2 | 74.0 | 74.4 | 73.1 | 70.4 | 70.8 |
| Seattle, Wash. | 63.1 | 63.2 | 66.8 | 63.6 | 65.2 | 62.6 | 63.0 | 64.4 | 62.0 | 62.7 | 65.7 | 62.4 | 62.6 |
| Walla Walla, Wash. | 72.7 | 75.2 | 78.3 | 74.0 | 76.8 | 70.0 | 75.6 | 73.5 | 74.6 | 74.2 | 75.4 | 72.8 | 73.6 |
| Portland, Oreg. | 68.0 | 68.0 | 71.2 | 68.0 | 70.3 | 67.4 | 68.6 | 69.3 | 67.0 | 67.2 | 70.6 | 66.5 | 69.0 |
| Roseburg, Oreg. | 68.0 | 68.6 | 70.7 | 68.2 | 69.4 | 67.4 | 69.6 | 70.0 | 67.6 | 66.6 | 70.0 | 68.0 | 67.4 |
| Eureka, Calif. | 56.0 | 54.6 | 57.9 | 56.0 | 54.0 | 56.6 | 55.9 | 56.1 | 56.0 | 55.9 | 56.9 | 56.4 | 56.2 |
| Fresno, Calif. | 80.7 | 80.3 | 81.9 | 78.2 | 81.2 | 79.2 | 81.2 | 81.5 | 79.9 | 79.1 | 79.0 | 79.8 | 78.6 |
| Los Angeles, Calif. | 71.1 | 68.2 | 72.6 | 68.6 | 70.0 | 71.7 | 70.2 | 72.4 | 70.6 | 73.3 | 69.6 | 69.1 | 69.9 |
| Sacramento, Calif. | 72.9 | 71.2 | 75.6 | 71.8 | 72.6 | 74.0 | 72.8 | 70.0 | 72.1 | 72.8 | 73.5 | 72.2 | 71.0 |
| San Diego, Calif. | 68.7 | 66.2 | 69.5 | 67.0 | 68.6 | 69.8 | 68.4 | 70.0 | 68.2 | 70.7 | 67.8 | 67.0 | 68.8 |
| San Francisco, Calif. | 59.1 | 58.2 | 61.3 | 58.5 | 57.6 | 60.9 | 58.4 | 60.1 | 59.6 | 60.4 | 61.7 | 59.1 | 61.2 |

¹ Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914–1925—Continued

| Station | Normal for Sept. | September monthly mean temperature | | | | | | | | | | | |
|-----------------------|------------------|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 55.0 | 50.8 | 58.4 | 56.2 | 53.4 | 52.2 | 53.4 | 56.6 | 57.2 | 55.4 | 56.2 | 53.5 | 52.7 |
| Boston, Mass. | 63.2 | 64.6 | 66.8 | 65.0 | 60.2 | 61.2 | 63.9 | 65.2 | 68.5 | 65.2 | 64.2 | 62.2 | 64.0 |
| Buffalo, N. Y. | 62.4 | 61.6 | 64.6 | 62.0 | 59.4 | 56.0 | 63.1 | 64.3 | 67.6 | 64.4 | 62.9 | 58.3 | 62.4 |
| Canton, N. Y. | 59.3 | 57.4 | 61.4 | 60.1 | 56.6 | 54.4 | 58.8 | 61.4 | 63.2 | 61.2 | 59.4 | 55.9 | 57.8 |
| Trenton, N. J. | 66.9 | 65.2 | 69.4 | 66.1 | 62.0 | 62.6 | 66.0 | 67.2 | 70.6 | 67.2 | 67.6 | 63.1 | 68.6 |
| Pittsburgh, Pa. | 66.4 | 63.6 | 68.8 | 64.2 | 62.1 | 59.8 | 66.4 | 66.8 | 70.8 | 69.6 | 67.4 | 61.4 | 70.6 |
| Scranton, Pa. | 62.9 | 60.9 | 65.8 | 62.2 | 59.4 | 58.6 | 63.9 | 63.9 | 68.1 | 65.6 | 64.0 | 59.0 | 64.2 |
| Cincinnati, Ohio. | 67.1 | 68.4 | 68.4 | 65.2 | 64.9 | 59.9 | 69.6 | 67.8 | 72.3 | 70.6 | 68.3 | 62.5 | 73.9 |
| Cleveland, Ohio. | 63.9 | 62.6 | 67.0 | 63.8 | 60.5 | 58.2 | 66.4 | 65.8 | 69.0 | 67.0 | 64.4 | 60.4 | 67.2 |
| Evansville, Ind. | 70.7 | 69.6 | 72.6 | 69.4 | 70.4 | 63.5 | 74.4 | 72.8 | 75.6 | 74.0 | 70.8 | 66.2 | 78.2 |
| Indianapolis, Ind. | 66.9 | 66.4 | 68.1 | 65.4 | 65.2 | 59.8 | 70.3 | 69.4 | 70.8 | 67.0 | 61.7 | 61.7 | 73.2 |
| Chicago, Ill. | 66.3 | 66.0 | 67.2 | 64.4 | 63.7 | 58.6 | 68.9 | 69.3 | 70.0 | 69.5 | 65.1 | 60.3 | 70.6 |
| Peoria, Ill. | 64.3 | 66.2 | 67.8 | 63.6 | 63.7 | 58.2 | 68.2 | 68.5 | 70.0 | 69.6 | 65.4 | 60.4 | 71.6 |
| Grand Rapids, Mich. | 62.7 | 62.6 | 64.4 | 61.4 | 60.3 | 56.2 | 65.3 | 65.9 | 67.8 | 65.2 | 63.0 | 58.2 | 66.2 |
| Marquette, Mich. | 57.5 | 58.2 | 57.6 | 55.1 | 55.8 | 49.3 | 59.2 | 60.8 | 62.8 | 61.6 | 56.8 | 53.2 | 58.2 |
| Madison, Wis. | 62.4 | 62.5 | 62.6 | 59.4 | 60.0 | 55.9 | 64.2 | 65.5 | 66.0 | 65.1 | 61.7 | 56.8 | 65.9 |
| Duluth, Minn. | 55.1 | 56.0 | 55.6 | 53.0 | 53.6 | 50.4 | 55.8 | 58.3 | 58.2 | 58.2 | 56.4 | 52.7 | 56.4 |
| St. Paul, Minn. | 61.3 | 61.8 | 60.0 | 59.2 | 59.4 | 54.6 | 63.9 | 65.0 | 63.2 | 65.0 | 62.4 | 56.7 | 65.2 |
| Des Moines, Iowa | 65.6 | 65.8 | 65.6 | 64.3 | 64.0 | 60.2 | 63.9 | 68.0 | 69.4 | 68.0 | 65.2 | 60.5 | 70.4 |
| Dubuque, Iowa | 64.0 | 64.4 | 64.4 | 62.2 | 61.8 | 57.4 | 66.1 | 66.4 | 66.9 | 63.9 | 62.8 | 58.2 | 67.8 |
| St. Louis, Mo. | 70.5 | 69.6 | 72.4 | 68.3 | 69.0 | 63.6 | 73.6 | 72.5 | 74.4 | 73.8 | 69.0 | 65.0 | 77.2 |
| Springfield, Mo. | 63.9 | 70.6 | 70.7 | 65.2 | 68.0 | 62.8 | 72.6 | 70.0 | 74.3 | 72.7 | 69.2 | 63.8 | 74.6 |
| Bismarck, N. Dak. | 58.1 | 61.0 | 56.0 | 56.8 | 57.6 | 53.9 | 61.0 | 60.3 | 59.2 | 61.4 | 61.0 | 57.2 | 59.8 |
| Devils Lake, N. Dak. | 55.6 | 58.4 | 63.1 | 62.4 | 60.4 | 50.4 | 59.4 | 56.6 | 61.4 | 68.2 | 54.3 | 58.0 | 58.0 |
| Pierre, S. Dak. | 63.8 | 66.0 | 62.1 | 62.2 | 62.6 | 58.0 | 66.4 | 64.5 | 63.4 | 67.6 | 64.4 | 61.9 | 65.6 |
| North Platte, Nebr. | 61.2 | 65.5 | 62.1 | 62.8 | 63.6 | 58.0 | 67.8 | 64.2 | 65.0 | 67.8 | 63.8 | 60.5 | 67.2 |
| Omaha, Nebr. | 66.8 | 68.2 | 66.4 | 65.4 | 66.2 | 62.4 | 70.8 | 68.8 | 71.4 | 71.0 | 67.4 | 62.2 | 70.9 |
| Concordia, Kans. | 63.3 | 72.4 | 68.6 | 67.2 | 68.4 | 63.2 | 71.4 | 69.7 | 73.8 | 73.0 | 69.6 | 64.4 | 72.3 |
| Dodge City, Kans. | 69.4 | 72.6 | 68.4 | 67.0 | 69.4 | 63.4 | 73.1 | 69.4 | 73.0 | 72.4 | 69.6 | 66.0 | 70.3 |
| Iola, Kans. | 68.6 | 71.8 | 70.6 | 68.4 | 69.8 | 63.8 | 73.0 | 71.0 | 75.0 | 72.8 | 71.9 | 65.7 | 74.6 |
| Washington, D. C. | 68.1 | 66.0 | 71.0 | 66.6 | 63.8 | 64.2 | 69.4 | 68.8 | 74.4 | 69.9 | 69.6 | 64.3 | 72.8 |
| Lynchburg, Va. | 69.0 | 66.7 | 70.6 | 66.8 | 64.9 | 64.3 | 69.8 | 63.5 | 75.5 | 70.9 | 70.0 | 64.0 | 74.6 |
| Norfolk, Va. | 71.6 | 69.4 | 74.2 | 70.3 | 69.2 | 69.1 | 72.6 | 73.9 | 77.8 | 73.6 | 73.6 | 68.8 | 75.4 |
| Richmond, W. Va. | 67.3 | 65.6 | 69.4 | 64.2 | 64.0 | 61.0 | 68.6 | 68.8 | 72.8 | 70.4 | 68.4 | 62.8 | 74.0 |
| Charlotte, N. C. | 71.5 | 69.2 | 73.2 | 70.0 | 67.6 | 67.0 | 72.7 | 72.7 | 79.2 | 73.5 | 73.7 | 67.6 | 80.5 |
| Charleston, S. C. | 76.6 | 74.4 | 79.2 | 75.1 | 73.4 | 73.2 | 76.3 | 77.8 | 81.9 | 76.8 | 77.8 | 74.6 | 82.2 |
| Atlanta, Ga. | 72.4 | 71.4 | 74.9 | 71.4 | 70.0 | 68.2 | 74.2 | 73.9 | 79.4 | 75.3 | 74.6 | 68.2 | 81.0 |
| Thomasville, Ga. | 70.8 | 75.3 | 80.3 | 76.0 | 75.2 | 74.0 | 77.6 | 78.8 | 82.2 | 78.1 | 78.6 | 75.6 | 84.6 |
| Jacksonville, Fla. | 78.3 | 77.2 | 79.6 | 76.8 | 75.9 | 75.8 | 77.4 | 78.8 | 81.6 | 76.8 | 78.6 | 77.2 | 83.2 |
| Miami, Fla. | 81.5 | 78.8 | 81.0 | 79.6 | 79.2 | 79.5 | 80.4 | 80.4 | 80.9 | 80.1 | 80.0 | 80.8 | 82.2 |
| Memphis, Tenn. | 73.6 | 73.8 | 76.0 | 72.0 | 72.2 | 67.6 | 76.2 | 74.8 | 80.0 | 76.3 | 73.8 | 69.2 | 83.0 |
| Nashville, Tenn. | 71.8 | 71.0 | 73.8 | 69.2 | 70.3 | 65.4 | 72.8 | 72.2 | 78.0 | 74.2 | 71.8 | 67.9 | 81.4 |
| Birmingham, Ala. | 74.8 | 72.0 | 76.3 | 73.6 | 72.6 | 70.0 | 75.0 | 76.5 | 81.6 | 78.8 | 75.8 | 72.1 | 84.2 |
| Mobile, Ala. | 78.1 | 76.8 | 79.8 | 77.0 | 76.8 | 74.3 | 78.0 | 79.9 | 82.2 | 79.4 | 79.6 | 76.3 | 83.7 |
| New Orleans, Ala. | 79.2 | 78.8 | 81.2 | 79.3 | 78.2 | 76.9 | 80.2 | 81.5 | 83.4 | 80.8 | 81.2 | 79.4 | 83.2 |
| Shreveport, La. | 76.9 | 77.2 | 77.6 | 76.2 | 74.1 | 72.2 | 76.4 | 78.6 | 81.7 | 78.8 | 75.6 | 75.0 | 83.2 |
| Amarillo, Tex. | 69.3 | 72.8 | 68.6 | 67.8 | 69.4 | 65.4 | 71.2 | 70.8 | 73.5 | 73.1 | 69.8 | 67.6 | 68.6 |
| Brownsville, Tex. | 80.6 | 80.9 | 82.2 | 80.0 | 78.8 | 80.8 | 82.3 | 84.4 | 83.0 | 80.7 | 83.0 | 80.2 | 80.7 |
| El Paso, Tex. | 73.9 | 74.3 | 73.6 | 73.0 | 73.8 | 73.6 | 72.6 | 75.1 | 76.5 | 75.6 | 73.8 | 74.6 | 78.6 |
| Fort Worth, Tex. | 76.9 | 77.4 | 77.1 | 77.4 | 75.8 | 73.8 | 75.6 | 77.0 | 81.9 | 79.4 | 78.5 | 74.3 | 82.0 |
| Galveston, Tex. | 80.1 | 80.2 | 81.2 | 80.4 | 79.4 | 77.0 | 80.0 | 81.4 | 80.2 | 80.2 | 80.2 | 80.3 | 81.0 |
| San Antonio, Tex. | 79.0 | 79.6 | 79.8 | 78.0 | 79.3 | 76.4 | 77.8 | 82.1 | 81.7 | 79.6 | 79.2 | 78.4 | 80.8 |
| Oklahoma City, Okla. | 72.8 | 75.5 | 73.8 | 72.2 | 73.3 | 68.0 | 74.3 | 73.8 | 78.0 | 77.0 | 74.0 | 70.1 | 76.4 |
| Little Rock, Ark. | 74.1 | 74.6 | 76.0 | 72.8 | 72.5 | 69.0 | 75.3 | 75.2 | 79.8 | 77.7 | 73.2 | 69.8 | 81.9 |
| Havre, Mont. | 56.4 | 56.8 | 51.8 | 55.4 | 56.6 | 55.2 | 57.0 | 58.7 | 52.6 | 60.6 | 57.8 | 57.0 | 54.9 |
| Kalispell, Mont. | 53.5 | 52.6 | 51.4 | 53.0 | 56.8 | 56.8 | 54.0 | 54.2 | 48.6 | 57.8 | 57.0 | 53.8 | 58.8 |
| Cheyenne, Wyo. | 57.0 | 58.0 | 54.6 | 55.8 | 53.6 | 53.1 | 59.0 | 57.1 | 58.4 | 60.8 | 55.8 | 54.6 | 53.0 |
| Sheridan, Wyo. | 56.3 | 57.2 | 52.8 | 55.2 | 57.9 | 55.0 | 59.6 | 57.5 | 55.0 | 60.8 | 56.6 | 54.8 | 56.6 |
| Pueblo, Colo. | 64.6 | 66.8 | 64.2 | 63.2 | 65.5 | 60.8 | 67.5 | 64.2 | 66.7 | 68.3 | 63.0 | 63.4 | 65.9 |
| Santa Fe, N. Mex. | 60.9 | 63.0 | 59.6 | 60.8 | 62.6 | 60.4 | 61.4 | 60.4 | 63.5 | 63.8 | 58.6 | 60.4 | 61.4 |
| Phoenix, Ariz. | 82.7 | 84.5 | 79.9 | 80.9 | 83.2 | 82.4 | 81.5 | 80.4 | 82.6 | 85.0 | 80.2 | 85.6 | 80.4 |
| Modena, Utah | 60.0 | 60.6 | 58.8 | 60.4 | 60.3 | 60.8 | 61.2 | 59.0 | 60.2 | 65.1 | 58.2 | 60.6 | 57.1 |
| Salt Lake City, Utah | 64.4 | 64.4 | 62.4 | 65.3 | 66.4 | 66.6 | 66.8 | 64.4 | 67.6 | 69.2 | 64.2 | 64.4 | 63.6 |
| Winemucca, Nev. | 59.9 | 57.8 | 57.1 | 59.1 | 61.4 | 61.6 | 59.4 | 60.0 | 57.4 | 62.4 | 60.4 | 58.5 | 57.0 |
| Boise, Idaho | 61.9 | 61.4 | 62.6 | 66.4 | 66.4 | 62.2 | 63.2 | 65.2 | 66.0 | 66.0 | 63.8 | 61.4 | 61.4 |
| Seattle, Wash. | 58.1 | 56.7 | 59.1 | 58.8 | 58.9 | 62.2 | 59.6 | 57.8 | 57.0 | 59.8 | 60.8 | 59.5 | 59.5 |
| Walla Walla, Wash. | 63.8 | 61.6 | 63.4 | 64.2 | 66.8 | 68.8 | 63.0 | 63.4 | 59.6 | 64.8 | 67.1 | 85.2 | 64.4 |
| Portland, Oreg. | 61.7 | 59.4 | 62.4 | 62.5 | 63.1 | 67.4 | 62.5 | 61.2 | 60.5 | 63.8 | 64.5 | 63.4 | 62.9 |
| Roseburg, Oreg. | 62.9 | 60.1 | 61.7 | 62.6 | 63.5 | 66.8 | 61.0 | 61.2 | 60.5 | 65.1 | 64.3 | 62.4 | 62.0 |
| Eureka, Calif. | 55.9 | 55.0 | 54.5 | 55.8 | 56.4 | 56.6 | 56.5 | 57.2 | 55.4 | 56.0 | 57.2 | 54.9 | 57.8 |
| Fresno, Calif. | 73.4 | 71.6 | 73.3 | 73.2 | 75.4 | 72.5 | 73.2 | 72.2 | 72.8 | 79.1 | 76.4 | 75.2 | 69.4 |
| Los Angeles, Calif. | 69.0 | 67.9 | 68.0 | 65.2 | 70.8 | 72.2 | 68.3 | 68.4 | 69.3 | 73.1 | 70.4 | 70.0 | 66.2 |
| Sacramento, Calif. | 69.3 | 67.5 | 68.0 | 70.2 | 71.4 | 67.4 | 66.7 | 67.5 | 70.6 | 72.7 | 70.8 | 66.4 | 66.4 |
| San Diego, Calif. | 67.1 | 66.0 | 66.4 | 64.4 | 68.2 | 70.6 | 66.5 | 66.2 | 66.8 | 70.0 | 68.2 | 66.4 | 66.6 |
| San Francisco, Calif. | 60.9 | 60.8 | 62.4 | 62.2 | 64.0 | 62.2 | 62.0 | 60.4 | 63.3 | 63.4 | 64.0 | 62.4 | 62.7 |

¹ Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914–1925—Continued

| Station | Normal for Oct. | October monthly mean temperature | | | | | | | | | | | |
|-----------------------|-----------------|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 45.6 | 46.6 | 46.7 | 45.7 | 42.1 | 45.4 | 42.0 | 50.4 | 45.4 | 43.0 | 47.0 | 46.5 | 36.4 |
| Boston, Mass. | 53.6 | 57.0 | 57.5 | 56.5 | 51.9 | 56.2 | 55.1 | 59.8 | 55.2 | 55.1 | 55.5 | 54.6 | 49.3 |
| Buffalo, N. Y. | 51.9 | 55.2 | 52.8 | 52.6 | 45.5 | 53.4 | 55.2 | 57.2 | 52.2 | 51.9 | 50.3 | 52.7 | 43.0 |
| Canton, N. Y. | 47.2 | 50.4 | 50.4 | 48.2 | 42.8 | 48.0 | 47.5 | 52.8 | 47.8 | 46.3 | 46.6 | 47.3 | 39.8 |
| Trenton, N. J. | 55.6 | 59.0 | 56.6 | 56.1 | 51.6 | 58.1 | 58.5 | 59.6 | 55.0 | 57.7 | 54.8 | 56.2 | 49.7 |
| Pittsburgh, Pa. | 55.7 | 58.4 | 56.2 | 54.8 | 48.9 | 58.2 | 60.6 | 59.6 | 54.0 | 56.4 | 52.3 | 56.4 | 47.8 |
| Scranton, Pa. | 51.9 | 55.8 | 53.4 | 52.2 | 47.4 | 55.4 | 55.6 | 57.5 | 52.6 | 54.3 | 51.6 | 51.8 | 45.5 |
| Cincinnati, Ohio | 55.7 | 60.5 | 58.0 | 54.9 | 48.0 | 59.0 | 61.8 | 60.0 | 55.2 | 57.9 | 53.8 | 59.4 | 48.4 |
| Cleveland, Ohio | 53.6 | 56.8 | 55.4 | 52.7 | 46.5 | 56.0 | 58.8 | 59.5 | 53.6 | 55.4 | 52.2 | 55.0 | 45.2 |
| Evansville, Ind. | 59.4 | 60.8 | 61.8 | 60.0 | 51.5 | 62.4 | 64.2 | 64.2 | 58.8 | 62.4 | 57.6 | 65.0 | 51.2 |
| Indianapolis, Ind. | 55.7 | 58.4 | 57.6 | 56.1 | 46.9 | 58.3 | 60.4 | 61.6 | 54.9 | 59.1 | 53.1 | 61.0 | 46.6 |
| Chicago, Ill. | 55.1 | 59.4 | 56.4 | 54.4 | 45.0 | 57.3 | 57.2 | 61.9 | 54.8 | 57.6 | 52.5 | 59.8 | 45.0 |
| Peoria, Ill. | 52.0 | 57.2 | 55.6 | 54.2 | 44.2 | 56.2 | 55.8 | 60.2 | 55.6 | 58.0 | 50.4 | 59.2 | 43.4 |
| Grand Rapids, Mich. | 51.2 | 56.5 | 52.8 | 51.1 | 42.9 | 53.8 | 54.6 | 58.8 | 52.0 | 53.0 | 49.6 | 56.4 | 42.0 |
| Marquette, Mich. | 46.7 | 52.9 | 47.5 | 45.6 | 38.5 | 47.8 | 45.0 | 56.0 | 47.6 | 46.6 | 46.4 | 53.0 | 38.0 |
| Madison, Wis. | 50.3 | 55.4 | 51.8 | 49.2 | 40.0 | 52.9 | 50.2 | 57.4 | 50.8 | 53.9 | 49.2 | 56.6 | 39.9 |
| Duluth, Minn. | 44.1 | 49.2 | 44.8 | 42.0 | 33.8 | 45.4 | 39.4 | 51.8 | 45.6 | 46.0 | 44.4 | 50.8 | 34.2 |
| St. Paul, Minn. | 48.6 | 55.4 | 50.6 | 46.4 | 38.3 | 50.2 | 44.2 | 55.6 | 50.6 | 52.3 | 47.2 | 55.8 | 37.7 |
| Des Moines, Iowa | 53.4 | 57.4 | 56.8 | 53.2 | 44.7 | 56.6 | 52.1 | 60.2 | 56.5 | 57.4 | 50.0 | 59.6 | 41.6 |
| Dubuque, Iowa | 51.9 | 56.7 | 54.0 | 51.6 | 41.9 | 51.0 | 52.0 | 58.6 | 52.9 | 55.4 | 48.4 | 57.5 | 40.9 |
| St. Louis, Mo. | 58.8 | 60.8 | 61.7 | 59.2 | 51.1 | 62.3 | 60.8 | 64.0 | 59.6 | 62.2 | 54.9 | 64.6 | 49.9 |
| Springfield, Mo. | 58.2 | 58.8 | 60.4 | 59.4 | 50.5 | 61.6 | 59.9 | 61.3 | 58.8 | 61.0 | 53.8 | 63.7 | 40.5 |
| Bismarck, N. Dak. | 44.9 | 51.0 | 48.6 | 41.8 | 36.4 | 47.5 | 34.6 | 50.6 | 48.9 | 47.6 | 45.6 | 53.0 | 34.4 |
| Devils Lake, N. Dak. | 40.5 | 50.8 | 45.4 | 38.4 | 32.4 | 44.4 | 31.8 | 48.9 | 40.4 | 44.7 | 42.8 | 50.4 | 32.4 |
| Pierre, S. Dak. | 49.8 | 54.0 | 53.8 | 47.8 | 42.9 | 53.4 | 46.8 | 52.2 | 53.0 | 52.2 | 49.3 | 57.1 | 35.8 |
| North Platte, Nebr. | 49.7 | 53.4 | 54.6 | 49.4 | 45.1 | 54.4 | 45.3 | 55.3 | 54.9 | 53.6 | 47.1 | 56.8 | 40.7 |
| Omaha, Nebr. | 54.3 | 57.8 | 58.2 | 53.8 | 46.6 | 57.7 | 50.6 | 61.0 | 58.5 | 59.6 | 51.8 | 61.4 | 42.7 |
| Concordia, Kans. | 55.9 | 58.6 | 58.4 | 56.1 | 49.0 | 59.6 | 52.1 | 60.8 | 59.4 | 59.8 | 51.6 | 61.5 | 45.4 |
| Dodge City, Kans. | 56.1 | 57.3 | 58.0 | 56.2 | 50.2 | 59.8 | 53.3 | 59.8 | 59.6 | 59.6 | 51.0 | 59.4 | 47.4 |
| Iola, Kans. | 56.9 | 58.9 | 59.4 | 58.9 | 50.6 | 61.6 | 57.4 | 61.9 | 60.0 | 60.4 | 54.4 | 62.4 | 49.0 |
| Washington, D. C. | 57.4 | 60.2 | 58.6 | 56.6 | 52.0 | 60.6 | 63.2 | 61.2 | 57.0 | 59.4 | 56.1 | 57.4 | 52.0 |
| Lynchburg, Va. | 58.5 | 60.9 | 60.6 | 57.7 | 53.0 | 61.0 | 65.4 | 60.8 | 57.6 | 60.6 | 56.6 | 58.4 | 52.8 |
| Norfolk, Va. | 62.5 | 63.9 | 64.4 | 63.0 | 58.2 | 65.2 | 70.0 | 64.0 | 62.0 | 64.3 | 61.0 | 62.0 | 58.7 |
| Parkersburg, W. Va. | 56.1 | 59.2 | 57.8 | 55.3 | 50.0 | 59.2 | 63.4 | 59.8 | 55.7 | 57.6 | 54.4 | 57.6 | 50.9 |
| Charlotte, N. C. | 61.7 | 62.2 | 64.4 | 61.0 | 57.0 | 64.0 | 69.9 | 62.7 | 60.8 | 62.8 | 61.3 | 60.9 | 59.8 |
| Charleston, S. C. | 67.8 | 68.4 | 70.8 | 67.4 | 63.7 | 70.7 | 76.8 | 67.5 | 66.6 | 68.7 | 66.4 | 68.8 | 68.4 |
| Atlanta, Ga. | 63.0 | 62.4 | 65.3 | 62.3 | 56.6 | 65.8 | 70.8 | 64.7 | 61.0 | 63.2 | 62.1 | 63.4 | 61.2 |
| Thomasville, Ga. | 68.2 | 68.2 | 70.6 | 68.9 | 61.4 | 73.0 | 78.8 | 67.1 | 67.0 | 69.7 | 67.0 | 68.3 | 70.4 |
| Jacksonville, Fla. | 71.1 | 71.5 | 73.4 | 69.5 | 67.0 | 74.5 | 78.6 | 68.8 | 69.2 | 72.6 | 69.9 | 68.4 | 72.6 |
| Miami, Fla. | 77.8 | 76.0 | 78.9 | 77.2 | 77.4 | 78.9 | 80.1 | 75.8 | 77.2 | 78.0 | 75.8 | 76.8 | 80.0 |
| Memphis, Tenn. | 63.3 | 63.3 | 65.6 | 64.0 | 56.6 | 66.6 | 68.0 | 68.5 | 62.0 | 65.3 | 60.8 | 67.2 | 58.9 |
| Nashville, Tenn. | 61.0 | 61.9 | 63.0 | 60.8 | 53.2 | 64.0 | 68.2 | 62.6 | 58.2 | 62.4 | 58.2 | 62.6 | 57.0 |
| Birmingham, Ala. | 64.8 | 63.8 | 69.9 | 65.6 | 57.9 | 68.2 | 74.5 | 66.4 | 62.8 | 65.8 | 63.6 | 66.6 | 63.6 |
| Mobile, Ala. | 69.3 | 68.8 | 70.9 | 68.8 | 63.7 | 73.8 | 77.5 | 68.8 | 68.0 | 68.7 | 67.5 | 68.4 | 70.4 |
| New Orleans, La. | 71.0 | 70.3 | 73.4 | 71.6 | 66.4 | 74.6 | 79.5 | 71.4 | 71.2 | 71.6 | 70.2 | 72.0 | 72.2 |
| Shreveport, La. | 66.6 | 66.8 | 67.9 | 67.4 | 61.6 | 68.8 | 71.4 | 66.9 | 66.8 | 67.0 | 64.5 | 69.4 | 61.2 |
| Amarillo, Tex. | 57.7 | 58.0 | 59.0 | 57.2 | 55.7 | 60.0 | 57.8 | 60.7 | 62.8 | 60.4 | 52.1 | 60.0 | 50.2 |
| Brownsville, Tex. | 74.9 | 75.1 | 75.2 | 74.8 | 73.2 | 77.4 | 80.2 | 75.8 | 75.8 | 73.7 | 73.8 | 74.9 | 74.5 |
| El Paso, Tex. | 63.5 | 63.5 | 63.9 | 64.7 | 64.6 | 64.6 | 65.1 | 63.2 | 66.5 | 64.0 | 63.1 | 66.8 | 64.4 |
| Fort Worth, Tex. | 66.7 | 66.2 | 67.6 | 68.1 | 64.0 | 69.0 | 68.4 | 67.6 | 67.9 | 67.0 | 62.5 | 69.4 | 63.6 |
| Galveston, Tex. | 72.7 | 71.7 | 74.2 | 72.6 | 68.6 | 72.7 | 77.6 | 72.3 | 73.2 | 71.0 | 71.1 | 73.7 | 71.0 |
| San Antonio, Tex. | 70.5 | 70.2 | 72.2 | 70.9 | 68.6 | 71.0 | 73.8 | 71.9 | 70.4 | 71.4 | 68.0 | 72.0 | 68.6 |
| Oklahoma City, Okla. | 61.5 | 61.6 | 62.8 | 62.4 | 57.3 | 65.2 | 69.7 | 63.9 | 64.0 | 63.3 | 56.5 | 66.3 | 62.2 |
| Little Rock, Ark. | 63.6 | 63.2 | 65.4 | 63.3 | 57.9 | 66.5 | 66.6 | 65.4 | 62.9 | 65.2 | 60.8 | 67.2 | 59.3 |
| Havre, Mont. | 44.5 | 46.2 | 49.2 | 39.9 | 41.8 | 48.9 | 31.4 | 46.7 | 50.6 | 47.9 | 44.2 | 49.0 | 35.4 |
| Kalispell, Mont. | 43.5 | 43.2 | 46.2 | 40.5 | 43.5 | 47.2 | 36.4 | 42.4 | 46.4 | 47.0 | 44.0 | 47.4 | 38.4 |
| Chapenney, Wyo. | 44.8 | 47.6 | 48.0 | 42.9 | 43.3 | 48.2 | 40.5 | 46.0 | 50.8 | 47.5 | 38.7 | 44.8 | 37.8 |
| Shoshone, Wyo. | 43.7 | 46.6 | 48.4 | 39.6 | 41.0 | 48.5 | 35.7 | 44.5 | 49.2 | 47.3 | 41.0 | 47.8 | 34.1 |
| Pueblo, Colo. | 52.0 | 53.6 | 54.0 | 51.6 | 49.9 | 55.8 | 49.9 | 53.2 | 56.5 | 54.2 | 47.6 | 55.4 | 48.0 |
| Santa Fe, N. Mex. | 50.4 | 49.4 | 52.0 | 50.8 | 51.9 | 52.0 | 47.1 | 48.8 | 53.0 | 51.4 | 45.8 | 51.2 | 49.6 |
| Phoenix, Ariz. | 70.6 | 71.2 | 73.8 | 66.2 | 72.7 | 71.8 | 66.7 | 67.0 | 73.8 | 71.6 | 67.3 | 71.2 | 68.4 |
| Modena, Utah | 48.0 | 49.9 | 50.6 | 45.0 | 51.1 | 51.1 | 42.2 | 44.3 | 54.0 | 49.5 | 44.8 | 45.5 | 46.9 |
| Salt Lake City, Utah | 52.5 | 55.8 | 56.3 | 49.8 | 54.2 | 55.0 | 44.6 | 49.4 | 58.6 | 55.9 | 49.7 | 52.4 | 51.9 |
| Winnemucca, Nev. | 48.3 | 50.2 | 50.2 | 44.9 | 51.7 | 51.6 | 42.0 | 44.6 | 51.9 | 49.0 | 46.6 | 47.0 | 47.2 |
| Boise, Idaho | 51.1 | 54.4 | 54.4 | 48.7 | 53.2 | 53.6 | 44.9 | 48.4 | 55.6 | 56.2 | 50.2 | 52.8 | 50.0 |
| Seattle, Wash. | 51.4 | 54.6 | 53.7 | 49.1 | 52.5 | 53.4 | 48.5 | 50.1 | 53.2 | 53.5 | 54.0 | 52.8 | 51.4 |
| Walla Walla, Wash. | 53.5 | 54.4 | 56.8 | 52.4 | 56.6 | 57.0 | 50.2 | 52.0 | 57.0 | 56.5 | 52.7 | 55.3 | 53.8 |
| Portland, Oreg. | 54.2 | 57.4 | 55.8 | 53.2 | 57.3 | 56.4 | 50.9 | 53.1 | 57.0 | 55.4 | 57.1 | 54.6 | 55.8 |
| Roseburg, Oreg. | 53.9 | 56.3 | 54.6 | 50.9 | 54.9 | 56.4 | 49.4 | 52.2 | 57.1 | 56.2 | 54.2 | 53.8 | 53.6 |
| Eureka, Calif. | 53.6 | 54.8 | 52.3 | 50.2 | 51.6 | 54.2 | 50.6 | 54.6 | 54.5 | 54.8 | 54.4 | 54.4 | 53.6 |
| Fresno, Calif. | 64.0 | 64.6 | 67.4 | 59.8 | 69.3 | 69.7 | 62.0 | 60.0 | 66.6 | 64.2 | 64.0 | 61.9 | 63.4 |
| Los Angeles, Calif. | 65.3 | 68.6 | 65.2 | 59.7 | 68.2 | 71.0 | 63.8 | 68.2 | 66.0 | 65.4 | 66.8 | 68.0 | 66.0 |
| Sacramento, Calif. | 62.9 | 62.2 | 65.2 | 58.2 | 68.4 | 64.2 | 60.6 | 64.0 | 61.9 | 63.1 | 59.5 | 59.5 | 62.6 |
| San Diego, Calif. | 63.7 | 66.0 | 62.8 | 59.3 | 64.6 | 63.1 | 62.0 | 61.4 | 64.6 | 64.0 | 64.4 | 60.5 | 63.6 |
| San Francisco, Calif. | 60.5 | 62.0 | 61.3 | 56.9 | 62.3 | 64.0 | 60.7 | 60.2 | 61.5 | 60.6 | 62.4 | 59.4 | 62.2 |

¹Normals are based on records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for Nov. | November monthly mean temperature | | | | | | | | | | | |
|-----------------------|-----------------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 30.7 | 28.4 | 32.6 | 29.2 | 27.2 | 32.6 | 30.6 | 28.4 | 27.2 | 31.2 | 34.8 | 33.0 | 30.2 |
| Boston, Mass. | 42.0 | 42.7 | 45.4 | 42.6 | 39.4 | 45.0 | 42.8 | 41.7 | 41.6 | 43.8 | 44.6 | 44.0 | 43.6 |
| Buffalo, N. Y. | 39.4 | 40.0 | 42.4 | 39.2 | 35.0 | 43.0 | 38.4 | 38.4 | 37.6 | 42.0 | 40.2 | 39.8 | 38.6 |
| Canton, N. Y. | 33.9 | 34.6 | 37.7 | 33.8 | 28.0 | 37.4 | 34.2 | 32.0 | 30.8 | 37.0 | 36.8 | 36.2 | 34.2 |
| Trenton, N. J. | 44.4 | 43.5 | 44.5 | 43.7 | 40.6 | 44.8 | 43.8 | 43.2 | 44.6 | 45.0 | 44.0 | 44.1 | 43.0 |
| Pittsburgh, Pa. | 43.2 | 42.9 | 45.2 | 44.5 | 39.8 | 43.8 | 42.6 | 42.2 | 44.6 | 45.3 | 43.2 | 42.8 | 40.6 |
| Seranton, Pa. | 40.5 | 40.2 | 42.1 | 40.8 | 36.8 | 42.4 | 41.0 | 40.2 | 41.2 | 42.4 | 41.4 | 40.9 | 39.8 |
| Cincinnati, Ohio | 42.5 | 46.7 | 46.6 | 45.4 | 41.4 | 43.4 | 42.2 | 42.3 | 45.8 | 46.4 | 43.8 | 43.6 | 42.2 |
| Cleveland, Ohio | 40.9 | 41.8 | 43.9 | 42.3 | 38.2 | 43.2 | 41.1 | 41.2 | 42.0 | 44.2 | 42.0 | 41.2 | 39.6 |
| Evansville, Ind. | 46.6 | 49.2 | 50.9 | 48.5 | 44.0 | 47.3 | 46.3 | 44.7 | 49.0 | 49.3 | 47.6 | 47.4 | 45.0 |
| Indianapolis, Ind. | 42.3 | 44.3 | 45.5 | 45.0 | 43.0 | 43.2 | 41.6 | 41.5 | 44.5 | 44.4 | 42.2 | 42.6 | 40.4 |
| Chicago, Ill. | 41.2 | 44.4 | 44.2 | 43.2 | 43.0 | 43.5 | 39.2 | 40.2 | 40.8 | 44.6 | 43.8 | 41.5 | 39.0 |
| Peoria, Ill. | 37.5 | 43.4 | 43.8 | 42.4 | 41.8 | 41.9 | 37.9 | 38.6 | 39.9 | 43.2 | 42.2 | 41.2 | 37.7 |
| Grand Rapids, Mich. | 38.4 | 39.6 | 41.6 | 39.8 | 38.2 | 42.2 | 37.2 | 38.2 | 36.7 | 42.4 | 40.4 | 39.7 | 37.0 |
| Marquette, Mich. | 33.3 | 33.7 | 35.6 | 32.4 | 35.4 | 37.4 | 30.0 | 33.8 | 29.9 | 37.6 | 38.2 | 33.8 | 33.3 |
| Madison, Wis. | 35.2 | 38.2 | 38.8 | 35.8 | 38.2 | 39.4 | 32.6 | 34.2 | 31.9 | 41.0 | 38.9 | 36.0 | 33.8 |
| Duluth, Minn. | 30.0 | 29.8 | 29.8 | 29.2 | 34.4 | 33.6 | 21.6 | 28.4 | 23.2 | 34.2 | 35.9 | 27.2 | 28.2 |
| St. Paul, Minn. | 32.5 | 36.0 | 33.3 | 33.8 | 38.2 | 37.3 | 20.6 | 32.6 | 27.0 | 38.8 | 38.8 | 32.2 | 31.7 |
| Des Moines, Iowa | 38.4 | 43.2 | 42.6 | 39.7 | 43.0 | 41.6 | 35.8 | 37.6 | 35.8 | 44.0 | 42.2 | 40.4 | 37.8 |
| Dubuque, Iowa | 37.0 | 40.6 | 41.2 | 37.6 | 40.2 | 41.2 | 31.6 | 35.6 | 34.2 | 42.2 | 40.0 | 38.4 | 35.7 |
| St. Louis, Mo. | 45.4 | 50.3 | 50.9 | 49.2 | 47.7 | 46.2 | 44.8 | 43.7 | 47.3 | 48.8 | 47.9 | 47.6 | 43.4 |
| Springfield, Mo. | 45.7 | 50.6 | 50.7 | 48.3 | 47.4 | 45.3 | 44.4 | 41.6 | 48.4 | 48.1 | 47.0 | 48.5 | 45.0 |
| Bismarck, N. Dak. | 28.5 | 34.2 | 32.6 | 30.6 | 40.2 | 41.4 | 18.2 | 25.6 | 22.6 | 33.2 | 33.8 | 30.8 | 30.8 |
| Devils Lake, N. Dak. | 22.6 | 30.0 | 26.3 | 25.8 | 35.6 | 37.1 | 12.7 | 27.2 | 18.6 | 31.8 | 35.6 | 23.8 | 26.8 |
| Pierre, S. Dak. | 33.6 | 41.3 | 38.2 | 35.4 | 43.4 | 36.2 | 25.3 | 32.2 | 29.4 | 36.7 | 42.6 | 37.5 | 36.2 |
| North Platte, Nebr. | 36.6 | 43.7 | 41.2 | 35.8 | 45.5 | 36.8 | 28.2 | 34.6 | 38.0 | 38.8 | 42.2 | 39.6 | 38.4 |
| Omaha, Nebr. | 38.5 | 45.4 | 43.9 | 40.6 | 45.8 | 41.6 | 36.0 | 27.2 | 36.9 | 44.2 | 43.8 | 42.0 | 40.2 |
| Concordia, Kans. | 41.4 | 47.5 | 47.0 | 42.8 | 47.3 | 42.9 | 38.2 | 38.2 | 41.1 | 44.8 | 44.9 | 44.8 | 41.4 |
| Dodge City, Kans. | 42.6 | 48.4 | 47.4 | 42.0 | 48.6 | 41.7 | 38.7 | 39.4 | 43.6 | 45.5 | 45.2 | 45.9 | 42.6 |
| Iola, Kans. | 43.0 | 49.5 | 49.8 | 46.8 | 47.5 | 45.6 | 43.0 | 41.6 | 45.6 | 47.8 | 47.2 | 47.4 | 44.2 |
| Washington, D. C. | 45.2 | 45.4 | 46.2 | 46.2 | 42.8 | 46.3 | 46.8 | 45.9 | 47.5 | 47.9 | 45.1 | 46.0 | 44.3 |
| Lynchburg, Va. | 47.2 | 46.6 | 48.1 | 48.4 | 45.2 | 46.8 | 48.2 | 46.4 | 50.0 | 48.4 | 46.1 | 47.7 | 45.6 |
| Norfolk, Va. | 51.4 | 51.0 | 52.4 | 52.4 | 47.8 | 52.0 | 53.0 | 52.6 | 55.8 | 51.8 | 50.0 | 51.6 | 50.2 |
| Parkersburg, W. Va. | 43.8 | 45.4 | 47.0 | 45.5 | 40.6 | 44.2 | 44.8 | 43.0 | 47.2 | 46.0 | 44.0 | 44.6 | 42.6 |
| Charlotte, N. C. | 50.6 | 50.5 | 53.3 | 53.0 | 49.2 | 50.7 | 52.9 | 49.4 | 54.0 | 51.0 | 49.0 | 52.2 | 47.9 |
| Charleston, S. C. | 58.1 | 57.0 | 61.4 | 59.2 | 54.4 | 56.6 | 62.2 | 57.4 | 62.0 | 60.1 | 55.0 | 58.8 | 56.2 |
| Atlanta, Ga. | 52.1 | 52.4 | 54.2 | 52.4 | 51.4 | 51.6 | 54.7 | 50.2 | 54.7 | 52.9 | 49.8 | 54.6 | 49.8 |
| Thomasville, Ga. | 58.5 | 58.1 | 61.7 | 59.8 | 55.0 | 57.8 | 64.2 | 56.8 | 63.8 | 62.2 | 56.4 | 60.2 | 57.0 |
| Jacksonville, Fla. | 62.2 | 61.6 | 66.0 | 63.1 | 58.0 | 60.4 | 66.6 | 61.6 | 65.8 | 64.8 | 59.6 | 62.4 | 60.0 |
| Miami, Fla. | 72.0 | 70.6 | 73.2 | 71.9 | 67.0 | 72.2 | 73.4 | 72.2 | 73.5 | 73.1 | 68.4 | 71.6 | 72.4 |
| Memphis, Tenn. | 51.7 | 53.6 | 55.9 | 54.0 | 51.8 | 51.0 | 52.1 | 48.7 | 55.8 | 54.8 | 52.6 | 53.8 | 51.4 |
| Nashville, Tenn. | 49.0 | 49.6 | 52.8 | 50.2 | 47.0 | 48.0 | 49.7 | 46.7 | 52.4 | 51.3 | 48.9 | 50.0 | 48.0 |
| Birmingham, Ala. | 53.9 | 53.0 | 56.1 | 54.9 | 51.8 | 52.4 | 56.0 | 50.8 | 57.6 | 56.4 | 52.0 | 55.9 | 51.8 |
| Mobile, Ala. | 58.6 | 59.0 | 61.8 | 60.0 | 56.6 | 59.0 | 63.8 | 56.2 | 63.3 | 62.8 | 57.2 | 61.6 | 58.0 |
| New Orleans, La. | 61.6 | 61.2 | 66.2 | 62.6 | 59.0 | 61.7 | 66.4 | 58.2 | 66.6 | 66.6 | 59.0 | 65.5 | 60.8 |
| Shreveport, La. | 56.0 | 56.8 | 59.3 | 56.4 | 55.1 | 54.1 | 57.8 | 52.2 | 62.6 | 58.3 | 55.6 | 59.2 | 55.0 |
| Amarillo, Tex. | 45.5 | 50.4 | 49.5 | 44.4 | 50.8 | 42.6 | 42.6 | 42.8 | 51.0 | 47.2 | 45.4 | 50.8 | 46.2 |
| Brownsville, Tex. | 67.2 | 67.2 | 70.2 | 66.5 | 68.7 | 65.8 | 70.5 | 64.5 | 71.8 | 67.6 | 63.8 | 72.2 | 66.6 |
| El Paso, Tex. | 52.7 | 54.7 | 52.8 | 51.2 | 55.4 | 49.1 | 52.4 | 51.6 | 54.4 | 50.1 | 51.2 | 56.4 | 52.3 |
| Fort Worth, Tex. | 55.5 | 57.1 | 60.1 | 55.4 | 57.4 | 53.6 | 63.6 | 61.9 | 61.7 | 57.6 | 56.0 | 59.2 | 55.9 |
| Galveston, Tex. | 63.3 | 63.1 | 67.0 | 62.9 | 62.6 | 60.9 | 64.4 | 62.2 | 67.0 | 65.6 | 60.0 | 67.4 | 61.6 |
| San Antonio, Tex. | 60.3 | 61.2 | 63.8 | 59.0 | 63.4 | 57.4 | 60.8 | 57.4 | 65.6 | 61.9 | 58.7 | 66.5 | 60.2 |
| Oklahoma City, Okla. | 48.8 | 53.6 | 53.8 | 49.7 | 52.4 | 48.2 | 45.4 | 45.2 | 51.5 | 51.3 | 50.2 | 52.8 | 48.0 |
| Little Rock, Ark. | 52.1 | 54.2 | 55.5 | 53.5 | 52.9 | 51.0 | 52.8 | 48.4 | 55.8 | 54.2 | 52.6 | 54.2 | 51.4 |
| Havre, Mont. | 31.2 | 36.7 | 32.4 | 31.5 | 41.0 | 29.9 | 21.2 | 33.6 | 25.8 | 30.8 | 37.8 | 29.5 | 34.5 |
| Kalispell, Mont. | 32.4 | 36.4 | 32.2 | 28.0 | 36.2 | 32.8 | 26.7 | 32.0 | 30.3 | 30.0 | 33.7 | 31.1 | 33.3 |
| Cheyenne, Wyo. | 34.8 | 41.4 | 37.0 | 31.2 | 40.8 | 30.9 | 30.6 | 31.8 | 38.6 | 41.1 | 37.4 | 38.5 | 35.0 |
| Sheridan, Wyo. | 32.8 | 36.6 | 32.6 | 28.9 | 41.8 | 29.4 | 24.4 | 28.3 | 29.6 | 32.8 | 38.4 | 34.6 | 32.2 |
| Pueblo, Colo. | 39.4 | 43.5 | 42.8 | 38.3 | 44.8 | 36.3 | 36.8 | 37.8 | 42.8 | 37.6 | 41.3 | 43.0 | 39.0 |
| Santa Fe, N. Mex. | 38.9 | 43.0 | 39.8 | 38.9 | 45.1 | 35.0 | 38.6 | 37.7 | 43.0 | 35.8 | 38.8 | 41.3 | 37.4 |
| Phoenix, Ariz. | 59.7 | 63.9 | 59.2 | 55.8 | 60.9 | 57.2 | 57.0 | 58.6 | 60.9 | 55.0 | 59.1 | 62.8 | 57.8 |
| Modena, Utah | 36.4 | 38.4 | 38.0 | 32.6 | 39.0 | 33.9 | 34.8 | 36.1 | 41.7 | 34.2 | 39.0 | 36.7 | 36.3 |
| Salt Lake City, Utah | 41.1 | 43.4 | 43.6 | 36.4 | 44.0 | 38.8 | 38.4 | 40.4 | 45.9 | 38.0 | 43.2 | 40.4 | 39.8 |
| Winnemucca, Nev. | 38.4 | 37.8 | 37.2 | 33.0 | 41.9 | 36.0 | 37.0 | 41.6 | 44.7 | 37.6 | 42.6 | 37.3 | 38.3 |
| Boise, Idaho | 41.0 | 41.8 | 39.5 | 36.5 | 44.4 | 39.6 | 37.0 | 40.8 | 44.7 | 43.7 | 42.6 | 40.7 | 40.4 |
| Seattle, Wash. | 45.6 | 47.2 | 43.7 | 43.0 | 49.6 | 45.8 | 44.9 | 47.0 | 45.4 | 43.6 | 47.4 | 44.6 | 45.9 |
| Walla Walla, Wash. | 42.8 | 44.6 | 42.7 | 36.5 | 46.6 | 42.7 | 40.5 | 41.8 | 43.9 | 36.9 | 44.8 | 39.6 | 41.4 |
| Portland, Oreg. | 46.8 | 47.0 | 45.4 | 43.7 | 50.6 | 46.6 | 45.0 | 46.8 | 48.8 | 43.6 | 50.4 | 45.6 | 46.0 |
| Roseburg, Oreg. | 45.9 | 46.8 | 47.4 | 42.8 | 49.0 | 45.8 | 44.8 | 45.6 | 49.8 | 44.3 | 49.2 | 46.2 | 48.0 |
| Eureka, Calif. | 51.1 | 50.8 | 49.8 | 47.5 | 52.8 | 50.0 | 48.2 | 51.2 | 52.0 | 48.2 | 53.0 | 51.6 | 51.7 |
| Fresno, Calif. | 54.2 | 57.4 | 53.8 | 48.1 | 56.7 | 52.8 | 53.0 | 54.0 | 57.0 | 51.0 | 58.2 | 55.1 | 54.2 |
| Los Angeles, Calif. | 60.9 | 67.0 | 61.8 | 59.4 | 63.7 | 60.8 | 61.5 | 60.1 | 63.2 | 59.8 | 66.4 | 64.1 | 62.4 |
| Sacramento, Calif. | 53.6 | 55.6 | 53.0 | 50.5 | 55.2 | 50.6 | 52.4 | 51.0 | 54.8 | 49.8 | 58.5 | 51.8 | 53.0 |
| San Diego, Calif. | 59.7 | 64.4 | 59.6 | 56.5 | 60.8 | 59.8 | 58.6 | 58.2 | 60.4 | 58.0 | 64.0 | 60.0 | 60.8 |
| San Francisco, Calif. | 56.3 | 59.0 | 56.1 | 54.4 | 58.7 | 55.6 | 56.0 | 55.4 | 57.8 | 54.3 | 60.8 | 56.7 | 56.6 |

¹ Normals are based upon records of 30 or more years of observations.

TABLE 794.—Temperature: Monthly normal¹ and mean temperature at selected points in the United States, 1914-1925—Continued

| Station | Normal for Dec. | December monthly mean temperature | | | | | | | | | | | |
|-----------------------|-----------------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 18.0 | 15.8 | 22.0 | 17.8 | 7.8 | 20.6 | 11.4 | 20.2 | 16.4 | 15.1 | 26.8 | 14.2 | 17.1 |
| Boston, Mass. | 32.5 | 30.4 | 34.2 | 32.6 | 23.7 | 34.7 | 28.7 | 35.6 | 31.4 | 30.9 | 40.4 | 31.2 | 33.6 |
| Buffalo, N. Y. | 29.8 | 26.0 | 27.8 | 28.4 | 20.8 | 35.0 | 23.3 | 32.7 | 29.9 | 28.9 | 37.6 | 25.2 | 27.2 |
| Canton, N. Y. | 22.7 | 20.6 | 23.1 | 18.6 | 8.6 | 24.0 | 17.2 | 23.3 | 21.8 | 21.4 | 31.7 | 17.4 | 21.6 |
| Trenton, N. J. | 34.4 | 30.6 | 32.4 | 32.2 | 24.7 | 38.4 | 28.9 | 37.4 | 35.0 | 32.9 | 42.0 | 34.8 | 34.4 |
| Pittsburgh, Pa. | 34.2 | 29.9 | 31.8 | 32.9 | 24.5 | 41.0 | 28.2 | 35.6 | 34.0 | 35.6 | 43.0 | 31.4 | 30.8 |
| Scranton, Pa. | 30.7 | 28.0 | 29.4 | 30.4 | 21.3 | 36.2 | 24.9 | 33.6 | 29.6 | 30.8 | 38.7 | 28.4 | 31.0 |
| Cincinnati, Ohio | 33.4 | 30.2 | 32.7 | 31.6 | 22.3 | 41.8 | 27.4 | 35.4 | 36.4 | 35.2 | 43.5 | 31.0 | 30.7 |
| Cleveland, Ohio | 31.2 | 27.0 | 30.8 | 28.0 | 22.4 | 38.7 | 25.7 | 33.6 | 32.6 | 31.6 | 40.4 | 27.6 | 28.9 |
| Evansville, Ind. | 31.1 | 30.0 | 31.0 | 35.2 | 26.6 | 47.7 | 32.2 | 38.4 | 41.0 | 39.4 | 46.6 | 33.3 | 38.8 |
| Indianapolis, Ind. | 32.2 | 25.8 | 31.0 | 29.5 | 22.8 | 40.3 | 26.1 | 33.2 | 35.2 | 33.4 | 42.4 | 28.2 | 25.5 |
| Chicago, Ill. | 30.0 | 24.1 | 29.1 | 26.0 | 22.4 | 37.7 | 21.4 | 32.4 | 32.5 | 29.9 | 39.7 | 23.4 | 25.4 |
| Peoria, Ill. | 28.1 | 20.8 | 27.8 | 25.2 | 19.8 | 36.6 | 20.6 | 30.8 | 32.2 | 28.8 | 38.0 | 21.8 | 24.8 |
| Grand Rapids, Mich. | 28.5 | 24.6 | 27.0 | 25.4 | 21.1 | 34.5 | 21.4 | 32.0 | 30.2 | 27.7 | 36.6 | 23.2 | 26.7 |
| Marquette, Mich. | 22.6 | 18.4 | 24.6 | 18.6 | 14.6 | 28.8 | 13.7 | 27.0 | 22.9 | 19.1 | 31.4 | 14.6 | 21.0 |
| Madison, Wis. | 22.8 | 16.4 | 23.9 | 18.0 | 13.9 | 31.4 | 12.6 | 26.2 | 24.4 | 21.6 | 32.5 | 15.0 | 17.6 |
| Duluth, Minn. | 15.9 | 9.4 | 18.6 | 8.8 | 4.4 | 23.6 | 5.6 | 19.3 | 14.8 | 11.8 | 24.0 | 3.6 | 12.7 |
| St. Paul, Minn. | 19.0 | 12.1 | 22.6 | 12.2 | 10.1 | 28.7 | 10.2 | 23.0 | 20.4 | 17.8 | 29.4 | 8.8 | 16.3 |
| Des Moines, Iowa | 26.0 | 18.7 | 27.8 | 22.0 | 10.7 | 34.2 | 16.6 | 28.8 | 30.0 | 25.6 | 35.8 | 17.7 | 23.0 |
| Dubuque, Iowa | 24.7 | 18.4 | 25.5 | 19.3 | 15.8 | 33.0 | 14.4 | 27.3 | 27.2 | 23.8 | 34.4 | 16.4 | 20.0 |
| St. Louis, Mo. | 34.9 | 28.6 | 35.4 | 33.6 | 26.8 | 43.0 | 29.6 | 37.5 | 38.6 | 36.7 | 44.4 | 30.0 | 32.8 |
| Springfield, Mo. | 36.2 | 27.4 | 37.6 | 38.2 | 26.5 | 41.3 | 32.6 | 38.1 | 38.4 | 36.2 | 42.8 | 30.4 | 34.0 |
| Bismarck, N. Dak. | 14.7 | 7.4 | 19.8 | 3.6 | 3.2 | 21.6 | 11.5 | 17.8 | 18.6 | 13.0 | 25.4 | 5.5 | 19.6 |
| Devils Lake, N. Dak. | 8.0 | 3.6 | 12.4 | 0.8 | 3.6 | 14.0 | 5.0 | 11.6 | 15.2 | 6.0 | 20.4 | 0.7 | 13.8 |
| Pierre, S. Dak. | 21.8 | 15.1 | 25.8 | 12.5 | 13.1 | 25.5 | 18.6 | 24.9 | 25.0 | 16.4 | 29.7 | 12.6 | 22.4 |
| North Platte, Nebr. | 26.7 | 18.0 | 28.2 | 19.4 | 23.7 | 28.5 | 19.4 | 27.0 | 30.7 | 27.8 | 30.4 | 15.2 | 28.0 |
| Omaha, Nebr. | 26.4 | 18.2 | 29.6 | 22.2 | 18.0 | 34.8 | 19.4 | 28.7 | 31.7 | 27.2 | 35.2 | 17.4 | 26.0 |
| Concordia, Kans. | 30.7 | 19.9 | 33.4 | 25.6 | 23.5 | 35.0 | 24.4 | 32.1 | 34.3 | 31.4 | 35.6 | 21.7 | 31.7 |
| Dodge City, Kans. | 32.6 | 23.4 | 34.6 | 29.0 | 28.2 | 34.0 | 29.6 | 35.1 | 33.4 | 33.7 | 34.5 | 24.0 | 34.0 |
| Iola, Kans. | 32.5 | 26.2 | 36.8 | 30.2 | 25.4 | 38.8 | 28.6 | 37.0 | 36.6 | 36.0 | 38.6 | 28.0 | 32.8 |
| Washington, D. C. | 36.6 | 32.8 | 35.2 | 35.5 | 27.9 | 41.6 | 32.6 | 39.3 | 37.9 | 37.6 | 45.0 | 30.4 | 37.0 |
| Lynchburg, Va. | 39.5 | 35.0 | 38.0 | 38.6 | 29.0 | 42.9 | 36.1 | 40.2 | 42.3 | 42.5 | 47.4 | 40.2 | 39.4 |
| Norfolk, Va. | 43.1 | 40.0 | 40.5 | 42.7 | 33.8 | 47.4 | 40.5 | 45.6 | 44.2 | 46.6 | 51.1 | 44.4 | 40.8 |
| Parkersburg, W. Va. | 35.2 | 30.6 | 34.2 | 34.2 | 24.8 | 43.3 | 30.4 | 37.8 | 37.4 | 37.4 | 45.2 | 33.6 | 33.4 |
| Charlotte, N. C. | 43.0 | 38.4 | 41.4 | 45.3 | 33.4 | 47.2 | 41.6 | 43.0 | 47.1 | 46.6 | 50.2 | 44.1 | 42.2 |
| Charleston, S. C. | 51.7 | 46.8 | 48.2 | 55.0 | 42.0 | 53.5 | 51.4 | 51.4 | 55.0 | 56.3 | 59.9 | 52.8 | 49.2 |
| Atlanta, Ga. | 44.7 | 40.3 | 43.7 | 45.0 | 36.2 | 48.2 | 44.8 | 48.3 | 48.3 | 50.5 | 55.3 | 45.6 | 42.4 |
| Thomasville, Ga. | 52.5 | 50.4 | 50.8 | 54.6 | 46.0 | 54.8 | 53.0 | 51.4 | 57.8 | 59.5 | 59.4 | 55.6 | 51.2 |
| Jacksonville, Fla. | 56.3 | 54.6 | 53.8 | 58.0 | 48.4 | 58.2 | 56.1 | 55.4 | 58.7 | 61.6 | 61.8 | 58.4 | 54.1 |
| Miami, Fla. | 68.0 | 65.9 | 65.6 | 69.0 | 63.6 | 67.8 | 68.8 | 68.0 | 69.6 | 71.8 | 70.6 | 72.2 | 68.4 |
| Memphis, Tenn. | 43.6 | 36.2 | 45.0 | 43.4 | 34.0 | 50.2 | 40.4 | 44.6 | 48.1 | 48.4 | 51.5 | 41.8 | 41.0 |
| Nashville, Tenn. | 41.0 | 35.8 | 42.4 | 38.8 | 31.4 | 47.4 | 38.8 | 41.6 | 44.8 | 46.0 | 49.4 | 39.6 | 38.2 |
| Birmingham, Ala. | 40.4 | 41.9 | 46.7 | 46.8 | 39.2 | 50.4 | 45.8 | 45.0 | 50.2 | 53.2 | 53.3 | 40.8 | 43.1 |
| Mobile, Ala. | 52.2 | 49.4 | 53.8 | 53.0 | 48.2 | 55.0 | 55.0 | 51.0 | 57.4 | 60.1 | 58.2 | 53.6 | 50.0 |
| New Orleans, La. | 55.6 | 50.8 | 56.7 | 57.4 | 51.4 | 57.5 | 57.0 | 54.1 | 60.8 | 63.5 | 60.9 | 55.7 | 52.3 |
| Shreveport, La. | 49.1 | 41.5 | 50.4 | 49.8 | 43.2 | 52.0 | 48.8 | 48.6 | 54.6 | 54.8 | 54.9 | 47.8 | 46.0 |
| Amarillo, Tex. | 37.0 | 30.4 | 40.2 | 36.6 | 36.1 | 32.4 | 37.0 | 39.0 | 43.5 | 41.8 | 33.9 | 31.9 | 37.6 |
| Brownsville, Tex. | 61.2 | 54.2 | 65.2 | 65.3 | 62.9 | 61.7 | 60.8 | 61.4 | 67.7 | 67.8 | 61.8 | 57.9 | 53.7 |
| El Paso, Tex. | 44.9 | 42.8 | 44.8 | 45.0 | 48.6 | 41.2 | 47.2 | 48.4 | 49.4 | 49.2 | 42.6 | 42.6 | 45.8 |
| Fort Worth, Tex. | 47.5 | 39.7 | 50.9 | 48.0 | 41.6 | 49.8 | 44.4 | 48.3 | 51.2 | 52.8 | 50.8 | 44.9 | 46.0 |
| Galveston, Tex. | 56.4 | 50.2 | 67.9 | 57.7 | 52.8 | 56.8 | 57.2 | 56.0 | 60.2 | 62.4 | 58.4 | 54.6 | 51.0 |
| San Antonio, Tex. | 53.7 | 46.3 | 56.8 | 54.6 | 50.4 | 54.7 | 51.7 | 54.7 | 59.0 | 59.6 | 55.6 | 52.6 | 49.7 |
| Oklahoma City, Okla. | 39.3 | 31.4 | 43.4 | 37.6 | 31.6 | 40.8 | 33.8 | 40.8 | 42.7 | 42.0 | 42.2 | 32.6 | 38.4 |
| Little Rock, Ark. | 44.2 | 36.9 | 46.0 | 48.4 | 35.4 | 49.6 | 40.6 | 44.6 | 48.0 | 48.4 | 41.2 | 41.8 | 40.9 |
| Haute, Mont. | 20.4 | 10.8 | 24.4 | 7.0 | 8.4 | 26.4 | 16.9 | 22.6 | 20.0 | 11.4 | 25.6 | 8.8 | 28.8 |
| Kalspell, Mont. | 24.9 | 19.0 | 23.3 | 14.9 | 26.2 | 28.1 | 17.6 | 27.9 | 21.0 | 18.3 | 24.5 | 14.7 | 33.3 |
| Cheyenne, Wyo. | 28.5 | 20.2 | 26.8 | 21.0 | 30.4 | 26.7 | 28.0 | 27.9 | 30.2 | 29.5 | 27.4 | 21.4 | 27.8 |
| Sheridan, Wyo. | 22.1 | 14.2 | 24.8 | 14.6 | 21.2 | 28.0 | 13.7 | 24.6 | 22.6 | 17.0 | 23.6 | 15.8 | 29.4 |
| Pueblo, Colo. | 31.5 | 24.6 | 32.6 | 29.8 | 35.4 | 30.2 | 30.9 | 33.8 | 34.2 | 36.5 | 32.2 | 23.5 | 33.4 |
| Santa Fe, N. Mex. | 30.7 | 26.0 | 32.1 | 27.9 | 38.2 | 27.0 | 34.2 | 27.4 | 36.6 | 34.0 | 20.1 | 25.4 | 29.0 |
| Phoenix, Ariz. | 52.0 | 50.3 | 61.6 | 41.7 | 54.6 | 49.6 | 54.2 | 49.7 | 55.0 | 55.0 | 52.0 | 52.0 | 53.5 |
| Modena, Utah | 38.1 | 21.2 | 28.8 | 23.4 | 36.1 | 26.6 | 26.1 | 27.6 | 34.4 | 38.2 | 26.9 | 20.2 | 31.0 |
| Salt Lake City, Utah | 29.9 | 28.0 | 33.7 | 27.8 | 41.8 | 31.2 | 24.6 | 31.7 | 31.2 | 31.7 | 29.3 | 24.2 | 34.2 |
| Winnemucca, Nev. | 32.0 | 18.9 | 30.7 | 26.6 | 37.2 | 29.9 | 28.2 | 31.2 | 31.6 | 30.9 | 25.2 | 17.2 | 32.4 |
| Boise, Idaho | 32.1 | 24.0 | 33.6 | 28.4 | 43.2 | 29.6 | 23.6 | 34.3 | 32.9 | 30.0 | 31.6 | 21.8 | 35.0 |
| Seattle, Wash. | 41.7 | 39.7 | 42.0 | 38.0 | 45.0 | 40.9 | 38.6 | 43.4 | 39.1 | 38.4 | 42.2 | 37.2 | 45.6 |
| Walla Walla, Wash. | 35.5 | 26.0 | 38.2 | 30.5 | 46.1 | 37.8 | 22.6 | 39.8 | 31.5 | 30.8 | 38.0 | 26.6 | 40.4 |
| Portland, Oreg. | 41.2 | 36.8 | 42.0 | 38.1 | 48.4 | 42.3 | 33.6 | 44.1 | 39.1 | 38.0 | 41.5 | 36.6 | 45.8 |
| Roseburg, Oreg. | 41.8 | 37.0 | 43.2 | 39.0 | 48.4 | 40.4 | 39.6 | 42.7 | 39.0 | 42.2 | 40.6 | 35.5 | 42.7 |
| Eureka, Calif. | 48.2 | 45.3 | 48.4 | 43.2 | 51.2 | 46.3 | 48.1 | 48.4 | 48.4 | 47.6 | 45.3 | 45.5 | 50.1 |
| Fresno, Calif. | 46.2 | 44.7 | 48.2 | 45.4 | 49.7 | 45.0 | 47.1 | 47.5 | 50.4 | 49.9 | 46.2 | 45.4 | 46.2 |
| Los Angeles, Calif. | 56.6 | 53.4 | 57.4 | 52.6 | 62.5 | 57.2 | 58.9 | 55.8 | 60.2 | 58.3 | 58.8 | 55.4 | 63.2 |
| Sacramento, Calif. | 46.2 | 43.8 | 47.5 | 44.2 | 49.2 | 43.4 | 44.1 | 45.4 | 49.0 | 47.4 | 45.6 | 42.2 | 60.2 |
| San Diego, Calif. | 56.0 | 54.6 | 56.6 | 52.4 | 58.6 | 54.8 | 56.6 | 54.8 | 59.3 | 58.0 | 57.4 | 64.0 | 66.0 |
| San Francisco, Calif. | 51.3 | 48.7 | 52.2 | 48.9 | 54.6 | 50.2 | 48.8 | 51.0 | 52.9 | 50.6 | 51.0 | 47.8 | 52.7 |

Weather Bureau.

¹Normals are based on records of 30 or more years of observations.

TABLE 795.—Monthly and annual normal¹ temperatures at selected points in the United States

| Station | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|-----------------------|------|------|------|------|------|------|------|------|-------|------|------|------|--------|
| | ° F. | ° F. | ° F. | ° F. | ° F. | ° F. | ° F. | ° F. | ° F. | ° F. | ° F. | ° F. | ° F. |
| Greenville, Me. | 12.5 | 12.4 | 23.5 | 36.4 | 49.5 | 58.9 | 65.4 | 62.5 | 55.0 | 45.6 | 30.7 | 18.0 | 39.2 |
| Boston, Mass. | 27.9 | 28.8 | 35.6 | 46.4 | 57.1 | 66.9 | 71.7 | 69.9 | 62.4 | 53.0 | 42.0 | 32.5 | 47.0 |
| Buffalo, N. Y. | 24.6 | 24.3 | 31.1 | 42.8 | 54.6 | 64.4 | 69.8 | 68.6 | 62.4 | 51.9 | 39.4 | 26.8 | 46.0 |
| Canton, N. Y. | 16.3 | 18.0 | 27.7 | 42.5 | 56.2 | 65.8 | 70.5 | 67.8 | 59.3 | 47.2 | 33.0 | 22.7 | 44.0 |
| Trenton, N. J. | 30.5 | 30.7 | 39.1 | 49.8 | 61.1 | 69.5 | 74.5 | 73.0 | 66.9 | 55.6 | 44.4 | 34.4 | 52.5 |
| Pittsburgh, Pa. | 30.7 | 32.3 | 39.6 | 51.2 | 62.4 | 70.7 | 74.6 | 72.9 | 66.4 | 55.7 | 43.2 | 34.2 | 52.8 |
| Scranton, Pa. | 26.6 | 27.3 | 35.7 | 48.1 | 59.4 | 67.8 | 71.7 | 69.8 | 62.9 | 51.9 | 40.5 | 30.7 | 49.4 |
| Cincinnati, Ohio | 30.3 | 32.8 | 40.9 | 52.4 | 63.1 | 71.2 | 75.1 | 73.6 | 67.1 | 55.7 | 42.5 | 33.4 | 53.2 |
| Cleveland, Ohio | 26.5 | 27.4 | 34.6 | 46.2 | 57.9 | 67.1 | 71.4 | 70.0 | 63.9 | 53.6 | 40.9 | 31.2 | 49.2 |
| Evansville, Ind. | 33.5 | 36.3 | 45.9 | 56.7 | 66.7 | 75.1 | 78.9 | 77.4 | 70.7 | 59.4 | 46.6 | 37.1 | 57.0 |
| Indianapolis, Ind. | 28.4 | 31.1 | 40.0 | 52.1 | 62.9 | 71.6 | 75.7 | 73.7 | 66.9 | 55.7 | 42.3 | 32.2 | 52.7 |
| Chicago, Ill. | 25.1 | 27.4 | 36.3 | 47.7 | 58.5 | 68.2 | 73.9 | 72.8 | 66.3 | 55.1 | 41.2 | 30.0 | 50.2 |
| Peoria, Ill. | 23.1 | 25.9 | 37.0 | 50.9 | 61.7 | 70.9 | 75.4 | 72.5 | 64.3 | 52.0 | 37.5 | 28.1 | 49.9 |
| Grand Rapids, Mich. | 24.5 | 23.7 | 33.4 | 47.0 | 58.0 | 67.8 | 72.3 | 69.7 | 62.7 | 51.2 | 38.4 | 28.5 | 48.1 |
| Marquette, Mich. | 16.3 | 16.3 | 24.8 | 37.8 | 49.0 | 58.9 | 64.9 | 63.8 | 57.5 | 46.7 | 33.3 | 22.6 | 41.0 |
| Madison, Wis. | 16.7 | 19.1 | 30.6 | 45.4 | 57.6 | 67.2 | 72.1 | 69.8 | 62.4 | 50.3 | 35.2 | 22.8 | 45.8 |
| Duluth, Minn. | 7.9 | 11.4 | 23.7 | 37.0 | 47.3 | 57.2 | 63.9 | 62.6 | 55.1 | 44.1 | 30.0 | 15.9 | 38.0 |
| St. Paul, Minn. | 12.6 | 15.8 | 29.1 | 45.6 | 57.9 | 67.1 | 72.1 | 69.4 | 61.3 | 48.0 | 32.5 | 19.0 | 44.2 |
| Des Moines, Iowa | 20.1 | 23.7 | 35.0 | 50.1 | 61.3 | 70.6 | 75.4 | 73.1 | 65.6 | 53.4 | 38.4 | 26.0 | 49.5 |
| Dubuque, Iowa | 19.1 | 22.2 | 34.0 | 48.6 | 60.3 | 69.4 | 74.1 | 71.7 | 64.0 | 51.0 | 37.0 | 24.7 | 48.1 |
| St. Louis, Mo. | 31.1 | 34.8 | 44.1 | 56.1 | 67.0 | 75.0 | 78.8 | 77.5 | 70.5 | 58.8 | 45.4 | 34.9 | 50.2 |
| Springfield, Mo. | 33.5 | 35.2 | 45.2 | 56.0 | 64.5 | 72.5 | 76.8 | 75.7 | 68.9 | 58.2 | 45.7 | 36.2 | 55.7 |
| Rismarck, N. Dak. | 7.8 | 10.3 | 24.2 | 42.1 | 54.5 | 63.7 | 69.8 | 67.3 | 58.1 | 44.9 | 28.5 | 14.7 | 40.5 |
| Devils Lake, N. Dak. | 0.3 | 4.5 | 18.5 | 38.2 | 52.7 | 62.6 | 68.1 | 65.1 | 55.6 | 40.5 | 22.6 | 8.0 | 36.4 |
| Pierre, S. Dak. | 16.0 | 18.6 | 31.5 | 46.8 | 58.0 | 68.5 | 73.3 | 72.8 | 63.8 | 49.8 | 33.6 | 21.8 | 40.4 |
| North Platte, Nebr. | 22.9 | 26.6 | 36.6 | 48.6 | 58.7 | 67.5 | 72.9 | 70.8 | 62.1 | 49.7 | 36.6 | 26.7 | 48.3 |
| Omaha, Nebr. | 21.9 | 25.5 | 37.0 | 51.2 | 62.4 | 71.6 | 76.7 | 74.4 | 66.8 | 53.4 | 38.5 | 26.4 | 50.6 |
| Concordia, Kans. | 20.4 | 29.8 | 41.0 | 53.5 | 63.2 | 73.0 | 78.0 | 76.5 | 68.3 | 55.9 | 41.4 | 30.7 | 53.1 |
| Dodge City, Kans. | 29.0 | 33.2 | 42.8 | 53.6 | 63.5 | 72.5 | 78.4 | 77.7 | 69.4 | 56.1 | 42.6 | 32.6 | 54.3 |
| Iola, Kans. | 27.6 | 32.2 | 42.4 | 54.2 | 64.5 | 73.4 | 78.1 | 76.3 | 68.6 | 56.9 | 43.0 | 32.5 | 51.1 |
| Washington, D. C. | 33.4 | 38.3 | 42.6 | 53.3 | 63.7 | 72.2 | 76.8 | 75.0 | 68.1 | 57.4 | 45.2 | 36.6 | 55.0 |
| Lynchburg, Va. | 37.5 | 40.3 | 47.3 | 57.3 | 67.3 | 74.6 | 77.5 | 75.6 | 69.0 | 58.5 | 47.2 | 39.5 | 57.6 |
| Norfolk, Va. | 42.7 | 45.2 | 56.8 | 66.2 | 74.4 | 78.7 | 77.4 | 71.6 | 62.5 | 51.4 | 43.1 | 39.5 | 59.5 |
| Parkersburg, W. Va. | 32.5 | 31.2 | 42.8 | 53.4 | 63.8 | 71.4 | 75.4 | 73.9 | 67.3 | 56.1 | 43.8 | 35.2 | 51.2 |
| Charlotte, N. C. | 41.2 | 43.9 | 50.4 | 59.8 | 68.9 | 75.5 | 79.4 | 77.1 | 71.5 | 61.7 | 50.0 | 43.0 | 60.0 |
| Charleston, S. C. | 40.9 | 52.4 | 57.4 | 64.5 | 72.7 | 78.9 | 81.4 | 81.0 | 70.6 | 67.7 | 58.1 | 51.7 | 61.0 |
| Atlanta, Ga. | 42.6 | 45.3 | 52.0 | 61.0 | 69.9 | 76.0 | 78.1 | 77.0 | 72.4 | 63.0 | 52.1 | 44.7 | 61.2 |
| Thomasville, Ga. | 51.0 | 55.0 | 60.2 | 66.7 | 74.0 | 79.5 | 81.8 | 81.0 | 76.8 | 68.2 | 58.5 | 52.5 | 67.1 |
| Jacksonville, Fla. | 55.4 | 58.0 | 62.6 | 68.7 | 75.0 | 79.9 | 82.1 | 81.7 | 78.3 | 71.1 | 62.2 | 56.3 | 69.3 |
| Miami, Fla. | 67.3 | 68.8 | 72.0 | 74.2 | 78.6 | 80.4 | 81.9 | 82.0 | 81.5 | 77.8 | 72.0 | 68.0 | 75.4 |
| Memphis, Tenn. | 40.9 | 44.3 | 52.3 | 61.8 | 70.6 | 77.6 | 80.7 | 79.4 | 73.6 | 63.3 | 51.7 | 43.6 | 61.0 |
| Nashville, Tenn. | 38.6 | 41.6 | 40.2 | 59.0 | 68.2 | 75.6 | 79.1 | 77.8 | 71.8 | 61.0 | 49.0 | 41.0 | 59.3 |
| Birmingham, Ala. | 45.1 | 48.0 | 55.4 | 63.3 | 71.1 | 77.9 | 82.2 | 79.2 | 74.8 | 64.8 | 53.9 | 46.4 | 63.3 |
| Mobile, Ala. | 51.5 | 54.7 | 59.7 | 67.6 | 74.4 | 80.3 | 81.4 | 81.0 | 78.1 | 69.3 | 58.6 | 52.2 | 67.3 |
| New Orleans, La. | 54.2 | 57.3 | 62.8 | 68.8 | 75.4 | 80.6 | 82.4 | 82.2 | 79.2 | 71.0 | 61.6 | 55.6 | 69.3 |
| Shreveport, La. | 47.0 | 50.9 | 58.3 | 65.8 | 73.0 | 80.7 | 82.2 | 82.0 | 76.9 | 66.6 | 56.0 | 49.1 | 65.8 |
| Amarillo, Tex. | 35.3 | 38.1 | 46.9 | 55.8 | 64.1 | 72.8 | 76.8 | 75.7 | 69.3 | 57.7 | 45.5 | 37.0 | 56.3 |
| Brownsville, Tex. | 59.8 | 62.6 | 68.2 | 73.7 | 78.6 | 82.4 | 83.6 | 83.9 | 80.6 | 74.9 | 67.2 | 61.2 | 73.1 |
| El Paso, Tex. | 45.0 | 49.0 | 55.8 | 63.4 | 71.5 | 79.6 | 81.1 | 79.2 | 73.9 | 63.5 | 52.7 | 44.9 | 63.3 |
| Fort Worth, Tex. | 45.4 | 48.3 | 57.7 | 66.0 | 72.3 | 79.9 | 83.6 | 83.0 | 78.9 | 67.7 | 55.5 | 47.5 | 65.2 |
| Galveston, Tex. | 53.8 | 56.3 | 62.4 | 68.7 | 74.8 | 80.7 | 83.4 | 83.0 | 80.1 | 72.7 | 63.3 | 56.4 | 69.6 |
| San Antonio, Tex. | 52.3 | 55.4 | 62.8 | 69.1 | 75.1 | 81.0 | 83.8 | 83.5 | 79.0 | 70.5 | 60.3 | 53.7 | 68.9 |
| Oklahoma City, Okla. | 46.4 | 39.6 | 50.0 | 59.8 | 67.7 | 76.0 | 80.6 | 79.7 | 72.8 | 61.5 | 48.8 | 39.3 | 59.4 |
| Little Rock, Ark. | 41.4 | 44.9 | 53.0 | 62.1 | 70.3 | 77.4 | 80.9 | 79.8 | 74.1 | 63.6 | 52.1 | 44.2 | 62.0 |
| Harve, Mont. | 12.9 | 13.6 | 27.1 | 43.7 | 53.4 | 62.0 | 68.3 | 65.4 | 56.4 | 44.5 | 31.2 | 20.4 | 41.6 |
| Kalspell, Mont. | 20.4 | 23.3 | 32.9 | 43.6 | 51.4 | 57.7 | 64.1 | 62.8 | 53.5 | 43.5 | 32.4 | 24.9 | 42.5 |
| Cheyenne, Wyo. | 25.5 | 27.3 | 33.1 | 40.9 | 50.3 | 60.4 | 66.7 | 65.6 | 57.0 | 44.8 | 34.8 | 28.5 | 44.6 |
| Sheridan, Wyo. | 18.9 | 22.4 | 32.7 | 43.4 | 50.7 | 61.1 | 67.3 | 65.4 | 56.3 | 43.7 | 32.8 | 22.1 | 43.1 |
| Pueblo, Colo. | 29.9 | 32.9 | 41.6 | 50.1 | 59.2 | 69.0 | 74.2 | 72.7 | 64.6 | 52.0 | 39.4 | 31.5 | 51.4 |
| Santa Fe, N. Mex. | 28.8 | 33.1 | 39.7 | 46.7 | 55.7 | 64.8 | 69.0 | 67.4 | 60.9 | 50.4 | 38.9 | 30.7 | 48.8 |
| Phoenix, Ariz. | 51.2 | 55.1 | 60.7 | 67.0 | 75.0 | 84.5 | 89.8 | 88.5 | 82.7 | 70.6 | 59.7 | 52.0 | 69.7 |
| Modena, Utah | 26.7 | 31.0 | 38.2 | 46.0 | 53.5 | 63.3 | 70.7 | 69.2 | 62.0 | 48.0 | 36.4 | 28.1 | 47.6 |
| Salt Lake City, Utah | 29.2 | 33.8 | 41.7 | 49.6 | 57.4 | 67.4 | 75.7 | 74.5 | 64.4 | 52.5 | 41.1 | 31.9 | 51.6 |
| Winnemucca, Nev. | 28.6 | 33.5 | 40.0 | 46.7 | 53.9 | 62.8 | 70.6 | 69.3 | 63.2 | 48.3 | 38.4 | 30.0 | 48.4 |
| Boise, Idaho | 29.8 | 34.8 | 42.7 | 50.4 | 57.1 | 65.3 | 72.9 | 71.8 | 61.0 | 51.1 | 41.0 | 32.1 | 50.9 |
| Seattle, Wash. | 39.5 | 41.1 | 44.9 | 49.4 | 54.5 | 60.0 | 63.1 | 63.1 | 58.1 | 51.4 | 45.6 | 41.7 | 51.0 |
| Walla Walla, Wash. | 32.7 | 37.1 | 46.1 | 53.1 | 59.6 | 66.5 | 74.0 | 72.7 | 63.8 | 53.5 | 42.8 | 35.5 | 53.1 |
| Portland, Oreg. | 39.4 | 42.1 | 46.9 | 51.8 | 58.9 | 62.4 | 66.7 | 66.7 | 61.7 | 54.2 | 46.8 | 41.2 | 53.1 |
| Roseburg, Oreg. | 41.2 | 43.4 | 47.1 | 51.0 | 56.0 | 62.5 | 67.4 | 68.0 | 62.9 | 53.9 | 45.9 | 41.8 | 53.4 |
| Eureka, Calif. | 46.9 | 47.2 | 48.3 | 49.9 | 52.0 | 54.3 | 55.5 | 56.0 | 55.9 | 53.6 | 51.1 | 48.2 | 51.6 |
| Fresno, Calif. | 46.2 | 51.1 | 55.0 | 60.2 | 67.1 | 75.8 | 82.1 | 80.1 | 73.4 | 64.0 | 54.2 | 46.2 | 63.0 |
| Los Angeles, Calif. | 54.6 | 55.5 | 57.5 | 59.4 | 62.2 | 66.4 | 70.2 | 71.7 | 69.0 | 65.3 | 60.9 | 56.6 | 62.4 |
| Sacramento, Calif. | 45.8 | 50.1 | 54.3 | 58.1 | 63.3 | 69.4 | 73.2 | 72.9 | 69.3 | 62.9 | 53.6 | 46.2 | 59.9 |
| San Diego, Calif. | 54.3 | 55.1 | 58.7 | 58.5 | 60.8 | 63.9 | 67.2 | 68.7 | 67.1 | 63.7 | 59.7 | 56.0 | 61.0 |
| San Francisco, Calif. | 49.9 | 52.2 | 54.2 | 55.0 | 56.8 | 58.5 | 58.5 | 59.1 | 60.9 | 60.5 | 56.3 | 51.3 | 56.1 |

Weather Bureau.

¹ Normals are based on records of 30 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925

| Station | Normal for Jan. | January total precipitation | | | | | | | | | | | | |
|-----------------------|-----------------------|-----------------------------|------|-------|------|------|------|-------|------|------|------|------|-------|--|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | |
| Greenville, Me. | 2.85 | 3.39 | 3.03 | 2.35 | 3.95 | 2.49 | 2.85 | 2.84 | 1.48 | 2.02 | 4.58 | 2.55 | 2.95 | |
| Boston, Mass. | 3.82 | 3.26 | 3.33 | 1.23 | 2.82 | 3.11 | 3.62 | 2.72 | 2.24 | 1.41 | 6.07 | 3.27 | 3.97 | |
| Buffalo, N. Y. | 3.30 | 3.96 | 5.02 | 2.96 | 2.79 | 5.64 | 1.28 | 2.58 | .89 | 1.44 | 3.27 | 2.18 | 2.27 | |
| Canton, N. Y. | 3.16 | 1.70 | 3.05 | 2.52 | 3.33 | 2.37 | 1.37 | 1.69 | 1.22 | 1.82 | 2.86 | 4.12 | 2.56 | |
| Trenton, N. J. | 3.17 | 2.72 | 5.15 | 1.26 | 3.10 | 3.30 | 3.28 | 2.40 | 2.41 | 2.41 | 4.13 | 4.71 | 4.31 | |
| Pittsburgh, Pa. | 2.87 | 2.41 | 4.66 | 3.51 | 4.33 | 2.82 | 1.42 | 2.80 | 3.35 | 1.56 | 3.49 | 3.53 | 3.16 | |
| Scranton, Pa. | 2.80 | 2.11 | 4.09 | 2.07 | 3.15 | 4.71 | 2.44 | 2.79 | 2.02 | 1.96 | 4.24 | 3.73 | 2.95 | |
| Cincinnati, Ohio. | 3.36 | 2.37 | 3.85 | 5.84 | 4.74 | 4.30 | 1.44 | 3.48 | 1.72 | 2.07 | 4.64 | 4.09 | 1.91 | |
| Cleveland, Ohio. | 2.45 | 1.61 | 2.52 | 2.40 | 2.55 | 2.60 | .63 | 1.96 | 1.53 | 1.52 | 6.01 | 3.98 | 1.49 | |
| Evansville, Ind. | 3.69 | 1.92 | 6.65 | 5.73 | 4.93 | 5.00 | 1.14 | 3.64 | 1.80 | 1.57 | 5.43 | 3.16 | 1.43 | |
| Indianapolis, Ind. | 2.81 | 2.76 | 3.31 | 6.55 | 3.40 | 2.89 | .91 | 2.01 | 2.85 | 1.26 | 2.73 | 3.13 | .49 | |
| Chicago, Ill. | 2.00 | 3.01 | 1.99 | 4.84 | 1.55 | 4.12 | .20 | 1.11 | .97 | 1.16 | .92 | 1.32 | .68 | |
| Peoria, Ill. | 2.20 | 1.93 | 1.89 | 5.95 | 1.86 | 1.58 | .07 | .93 | 1.39 | 1.69 | 1.10 | 1.72 | .48 | |
| Grand Rapids, Mich. | 2.78 | 3.24 | 1.57 | 3.90 | 1.40 | 3.24 | .30 | 1.19 | .59 | .71 | 1.25 | 2.00 | .59 | |
| Marquette, Mich. | 2.04 | 2.63 | 2.41 | 3.05 | 1.20 | 4.77 | 2.21 | 1.84 | 2.28 | 1.94 | 2.84 | 3.65 | .98 | |
| Madison, Wis. | 1.56 | .70 | 2.05 | 3.07 | 1.04 | 2.09 | .26 | .84 | .22 | .63 | 1.25 | .56 | .41 | |
| Duluth, Minn. | .98 | 1.75 | 1.84 | 3.48 | .80 | .94 | .46 | 1.13 | .18 | .51 | 1.60 | .25 | .27 | |
| St. Paul, Minn. | .90 | 1.05 | 1.19 | 2.60 | 1.79 | .51 | .44 | 1.80 | .59 | .90 | 1.12 | .97 | .58 | |
| Des Moines, Iowa. | 1.21 | .85 | 1.96 | 2.66 | .53 | .78 | .08 | .44 | .59 | .85 | .88 | 1.02 | .23 | |
| Dubuque, Iowa. | 1.49 | .78 | .01 | 2.46 | .85 | 1.83 | .17 | .63 | .18 | 1.16 | .63 | .11 | .11 | |
| St. Louis, Mo. | 2.27 | 2.21 | 2.83 | 8.53 | 1.72 | 1.31 | .13 | 1.85 | 1.10 | .74 | 2.08 | 1.15 | .53 | |
| Springfield, Mo. | 2.06 | 1.80 | 2.35 | 9.31 | 1.46 | 1.96 | .34 | 2.36 | 1.36 | 1.38 | 3.43 | 1.50 | 1.58 | |
| Bismarck, N. Dak. | .54 | .25 | .08 | .81 | .65 | .62 | .09 | .52 | .12 | .34 | .29 | .04 | .32 | |
| Devils Lake, N. Dak. | .60 | .61 | .11 | .71 | .55 | .24 | .22 | .74 | .13 | .58 | .42 | .35 | .12 | |
| Pierre, S. Dak. | .46 | .43 | .73 | 1.05 | .84 | 1.08 | .04 | .16 | .21 | .68 | .14 | .15 | .53 | |
| North Platte, Nebr. | .47 | .18 | .51 | .85 | .74 | .54 | .03 | .07 | .68 | .66 | .11 | .08 | .07 | |
| Omaha, Nebr. | .65 | .56 | 1.87 | 2.20 | .58 | .65 | .10 | .28 | .48 | .94 | .87 | .62 | .80 | |
| Concordia, Kans. | .72 | .17 | .76 | 1.34 | .60 | .85 | .02 | .12 | .50 | .33 | .01 | .95 | .13 | |
| Dodge City, Kans. | .47 | .18 | 1.08 | .59 | .22 | .80 | .06 | .07 | .24 | .45 | .03 | .17 | .07 | |
| Iola, Kans. | .98 | .39 | 2.14 | 5.13 | .48 | .90 | .02 | .76 | 1.77 | .96 | 1.16 | .81 | .50 | |
| Washington, D. C. | 3.37 | 4.60 | 6.34 | 1.57 | 2.57 | 4.29 | 3.47 | 2.30 | 2.30 | 5.56 | 4.24 | 3.21 | 4.44 | |
| Lynchburg, Va. | 3.72 | 3.00 | 3.86 | .99 | 2.69 | 4.42 | 4.11 | 1.64 | 2.60 | 3.90 | 2.25 | 3.37 | 3.40 | |
| Norfolk, Va. | 3.37 | 2.32 | 5.66 | 2.07 | 2.28 | 2.77 | 3.10 | 2.14 | 1.55 | 3.49 | 1.74 | 1.96 | 6.22 | |
| Parkersburg, W. Va. | 3.19 | 1.55 | 3.68 | 5.34 | 5.71 | 2.24 | 2.48 | 3.83 | 3.17 | 1.91 | 4.14 | 4.70 | 2.71 | |
| Charlotte, N. C. | 4.29 | 2.78 | 5.67 | 1.66 | 3.08 | 3.82 | 5.45 | 3.81 | 5.22 | 5.24 | 3.67 | 3.98 | 6.91 | |
| Charleston, S. C. | 3.45 | 2.10 | 7.44 | 1.34 | 2.69 | 1.13 | 1.68 | 1.60 | 1.58 | 2.48 | 2.21 | 3.24 | 4.85 | |
| Atlanta, Ga. | 5.31 | 1.35 | 6.19 | 2.53 | 5.11 | 9.12 | 5.40 | 7.09 | 3.53 | 5.03 | 1.94 | 4.54 | 11.08 | |
| Thomasville, Ga. | 4.13 | 4.89 | 9.70 | 2.03 | 6.61 | 3.73 | 2.52 | 3.24 | 2.39 | 2.72 | 3.94 | 6.50 | 6.26 | |
| Jacksonville, Fla. | 3.12 | 3.31 | 4.10 | .90 | .41 | 2.78 | 1.73 | 6.21 | 2.04 | 3.21 | 1.37 | 5.09 | 4.32 | |
| Miami, Fla. | 2.73 | 1.35 | 3.64 | 1.44 | .11 | .85 | 1.07 | .41 | .73 | .55 | .21 | 2.50 | 4.78 | |
| Memphis, Tenn. | 5.23 | 1.60 | 5.69 | 7.16 | 5.37 | 5.02 | 3.77 | 6.01 | 1.84 | 2.26 | 5.05 | 1.15 | 1.63 | |
| Nashville, Tenn. | 4.85 | 1.56 | 5.89 | 7.62 | 7.27 | 7.43 | 4.71 | 7.35 | 3.11 | 2.90 | 5.89 | 5.40 | 2.70 | |
| Birmingham, Ala. | 5.32 | 1.85 | 6.44 | 5.40 | 6.79 | 8.94 | 6.21 | 5.37 | 3.72 | 6.20 | 3.82 | 5.42 | 7.58 | |
| Mobile, Ala. | 4.85 | 1.98 | 7.54 | 3.06 | 3.04 | 3.87 | 6.57 | 11.70 | 1.89 | 6.79 | 2.65 | 8.21 | 7.59 | |
| New Orleans, La. | 4.03 | 1.02 | 8.42 | 4.46 | 4.12 | 4.43 | 8.03 | 5.66 | 1.16 | 5.22 | 5.66 | 6.17 | 5.02 | |
| Shreveport, La. | 4.42 | .73 | 4.22 | 6.29 | 3.29 | 2.07 | 3.28 | 7.06 | 4.18 | 5.73 | 4.32 | 4.24 | 4.55 | |
| Amarillo, Tex. | .60 | .06 | .72 | .36 | .69 | 1.01 | T. | 1.11 | 2.10 | .78 | .0 | .13 | .51 | |
| Brownsville, Tex. | 1.35 | .10 | 3.35 | .19 | .28 | .08 | 4.56 | 1.13 | 2.26 | 1.51 | .13 | 3.42 | .42 | |
| El Paso, Tex. | .51 | .03 | 1.01 | .66 | .32 | 1.20 | .08 | 1.06 | .06 | .30 | .64 | .40 | .03 | |
| Fort Worth, Tex. | 1.51 | .43 | 1.32 | 4.01 | 1.43 | 1.36 | 3.03 | 3.48 | 2.87 | 1.63 | 4.60 | .89 | 1.44 | |
| Galveston, Tex. | 3.02 | .34 | 4.52 | .86 | 2.21 | .54 | 6.22 | 7.09 | 2.77 | 4.84 | 6.99 | 5.87 | 4.54 | |
| San Antonio, Tex. | 1.68 | .09 | .63 | 2.25 | .95 | 1.10 | 3.78 | 3.36 | 1.40 | 1.23 | .46 | .97 | .36 | |
| Oklahoma City, Okla. | 1.34 | .05 | .78 | 4.28 | .37 | .95 | .29 | 2.09 | 2.20 | 1.15 | 2.74 | .18 | .42 | |
| Little Rock, Ark. | 4.74 | 1.35 | 4.52 | 8.45 | 2.53 | 5.51 | 2.72 | 2.19 | 1.52 | 1.90 | 7.42 | 3.56 | 1.51 | |
| Havre, Mont. | .69 | .84 | .67 | 1.75 | .97 | 1.19 | .40 | 1.14 | 1.12 | .42 | 1.12 | .48 | .39 | |
| Kalispell, Mont. | 1.59 | 1.31 | 1.19 | 1.95 | 1.05 | 1.82 | .72 | .85 | 1.29 | .74 | 1.07 | .91 | .88 | |
| Cheyenne, Wyo. | .40 | .10 | .08 | .63 | .30 | .47 | T. | .20 | 1.47 | .47 | .06 | .38 | .03 | |
| Sheridan, Wyo. | .90 | .35 | 2.08 | .92 | .84 | 2.21 | .33 | .81 | .54 | 1.27 | .57 | .98 | .25 | |
| Pueblo, Colo. | .35 | .18 | .18 | .22 | .22 | .61 | .03 | .29 | .30 | .39 | T. | .41 | .72 | |
| Santa Fe, N. Mex. | .59 | .19 | 1.95 | 3.02 | .55 | 1.63 | .12 | .31 | 1.35 | .64 | .12 | .13 | .89 | |
| Phoenix, Ariz. | 1.17 | .30 | 1.79 | 2.34 | 2.20 | 1.14 | .22 | 1.42 | .13 | 1.29 | .28 | 0 | .03 | |
| Modena, Utah. | .73 | 1.42 | 1.12 | 3.47 | 1.06 | .11 | .32 | .44 | 1.27 | 1.72 | 1.40 | .17 | .05 | |
| Salt Lake City, Utah. | 1.35 | 3.08 | .72 | 1.96 | .91 | 3.89 | T. | 1.24 | 1.44 | 1.42 | 1.90 | .49 | .60 | |
| Winnemucca, Nev. | 1.04 | 1.99 | .49 | 2.21 | .90 | 1.04 | .10 | .89 | .46 | 1.15 | .91 | .06 | .53 | |
| Boise, Idaho. | 1.89 | 1.06 | 1.06 | 1.93 | 1.10 | 2.27 | .85 | .66 | 1.57 | .90 | 1.62 | .40 | 2.00 | |
| Seattle, Wash. | 4.84 | 0.82 | 3.65 | 4.32 | 2.02 | 2.94 | 7.95 | 3.82 | 5.56 | 1.89 | 7.51 | 4.10 | 4.97 | |
| Walla Walla, Wash. | 2.01 | 2.62 | .75 | 2.79 | 1.05 | 2.29 | 2.12 | 1.55 | 1.87 | 1.54 | 1.85 | 1.16 | 1.26 | |
| Portland, Oreg. | 6.59 | 11.53 | 5.90 | 5.08 | 2.54 | 4.68 | 9.06 | 4.84 | 7.82 | 3.08 | 9.57 | 3.94 | 6.94 | |
| Eureka, Oreg. | 5.70 | 7.19 | 2.93 | 6.15 | 2.25 | 3.56 | 7.33 | 1.51 | 4.12 | 3.68 | 5.69 | 1.43 | 4.26 | |
| Fresno, Calif. | 7.63 | 9.75 | 9.75 | 13.02 | 5.53 | 2.55 | 7.84 | 1.87 | 8.37 | 2.54 | 3.88 | 1.95 | 3.97 | |
| Los Angeles, Calif. | 1.60 | 9.44 | 2.78 | 5.17 | 1.40 | .47 | .40 | .69 | 2.63 | 2.46 | 1.10 | .54 | .95 | |
| Sacramento, Calif. | 2.84 | 10.35 | 5.42 | 13.30 | 2.68 | .50 | .96 | .50 | 3.22 | 4.64 | 1.76 | .36 | .20 | |
| San Francisco, Calif. | 3.09 | 5.97 | 3.73 | 9.35 | 1.30 | .97 | 1.77 | .29 | 4.61 | 2.16 | 2.05 | 1.80 | 1.02 | |
| San Diego, Calif. | 2.00 | 3.59 | 4.91 | 7.56 | 4.32 | 1.64 | .61 | .43 | 2.02 | 3.45 | 1.34 | .26 | .08 | |
| San Francisco, Calif. | 4.33 | 9.76 | 6.74 | 14.59 | 1.83 | .81 | 2.57 | .26 | 3.60 | 2.41 | 2.84 | 2.75 | 1.02 | |

T—Trace, indicates an amount too small to measure.

¹ Normals are based on records of 20 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued

| Station | Normal for Feb. | February total precipitation | | | | | | | | | | | |
|-----------------------|-----------------|------------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | 2.75 | 1.82 | 4.36 | 3.34 | 1.90 | 2.47 | 2.27 | 4.52 | 2.22 | 2.77 | 2.15 | 2.24 | 3.56 |
| Boston, Mass. | 3.44 | 3.07 | 3.47 | 5.18 | 2.67 | 2.30 | 2.66 | 5.88 | 2.64 | 2.64 | 1.48 | 2.61 | 1.55 |
| Buffalo, N. Y. | 2.85 | 1.95 | 2.30 | 3.64 | 1.97 | 2.46 | 1.61 | 2.35 | 2.50 | 2.01 | 1.24 | 2.65 | 2.90 |
| Canton, N. Y. | 2.57 | 1.16 | 2.43 | 4.12 | 1.63 | 3.73 | 1.65 | 2.21 | 1.39 | 2.92 | 1.67 | 2.02 | 3.16 |
| Trenton, N. J. | 3.19 | 3.00 | 4.40 | 3.16 | 1.47 | 1.84 | 3.25 | 4.27 | 3.44 | 2.25 | 2.68 | 3.44 | 2.01 |
| Pittsburgh, Pa. | 2.66 | 3.13 | 2.24 | 2.61 | .99 | 1.87 | 1.58 | 1.62 | 1.80 | 1.57 | 2.18 | 2.59 | 1.91 |
| Scranton, Pa. | 2.72 | 5.23 | 2.70 | 4.48 | 1.84 | 1.26 | 2.13 | 4.74 | 2.84 | 1.55 | 1.58 | 2.07 | 1.79 |
| Cincinnati, Ohio | 3.24 | 4.80 | .94 | 1.73 | 1.50 | 1.61 | 1.05 | 1.30 | 2.25 | 1.68 | 1.81 | 1.70 | 2.38 |
| Cleveland, Ohio | 2.61 | 1.84 | 2.02 | 1.52 | 1.22 | 1.48 | 1.11 | 1.12 | 2.19 | 1.31 | 1.39 | 1.50 | 2.42 |
| Evansville, Ind. | 3.06 | 4.56 | 1.24 | 1.64 | 1.13 | .38 | 1.30 | .82 | 4.69 | 2.88 | 4.45 | 1.55 | 2.99 |
| Indianapolis, Ind. | 3.08 | 2.02 | 1.11 | 1.32 | 1.15 | .49 | 1.35 | 1.35 | 1.28 | 1.46 | 1.70 | 1.44 | 1.64 |
| Chicago, Ill. | 2.16 | .93 | 1.92 | .87 | .67 | 2.81 | 2.78 | .13 | .38 | .74 | 1.05 | 1.68 | 1.62 |
| Peoria, Ill. | 2.69 | 1.36 | 2.71 | .29 | .27 | 1.64 | 2.32 | .27 | .29 | 1.98 | .83 | 1.64 | 1.99 |
| Grand Rapids, Mich. | 1.91 | .75 | 2.59 | .74 | .67 | 3.81 | 2.16 | .85 | 1.13 | 2.25 | .99 | 1.41 | 1.31 |
| Marquette, Mich. | 1.72 | 1.55 | 2.47 | 1.34 | 1.59 | 2.12 | 1.50 | 1.05 | 1.29 | 3.00 | 1.21 | 2.18 | .77 |
| Madison, Wis. | 1.47 | .92 | 2.30 | .39 | .64 | 1.30 | 2.12 | .51 | .32 | 3.00 | .93 | 1.06 | 1.17 |
| Duluth, Minn. | .99 | .64 | 1.50 | .36 | .81 | .28 | .94 | .45 | .45 | 4.24 | .92 | .60 | .71 |
| St. Paul, Minn. | .84 | .49 | 2.21 | .39 | .44 | .69 | 2.52 | .57 | .46 | 3.69 | .50 | .58 | .62 |
| Des Moines, Iowa | 1.08 | 1.24 | 3.20 | .61 | .52 | 1.45 | 3.00 | .74 | .92 | .64 | .36 | 1.98 | .60 |
| Dubuque, Iowa | 1.38 | 1.16 | 2.48 | .76 | .17 | 1.37 | 2.87 | .47 | .29 | 1.44 | .40 | .74 | 1.08 |
| St. Louis, Mo. | 2.75 | 4.63 | 2.30 | 1.78 | .35 | 2.09 | 1.54 | .74 | 1.08 | 1.52 | 1.50 | 1.29 | 2.19 |
| Springfield, Mo. | 2.27 | 2.26 | 2.66 | .57 | .47 | .64 | 2.44 | .42 | .85 | 2.02 | 1.27 | 1.23 | 1.06 |
| Bismarck, N. Dak. | .60 | .36 | .03 | .39 | .44 | .28 | .63 | .20 | .15 | 1.55 | .46 | .28 | .05 |
| Devils Lake, N. Dak. | .53 | .16 | .24 | .42 | .68 | .14 | .70 | .12 | .28 | .64 | .73 | .30 | .49 |
| Pierre, S. Dak. | .44 | 1.35 | 1.81 | .31 | .37 | .63 | 1.29 | .26 | .05 | .49 | .04 | .89 | .34 |
| North Platte, Nebr. | .40 | .98 | 1.11 | .81 | .35 | .25 | 1.50 | .72 | .36 | .05 | .14 | .36 | .51 |
| Omaha, Nebr. | .76 | .87 | 2.62 | .54 | .20 | 1.05 | 2.07 | .83 | .69 | .91 | .08 | .98 | .61 |
| Concordia, Kans. | .75 | .82 | 3.44 | .41 | .07 | .63 | 2.36 | .73 | .06 | 1.12 | .38 | .26 | .11 |
| Dodge City, Kans. | .71 | .47 | 1.37 | .06 | .04 | .29 | 1.50 | .09 | .69 | 1.73 | .03 | .71 | .21 |
| Iola, Kans. | 1.11 | 3.60 | 4.26 | .97 | .07 | .91 | .95 | .15 | .09 | 1.26 | .43 | 1.18 | .63 |
| Washington, D. C. | 3.42 | 3.05 | 3.60 | 2.84 | 1.97 | .83 | 2.01 | 3.47 | 2.29 | 2.86 | 2.19 | 3.05 | .96 |
| Lynchburg, Va. | 3.49 | 2.77 | 2.88 | 2.92 | 1.66 | .53 | 2.23 | 4.03 | 2.60 | 3.32 | 2.38 | 1.87 | 1.04 |
| Norfolk, Va. | 3.75 | 3.67 | 1.71 | 4.03 | 1.88 | .26 | 2.15 | 6.38 | 3.02 | 4.85 | 2.01 | 3.15 | 1.31 |
| Parkersburg, W. Va. | 3.24 | 3.67 | 1.40 | 2.75 | 2.44 | 2.81 | 1.76 | 2.16 | 2.18 | 1.57 | 2.32 | 3.07 | 2.09 |
| Charlotte, N. C. | 4.39 | 4.03 | 2.89 | 5.87 | 3.78 | 1.62 | 4.85 | 3.54 | 4.61 | 7.12 | 4.25 | 4.18 | 1.91 |
| Charleston, S. C. | 3.41 | 6.87 | 2.53 | 1.47 | 2.07 | 1.31 | 5.51 | 2.01 | 1.26 | 5.63 | 1.03 | 1.57 | 1.84 |
| Atlanta, Ga. | 4.65 | 3.34 | 4.50 | 3.19 | 5.81 | 1.82 | 4.41 | 5.67 | 7.37 | 6.55 | 7.47 | 2.97 | 1.70 |
| Thomasville, Ga. | 4.48 | 12.12 | 3.44 | 1.88 | 3.74 | 2.27 | 8.86 | 5.77 | 1.27 | 4.64 | 3.35 | 4.31 | 1.88 |
| Jacksonville, Fla. | 3.43 | 4.55 | 2.44 | .19 | 1.46 | .21 | 3.77 | 9.16 | .62 | 5.56 | 1.93 | 2.65 | .90 |
| Miami, Fla. | 2.13 | 1.21 | 3.01 | 3.69 | .45 | 2.51 | 3.20 | 1.60 | 1.15 | 3.14 | .24 | 1.69 | 1.27 |
| Memphis, Tenn. | 4.35 | 3.15 | 2.31 | 2.27 | 1.97 | 2.24 | 2.66 | 2.07 | 6.09 | 3.30 | 4.61 | 2.52 | 4.52 |
| Nashville, Tenn. | 4.32 | 2.03 | 1.01 | 1.19 | 2.76 | 1.54 | 2.19 | 1.92 | 4.70 | 3.89 | 4.36 | 3.44 | 4.88 |
| Birmingham, Ala. | 4.75 | 2.66 | 1.95 | 3.23 | 5.89 | 1.94 | 5.22 | 3.06 | 7.32 | 5.02 | 5.87 | 5.89 | 3.32 |
| Mobile, Ala. | 5.36 | 7.59 | 4.91 | 3.20 | 4.95 | 3.33 | 7.49 | 4.93 | 1.41 | 5.65 | 4.58 | 4.37 | 2.53 |
| New Orleans, La. | 4.47 | 6.43 | 4.23 | 2.76 | 3.19 | 2.21 | 6.52 | 3.60 | 1.94 | 3.25 | 2.33 | 5.53 | 1.64 |
| Shreveport, La. | 3.61 | 4.86 | 4.15 | .01 | 2.10 | .16 | 3.46 | 1.43 | 1.91 | 5.40 | 6.21 | 3.83 | .83 |
| Amarillo, Tex. | .83 | 1.0 | 1.60 | .02 | .22 | .26 | .73 | .18 | 1.19 | 1.44 | 1.71 | .56 | .06 |
| Brownsville, Tex. | 1.27 | 2.28 | .04 | .08 | .20 | .81 | 1.08 | .75 | .65 | 3.17 | 7.64 | .87 | .10 |
| El Paso, Tex. | .46 | .53 | .69 | .02 | T. | .31 | .20 | .83 | .26 | T. | 1.41 | 1.13 | .05 |
| Fort Worth, Tex. | 1.62 | 1.17 | 2.18 | .01 | 1.47 | .01 | 2.03 | .76 | 2.62 | 2.00 | 2.05 | 1.97 | .74 |
| Galveston, Tex. | 3.10 | 3.31 | 2.65 | .19 | 2.51 | 1.11 | 2.43 | 1.80 | .30 | 3.03 | 5.09 | 5.67 | .20 |
| San Antonio, Tex. | 1.78 | 1.38 | 1.81 | .01 | .49 | 1.10 | 1.56 | .27 | .23 | 1.26 | .57 | 3.02 | .09 |
| Oklahoma City, Okla. | .98 | .86 | 3.10 | .39 | .84 | .07 | 1.52 | .19 | 1.23 | .64 | .20 | .54 | .69 |
| Little Rock, Ark. | 4.18 | 2.85 | 2.52 | 2.05 | 1.72 | .98 | 3.55 | 1.16 | 6.86 | 3.65 | 6.42 | 1.64 | 3.78 |
| Havre, Mont. | .47 | 1.04 | .44 | .47 | .90 | .40 | .97 | .42 | .15 | .70 | .32 | .43 | .53 |
| Kalispell, Mont. | 1.46 | 1.68 | 1.01 | 1.06 | 1.82 | .90 | 1.69 | .26 | .66 | .60 | .94 | .51 | .38 |
| Cheyenne, Wyo. | .56 | .23 | .97 | .30 | .89 | .26 | .69 | .36 | .85 | .57 | 1.14 | .29 | .29 |
| Beridan, Wyo. | .74 | 1.25 | .17 | 1.17 | .37 | .19 | .20 | .94 | .11 | .21 | .59 | 1.09 | .82 |
| Pueblo, Colo. | .47 | .36 | .57 | T. | .49 | .79 | .86 | .39 | .67 | .87 | .76 | .12 | .23 |
| Santa Fe, N. Mex. | .84 | .63 | .77 | .20 | .23 | 1.14 | .69 | .12 | .33 | .51 | .26 | .24 | .30 |
| Phoenix, Ariz. | .69 | .71 | 1.21 | .13 | .95 | .45 | .75 | 1.16 | .11 | .42 | .46 | T. | .02 |
| Modena, Utah | 1.20 | .98 | 2.56 | .52 | .83 | .97 | 1.19 | 1.67 | .16 | .89 | .95 | .09 | .62 |
| Salt Lake City, Utah | 1.38 | .98 | 2.00 | 1.18 | 1.22 | 1.41 | 2.11 | 1.14 | 1.06 | 2.36 | .35 | .78 | 1.72 |
| Winnemucca, Nev. | .93 | .51 | 1.13 | 1.44 | .20 | .79 | 1.52 | .24 | .37 | 2.10 | .13 | .57 | .96 |
| Boise, Idaho | 1.42 | .98 | 1.95 | 3.21 | 1.21 | .88 | 1.79 | .35 | 1.23 | 1.00 | .21 | 1.13 | 1.27 |
| Seattle, Wash. | 3.77 | 1.93 | 2.76 | 6.85 | 1.43 | 4.81 | 3.77 | .34 | 4.82 | 1.74 | 2.72 | 5.66 | 4.94 |
| Walla Walla, Wash. | 1.58 | 1.59 | 1.79 | 3.34 | 1.12 | 1.30 | 1.93 | .10 | 2.21 | .97 | 1.80 | 1.96 | 1.01 |
| Portland, Oreg. | 5.42 | 4.19 | 3.07 | 7.87 | 3.32 | 6.77 | 8.36 | .16 | 7.21 | 3.29 | 1.81 | 5.21 | 6.46 |
| Roseburg, Oreg. | 4.56 | 2.21 | 3.33 | 5.01 | 4.90 | 4.96 | 8.05 | .17 | 4.31 | 3.70 | 1.41 | 1.89 | 5.05 |
| Eureka, Calif. | 7.03 | 4.20 | 12.39 | 6.18 | 5.10 | 6.29 | 8.18 | 2.11 | 7.45 | 9.75 | .80 | 3.19 | 6.49 |
| Fresno, Calif. | 1.33 | 1.81 | 3.47 | 1.67 | 1.07 | 4.59 | 1.36 | 1.54 | .61 | 2.19 | .74 | .31 | 1.43 |
| Los Angeles, Calif. | 2.91 | 7.04 | 5.09 | 1.82 | 4.49 | 6.14 | 1.22 | 2.37 | .86 | 8.47 | .75 | .08 | .58 |
| Sacramento, Calif. | 3.14 | 2.94 | 4.24 | 2.45 | 4.07 | 2.36 | 6.25 | .85 | .54 | 1.16 | .36 | 2.00 | 4.45 |
| San Diego, Calif. | 1.96 | 1.90 | 3.62 | .66 | 1.84 | 1.62 | 1.46 | 2.87 | .35 | 1.86 | 1.53 | T. | .30 |
| San Francisco, Calif. | 3.70 | 5.04 | 7.36 | 3.77 | 3.81 | 5.79 | 9.31 | 1.23 | 1.38 | 5.15 | .77 | 3.30 | 7.90 |

T=Trace, indicates an amount too small to measure.

¹Normals are based on records of 20 or more years of observations.

TABLE 796.—*Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued*

| Station | Normal for Mar. | March total precipitation | | | | | | | | | | | |
|-----------------------|-----------------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> |
| Greenville, Me. | 3.76 | 4.15 | 0.24 | 2.35 | 3.90 | 2.19 | 4.03 | 2.85 | 1.95 | 2.96 | 3.02 | 1.36 | 4.13 |
| Boston, Mass. | 4.08 | 4.16 | T. | 3.20 | 3.73 | 3.19 | 4.11 | 3.72 | 1.92 | 4.35 | 2.49 | 2.04 | 5.21 |
| Buffalo, N. Y. | 2.62 | 4.18 | 1.38 | 2.52 | 2.69 | 2.45 | 2.47 | 1.57 | 3.40 | 3.61 | 1.70 | 1.41 | 2.35 |
| Canton, N. Y. | 2.84 | 3.08 | .51 | 1.60 | 1.98 | 1.37 | 3.97 | 2.26 | 3.32 | 3.21 | .97 | .95 | 3.67 |
| Trenton, N. J. | 4.04 | 3.28 | 1.37 | 2.61 | 3.45 | 2.02 | 4.64 | 3.81 | 2.42 | 3.89 | 3.70 | 2.12 | 3.59 |
| Pittsburgh, Pa. | 3.01 | 2.12 | 1.26 | 3.63 | 3.36 | 1.25 | 1.89 | 1.77 | 3.36 | 5.84 | 2.15 | 4.15 | 1.61 |
| Scranton, Pa. | 3.12 | 5.05 | 1.21 | 5.74 | 2.99 | 2.23 | 3.02 | 3.60 | 3.17 | 4.02 | 1.65 | .93 | 2.11 |
| Cincinnati, Ohio | 3.64 | 2.40 | 1.64 | 3.34 | 4.06 | 2.28 | 5.27 | 4.20 | 6.60 | 6.56 | 5.30 | 4.16 | 2.26 |
| Cleveland, Ohio | 2.79 | 2.10 | .92 | 2.29 | 2.14 | 2.38 | 2.67 | 1.49 | 4.39 | 4.02 | 1.89 | 1.65 | 2.95 |
| Evansville, Ind. | 4.60 | 3.12 | 1.08 | 2.56 | 3.03 | .95 | 5.05 | 6.10 | 4.52 | 8.20 | 2.48 | 1.76 | 2.44 |
| Indianapolis, Ind. | 4.01 | 1.82 | 1.47 | 2.44 | 4.75 | 1.58 | 6.72 | 4.57 | 7.25 | 7.16 | 4.41 | 4.72 | 2.37 |
| Chicago, Ill. | 2.55 | 1.87 | .60 | 2.48 | 2.11 | .91 | 4.32 | 4.64 | 4.90 | 5.58 | 3.05 | 3.72 | 1.51 |
| Peoria, Ill. | 2.96 | 1.60 | .67 | 2.33 | 2.26 | .91 | 4.52 | 5.84 | 4.89 | 5.09 | 4.08 | 2.28 | 1.58 |
| Grand Rapids, Mich. | 2.52 | 1.59 | 1.13 | 3.16 | 1.87 | 2.37 | 4.93 | 3.42 | 4.77 | 3.18 | 2.36 | 2.08 | 1.39 |
| Marquette, Mich. | 2.08 | 2.03 | 1.60 | 3.36 | 2.97 | 1.13 | .92 | 3.34 | 2.95 | 2.72 | 3.24 | 2.80 | .26 |
| Madison, Wis. | 2.21 | 1.15 | .87 | 2.93 | 2.00 | 2.17 | 2.17 | 4.07 | 1.81 | 2.01 | 4.14 | 2.84 | 1.45 |
| Duluth, Minn. | 1.55 | 1.56 | .36 | 2.48 | 4.97 | .50 | 1.16 | 2.28 | 1.76 | 2.60 | 1.28 | .42 | .66 |
| St. Paul, Minn. | 1.60 | .93 | .99 | 1.26 | 2.09 | .88 | .81 | 2.91 | 2.51 | 1.41 | 1.33 | 2.83 | .39 |
| Des Moines, Iowa. | 1.65 | 1.18 | 1.16 | .60 | 2.30 | .29 | 3.67 | 2.92 | 1.07 | 2.25 | 4.34 | 3.10 | .88 |
| Dubuque, Iowa. | 2.21 | 1.74 | 1.74 | 3.91 | 1.56 | 2.12 | 2.24 | 3.04 | 2.05 | 1.65 | 2.93 | 2.85 | 1.03 |
| St. Louis, Mo. | 3.43 | 1.25 | .44 | 1.83 | 1.80 | .67 | 1.72 | 3.97 | 6.14 | 4.84 | 4.26 | 3.21 | 1.50 |
| Springfield, Mo. | 4.07 | 3.37 | 2.23 | 2.42 | 2.31 | 1.33 | 2.23 | 4.90 | 7.35 | 6.45 | 2.40 | 2.77 | 1.07 |
| Bismarck, N. Dak. | 1.04 | 1.23 | .35 | 3.27 | .60 | .85 | 1.17 | 1.21 | 1.00 | .70 | .28 | .68 | .46 |
| Devils Lake, N. Dak. | 1.01 | .76 | .09 | 1.09 | .30 | .22 | 1.49 | .85 | .71 | .62 | .76 | .42 | .80 |
| Pierre, S. Dak. | 1.33 | .79 | .58 | .38 | .53 | 1.47 | 1.30 | 1.78 | .49 | .56 | .68 | 1.40 | .05 |
| North Platte, Nebr. | .87 | .41 | 2.23 | .20 | 1.48 | .32 | .44 | .38 | .42 | .47 | .38 | 1.93 | .72 |
| Omaha, Nebr. | 1.39 | 1.52 | 1.67 | .35 | 1.35 | .11 | 1.59 | .47 | 1.08 | 1.47 | 3.95 | 1.83 | .75 |
| Concordia, Kans. | 1.48 | 1.05 | 2.53 | .37 | 1.49 | .77 | .90 | .47 | .47 | 2.59 | 1.32 | 2.56 | 1.67 |
| Dodge City, Kans. | .88 | .09 | .64 | .68 | .36 | 2.59 | .94 | .43 | .01 | 3.76 | .71 | 2.77 | .64 |
| Iola, Kans. | 2.35 | 2.12 | 2.25 | 2.10 | 3.55 | 1.96 | 1.06 | 5.36 | 3.60 | 7.71 | 3.69 | 1.57 | 1.69 |
| Washington, D. C. | 3.85 | 2.27 | 1.07 | 2.80 | 5.12 | 6.04 | 4.02 | 2.39 | 2.76 | 4.74 | 4.47 | 6.17 | 1.60 |
| Lynchburg, Va. | 3.81 | 2.24 | 1.14 | 1.32 | 4.97 | 2.41 | 3.02 | 2.82 | 1.75 | 7.50 | 5.91 | 2.77 | 1.06 |
| Norfolk, Va. | 4.28 | 3.77 | 1.14 | 1.68 | 4.60 | 3.68 | 3.36 | 2.39 | 1.50 | 4.95 | 5.12 | 3.16 | 3.29 |
| Parkersburg, W. Va. | 3.82 | 2.10 | 1.42 | 4.48 | 4.46 | 3.54 | 2.37 | 2.92 | 4.49 | 6.00 | 3.35 | 3.37 | 2.19 |
| Charlotte, N. C. | 4.57 | 1.56 | 3.44 | 1.38 | 6.42 | 2.33 | 7.70 | 7.11 | 1.84 | 6.32 | 5.84 | 2.40 | 2.39 |
| Charleston, S. C. | 3.72 | 2.34 | 2.83 | 1.96 | 3.05 | 1.65 | 4.05 | 4.65 | 2.66 | 3.15 | 2.38 | 3.68 | 1.28 |
| Atlanta, Ga. | 5.78 | 3.17 | 2.01 | 1.84 | 9.15 | .89 | 3.58 | 10.95 | 14.64 | 10.30 | 5.14 | 1.80 | 3.68 |
| Thomasville, Ga. | 5.09 | 1.22 | 3.17 | 1.62 | 1.98 | 1.41 | 7.36 | 3.21 | 3.30 | 4.12 | 5.23 | 2.15 | .70 |
| Jacksonville, Fla. | 3.52 | 1.84 | 2.47 | .59 | 1.81 | 2.31 | 3.24 | .82 | .57 | 3.69 | 1.15 | 7.18 | 1.14 |
| Miami, Fla. | 2.61 | .99 | 1.57 | .28 | 3.03 | 1.48 | 9.74 | .06 | 5.15 | 1.13 | .58 | .46 | 2.74 |
| Memphis, Tenn. | 5.77 | 3.91 | 3.03 | 2.22 | 7.51 | .70 | 12.41 | 4.72 | 7.41 | 8.24 | 7.03 | 2.32 | 1.48 |
| Nashville, Tenn. | 5.44 | 4.33 | 2.43 | 3.60 | 3.06 | 1.86 | 8.67 | 3.25 | 5.95 | 9.32 | 7.69 | 1.74 | 3.34 |
| Birmingham, Ala. | 5.76 | 5.29 | 3.68 | 3.01 | 11.85 | .32 | 5.81 | 10.34 | 4.88 | 7.14 | 5.15 | 1.10 | 5.47 |
| Mobile, Ala. | 7.17 | 2.00 | 3.46 | 3.69 | 2.28 | .70 | 5.00 | 2.21 | 6.71 | 11.46 | 6.00 | 1.07 | .78 |
| New Orleans, La. | 5.30 | 4.17 | 2.31 | .64 | 3.03 | 1.69 | 3.22 | 3.28 | 3.59 | 8.45 | 4.56 | 2.39 | 1.04 |
| Shreveport, La. | 4.52 | 6.55 | 1.92 | 1.88 | 2.12 | 1.14 | 3.14 | 6.08 | 3.87 | 9.31 | 3.63 | 4.32 | 1.49 |
| Amarillo, Tex. | .65 | .15 | 1.00 | .57 | .25 | 1.06 | 1.73 | .51 | .68 | 4.06 | 2.97 | 1.75 | .11 |
| Brownsville, Tex. | 1.23 | 1.86 | 1.99 | .07 | 1.51 | .94 | .44 | .76 | .88 | 1.29 | 1.32 | .12 | 2.64 |
| El Paso, Tex. | .38 | .10 | 1.34 | .34 | .07 | .08 | .62 | .22 | .04 | .16 | .33 | .41 | T. |
| Fort Worth, Tex. | 2.18 | 2.89 | 1.40 | 3.68 | 2.42 | .93 | 3.34 | 4.42 | 2.67 | 1.57 | 1.52 | 4.66 | .02 |
| Galveston, Tex. | 2.90 | 4.63 | 1.43 | .25 | .91 | 1.65 | 2.20 | 1.77 | 3.59 | 2.69 | 4.53 | 1.43 | .07 |
| San Antonio, Tex. | 1.68 | .83 | 1.20 | .79 | .16 | 1.45 | 1.39 | .83 | 5.91 | 3.29 | 3.07 | 1.29 | .24 |
| Oklahoma City, Okla. | 2.38 | 1.68 | 2.08 | 1.66 | 1.20 | 1.55 | 1.88 | 4.20 | 1.93 | 4.37 | 2.58 | 3.83 | .28 |
| Little Rock, Ark. | 4.94 | 4.63 | 2.94 | 1.59 | 6.43 | 1.49 | 6.44 | 4.40 | 7.03 | 8.30 | 5.00 | 2.70 | .52 |
| Havre, Mont. | .48 | .17 | .10 | .59 | .18 | .51 | .74 | .46 | 1.89 | .43 | .11 | 1.01 | .70 |
| Kalispell, Mont. | 1.98 | 1.17 | .59 | 2.43 | 1.09 | .76 | .45 | .92 | 1.55 | .77 | .42 | .74 | 1.13 |
| Cheyenne, Wyo. | .96 | .72 | 1.61 | .20 | .65 | .32 | 1.52 | .66 | .39 | .33 | .49 | 1.71 | .59 |
| Sheridan, Wyo. | 1.22 | 1.14 | .40 | .92 | 1.31 | 3.32 | .43 | .83 | .65 | .34 | 1.89 | 1.90 | .96 |
| Pueblo, Colo. | .86 | .32 | .48 | .65 | .44 | .35 | 1.43 | .15 | .20 | .29 | .67 | .12 | .27 |
| Santa Fe, N. Mex. | .73 | .82 | .70 | 1.26 | .27 | 1.46 | 1.70 | .57 | .75 | .44 | 1.28 | 1.12 | .59 |
| Phoenix, Ariz. | .49 | .92 | .33 | .37 | .15 | .93 | .97 | 1.35 | .03 | .99 | .08 | .99 | .33 |
| Modena, Utah. | 1.30 | .15 | .40 | 1.50 | .68 | 1.60 | .85 | 1.84 | 1.09 | .45 | .90 | 2.84 | 1.33 |
| Salt Lake City, Utah. | 2.00 | 1.24 | 1.48 | 3.03 | 2.61 | 1.81 | .54 | 3.81 | 1.03 | 2.44 | 1.67 | 2.21 | 1.71 |
| Winnemucca, Nev. | .95 | .08 | .49 | .62 | .58 | 1.95 | .57 | 1.73 | .66 | .79 | .05 | .58 | 1.24 |
| Boise, Idaho. | 1.44 | .39 | .78 | .71 | 1.75 | 1.78 | 1.82 | 1.89 | .84 | 2.36 | .24 | .30 | .87 |
| Seattle, Wash. | 2.88 | 1.40 | 1.72 | 5.45 | 2.96 | 3.92 | 1.84 | 2.82 | 3.06 | 4.45 | 1.37 | .42 | 1.22 |
| Wallula, Wash. | 1.89 | .59 | 1.96 | 3.46 | .52 | 1.26 | 1.91 | 2.14 | 2.24 | .96 | .47 | .62 | 1.07 |
| Portland, Oreg. | 4.66 | 2.28 | 2.15 | 10.57 | 5.33 | 3.47 | 4.64 | 3.94 | 4.28 | 6.57 | 1.83 | 1.40 | 1.76 |
| Roseburg, Oreg. | 3.98 | 1.76 | 1.76 | 4.95 | 3.74 | 2.57 | 4.50 | 2.97 | 7.11 | 4.09 | 1.32 | 1.84 | 1.15 |
| Eureka, Calif. | 6.97 | 3.13 | 1.65 | 4.53 | 5.01 | 5.84 | 6.25 | 5.79 | 8.04 | 6.43 | .80 | .67 | 2.02 |
| Fresno, Calif. | 1.76 | .25 | .52 | 1.81 | .56 | 4.19 | 1.07 | 3.98 | 1.05 | 1.53 | .06 | 2.89 | 1.08 |
| Los Angeles, Calif. | 3.00 | .58 | .60 | .90 | .18 | 6.21 | 2.18 | 4.25 | 2.78 | 1.64 | .32 | 3.42 | 1.56 |
| Sacramento, Calif. | 3.01 | .59 | 1.20 | 1.06 | .70 | 4.00 | 3.27 | 1.45 | 1.29 | .43 | .43 | 1.19 | 1.14 |
| San Diego, Calif. | 1.70 | .36 | .83 | .98 | .26 | 4.57 | 1.83 | 2.45 | 1.13 | 1.34 | .34 | 2.41 | 1.76 |
| San Francisco, Calif. | 3.14 | 1.09 | 3.02 | 1.33 | 1.42 | 2.73 | 2.74 | 3.25 | 2.28 | 2.86 | .03 | 1.96 | 2.63 |

T=Trace, indicates an amount too small to measure.

¹ Normals are based on records of 20 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued

| Station | Normal for April | April total precipitation | | | | | | | | | | | |
|-----------------------|------------------|---------------------------|-------|------|------|-------|------|-------|-------|-------|------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. |
| Boston, Mass. | 2.78 | 4.51 | 3.49 | 2.45 | 3.25 | 1.66 | 2.96 | 5.40 | 2.61 | 2.99 | 5.97 | 4.45 | 1.46 |
| Buffalo, N. Y. | 3.55 | 3.24 | 1.89 | 2.98 | 2.45 | 3.08 | 2.43 | 5.68 | 4.62 | 2.48 | 5.26 | 3.79 | 2.48 |
| Canton, N. Y. | 2.26 | 3.56 | 1.30 | 1.83 | 1.92 | 1.84 | 3.39 | 3.45 | 1.53 | 3.46 | 2.41 | 3.32 | 1.67 |
| Trenton, N. J. | 3.29 | 2.57 | 3.04 | 2.67 | 2.29 | 3.25 | 2.91 | 4.34 | 1.86 | 1.69 | 3.34 | 5.99 | 2.35 |
| Pittsburgh, Pa. | 2.90 | 3.98 | 1.27 | 2.54 | 2.20 | 2.73 | 3.07 | 4.42 | 1.66 | 3.56 | 3.82 | 3.09 | 1.43 |
| Seranton, Pa. | 2.65 | 3.89 | 1.65 | 4.19 | 1.06 | 3.98 | 2.71 | 2.53 | 2.88 | 3.44 | 2.92 | 3.30 | 3.55 |
| Cincinnati, Ohio | 2.95 | 3.07 | .84 | 2.51 | 4.07 | 3.38 | 3.29 | 5.78 | 3.19 | 4.32 | 2.96 | 2.40 | 1.84 |
| Cleveland, Ohio | 2.31 | 4.28 | .65 | 2.43 | 3.24 | 2.55 | 2.96 | 5.01 | 2.58 | 2.10 | 2.21 | 2.85 | 1.37 |
| Evansville, Ind. | 3.46 | 2.83 | .40 | 1.99 | 5.12 | 5.26 | 3.71 | 2.93 | 3.42 | 4.07 | 4.54 | 3.49 | 1.55 |
| Indianapolis, Ind. | 3.47 | 3.21 | .99 | 1.81 | 4.25 | 5.36 | 3.35 | 7.26 | 3.73 | 8.55 | 1.94 | 3.28 | 1.98 |
| Chicago, Ill. | 2.88 | 1.07 | 1.02 | 1.60 | 2.58 | 3.41 | 3.16 | 4.71 | 4.47 | 3.70 | 1.38 | .84 | 3.15 |
| Peoria, Ill. | 3.28 | 2.10 | 1.60 | 1.60 | 4.54 | 3.70 | 2.35 | 6.12 | 6.36 | 3.62 | 1.95 | 2.13 | 1.68 |
| Grand Rapids, Mich. | 2.45 | 1.97 | .85 | 2.52 | 4.08 | 2.22 | 2.60 | 2.98 | 4.39 | 4.50 | 2.19 | 3.29 | 3.17 |
| Marquette, Mich. | 1.97 | 1.80 | .99 | 3.51 | 1.75 | 1.37 | 2.24 | 2.28 | 4.13 | 3.79 | 1.43 | 1.57 | 1.75 |
| Madison, Wis. | 2.38 | 1.84 | .92 | 3.51 | 3.29 | 2.63 | 2.90 | 4.38 | 5.16 | 3.39 | 2.59 | 3.25 | 1.69 |
| Duluth, Minn. | 2.14 | 2.90 | 1.23 | 3.27 | 1.39 | 2.02 | 1.82 | 1.41 | 2.10 | 2.83 | 1.11 | 2.96 | 1.03 |
| St. Paul, Minn. | 2.33 | 3.73 | 2.75 | 3.03 | 1.65 | .94 | 3.98 | 2.21 | 2.46 | 1.55 | 2.20 | 3.32 | 1.27 |
| Des Moines, Iowa | 2.98 | 1.52 | 1.36 | 2.44 | 5.52 | 1.81 | 5.30 | 4.09 | 3.72 | 2.84 | 1.76 | .78 | 1.64 |
| Dubuque, Iowa | 2.92 | 1.53 | .38 | 2.69 | 2.05 | 2.16 | 4.47 | 3.91 | 4.70 | 2.89 | 1.48 | 1.12 | 2.17 |
| St. Louis, Mo. | 3.52 | 1.92 | 1.20 | 1.78 | 4.64 | 7.09 | 1.76 | 3.43 | 7.01 | 7.40 | 3.20 | 1.90 | 2.70 |
| Springfield, Mo. | 3.86 | 3.63 | 2.78 | 5.15 | 4.63 | 4.25 | 3.55 | 1.53 | 4.79 | 4.94 | 3.33 | 3.22 | 2.68 |
| Bismarck, N. Dak. | 1.88 | .92 | 1.04 | .65 | 1.87 | 2.13 | 1.71 | .45 | 2.40 | .68 | 2.01 | 1.90 | .86 |
| Devils Lake, N. Dak. | 2.03 | 1.21 | 1.10 | 1.09 | 1.40 | 2.86 | 1.14 | .54 | 2.17 | .48 | 1.44 | .96 | 1.79 |
| Pierre, S. Dak. | 1.98 | 1.78 | 2.83 | 1.06 | 2.39 | 2.60 | 2.98 | 3.37 | 1.33 | .69 | 1.54 | .99 | .98 |
| North Platte, Nebr. | 2.15 | 1.48 | 7.10 | .72 | 1.95 | 2.51 | 2.21 | 3.42 | 1.30 | 2.01 | 2.02 | .20 | 1.78 |
| Omaha, Nebr. | 3.01 | 3.13 | .81 | 1.72 | 3.96 | 1.57 | 4.66 | 3.89 | 2.13 | 2.12 | 1.57 | .94 | 1.50 |
| Concordia, Kans. | 2.42 | 1.00 | 2.47 | 1.12 | 2.60 | 3.51 | 4.29 | 2.82 | 2.79 | 3.23 | 3.20 | 3.29 | 3.17 |
| Dodge City, Kans. | 1.87 | 1.28 | 2.28 | 2.84 | 1.45 | 1.38 | 1.65 | 1.75 | 2.73 | 4.24 | 2.13 | 2.34 | 3.33 |
| Iola, Kans. | 2.79 | 1.68 | 6.58 | 3.83 | 4.61 | 4.60 | 4.37 | 2.01 | 2.86 | 9.26 | 2.66 | 2.77 | 6.31 |
| Washington, D. C. | 3.25 | 3.20 | .90 | 2.96 | 2.16 | 6.58 | 3.72 | 4.69 | 2.93 | 1.05 | 3.94 | 5.39 | 2.44 |
| Lynchburg, Va. | 3.17 | 1.70 | .87 | 1.94 | 3.10 | 4.97 | 2.18 | 3.53 | 2.76 | 1.63 | 2.71 | 3.85 | 2.61 |
| Norfolk, Va. | 3.79 | 1.88 | .91 | 1.95 | 2.61 | 4.81 | 1.61 | 4.25 | 3.02 | 1.88 | 3.59 | 2.89 | 1.74 |
| Parkersburg, W. Va. | 2.91 | 4.38 | 2.02 | 2.84 | 4.29 | 4.47 | 2.09 | 6.38 | 2.50 | 3.81 | 3.47 | 3.24 | .87 |
| Charlotte, N. C. | 3.44 | 2.99 | .63 | 2.15 | 2.54 | 5.47 | 3.90 | 5.40 | 1.99 | 6.59 | 4.23 | 6.78 | 2.34 |
| Charleston, S. C. | 2.99 | 2.77 | 1.13 | 2.35 | .97 | 2.49 | .73 | 7.40 | 2.06 | 1.50 | 1.06 | 5.78 | 1.89 |
| Atlanta, Ga. | 3.63 | 3.16 | .35 | 1.51 | 3.17 | 6.98 | 4.18 | 5.32 | 3.31 | 4.34 | 3.82 | 7.76 | 1.17 |
| Thomasville, Ga. | .64 | 1.78 | .67 | 2.47 | 1.55 | 5.02 | 2.78 | 7.22 | 3.09 | 6.4 | 3.88 | 5.06 | 1.91 |
| Jacksonville, Fla. | 2.72 | .30 | .49 | .46 | .82 | 5.96 | 1.26 | 3.42 | 1.43 | 1.39 | .98 | 3.00 | 1.54 |
| Miami, Fla. | 3.33 | 5.24 | 1.32 | .39 | 3.74 | 4.49 | 3.07 | 8.15 | 2.63 | .54 | 2.15 | 4.40 | 3.02 |
| Memphis, Tenn. | 4.83 | 2.90 | 1.27 | 2.32 | 4.13 | 4.57 | 3.17 | 7.75 | 11.65 | 3.21 | 6.58 | 4.74 | .89 |
| Nashville, Tenn. | 4.36 | 3.53 | .72 | 2.49 | 4.05 | 3.39 | 2.65 | 8.38 | 3.50 | 4.33 | 4.26 | 3.55 | 3.74 |
| Birmingham, Ala. | 3.67 | 4.48 | 1.05 | 2.14 | 4.52 | 7.17 | 1.55 | 10.71 | 4.81 | 6.64 | 7.58 | 5.62 | 1.15 |
| Mobile, Ala. | 4.35 | 1.77 | 1.14 | 6.64 | 2.50 | 11.11 | 6.84 | 5.89 | 4.43 | .92 | 4.39 | 4.10 | .43 |
| New Orleans, La. | 4.91 | 5.34 | .04 | 2.55 | 4.11 | 10.73 | 7.88 | 7.84 | 4.87 | 3.81 | 4.48 | 3.10 | .70 |
| Shreveport, La. | 4.58 | 3.35 | 6.42 | 4.61 | 3.34 | 5.28 | 3.93 | 4.01 | 6.24 | 6.97 | 4.40 | 2.87 | .76 |
| Amarillo, Tex. | 1.72 | .95 | 5.05 | 1.71 | .71 | .48 | 2.56 | .64 | .39 | 3.25 | 3.22 | .87 | 1.33 |
| Brownsville, Tex. | 1.33 | 1.16 | 1.04 | 1.28 | .43 | 2.59 | 2.39 | 0 | .52 | 1.52 | .85 | .11 | 1.65 |
| El Paso, Tex. | .23 | .47 | .20 | .20 | T. | 0 | .65 | .03 | .01 | .28 | .04 | .32 | T. |
| Fort Worth, Tex. | 4.12 | 5.99 | 4.98 | 6.99 | 4.11 | 6.21 | 2.06 | .51 | 1.99 | 17.64 | 5.30 | 2.33 | 3.59 |
| Galveston, Tex. | 3.13 | 8.54 | 3.37 | 1.37 | 1.45 | 6.63 | 2.17 | .70 | 2.47 | 1.66 | 4.45 | 1.14 | 1.58 |
| San Antonio, Tex. | 2.94 | 5.26 | 11.64 | 1.85 | .28 | 5.14 | 3.60 | 1.09 | 2.78 | 5.46 | 3.24 | 3.36 | .18 |
| Oklahoma City, Okla. | 4.80 | 2.41 | 7.50 | 3.15 | 2.11 | 2.45 | 5.04 | 2.11 | 2.89 | 7.97 | 4.27 | 3.67 | 4.02 |
| Little Rock, Ark. | 2.51 | 5.19 | 2.92 | 2.61 | 3.91 | 8.45 | 4.09 | 6.59 | 7.40 | 3.55 | 7.09 | 5.43 | 1.08 |
| Havre, Mont. | 1.01 | .04 | .24 | .09 | 1.35 | .95 | .26 | 2.65 | 1.24 | 4.33 | 1.11 | 1.24 | .56 |
| Kaliispell, Mont. | 1.05 | 1.21 | 1.15 | .73 | 1.26 | .82 | 2.48 | 1.48 | 1.17 | 1.86 | 41 | .01 | .37 |
| Cheyenne, Wyo. | 1.65 | 3.29 | 3.29 | 4.48 | 1.75 | 3.92 | 1.23 | 3.97 | 2.00 | 3.23 | 3.26 | 1.41 | 1.23 |
| Sheridan, Wyo. | 1.67 | 2.75 | 1.79 | 2.71 | 1.12 | 3.74 | 1.16 | 3.45 | .62 | 3.47 | 2.47 | 1.92 | 5.82 |
| Pueblo, Colo. | 1.43 | 3.64 | 3.07 | 2.02 | 1.39 | 1.31 | 2.33 | .86 | .79 | 1.21 | .54 | .49 | .06 |
| Santa Fe, N. Mex. | .86 | .44 | 4.82 | 2.59 | .15 | .72 | 1.94 | .73 | .55 | 1.43 | 1.60 | 1.26 | .24 |
| Phoenix, Ariz. | .43 | .10 | .88 | .15 | 1.22 | .02 | .17 | 0 | .02 | .24 | .05 | .22 | .61 |
| Modena, Utah | .79 | 2.17 | 2.38 | .23 | 1.17 | .35 | .27 | .44 | 1.33 | 1.02 | 1.22 | .68 | 1.74 |
| Salt Lake City, Utah | 2.26 | 2.84 | 1.88 | .88 | 1.49 | .59 | 2.50 | 3.16 | 2.65 | 3.06 | 3.56 | .91 | 1.42 |
| Winnemucca, Nev. | .88 | 1.32 | 2.33 | .19 | .68 | .52 | .49 | .80 | .06 | .55 | .79 | .23 | 1.38 |
| Boise, Idaho | 1.18 | 1.63 | 1.05 | .80 | 3.13 | .65 | 1.18 | 1.32 | .93 | 1.51 | 1.09 | .84 | .87 |
| Seattle, Wash. | 2.38 | 3.81 | 2.91 | 1.98 | 4.48 | .90 | 3.20 | 3.46 | 1.76 | 2.53 | 1.67 | 1.13 | 2.39 |
| Walla Walla, Wash. | 1.70 | 1.54 | 2.85 | 1.83 | 3.68 | .32 | 1.62 | 2.80 | .81 | 1.84 | 1.24 | .13 | 2.91 |
| Portland, Oreg. | 3.02 | 3.08 | 2.08 | 2.85 | 5.30 | 1.13 | 3.60 | 4.75 | 2.26 | 3.05 | 1.96 | .91 | .92 |
| Roseburg, Oreg. | 2.48 | 2.50 | 1.85 | 2.28 | 3.37 | 71 | 2.53 | 2.87 | 1.38 | 2.68 | 2.23 | .45 | 4.59 |
| Eureka, Calif. | 3.93 | 3.27 | 1.38 | 1.98 | 3.78 | 1.07 | 4.03 | 3.12 | 1.67 | 2.39 | 2.95 | 2.85 | 7.47 |
| Fresno, Calif. | 1.71 | .59 | .81 | .02 | .21 | T. | .06 | .46 | .15 | 1.10 | 3.93 | .54 | 1.43 |
| Los Angeles, Calif. | 1.13 | .47 | .81 | T. | .46 | .15 | 1.17 | 1.00 | .28 | 1.10 | 1.97 | 1.43 | 1.90 |
| Sacramento, Calif. | 2.60 | .70 | .50 | .06 | .62 | 1.06 | .11 | 1.36 | .39 | .40 | 2.87 | 3.00 | 1.61 |
| San Diego, Calif. | .74 | .85 | 1.15 | .01 | 1.06 | T. | .30 | .47 | .04 | .17 | 1.05 | .77 | 1.11 |
| San Francisco, Calif. | 1.82 | .98 | .62 | 0 | .83 | .60 | .10 | 1.36 | .64 | .47 | 3.92 | .30 | 2.73 |

T=Trace, indicates an amount too small to measure.

¹ Normals are based on records of 20 or more years of observations.

TABLE 796.—*Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued*

| Station | Normal for May | May total precipitation | | | | | | | | | | | |
|-----------------------|----------------|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> |
| Greenville, Me. | 3.47 | 1.70 | 2.99 | 4.59 | 3.22 | 3.37 | 4.76 | 1.33 | 1.97 | 3.44 | 2.50 | 4.52 | 1.82 |
| Boston, Mass. | 3.51 | 2.78 | 1.64 | 2.83 | 4.45 | 1.99 | 4.25 | 5.26 | 3.64 | 5.34 | 3.83 | 2.81 | 2.07 |
| Buffalo, N. Y. | 3.10 | 3.67 | 1.86 | 4.13 | 2.88 | 2.47 | 4.52 | 1.10 | 2.11 | 2.01 | 3.06 | 2.59 | 1.24 |
| Canton, N. Y. | 2.85 | .69 | 1.57 | 4.59 | 2.28 | 3.91 | 3.04 | 1.41 | 1.08 | 1.19 | 3.20 | 3.91 | 2.48 |
| Trenton, N. J. | 3.52 | 1.98 | 4.33 | 2.45 | 2.90 | 4.87 | 4.18 | 2.68 | 4.04 | 3.03 | .89 | 4.05 | 2.00 |
| Pittsburgh, Pa. | 3.30 | 2.64 | 3.84 | 2.33 | 2.65 | 3.89 | 4.89 | 1.03 | 2.49 | 2.59 | 3.34 | 4.54 | 3.42 |
| Scranton, Pa. | 3.44 | 3.29 | 3.30 | 3.04 | 3.25 | 3.58 | 3.33 | 2.48 | 2.28 | 2.20 | 3.26 | 3.91 | 3.21 |
| Cincinnati, Ohio | 3.52 | 1.83 | 5.56 | 4.49 | 4.62 | 4.05 | 3.56 | 4.36 | 2.79 | 2.09 | 2.34 | 3.97 | 2.05 |
| Cleveland, Ohio | 3.22 | 4.09 | 3.13 | 2.04 | 2.89 | 4.02 | 4.15 | 1.12 | 1.51 | 2.42 | 2.91 | 2.62 | 2.24 |
| Evansville, Ind. | 3.43 | 1.03 | 7.96 | 3.72 | 3.68 | 5.75 | 4.74 | 5.18 | 1.56 | 2.69 | 4.66 | 3.44 | 1.45 |
| Indianapolis, Ind. | 3.94 | 1.90 | 3.94 | 3.54 | 3.36 | 3.85 | 3.34 | 5.04 | 1.55 | 2.58 | 5.86 | 4.47 | .94 |
| Chicago, Ill. | 3.37 | 5.22 | 7.04 | 2.93 | 3.41 | 4.57 | 3.84 | 1.81 | .80 | 3.18 | 3.46 | 2.30 | 1.50 |
| Peoria, Ill. | 4.26 | 2.28 | 11.49 | 7.51 | 2.40 | 3.02 | 3.79 | 3.03 | 2.13 | 4.60 | 6.15 | 1.91 | 1.53 |
| Grand Rapids, Mich. | 3.34 | 3.06 | 2.61 | 4.13 | 4.48 | 4.03 | 4.78 | 1.92 | 1.23 | 2.64 | 3.70 | 3.72 | .98 |
| Marquette, Mich. | 8.32 | .90 | 3.12 | 1.78 | 1.45 | 6.58 | 2.77 | .74 | 1.67 | 3.27 | 1.27 | 3.31 | 1.46 |
| Madison, Wis. | 3.62 | 5.97 | 5.98 | 2.38 | 3.33 | 4.87 | 3.55 | 2.51 | 5.13 | 4.16 | 1.90 | 1.46 | .38 |
| Duluth, Minn. | 3.47 | 4.63 | 3.22 | 3.57 | 3.86 | 4.67 | 1.72 | 4.67 | 2.77 | 3.28 | 1.81 | 2.91 | 1.79 |
| St. Paul, Minn. | 3.62 | 1.48 | 3.85 | 5.89 | 3.92 | 4.52 | 2.13 | 1.97 | 3.38 | 2.48 | 2.28 | 1.47 | 2.28 |
| Des Moines, Iowa | 4.56 | 4.83 | 8.21 | 3.87 | 3.94 | 5.87 | 2.96 | 3.14 | 3.62 | 6.87 | 4.78 | 1.26 | .77 |
| Dubuque, Iowa | 4.32 | 4.64 | 7.61 | 2.49 | 2.56 | 5.64 | 2.79 | 2.86 | 2.62 | 4.79 | 1.86 | 2.16 | .96 |
| St. Louis, Mo. | 4.24 | .69 | 7.67 | 3.00 | 3.78 | 3.28 | 7.86 | 5.00 | 4.29 | 1.26 | 5.85 | 6.18 | 1.48 |
| Springfield, Mo. | 5.55 | 3.55 | 6.52 | 2.78 | 3.90 | 4.19 | 4.52 | 6.53 | 4.06 | 3.94 | 5.65 | 6.02 | 2.82 |
| Bismarck, N. Dak. | 2.50 | 3.61 | 4.43 | 1.95 | .26 | 2.03 | 4.06 | 1.27 | 2.72 | 2.65 | 1.01 | .45 | 1.14 |
| Devils Lake, N. Dak. | 2.20 | 1.42 | 2.13 | 1.47 | T. | 3.69 | 3.47 | 1.24 | 1.03 | 2.71 | 2.04 | 1.24 | 1.27 |
| Pierre, S. Dak. | 2.13 | 3.54 | 2.56 | 5.81 | 2.72 | 3.02 | 2.78 | 5.11 | 4.79 | 3.58 | 1.43 | .24 | .63 |
| North Platte, Nebr. | 3.06 | 2.14 | 5.55 | 1.95 | 4.44 | 2.30 | 2.33 | 3.81 | 1.89 | 2.53 | 4.08 | 2.26 | 1.92 |
| Omaha, Nebr. | 4.50 | 2.15 | 6.05 | 4.57 | 3.85 | 4.08 | 1.70 | 2.55 | 3.18 | 2.37 | 2.50 | 2.01 | .55 |
| Concordia, Kans. | 4.70 | 1.70 | 4.73 | 3.99 | 3.11 | 2.52 | 5.68 | 3.50 | 2.51 | 3.54 | 5.48 | 1.75 | 2.77 |
| Dodge City, Kans. | 3.47 | 4.63 | 3.43 | 4.11 | 1.60 | 2.90 | 1.56 | 3.47 | 1.36 | 2.77 | 7.74 | .63 | 2.18 |
| Iola, Kans. | 3.05 | 5.84 | 7.77 | 2.98 | 5.12 | 4.91 | 4.15 | 4.71 | 5.85 | 3.70 | 5.33 | 2.76 | .76 |
| Washington, D. C. | 3.83 | 1.72 | 2.18 | 2.30 | 1.84 | 2.35 | 5.27 | 1.42 | 5.82 | 4.27 | 1.60 | 6.73 | 1.67 |
| Lynchburg, Va. | 3.99 | .69 | 1.99 | 5.13 | 2.21 | 2.15 | 3.64 | .79 | 6.15 | 4.37 | 1.66 | 5.16 | 1.34 |
| Norfolk, Va. | 4.07 | 2.53 | 4.82 | 5.48 | 1.98 | 2.97 | 3.63 | 1.90 | 4.72 | 3.42 | 1.00 | 7.47 | 1.72 |
| Parkersburg, W. Va. | 3.46 | 1.51 | 3.47 | 4.65 | 5.06 | 3.51 | 5.00 | 1.64 | 4.19 | 4.09 | 2.31 | 4.05 | 2.70 |
| Charlotte, N. C. | 3.92 | .49 | 5.47 | 4.41 | 2.45 | 2.92 | 6.38 | 1.33 | 5.50 | 3.72 | 4.01 | 2.82 | 1.64 |
| Charleston, S. C. | 3.47 | .82 | 8.92 | 1.22 | 3.80 | 3.65 | 1.69 | 1.96 | 5.92 | 9.56 | 6.30 | 2.38 | 1.96 |
| Atlanta, Ga. | 3.09 | .30 | 6.11 | 3.57 | 4.37 | 1.73 | 7.20 | 2.58 | 1.75 | 8.01 | 9.83 | 3.60 | 2.00 |
| Thomasville, Ga. | 4.01 | 1.45 | 8.75 | 1.54 | 3.23 | 1.38 | 8.02 | 3.36 | 4.03 | 8.21 | 6.00 | 2.14 | 1.41 |
| Jacksonville, Fla. | 4.25 | 2.00 | 3.67 | 3.32 | 1.83 | 2.50 | 7.32 | 7.41 | 4.02 | 7.18 | 8.73 | .49 | 4.75 |
| Miami, Fla. | 6.48 | 1.82 | 3.32 | 5.59 | 4.62 | 2.80 | 13.31 | 10.35 | 5.65 | 9.06 | 11.48 | 7.45 | 18.66 |
| Memphis, Tenn. | 4.34 | 4.64 | 5.70 | 4.09 | 2.91 | 2.90 | 8.12 | 1.27 | 3.48 | 6.16 | 6.36 | 1.36 | 1.36 |
| Nashville, Tenn. | 3.50 | 3.01 | 4.04 | 5.37 | 4.75 | 3.61 | 8.67 | 3.18 | 1.15 | 3.40 | 4.31 | 6.39 | 1.95 |
| Birmingham, Ala. | 3.09 | 1.52 | 6.14 | 5.85 | 3.85 | 4.07 | 4.59 | 7.94 | 1.24 | 3.42 | 7.27 | 3.44 | 2.44 |
| Mobile, Ala. | 4.00 | .22 | 4.67 | 6.08 | 2.05 | 2.90 | 6.04 | 3.70 | 3.87 | 8.31 | 7.91 | 4.10 | 4.18 |
| New Orleans, La. | 3.88 | .19 | 3.64 | 7.97 | 1.63 | 2.79 | 7.02 | 4.08 | 1.61 | 5.75 | 9.10 | 5.96 | 4.51 |
| Shreveport, La. | 4.16 | 4.49 | 1.81 | 5.01 | 1.66 | 1.49 | 5.78 | 5.18 | 3.66 | 4.04 | 4.68 | 7.04 | 1.45 |
| Amarillo, Tex. | 3.67 | 4.43 | 1.70 | .89 | 2.49 | 2.23 | 2.08 | 2.57 | 2.09 | 1.60 | 1.70 | .67 | 1.94 |
| Brownsville, Tex. | 2.22 | 9.03 | .50 | .37 | 2.57 | 4.31 | 1.97 | 2.90 | 2.40 | 3.90 | .48 | 3.60 | 2.91 |
| El Paso, Tex. | .35 | 1.23 | T. | .43 | .14 | .05 | .14 | .03 | .31 | .36 | .01 | T. | .59 |
| Fort Worth, Tex. | 4.36 | 10.71 | 2.49 | 3.70 | 3.92 | 1.99 | 3.99 | 8.66 | 1.04 | 4.68 | .64 | 4.00 | 8.11 |
| Galveston, Tex. | 3.23 | 7.54 | 2.70 | 8.08 | 3.47 | .22 | 9.96 | 3.86 | 2.04 | 4.93 | 3.56 | 3.33 | 1.37 |
| San Antonio, Tex. | 2.96 | 5.59 | 1.29 | 6.09 | 2.42 | 2.80 | 6.09 | 6.09 | 3.46 | 1.33 | 4.71 | 2.85 | 2.85 |
| Oklahoma City, Okla. | 5.75 | 5.07 | 3.69 | 6.99 | 2.14 | 3.31 | 6.96 | 8.06 | 1.85 | 8.03 | 7.01 | 2.58 | 2.69 |
| Little Rock, Ark. | 5.10 | 2.25 | 4.38 | 1.49 | 3.28 | .64 | 4.67 | 8.18 | 1.75 | 4.74 | 10.50 | 2.44 | 1.42 |
| Hayre, Mont. | 2.09 | 1.13 | 1.95 | 3.00 | .33 | 1.13 | 1.25 | 1.39 | 2.17 | 2.47 | 1.23 | .78 | .78 |
| Kalispell, Mont. | 2.03 | .60 | 3.68 | 1.11 | .97 | .43 | 1.72 | 1.15 | .57 | .76 | .28 | .98 | .96 |
| Cheyenne, Wyo. | 2.43 | 2.10 | 2.21 | 1.93 | 4.65 | 2.60 | 7.70 | 2.15 | 2.40 | 2.00 | 2.58 | 3.58 | 1.56 |
| Sheridan, Wyo. | 2.68 | 3.10 | 3.98 | 3.04 | 3.66 | 2.83 | .81 | 3.12 | 2.98 | 3.04 | 3.27 | 1.51 | 1.84 |
| Pueblo, Colo. | 1.69 | 3.51 | 1.75 | .63 | 3.01 | .06 | .38 | 1.26 | .98 | 1.67 | .68 | 1.76 | 1.00 |
| Santa Fe, N. Mex. | 1.11 | 2.28 | .83 | .07 | .84 | 1.02 | 3.37 | 2.28 | 2.35 | .29 | 1.02 | .85 | 1.31 |
| Phoenix, Ariz. | .03 | T. | .17 | T. | .45 | T. | .06 | .42 | 1.17 | .26 | .08 | .01 | .03 |
| Modena, Utah. | .87 | .85 | .97 | .62 | 2.23 | .69 | .38 | 1.67 | 1.25 | 1.61 | .32 | .39 | 1.16 |
| Salt Lake City, Utah. | 1.95 | .89 | 1.97 | .61 | 3.48 | 1.32 | 1.83 | 1.95 | 2.16 | 1.91 | 1.15 | 2.47 | 2.47 |
| Winnemucca, Nev. | 1.03 | 1.08 | .49 | 1.49 | .77 | 1.25 | .16 | 1.18 | .47 | .70 | .27 | .26 | .26 |
| Boise, Idaho. | 1.29 | .51 | 4.26 | 1.80 | 2.06 | 1.05 | .08 | .56 | 2.15 | 1.56 | 1.76 | .05 | .74 |
| Seattle, Wash. | 1.97 | .74 | 1.72 | 1.56 | .83 | 1.19 | 2.08 | .96 | 1.93 | 1.08 | 1.45 | .63 | 1.28 |
| Walla Walla, Wash. | 1.83 | .98 | 2.48 | 1.29 | 2.48 | .68 | .58 | .57 | .19 | .46 | 1.36 | T. | 2.98 |
| Portland, Oreg. | 2.23 | 1.22 | 2.59 | 2.06 | 2.31 | 1.38 | 1.95 | .91 | .99 | 1.60 | 1.48 | .45 | .74 |
| Roseburg, Oreg. | 2.05 | 1.06 | 3.36 | 2.05 | 2.75 | 1.34 | 1.23 | .24 | 1.75 | 1.03 | 1.56 | .60 | 2.41 |
| Eureka, Calif. | 2.54 | .70 | 2.07 | 1.48 | 1.03 | .29 | 1.48 | .04 | 2.54 | .95 | 1.26 | .08 | 2.57 |
| Fresno, Calif. | .63 | T. | .99 | T. | .18 | .51 | .10 | 0 | .69 | .49 | .20 | T. | 1.29 |
| Los Angeles, Calif. | .48 | .43 | .88 | .03 | .21 | .40 | .19 | .10 | .87 | .65 | 0 | 0 | .32 |
| Sacramento, Calif. | .98 | .50 | 2.75 | .10 | .12 | .01 | .01 | 0 | .75 | .43 | .08 | .06 | 2.11 |
| San Diego, Calif. | .41 | .08 | .28 | .01 | .31 | T. | .34 | .44 | 2.54 | .36 | 0 | 0 | .15 |
| San Francisco, Calif. | .51 | .37 | 3.17 | .07 | .06 | T. | T. | T. | .52 | .65 | .00 | T. | 4.02 |

T=Trace, indicates an amount too small to measure.

¹ Normals are based on records of 30 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued

| Station | Normal for June | June total precipitation | | | | | | | | | | | |
|------------------------|-----------------|--------------------------|------|------|------|------|-------|------|------|-------|------|------|-------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. |
| Boston, Mass. | 3.69 | 3.34 | 2.00 | 3.99 | 8.69 | 3.38 | 2.25 | 3.12 | 2.88 | 10.00 | 3.78 | 1.75 | 4.91 |
| Buffalo, N. Y. | 3.03 | 1.40 | 1.39 | 5.04 | 4.05 | 1.94 | 1.08 | 5.78 | 3.58 | 8.05 | 2.03 | 1.07 | 4.59 |
| Canton, N. Y. | 3.14 | 1.72 | 1.72 | 4.04 | 5.28 | 2.81 | .54 | 3.11 | 1.62 | 3.38 | 3.64 | 2.69 | 1.41 |
| Trenton, N. J. | 3.43 | 2.29 | 3.67 | 2.84 | 3.58 | 3.57 | 4.83 | 2.69 | 1.66 | 7.56 | 4.49 | 2.08 | 3.88 |
| Pittsburgh, Pa. | 3.49 | 1.74 | 2.07 | 2.94 | 3.15 | 3.78 | 1.39 | 6.63 | 4.83 | 4.98 | 1.47 | 5.31 | .73 |
| Seranton, Pa. | 3.89 | 3.31 | 5.36 | 3.82 | 3.65 | 2.40 | 3.58 | 6.74 | 5.03 | 3.12 | 4.28 | 4.39 | 2.11 |
| Cincinnati, Ohio | 3.57 | 3.05 | 3.27 | 4.68 | 4.48 | 2.60 | 4.46 | 5.00 | 1.61 | 7.06 | 3.05 | 2.23 | 3.57 |
| Cleveland, Ohio | 3.98 | 2.20 | 4.47 | 4.32 | 2.96 | 5.97 | 2.44 | 2.68 | 2.35 | 1.77 | 3.18 | 6.75 | 1.89 |
| Evansville, Ind. | 3.68 | 2.80 | 2.03 | 1.98 | 3.59 | 1.83 | 1.24 | 5.28 | 2.38 | 2.65 | 1.49 | 5.73 | 1.81 |
| Indianapolis, Ind. | 4.17 | 3.99 | 3.69 | 4.58 | 4.20 | 2.05 | 6.75 | 3.77 | 2.44 | 2.65 | 5.09 | 4.03 | 5.06 |
| Chicago, Ill. | 4.31 | 3.65 | 3.01 | 5.92 | 5.24 | 3.11 | 3.33 | 3.78 | 3.22 | .99 | 2.30 | 4.04 | 4.70 |
| Peoria, Ill. | 3.60 | 3.53 | 3.60 | 7.25 | 2.87 | 1.69 | 3.16 | 3.94 | 1.57 | 12 | 1.70 | 6.60 | 4.63 |
| Grand Rapids, Mich. | 4.30 | 2.45 | 2.08 | 2.55 | 7.43 | 4.69 | 3.96 | 2.18 | 2.17 | .99 | 2.09 | 1.90 | 3.15 |
| Marquette, Mich. | 2.52 | 6.13 | 1.86 | 6.56 | 3.44 | 1.17 | 1.84 | 4.00 | 3.62 | 3.16 | 1.67 | 3.18 | 1.13 |
| Madison, Wis. | 3.51 | 4.21 | 5.13 | 7.26 | 2.48 | 2.51 | 2.01 | 2.80 | 1.52 | 4.50 | 3.10 | 1.36 | 1.73 |
| Duluth, Minn. | 4.10 | 3.46 | 1.75 | 4.52 | 6.47 | 1.84 | 3.35 | 5.62 | 3.52 | 3.17 | 3.05 | 4.13 | 6.05 |
| St. Paul, Minn. | 4.53 | 6.28 | 4.96 | 5.81 | 1.93 | .84 | 3.77 | 5.06 | 4.38 | 3.97 | 3.89 | 3.92 | 3.20 |
| Des Moines, Iowa | 4.41 | 6.49 | 3.58 | 3.79 | 3.79 | 2.81 | 4.40 | 7.76 | 4.70 | 4.61 | 4.28 | 7.24 | 5.77 |
| Dubuque, Iowa | 4.96 | 3.89 | 3.60 | 2.24 | 8.16 | 5.63 | 7.36 | 1.25 | 4.66 | 1.63 | 4.95 | 9.30 | 6.44 |
| St. Louis, Mo. | 4.55 | 5.81 | 3.06 | 4.01 | 5.12 | 6.15 | 6.24 | 5.24 | 3.54 | 1.20 | 3.66 | 5.37 | 10.89 |
| Springfield, Mo. | 4.47 | .10 | 9.77 | 3.97 | .62 | 1.47 | 5.30 | 1.53 | 2.31 | .80 | 4.33 | 6.80 | 4.84 |
| Bismarck, N. Dak. | 5.19 | 1.48 | 5.81 | 5.00 | 2.69 | 3.61 | 4.00 | 1.48 | 2.65 | .66 | 6.10 | 7.61 | 3.88 |
| Devils Lake, N. Dak. | 3.54 | 9.90 | 6.70 | 1.50 | 2.15 | .59 | .63 | 2.05 | .92 | 3.24 | 1.99 | 6.61 | 6.82 |
| Pierre, S. Dak. | 3.53 | 5.84 | 4.53 | 4.14 | 1.69 | 2.00 | 3.58 | 4.69 | 4.70 | 2.52 | 1.45 | 3.44 | 4.48 |
| North Platte, Nebr. | 3.08 | 3.72 | 4.12 | 5.12 | 1.69 | 1.50 | 2.55 | 4.12 | 1.54 | 4.60 | 5.67 | 1.99 | 3.64 |
| Omaha, Nebr. | 3.25 | 4.63 | 3.99 | 3.09 | 2.38 | 2.18 | 4.15 | 2.35 | 1.39 | .87 | 4.15 | 1.46 | 1.48 |
| Concordia, Kans. | 5.05 | 7.01 | 2.83 | 2.58 | 6.19 | 1.80 | 4.44 | 2.62 | 3.57 | 2.65 | 6.00 | 9.08 | 7.42 |
| Dodge City, Kans. | 4.97 | 2.73 | 9.33 | 4.66 | 3.17 | 1.85 | 6.14 | .84 | 3.35 | 2.10 | 7.38 | 1.87 | 5.30 |
| Iola, Kans. | 3.32 | 3.46 | 2.96 | 5.16 | .91 | .82 | 2.72 | 2.08 | 4.48 | 1.37 | 2.96 | 1.23 | 2.22 |
| Washington, D. C. | 4.73 | 3.94 | 8.56 | 8.58 | .94 | 2.54 | 4.21 | 3.59 | 8.41 | 5.63 | 5.35 | 3.38 | 6.54 |
| Lynchburg, Va. | 4.19 | 6.20 | 6.58 | 7.53 | 6.25 | 2.06 | 3.44 | 4.80 | 3.45 | 4.10 | 2.80 | 3.89 | 1.63 |
| Norfolk, Va. | 3.89 | 2.21 | 4.16 | 6.28 | 5.17 | 2.91 | 7.61 | 5.12 | 1.85 | 3.37 | 2.12 | 3.58 | 2.77 |
| Parkersburg, W. Va. | 4.33 | 3.20 | 6.52 | 1.98 | 4.65 | 3.25 | 3.48 | 5.05 | 1.05 | 9.78 | 1.43 | 6.45 | 2.00 |
| Charlottesville, N. C. | 4.46 | 2.16 | 4.84 | 3.30 | 3.17 | 3.39 | 2.80 | 5.20 | 3.63 | 5.06 | 5.42 | 3.25 | 3.48 |
| Charleston, S. C. | 4.65 | 2.12 | 4.55 | 5.55 | 4.70 | 2.43 | 2.43 | 3.56 | 1.33 | 2.74 | 2.21 | 7.86 | 1.61 |
| Atlanta, Ga. | 5.39 | 4.33 | 4.52 | 9.75 | 1.92 | .27 | 6.33 | 2.45 | .61 | 3.54 | 3.58 | 2.39 | 5.49 |
| Thomasville, Ga. | 4.86 | 2.14 | 3.82 | 3.28 | 1.75 | 3.31 | 2.08 | 3.47 | 1.56 | 4.41 | 3.23 | 3.14 | 1.45 |
| Jacksonville, Fla. | 4.72 | 2.62 | 4.15 | 3.55 | 2.59 | 6.74 | 6.38 | 3.22 | 3.51 | 5.35 | 4.71 | 7.19 | 4.71 |
| Miami, Fla. | 5.53 | 1.32 | 1.55 | 6.45 | 3.03 | 3.32 | 13.70 | 8.27 | 2.71 | 5.85 | 4.94 | 4.21 | 5.70 |
| Memphis, Tenn. | 7.13 | 25.17 | 5.53 | 6.36 | 6.71 | 6.17 | 7.26 | 3.90 | 1.14 | 4.50 | 5.94 | 4.22 | 5.70 |
| Nashville, Tenn. | 4.37 | .12 | 1.72 | 3.19 | 2.51 | 3.96 | 5.64 | 1.83 | 2.15 | 3.31 | 5.04 | 3.62 | .40 |
| Birmingham, Ala. | 4.37 | 2.95 | 1.42 | 4.62 | 8.03 | 2.70 | 3.96 | 3.81 | 2.29 | 5.37 | 4.42 | .91 | 2.13 |
| Mobile, Ala. | 3.88 | 4.49 | 4.30 | 2.02 | 3.44 | 7.64 | 3.30 | 3.63 | 1.45 | 3.82 | 2.10 | 6.85 | 2.24 |
| New Orleans, La. | 5.95 | 5.78 | 7.41 | 5.42 | 2.23 | 2.92 | 2.12 | 6.64 | 3.97 | 2.03 | 5.97 | 3.99 | 7.19 |
| Shreveport, La. | 6.16 | 3.51 | 5.61 | 9.70 | 2.77 | 2.45 | 4.50 | 8.45 | 9.44 | 6.45 | 5.38 | 4.27 | 4.12 |
| Amarillo, Tex. | 3.58 | 2.29 | 3.10 | 3.08 | .49 | 2.13 | 5.53 | 5.23 | 3.34 | 3.77 | 2.48 | 1.04 | 1.24 |
| Brownsville, Tex. | 2.99 | .84 | 1.04 | 2.18 | .83 | 1.44 | 2.94 | 2.56 | 7.75 | 3.77 | 9.76 | 2.82 | 1.71 |
| El Paso, Tex. | 2.37 | .63 | T. | .17 | .71 | 1.39 | 5.08 | 6.70 | 4.59 | 5.55 | 1.96 | 7.00 | 2.59 |
| Fort Worth, Tex. | .55 | 1.47 | T. | 0 | .36 | .83 | .27 | .99 | .79 | .05 | .09 | T. | .20 |
| Galveston, Tex. | 3.08 | 2.97 | 6.88 | 3.30 | 1.97 | 5.16 | 3.72 | 2.33 | 2.63 | 1.76 | 6.74 | 1.25 | .29 |
| San Antonio, Tex. | 4.75 | .12 | .08 | 3.15 | .65 | 2.79 | 15.49 | 0.68 | 4.97 | 8.06 | 3.24 | 2.51 | 12.95 |
| Oklahoma City, Okla. | 3.01 | .01 | .03 | 4.18 | .02 | 3.35 | 7.01 | 2.33 | 4.59 | 3.92 | 7.79 | 4.46 | 1.94 |
| Little Rock, Ark. | 3.07 | .02 | 7.23 | 6.16 | 1.83 | 3.09 | 4.87 | 2.08 | 3.30 | 3.62 | 3.15 | 1.94 | .61 |
| Havre, Mont. | 4.09 | .01 | 3.72 | 3.00 | 3.82 | 6.77 | 2.75 | 4.27 | 4.67 | 2.21 | 1.80 | 2.89 | 2.61 |
| Kalispell, Mont. | 2.82 | 4.07 | 3.35 | 4.03 | 1.43 | 1.45 | 1.68 | 3.09 | 2.00 | .82 | 5.89 | 5.76 | 5.14 |
| Cheyenne, Wyo. | 1.74 | 2.51 | 2.09 | 3.91 | 2.76 | .58 | .55 | .95 | 1.22 | .54 | 1.49 | 3.24 | 2.07 |
| Sheridan, Wyo. | 1.57 | .25 | 1.34 | .37 | .34 | 1.24 | .72 | .70 | 2.92 | .90 | 2.32 | 1.52 | 1.81 |
| Pueblo, Colo. | 1.90 | 1.65 | 4.71 | 2.23 | 1.02 | 1.27 | .54 | 1.88 | 1.04 | 2.21 | 2.11 | 2.01 | 1.72 |
| Santa Fe, N. Mex. | 1.47 | 1.90 | 1.26 | 1.22 | .58 | 1.02 | 1.39 | .47 | 7.14 | .53 | .91 | .34 | .26 |
| Phoenix, Ariz. | 1.04 | 1.72 | .16 | .38 | .06 | .68 | 1.50 | 2.04 | 2.85 | .74 | .24 | .21 | .20 |
| Modena, Utah | .12 | .05 | .48 | 0 | 0 | .08 | T. | T. | .04 | T. | 0 | T. | .21 |
| Salt Lake City, Utah | .40 | 1.50 | .85 | .01 | T. | .35 | .13 | .59 | .01 | .23 | .24 | 0 | .73 |
| Winnemucca, Nev. | .77 | 2.69 | 1.44 | .66 | .19 | .20 | T. | .15 | .08 | .53 | 1.39 | .56 | 1.29 |
| Boise, Idaho | .64 | .17 | .05 | 0 | .35 | 1.53 | 0 | .51 | .82 | .15 | 2.59 | .51 | 1.94 |
| Seattle, Wash. | .88 | .82 | .48 | 1.68 | .34 | .68 | T. | 1.18 | .09 | .57 | 2.05 | .81 | .61 |
| Walla Walla, Wash. | 1.49 | 1.75 | .40 | 1.82 | 3.70 | .50 | .35 | 1.93 | 1.29 | .09 | 1.01 | .35 | .61 |
| Portland, Oreg. | 1.19 | 1.12 | .40 | 1.77 | .57 | .10 | .04 | 1.03 | .67 | .51 | 2.80 | .67 | .73 |
| Roseburg, Oreg. | 1.64 | 1.62 | .47 | 1.83 | 1.17 | .12 | .91 | 2.11 | 1.36 | .14 | 1.19 | .68 | .73 |
| Eureka, Calif. | 1.07 | 1.76 | .71 | .91 | .26 | .33 | .68 | .96 | .76 | 1.01 | 1.22 | .56 | .09 |
| Fresno, Calif. | 1.06 | 1.73 | .05 | 1.00 | 0 | .02 | .14 | 1.92 | 1.80 | 1.14 | 1.07 | .05 | .24 |
| Los Angeles, Calif. | .10 | .23 | 0 | 0 | 0 | .01 | 0 | .03 | .01 | .12 | T. | 0 | .03 |
| Sacramento, Calif. | .07 | .09 | T. | 0 | 0 | .03 | 0 | T. | .01 | T. | .02 | 0 | .58 |
| San Diego, Calif. | .15 | .60 | 0 | .01 | 0 | T. | 0 | .05 | .05 | T. | .09 | 0 | .15 |
| San Francisco, Calif. | .03 | T. | T. | T. | T. | .06 | 0 | .02 | T. | T. | .04 | T. | .05 |
| | .17 | .29 | 0 | T. | T. | T. | T. | .04 | T. | .26 | .06 | 0 | .05 |

T=Trace, indicates an amount too small to measure.

¹ Normals are based on records of 20 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1926—Continued

| Station | Normal for July | July total precipitation | | | | | | | | | | | |
|-----------------------|-----------------|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> |
| Greenville, Me. | 4.24 | 2.62 | 8.98 | 5.60 | 6.97 | 8.25 | 5.82 | 4.46 | 5.06 | 3.54 | 4.34 | 3.07 | 5.80 |
| Boston, Mass. | 3.36 | 2.64 | 8.85 | 5.67 | 1.10 | 2.64 | 4.63 | 1.56 | 11.69 | 2.63 | 3.36 | 2.04 | 3.54 |
| Buffalo, N. Y. | 3.40 | 1.80 | 3.37 | 2.04 | 4.46 | 1.37 | 1.33 | 5.01 | 1.42 | 2.52 | .71 | 4.10 | 3.28 |
| Canton, N. Y. | 3.23 | 2.38 | 5.92 | 1.01 | 2.23 | 3.64 | 3.10 | 4.98 | 2.20 | 1.86 | 1.18 | 2.87 | 5.46 |
| Trenton, N. J. | 4.77 | 4.75 | 7.20 | 5.94 | 4.24 | 4.97 | 10.41 | 2.16 | 2.01 | 2.29 | 3.18 | 4.21 | 5.15 |
| Pittsburgh, Pa. | 4.42 | 1.89 | 3.37 | 3.88 | 2.33 | 2.22 | 6.20 | 3.29 | 2.81 | 2.80 | 6.74 | 3.10 | 3.81 |
| Seranton, Pa. | 3.83 | 6.71 | 2.60 | 2.29 | 2.27 | 2.59 | 4.81 | 5.42 | 4.90 | 4.48 | 4.72 | 3.65 | 6.80 |
| Cincinnati, Ohio | 3.54 | 3.00 | 4.93 | 1.79 | 4.04 | 3.05 | 2.08 | 3.19 | 4.28 | 2.45 | 2.51 | 1.29 | 9.13 |
| Cleveland, Ohio | 3.55 | 1.00 | 4.73 | 2.48 | 3.60 | 1.08 | 2.46 | 3.32 | 3.52 | 3.98 | 2.09 | 3.10 | 4.52 |
| Evansville, Ind. | 3.81 | 1.41 | 2.92 | 5.46 | 2.26 | 1.45 | 1.32 | 2.86 | 2.45 | 6.39 | 1.00 | 2.70 | 1.92 |
| Indianapolis, Ind. | 4.13 | .49 | 7.64 | 2.20 | 2.68 | 2.44 | .97 | 4.51 | 1.42 | 2.67 | 2.43 | 1.75 | 4.07 |
| Chicago, Ill. | 3.64 | 2.11 | 5.57 | 2.22 | 2.58 | 2.06 | 3.59 | 1.61 | 1.87 | 4.00 | 2.67 | 3.06 | 4.47 |
| Peoria, Ill. | 2.97 | .82 | 6.91 | 1.14 | 1.92 | 3.46 | 3.09 | 1.56 | 3.95 | 3.06 | 1.35 | 5.50 | 3.93 |
| Grand Rapids, Mich. | 2.63 | 1.18 | 4.00 | 1.07 | 6.91 | 1.17 | .66 | 3.60 | 2.38 | 3.05 | .95 | 3.37 | 4.58 |
| Marquette, Mich. | 3.10 | 3.45 | 1.78 | 1.74 | 1.90 | 2.50 | 2.47 | 4.62 | 4.39 | 3.49 | 4.11 | 1.55 | 1.66 |
| Madison, Wis. | 3.99 | 1.49 | 5.04 | 2.66 | 3.10 | 2.33 | 3.96 | 1.39 | 2.46 | 6.09 | 2.28 | 5.01 | 3.30 |
| Duluth, Minn. | 3.65 | 2.99 | 1.60 | 1.19 | 4.29 | 1.23 | 2.62 | 1.82 | 5.41 | 2.20 | 5.40 | 5.87 | 3.17 |
| St. Paul, Minn. | 3.40 | .95 | 4.53 | .75 | 4.12 | 5.05 | 7.47 | 1.35 | 2.39 | 2.32 | 2.51 | 1.73 | 2.28 |
| Des Moines, Iowa | 3.86 | 1.22 | 9.30 | 1.50 | 1.58 | 1.18 | 2.68 | 5.66 | 2.49 | 7.13 | .78 | .98 | 2.21 |
| Dubuque, Iowa | 4.30 | 1.57 | 5.08 | .85 | 2.10 | 3.77 | 7.82 | 1.11 | 2.48 | 6.01 | 1.67 | 4.11 | 7.93 |
| St. Louis, Mo. | 3.43 | 1.52 | 6.02 | 1.20 | 3.17 | .60 | 1.50 | .73 | 2.05 | 2.42 | 1.83 | 3.62 | 1.78 |
| Springfield, Mo. | 4.79 | 3.35 | 1.82 | .74 | 4.15 | 1.11 | 1.96 | 2.42 | 7.70 | 6.15 | 2.67 | 5.92 | 3.53 |
| Bismarck, N. Dak. | 2.14 | 2.04 | 4.02 | 4.03 | 1.50 | 2.09 | .76 | 2.72 | 2.18 | 2.77 | 4.77 | 1.40 | 4.42 |
| Devils Lake, N. Dak. | 3.78 | 1.63 | 1.06 | 3.70 | 1.60 | 2.81 | 1.76 | 2.51 | 4.49 | .87 | 2.07 | 1.31 | 4.40 |
| Pierre, S. Dak. | 2.14 | 1.83 | 1.12 | 2.50 | 2.68 | 2.04 | .80 | 2.81 | 4.92 | 2.84 | 2.07 | 1.11 | 2.77 |
| North Platte, Nebr. | 2.68 | .58 | 3.46 | .59 | 1.13 | 1.88 | 4.98 | 1.62 | .80 | 4.91 | 3.63 | 1.00 | .89 |
| Omaha, Nebr. | 1.33 | 1.09 | 7.75 | .45 | .78 | 1.76 | .63 | 3.91 | 4.99 | 5.60 | .86 | 2.79 | .45 |
| Concordia, Kans. | 3.62 | 1.13 | 5.10 | .82 | .60 | 1.77 | .03 | 4.90 | 5.24 | 5.82 | 4.48 | 3.55 | 3.13 |
| Dodge City, Kans. | 3.38 | .36 | 3.92 | .09 | 2.76 | 2.25 | 1.83 | 3.79 | 2.21 | 2.86 | 1.95 | 3.64 | 6.84 |
| Iola, Kans. | 3.92 | 3.75 | 6.07 | T. | 4.22 | 2.48 | 2.21 | 4.13 | 4.03 | 3.90 | 2.64 | 7.55 | 2.24 |
| Washington, D. C. | 4.65 | 2.32 | 3.21 | 4.97 | 9.41 | 3.79 | 6.80 | 5.71 | 4.79 | 9.59 | 4.92 | 7.26 | 5.82 |
| Lynchburg, Va. | 4.03 | 4.53 | 3.05 | 9.76 | 2.97 | 7.35 | 5.21 | 4.82 | 3.56 | 2.25 | 2.52 | 3.74 | 3.56 |
| Norfolk, Va. | 5.80 | 3.91 | 5.72 | 3.08 | 11.73 | 3.06 | 7.21 | 4.33 | 3.27 | 11.92 | 4.14 | 4.45 | 5.52 |
| Parkersburg, W. Va. | 4.66 | 2.13 | 4.21 | 4.92 | 6.17 | 1.28 | 3.30 | 4.50 | 2.80 | 3.65 | 5.52 | 3.75 | 6.44 |
| Charlotte, N. C. | 5.49 | 4.83 | 3.08 | 16.55 | 5.85 | 1.90 | 7.40 | 4.11 | 5.55 | 5.19 | 5.89 | 3.01 | .62 |
| Charleston, S. C. | 7.20 | 7.14 | 2.98 | 11.01 | 9.95 | 7.69 | 8.53 | 4.69 | 10.61 | 8.02 | 7.23 | 6.59 | 2.38 |
| Atlanta, Ga. | 4.73 | 3.60 | 3.22 | 10.85 | 1.98 | 2.47 | 7.50 | 5.95 | 3.88 | 6.97 | 2.60 | 4.82 | 2.35 |
| Thomasville, Ga. | 5.32 | 6.20 | 4.65 | 13.32 | 0.11 | 2.40 | 9.81 | 3.38 | 0.71 | 3.64 | 10.59 | 4.51 | 7.06 |
| Jacksonville, Fla. | 6.20 | 5.13 | 9.36 | 3.93 | 10.36 | 3.35 | 6.32 | 5.47 | 0.76 | 3.91 | 5.14 | 12.17 | 2.50 |
| Miami, Fla. | 0.17 | 4.52 | 6.54 | 2.49 | 2.48 | 4.01 | 5.90 | 0.61 | 3.09 | 8.16 | 5.20 | 8.31 | 2.50 |
| Memphis, Tenn. | 3.51 | .68 | 1.16 | 1.74 | 5.96 | 2.27 | 1.94 | 3.55 | 3.19 | 3.71 | 3.65 | .99 | 5.92 |
| Nashville, Tenn. | 4.35 | 2.58 | 2.03 | 4.17 | 3.25 | 3.63 | 1.83 | 3.00 | 4.56 | 6.15 | 2.13 | 4.36 | 1.74 |
| Birmingham, Ala. | 4.70 | 3.91 | 5.72 | 20.12 | 3.71 | 3.34 | 5.53 | 4.63 | 5.79 | 5.23 | 6.42 | 1.69 | 5.52 |
| Mobile, Ala. | 7.04 | 5.17 | 5.82 | 20.50 | 10.54 | 2.85 | 6.94 | 7.04 | 4.89 | 9.57 | 4.98 | 4.31 | 9.35 |
| New Orleans, La. | 6.47 | 9.18 | 7.55 | 6.78 | 8.35 | 2.03 | 7.62 | 6.20 | 7.90 | 4.05 | 8.72 | 2.56 | 9.90 |
| Shreveport, La. | 3.72 | .84 | 2.44 | 3.09 | 9.30 | T. | .70 | 4.02 | 4.29 | 4.09 | 3.40 | T. | 1.71 |
| Amarillo, Tex. | 3.17 | 3.07 | 4.14 | .94 | 2.68 | 2.23 | 1.75 | 1.85 | 4.17 | 1.04 | 1.85 | 3.66 | 5.13 |
| Brownsville, Tex. | 1.88 | T. | .15 | 4.52 | 4.52 | 1.34 | 6.79 | 2.18 | 2.81 | 1.92 | 1.53 | 1.40 | .04 |
| El Paso, Tex. | 2.13 | 4.91 | 2.45 | .59 | .41 | 1.52 | 1.87 | .84 | 2.13 | 1.08 | .20 | 3.00 | 1.40 |
| Fort Worth, Tex. | 2.57 | .73 | .30 | 1.38 | 2.65 | 1.10 | 5.25 | 3.49 | 1.14 | 1.35 | .99 | .96 | .96 |
| Galveston, Tex. | 3.95 | 1.29 | 2.45 | 4.64 | .46 | 2.24 | 3.73 | 3.21 | 5.77 | 1.00 | 5.80 | T. | 3.90 |
| San Antonio, Tex. | 3.65 | .62 | 1.19 | 2.87 | 2.96 | 1.68 | .78 | .88 | 3.9 | 4.43 | 2.31 | .15 | 3.55 |
| Oklahoma City, Okla. | 3.65 | .62 | 1.19 | 2.87 | 2.96 | 1.68 | .78 | .88 | 3.9 | 4.43 | 2.31 | .15 | 3.55 |
| Little Rock, Ark. | 3.99 | 3.71 | .96 | 4.44 | 4.54 | .94 | 2.36 | 3.06 | 1.44 | 2.39 | 7.96 | 1.25 | 5.46 |
| Havre, Mont. | 1.92 | .41 | 3.17 | 5.90 | .45 | .75 | .12 | 1.51 | 2.61 | 2.76 | 4.33 | .70 | 1.45 |
| Kalispell, Mont. | .84 | .69 | 2.74 | 1.76 | .09 | 1.47 | .88 | .98 | .62 | .81 | 1.60 | .97 | .58 |
| Cheyenne, Wyo. | 1.99 | 1.30 | 1.71 | 1.81 | 1.62 | 3.90 | 2.83 | 2.12 | 1.37 | 2.01 | 3.23 | 1.12 | 3.80 |
| Sheridan, Wyo. | 1.04 | .13 | 1.44 | .83 | .17 | 1.78 | .37 | 1.51 | .56 | 2.11 | 6.37 | 1.08 | .96 |
| Pueblo, Colo. | 1.97 | 3.92 | 1.91 | .83 | 1.33 | .93 | 2.95 | 1.62 | 5.26 | .29 | 4.05 | .84 | 3.78 |
| Santa Fe, N. Mex. | 2.71 | 3.98 | 4.37 | 2.77 | 4.45 | 2.42 | 4.02 | 1.04 | 3.87 | 1.75 | 2.06 | 1.53 | 2.48 |
| Phoenix, Ariz. | 1.07 | .21 | 1.12 | .77 | 3.97 | 1.02 | 1.05 | .25 | .38 | .74 | .77 | .09 | .03 |
| Modena, Utah | 1.26 | 1.60 | 1.41 | 4.72 | 1.03 | .93 | 1.87 | 1.82 | 2.50 | 1.22 | .81 | 1.09 | 1.38 |
| Salt Lake City, Utah | .54 | 1.20 | .07 | .65 | .68 | .76 | .06 | .51 | .36 | .65 | .21 | .45 | 2.13 |
| Winnemucca, Nev. | .17 | .19 | .05 | .01 | .06 | .27 | T. | .05 | .05 | .36 | .24 | .31 | 1.22 |
| Boise, Idaho | .18 | 1.04 | .04 | 1.81 | T. | .11 | T. | .05 | T. | .19 | .68 | T. | .37 |
| Seattle, Wash. | .67 | .01 | .84 | 1.93 | .09 | 1.38 | .22 | 1.00 | .18 | 0 | .68 | .51 | .06 |
| Walla Walla, Wash. | .39 | .12 | .65 | .72 | T. | .96 | .09 | .13 | .38 | .04 | .33 | .90 | T. |
| Portland, Oreg. | .62 | .01 | 1.52 | 2.55 | .01 | 1.08 | .23 | 1.18 | T. | T. | 2.17 | .03 | T. |
| Roseburg, Oreg. | .32 | .01 | .64 | 2.22 | .01 | .57 | .06 | .42 | 0 | 0 | .59 | T. | T. |
| Eureka, Calif. | .11 | .01 | .26 | 1.34 | 0 | .22 | .81 | .13 | 0 | 0 | .03 | .02 | T. |
| Fresno, Calif. | 0 | T. | 0 | T. | T. | 0 | 0 | 0 | 0 | T. | 0 | 0 | .14 |
| Los Angeles, Calif. | 0 | .01 | 0 | 0 | T. | .09 | 0 | 0 | T. | T. | T. | 0 | T. |
| Sacramento, Calif. | 0 | 0 | T. | .07 | T. | 0 | T. | 0 | 0 | T. | 0 | T. | .01 |
| San Diego, Calif. | 0 | 0 | T. | .02 | T. | T. | T. | T. | T. | .01 | .01 | 0 | T. |
| San Francisco, Calif. | .01 | .02 | .01 | .03 | T. | T. | .01 | T. | 0 | T. | 0 | 0 | .06 |

T=Trace, indicates an amount too small to measure.

¹Normals are based on records of 20 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914–1925—Continued

| Station | Normal for Aug. | August total precipitation | | | | | | | | | | | |
|-----------------------|-----------------|----------------------------|-------|-------|------|-------|------|-------|------|------|-------|------|------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| Greenville, Me. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. |
| Boston, Mass. | 3.80 | 2.90 | 6.13 | 2.95 | 4.88 | 1.42 | 3.77 | 4.61 | 5.56 | 3.41 | 2.85 | 2.34 | 1.27 |
| Buffalo, N. Y. | 4.03 | 3.20 | 5.63 | 2.19 | 7.06 | 1.56 | 5.07 | 2.32 | 1.83 | 4.75 | 1.86 | 6.86 | 1.40 |
| Canton, N. Y. | 2.69 | 4.23 | 5.06 | 1.84 | 4.50 | 3.18 | 2.60 | 1.94 | 3.91 | 4.25 | 2.36 | 3.10 | 1.74 |
| Scranton, Pa. | 5.37 | 1.63 | 6.22 | 1.25 | 2.11 | 2.52 | 4.82 | 7.08 | 8.01 | 5.16 | 3.32 | 5.87 | 1.15 |
| Pittsburgh, Pa. | 3.18 | 4.52 | 2.73 | 4.73 | 4.75 | 4.84 | 7.15 | 2.53 | 3.03 | 2.35 | 4.24 | 3.46 | .96 |
| Cincinnati, Ohio | 4.25 | 2.56 | 8.17 | .67 | 3.94 | 4.04 | 2.30 | 3.33 | 2.96 | 5.56 | 3.32 | 3.53 | 1.35 |
| Cleveland, Ohio | 3.33 | 3.28 | 4.13 | 3.57 | 1.70 | 4.53 | .92 | 6.10 | 6.02 | 5.60 | 3.72 | 3.03 | 3.45 |
| Evansville, Ind. | 3.15 | 3.93 | 1.47 | 1.36 | 4.65 | 2.47 | 7.19 | 2.33 | 3.32 | 1.20 | 3.97 | .90 | 1.42 |
| Indianapolis, Ind. | 3.24 | 3.59 | 7.83 | 4.31 | 1.92 | 3.03 | 2.49 | 6.31 | 5.26 | 3.08 | 3.09 | .92 | .48 |
| Chicago, Ill. | 3.33 | 5.58 | 5.25 | 2.47 | 1.48 | 2.24 | 3.43 | 1.85 | 7.26 | 2.45 | 4.83 | 4.77 | 3.82 |
| Peoria, Ill. | 2.88 | 3.76 | 4.33 | 1.05 | 1.24 | 1.27 | 1.10 | 3.16 | 4.92 | 1.45 | 7.76 | 8.12 | 2.09 |
| Grand Rapids, Mich. | 2.93 | 2.40 | 4.78 | 6.03 | 3.36 | 5.88 | 4.73 | 1.87 | 3.56 | .72 | 2.84 | 7.15 | 4.27 |
| Marquette, Mich. | 2.59 | 3.49 | 2.87 | 4.41 | .46 | .84 | 1.67 | 1.76 | 6.15 | 2.96 | 2.07 | 2.51 | 2.56 |
| Madison, Wis. | 3.21 | 2.12 | 5.43 | .99 | 3.28 | 3.20 | 1.60 | 3.50 | 3.46 | 2.02 | 1.08 | 4.46 | 1.96 |
| Duluth, Minn. | 3.31 | 3.60 | 4.39 | 4.24 | 2.72 | 2.03 | .89 | 2.61 | 3.97 | 1.33 | 5.59 | 7.23 | 2.31 |
| St. Paul, Minn. | 3.53 | 4.20 | 1.56 | 3.37 | 2.04 | 2.32 | 2.99 | 1.44 | 2.84 | 2.01 | 1.76 | 4.40 | 3.04 |
| Des Moines, Iowa. | 3.46 | 4.48 | 3.98 | 1.60 | 2.82 | 5.19 | 2.22 | .96 | 2.79 | 1.31 | 1.92 | 6.51 | .16 |
| Dubuque, Iowa. | 3.61 | 1.77 | 1.71 | 2.62 | 1.82 | 2.54 | 2.19 | 2.11 | 6.63 | 6.63 | 5.84 | 4.15 | 4.79 |
| St. Louis, Mo. | 3.04 | 4.01 | 2.84 | 1.49 | 2.11 | 6.09 | 1.58 | 3.44 | 4.29 | 1.99 | 4.77 | 7.05 | 1.91 |
| Springfield, Mo. | 2.66 | 5.42 | 11.43 | 10.69 | 1.99 | 5.26 | 3.03 | 4.16 | 2.75 | 1.79 | 6.19 | 3.90 | 2.75 |
| Bismarck, N. Dak. | 4.31 | 4.70 | 10.81 | 4.45 | 4.26 | 3.12 | .83 | 6.31 | 7.69 | 2.47 | .78 | 5.97 | 1.74 |
| Devils Lake, N. Dak. | 1.98 | 2.02 | 3.44 | 1.97 | 1.37 | 2.62 | 1.46 | .59 | 1.18 | .22 | .63 | 1.91 | 1.69 |
| Pierre, S. Dak. | 2.76 | 2.06 | .90 | 3.16 | 1.12 | 2.25 | 2.28 | 2.21 | 5.63 | 1.72 | 2.25 | 2.39 | .89 |
| North Platte, Nebr. | 2.01 | 2.19 | .55 | 4.65 | 1.93 | 2.30 | 2.24 | 2.07 | 1.89 | 2.03 | 3.76 | 2.74 | 1.08 |
| Omaha, Nebr. | 2.46 | 3.45 | 4.23 | 2.35 | 1.96 | 1.73 | .76 | 2.78 | 2.57 | 2.26 | 4.70 | .85 | 1.75 |
| Concordia, Kans. | 3.62 | 2.24 | 3.06 | 2.74 | 3.65 | 1.14 | 2.91 | 1.76 | 1.07 | .01 | 4.24 | 1.67 | 2.70 |
| Dodge City, Kans. | 2.81 | 2.13 | 1.99 | 1.21 | 2.63 | 3.10 | 1.00 | 5.15 | 1.93 | .88 | 2.75 | 2.38 | 4.10 |
| Iola, Kans. | 2.59 | 1.23 | 6.16 | 2.25 | 4.46 | 8.44 | 1.23 | 5.43 | 2.65 | 3.19 | 1.46 | 3.23 | 3.09 |
| Washington, D. C. | 3.47 | 2.74 | 5.05 | 2.43 | 3.91 | 1.50 | 2.22 | 7.55 | 5.79 | 3.65 | 3.39 | 6.40 | .51 |
| Lynchburg, Va. | 4.40 | 6.00 | 7.00 | 2.83 | .77 | 1.88 | 3.41 | 4.70 | 1.10 | 3.08 | 2.19 | 5.07 | 3.89 |
| Norfolk, Va. | 4.25 | 2.60 | 5.45 | 2.69 | 3.58 | 2.91 | 3.03 | 6.76 | .83 | 1.18 | 3.44 | 4.80 | .66 |
| Parkersburg, W. Va. | 5.97 | 1.10 | 2.46 | 2.99 | 4.54 | 2.48 | 3.47 | 3.83 | 3.13 | 8.04 | 4.47 | 4.27 | 1.05 |
| Charlotte, N. C. | 3.53 | 5.05 | 4.78 | 2.41 | 2.18 | 5.14 | 4.60 | 2.65 | 3.71 | 7.44 | 7.38 | 1.44 | 1.65 |
| Charleston, S. C. | 5.55 | 2.25 | 4.59 | 2.70 | 4.84 | 2.18 | 3.94 | 8.91 | 2.78 | 2.74 | 2.93 | .94 | 3.34 |
| Atlanta, Ga. | 6.97 | 4.43 | 5.40 | 3.10 | 5.06 | 2.87 | 5.70 | 7.02 | 5.70 | 5.18 | 12.29 | 8.28 | 1.62 |
| Thomasville, Ga. | 4.48 | 5.04 | 4.92 | 3.61 | 5.81 | 4.20 | 3.80 | 10.02 | 8.03 | 2.72 | 4.17 | 3.87 | .02 |
| Jacksonville, Fla. | 5.03 | 3.96 | 2.78 | 1.01 | 8.95 | 6.16 | 8.16 | 4.96 | 3.56 | 2.71 | 6.89 | 2.88 | 3.44 |
| Miami, Fla. | 6.21 | 8.47 | 4.08 | 6.76 | 6.65 | 3.12 | 6.96 | 7.46 | 7.70 | 7.71 | 6.89 | 3.55 | 5.93 |
| Memphis, Tenn. | 6.42 | 3.77 | 10.37 | 10.10 | 4.32 | 1.43 | 3.73 | 4.12 | 3.14 | 7.97 | 6.34 | 3.40 | 8.95 |
| Nashville, Tenn. | 3.29 | 8.64 | 6.03 | 4.27 | 3.02 | 3.05 | 6.80 | 6.85 | 2.85 | 3.78 | 9.60 | 2.69 | 1.02 |
| Birmingham, Ala. | 4.48 | 6.38 | 4.40 | 3.51 | 8.98 | .98 | 5.33 | 9.09 | 3.97 | 2.95 | 6.90 | .61 | .71 |
| Mobile, Ala. | 6.81 | 9.78 | 7.69 | 5.46 | 6.42 | 14.16 | 6.04 | 7.78 | 8.37 | 5.13 | 4.46 | 3.21 | 1.27 |
| Now Orleans, La. | 5.61 | 8.47 | 7.22 | 4.89 | 6.92 | 6.19 | 7.38 | 4.18 | 3.09 | 5.71 | 7.60 | 2.20 | 4.41 |
| Shreveport, La. | 2.24 | 4.00 | 8.60 | .55 | 5.55 | 2.23 | 3.85 | 2.82 | .64 | 2.04 | 2.03 | 1.66 | .23 |
| Amarillo, Tex. | 2.81 | 2.97 | 5.85 | 3.82 | 6.17 | 2.36 | 3.21 | 5.52 | .77 | .78 | 1.54 | 3.57 | 3.19 |
| Brownsville, Tex. | 2.59 | .68 | 2.58 | 5.58 | .29 | .40 | .25 | 0 | 1.4 | 2.43 | 1.34 | .28 | 1.96 |
| El Paso, Tex. | 1.72 | 1.85 | 1.37 | 3.07 | 4.39 | 1.66 | .72 | 1.33 | .35 | .27 | 2.96 | 2.58 | 2.16 |
| Fort Worth, Tex. | 2.72 | 9.02 | 10.33 | 3.84 | 1.92 | .29 | 5.00 | 4.22 | .95 | .82 | 1.68 | 3.77 | .40 |
| Galveston, Tex. | 5.01 | 8.17 | 19.08 | 4.14 | 2.71 | 3.04 | 2.17 | 2.65 | 1.42 | 2.53 | 4.61 | .49 | 2.78 |
| San Antonio, Tex. | 2.69 | 7.80 | 3.90 | 5.07 | 1.10 | 2.61 | 2.14 | 2.26 | .45 | .27 | 2.90 | 1.72 | 1.82 |
| Oklahoma City, Okla. | 3.17 | 2.76 | 5.26 | .68 | 4.50 | 1.91 | 2.28 | 3.68 | .58 | 1.19 | 3.57 | 3.10 | 1.73 |
| Little Rock, Ark. | 3.65 | 4.77 | 10.37 | 3.59 | 4.38 | 1.42 | .85 | 3.33 | 7.08 | .83 | 2.55 | 1.74 | .94 |
| Havre, Mont. | 1.26 | 2.43 | 8.94 | .84 | .43 | 2.61 | .76 | .81 | .27 | 1.70 | 1.47 | 1.39 | .78 |
| Kalispell, Mont. | .89 | 1.31 | .22 | 1.96 | .32 | .96 | 1.06 | 2.61 | .56 | .76 | .96 | .74 | 1.12 |
| Cheyenne, Wyo. | 1.47 | 1.07 | 3.98 | 1.26 | 1.75 | 1.68 | .43 | 1.82 | .61 | 2.16 | 2.06 | .23 | 1.13 |
| Sheridan, Wyo. | .73 | .65 | .89 | .13 | .83 | .93 | .18 | .68 | .24 | 1.65 | 1.44 | .35 | T. |
| Pueblo, Colo. | 1.57 | 2.18 | 3.27 | 3.12 | 1.74 | .57 | 3.23 | 1.89 | 2.24 | .69 | 4.65 | 1.15 | 1.42 |
| Santa Fe, N. Mex. | 2.36 | 2.51 | 1.02 | 1.67 | 1.37 | .82 | 2.06 | 1.98 | 3.71 | 1.85 | 2.33 | .71 | 1.41 |
| Phoenix, Ariz. | .96 | .30 | .25 | .30 | .11 | 3.47 | 2.40 | .75 | 1.62 | .57 | .65 | .14 | .61 |
| Modena, Utah. | 1.83 | .73 | .46 | 1.97 | .26 | 1.26 | .50 | .81 | 2.44 | 2.41 | 2.13 | .31 | 2.64 |
| Salt Lake City, Utah. | .78 | .24 | T. | .60 | .71 | .61 | .50 | 1.31 | .82 | 1.85 | 2.41 | .30 | 1.83 |
| Winnemucca, Nev. | .17 | T. | .08 | .11 | .57 | .37 | T. | .76 | .16 | .91 | .25 | .01 | .79 |
| Boise, Idaho. | .16 | .04 | T. | .45 | T. | .48 | T. | .53 | .34 | 1.13 | .20 | .12 | .28 |
| Seattle, Wash. | .51 | .01 | .05 | .11 | .03 | 1.12 | .08 | 1.15 | 1.61 | 1.17 | 1.98 | .70 | 1.31 |
| Walla Walla, Wash. | .45 | T. | T. | .17 | T. | .96 | .06 | 1.67 | .57 | 1.25 | .57 | 1.25 | .51 |
| Portland, Oreg. | .68 | .01 | .01 | .27 | T. | .31 | .10 | 1.25 | .30 | 2.06 | .26 | .62 | .71 |
| Roseburg, Oreg. | .33 | T. | .03 | .36 | T. | 1.05 | .02 | .22 | .04 | .32 | .30 | .76 | .85 |
| Eureka, Calif. | 0 | T. | 0 | .12 | .02 | .21 | .01 | .49 | .01 | .03 | .02 | 1.03 | .25 |
| Fresno, Calif. | 0 | T. | 0 | .08 | T. | 0 | 0 | .15 | 0 | T. | 0 | T. | T. |
| Los Angeles, Calif. | 0 | 0 | 0 | T. | T. | .03 | T. | 0 | T. | 0 | 0 | 0 | 0 |
| Sacramento, Calif. | .01 | 0 | .01 | T. | T. | T. | T. | T. | 0 | T. | T. | T. | .01 |
| San Diego, Calif. | 0 | 0 | 0 | .01 | T. | .11 | .01 | .01 | 0 | T. | T. | T. | .01 |
| San Francisco, Calif. | 0 | 0 | 0 | .20 | T. | 0 | T. | 0 | 0 | T. | .01 | .01 | T. |

T=Trace, indicates an amount too small to measure.

¹ Normals are based on records of 20 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued

| Station | Normal for Sept. | September total precipitation | | | | | | | | | | | |
|-----------------------|------------------|-------------------------------|-------|------|-------|-------|------|-------|------|-------|-------|-------|-------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. |
| Greenville, Me. | 4.17 | 2.68 | 3.74 | 4.23 | 1.80 | 6.52 | 3.71 | 5.60 | 3.53 | 1.89 | 2.11 | 7.39 | 4.24 |
| Boston, Mass. | 3.19 | .21 | .69 | 1.90 | 1.91 | 9.19 | 5.83 | 1.90 | 1.22 | 3.65 | .38 | 6.96 | 5.45 |
| Buffalo, N. Y. | 3.18 | 2.31 | 1.35 | 1.38 | 2.29 | 3.79 | 1.47 | 2.03 | 1.96 | 1.25 | 1.86 | 6.48 | 5.61 |
| Canton, N. Y. | 2.81 | 1.73 | 1.32 | 3.42 | 2.02 | 6.05 | 4.69 | 5.11 | 3.52 | .96 | 2.10 | 5.61 | 6.03 |
| Trenton, N. J. | 3.59 | .41 | .62 | 2.51 | 3.89 | 3.20 | 7.24 | 2.23 | 1.69 | 1.75 | 4.19 | 5.94 | 3.91 |
| Pittsburgh, Pa. | 2.48 | .69 | 1.71 | 1.63 | 1.90 | 2.22 | 1.64 | 2.48 | 5.07 | 1.54 | 1.62 | 5.39 | 1.58 |
| Scranton, Pa. | 2.86 | 1.05 | 2.91 | 4.35 | .91 | 4.59 | 2.21 | 4.94 | 4.38 | 1.18 | 4.38 | 7.35 | 2.26 |
| Cincinnati, Ohio. | 2.31 | .90 | 5.65 | 3.29 | 2.97 | 2.70 | 3.79 | 2.98 | 3.00 | 2.93 | 1.40 | 2.07 | 3.67 |
| Cleveland, Ohio. | 2.22 | 1.16 | 4.23 | 2.84 | 2.74 | 3.78 | 1.79 | 1.85 | 2.77 | 1.60 | 3.32 | 6.08 | 5.62 |
| Evansville, Ind. | 2.06 | 5.06 | 2.95 | 2.57 | 3.55 | 3.53 | 3.89 | 3.36 | 3.87 | 2.16 | 1.84 | 5.88 | 3.30 |
| Indianapolis, Ind. | 3.06 | 5.15 | 2.17 | 2.37 | 2.93 | 1.46 | 1.96 | 3.37 | 7.54 | 1.52 | 3.91 | 2.80 | 5.06 |
| Chicago, Ill. | 3.02 | 1.56 | 3.53 | 2.24 | 2.15 | 1.84 | 3.85 | 3.35 | 5.72 | 4.37 | 2.50 | 3.14 | 1.30 |
| Peoria, Ill. | 3.12 | 5.55 | 4.88 | 3.73 | 3.14 | 1.67 | 3.48 | 1.84 | 4.86 | 2.71 | 5.28 | 3.74 | 4.99 |
| Grand Rapids, Mich. | 3.12 | 2.34 | 8.11 | 2.43 | 3.59 | 2.01 | 3.86 | 3.68 | 4.33 | 5.04 | 5.77 | 3.48 | 4.35 |
| Marquette, Mich. | 3.51 | 1.28 | 3.68 | 5.74 | 2.10 | 5.49 | 2.40 | 1.94 | 4.30 | 3.26 | 1.63 | 2.42 | 3.90 |
| Madison, Wis. | 3.18 | 3.49 | 10.69 | 5.73 | 2.98 | 1.52 | 6.83 | 1.12 | 7.90 | 2.34 | 3.46 | 2.87 | 5.60 |
| Duluth, Minn. | 3.55 | 2.55 | 2.28 | 4.25 | 2.15 | 1.41 | 1.42 | 1.31 | 3.09 | 2.23 | 2.61 | 3.95 | 3.43 |
| St. Paul, Minn. | 3.42 | 2.16 | 2.92 | 1.81 | 2.00 | 1.49 | 1.25 | 1.36 | 3.21 | 1.82 | 1.10 | 3.05 | 3.70 |
| Des Moines, Iowa. | 3.07 | 14.81 | 4.51 | 1.72 | 1.99 | .91 | 7.47 | 4.44 | 7.16 | 3.00 | 5.17 | 3.47 | 7.75 |
| Dubuque, Iowa. | 3.59 | 4.75 | 9.62 | 6.19 | 2.40 | 1.63 | 5.35 | 1.46 | 8.35 | 3.40 | 5.04 | 2.44 | 4.16 |
| St. Louis, Mo. | 2.91 | 6.68 | 1.41 | 2.69 | 3.50 | 5.09 | 6.13 | 4.79 | 5.60 | 2.49 | 3.51 | 1.97 | 4.59 |
| Springfield, Mo. | 3.76 | 3.59 | 3.06 | 1.19 | 3.74 | 4.82 | 1.62 | 4.42 | 3.90 | .95 | 3.82 | 4.12 | 7.75 |
| Sioux Falls, S. Dak. | 1.19 | 1.10 | 1.68 | .70 | 1.75 | .47 | .34 | 1.20 | 1.67 | 1.93 | 2.83 | 1.00 | .85 |
| Devils Lake, N. Dak. | 1.39 | 1.57 | 3.11 | .89 | .48 | .35 | .34 | .93 | 3.58 | 3.30 | 1.94 | 4.54 | 6.63 |
| Pierre, S. Dak. | 1.11 | .79 | 2.18 | 1.06 | 1.33 | .64 | 1.59 | .98 | 7.21 | .19 | 2.21 | 1.98 | .65 |
| North Platte, Nebr. | 1.50 | 1.77 | 1.81 | .70 | 2.68 | .38 | 1.56 | .83 | 1.00 | 1.00 | 6.88 | 1.66 | .91 |
| Omaha, Nebr. | 3.03 | 3.56 | 2.17 | 1.76 | .91 | 1.03 | 5.28 | 1.03 | 5.35 | 1.29 | 9.32 | 3.56 | 2.69 |
| Concordia, Kans. | 2.58 | 4.61 | 3.47 | 2.70 | .56 | 1.72 | 3.03 | .36 | 1.36 | 1.35 | 2.94 | .80 | 1.52 |
| Dodge City, Kans. | 1.77 | .53 | 3.79 | 1.15 | .36 | 2.20 | 1.01 | 3.34 | 1.53 | 1.84 | 2.50 | 1.62 | 4.52 |
| Iola, Kans. | 3.35 | 5.19 | 13.22 | 5.56 | 1.85 | 3.51 | 1.02 | 4.18 | 7.10 | 4.32 | 4.23 | 6.14 | 9.40 |
| Washington, D. C. | 3.59 | .66 | 1.39 | 2.57 | 1.34 | 2.79 | 1.77 | 2.87 | 3.29 | 6.27 | 3.15 | 7.86 | 3.05 |
| Lynchburg, Va. | 3.63 | .67 | 2.36 | 2.55 | 1.96 | 2.61 | .47 | 4.51 | 1.71 | 1.42 | 2.84 | 4.69 | 4.43 |
| Norfolk, Va. | 4.06 | 2.97 | 1.76 | 3.63 | 5.26 | 3.12 | .70 | 3.11 | 2.43 | .53 | 3.23 | 6.59 | 2.66 |
| Parkersburg, W. Va. | 2.72 | .62 | 4.19 | 3.18 | 1.41 | 2.53 | .98 | 3.69 | 4.47 | 3.73 | 2.92 | 5.28 | .55 |
| Charlotte, N. C. | 3.22 | 2.02 | 2.37 | .88 | 3.29 | 5.83 | .84 | 3.53 | 2.55 | 1.23 | 2.32 | 10.84 | .19 |
| Charleston, S. C. | 5.46 | 4.69 | 2.07 | 2.76 | 2.34 | 3.10 | 1.76 | 8.30 | 5.19 | 1.13 | 2.11 | 11.35 | 1.94 |
| Atlanta, Ga. | 3.53 | 2.48 | 3.53 | 2.84 | 6.44 | 3.57 | 1.12 | 3.36 | 1.81 | 1.16 | .54 | .01 | .24 |
| Thomasville, Ga. | 4.25 | 7.58 | 4.41 | 3.29 | 2.15 | 3.44 | .34 | 6.07 | 1.00 | 3.42 | 3.32 | 18.83 | .88 |
| Jacksonville, Fla. | .05 | 6.39 | 8.11 | 5.25 | 3.47 | 6.17 | 5.63 | 7.14 | 1.73 | 6.70 | 4.89 | 8.88 | 2.41 |
| Miami, Fla. | 8.72 | 6.68 | 5.47 | 4.41 | 18.55 | 10.06 | 3.72 | 6.94 | 2.81 | 11.04 | 6.21 | 7.41 | 2.73 |
| Memphis, Tenn. | 3.05 | 3.92 | .55 | 1.07 | 1.88 | 4.95 | 1.34 | 10.82 | 1.58 | 1.41 | 5.47 | 5.19 | 1.77 |
| Nashville, Tenn. | 3.68 | 1.46 | 4.63 | 1.92 | 1.51 | 3.75 | 1.33 | 4.15 | 3.72 | 3.23 | 1.44 | 2.64 | 3.32 |
| Birmingham, Ala. | 3.50 | 3.95 | 5.54 | 2.63 | 6.01 | 7.73 | 1.09 | 4.12 | 4.20 | 1.54 | 1.50 | 2.50 | .06 |
| Mobile, Ala. | 5.02 | 7.96 | 4.08 | 6.68 | 6.90 | 5.17 | 1.10 | 7.81 | 3.74 | 3.19 | .47 | 1.89 | 1.84 |
| New Orleans, La. | 4.81 | 5.05 | 10.83 | 3.13 | 2.69 | 4.82 | 2.93 | 6.47 | 8.94 | .93 | 2.63 | 2.89 | 7.13 |
| Shreveport, La. | 3.22 | .15 | 1.75 | 1.46 | 2.56 | .36 | 2.16 | 1.10 | .56 | 1.36 | 9.03 | 1.06 | 2.40 |
| Amarillo, Tex. | 2.36 | 1.07 | 4.69 | 1.76 | 2.05 | .64 | 4.58 | 3.04 | .76 | 1.41 | 0.42 | 1.13 | 4.88 |
| Brownsville, Tex. | 5.42 | .86 | 2.54 | 3.21 | 1.03 | .97 | 7.69 | .34 | 3.82 | 12.61 | 4.55 | 7.29 | 19.21 |
| El Paso, Tex. | 1.45 | .56 | 2.68 | .55 | .76 | .01 | 3.30 | .31 | 2.49 | 1.07 | .41 | .14 | 1.03 |
| Fort Worth, Tex. | 2.46 | 1.61 | 1.62 | .73 | 2.41 | 2.09 | 4.12 | 2.76 | .11 | .41 | 2.06 | 3.78 | 1.79 |
| Galveston, Tex. | 5.41 | 5.20 | 2.12 | 4.24 | 3.60 | 2.03 | 2.29 | 2.80 | 8.37 | 8.98 | 9.91 | 0.4 | 11.06 |
| San Antonio, Tex. | 2.94 | 2.24 | 3.20 | 3.78 | 1.39 | 1.49 | 7.61 | .15 | 8.27 | .97 | 2.98 | 2.52 | 2.87 |
| Oklahoma City, Okla. | 2.75 | 1.70 | 3.62 | 2.54 | 1.55 | 4.28 | 1.03 | 3.60 | 3.79 | .90 | 10.28 | 2.65 | 7.73 |
| Little Rock, Ark. | 3.26 | 1.98 | 1.16 | 1.95 | .27 | 4.63 | 2.78 | 2.85 | 2.18 | .93 | 3.93 | 5.44 | 3.38 |
| Hayre, Mont. | 1.03 | 1.37 | 2.05 | 1.42 | 4.58 | .98 | .79 | .34 | 1.50 | .68 | .50 | .64 | 3.84 |
| Kalispell, Mont. | 1.33 | 1.21 | 2.04 | 1.63 | .83 | 1.59 | .50 | .70 | .79 | .52 | .28 | .90 | 2.43 |
| Cheyenne, Wyo. | .94 | .41 | 2.10 | 1.09 | .56 | 2.57 | 1.76 | 2.31 | .02 | .36 | 2.78 | 2.36 | .19 |
| Sheridan, Wyo. | 1.34 | .80 | 3.75 | .56 | .30 | 2.68 | 1.10 | .16 | .51 | .08 | 8.18 | 1.03 | 1.00 |
| Pueblo, Colo. | .62 | .32 | 1.42 | T. | 3.25 | 1.43 | 2.04 | 1.33 | .25 | .09 | 1.36 | 1.10 | .43 |
| Santa Fe, N. Mex. | 1.64 | .59 | 1.62 | 1.45 | .64 | .76 | 2.53 | .77 | .18 | 1.07 | 1.10 | .62 | 2.27 |
| Phoenix, Ariz. | 1.01 | T. | 1.10 | 1.66 | .55 | .39 | 1.93 | 1.10 | .83 | .13 | .97 | .12 | .95 |
| Modena, Utah. | 1.12 | .49 | 1.44 | .71 | .79 | 1.22 | 3.29 | .22 | .23 | .04 | .46 | .13 | 2.63 |
| Salt Lake City, Utah. | .85 | .17 | 1.60 | .50 | 1.16 | 2.10 | 1.76 | 1.56 | .44 | .01 | 1.41 | .25 | .94 |
| Winnemucca, Nev. | .34 | .48 | .94 | .26 | T. | 1.53 | .46 | .01 | 0 | 0 | 1.16 | .13 | 1.06 |
| Boise, Idaho. | .41 | .35 | .26 | .05 | .39 | 2.32 | .49 | .64 | .61 | .01 | .55 | .24 | 1.19 |
| Seattle, Wash. | 1.77 | 1.42 | .68 | .70 | 1.29 | .08 | 2.03 | 2.84 | 1.84 | 1.19 | 1.37 | 2.68 | .59 |
| Walla Walla, Wash. | .93 | 1.52 | .70 | .15 | 1.31 | .32 | 1.26 | 1.99 | .79 | .41 | .21 | .89 | .31 |
| Portland, Ore. | 1.84 | 3.10 | .53 | .71 | 1.95 | .66 | 3.18 | 4.16 | 3.08 | 1.90 | .59 | 1.93 | 1.80 |
| Roseburg, Ore. | 1.04 | 2.80 | .57 | .59 | .73 | .59 | 3.86 | 2.27 | 1.45 | 1.56 | 1.63 | 1.33 | 2.56 |
| Eureka, Calif. | 1.11 | 1.82 | .11 | .38 | .66 | 1.42 | 1.52 | 2.47 | .27 | .87 | 1.54 | .41 | 3.56 |
| Fresno, Calif. | .27 | .22 | T. | .38 | T. | .53 | .29 | T. | .21 | 0 | .25 | 0 | 0 |
| Los Angeles, Calif. | .06 | 0 | T. | .77 | T. | .55 | 1.29 | .04 | .62 | 0 | .55 | T. | 0 |
| Sacramento, Calif. | .39 | T. | T. | .16 | .51 | 3.58 | .53 | .01 | T. | 0 | .80 | T. | .02 |
| San Diego, Calif. | .06 | T. | T. | .25 | T. | .08 | .26 | .08 | 1.24 | 0 | .03 | 0 | 0 |
| San Francisco, Calif. | .29 | T. | 0 | 1.20 | .02 | 2.53 | .39 | .13 | .85 | T. | .44 | T. | .45 |

T—Trace, indicates an amount too small to measure.

¹Normals are based on records of 20 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued

| Station | Normal for Oct. | Octobertotal precipitation | | | | | | | | | | | |
|-----------------------|-----------------------|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> |
| Greenville, Me. | 3.36 | 3.07 | 1.83 | 2.87 | 6.40 | 5.38 | 4.13 | 3.22 | 4.82 | 3.14 | 3.45 | 1.33 | 6.02 |
| Boston, Mass. | 3.86 | 1.54 | 2.82 | .94 | 5.33 | .99 | 2.13 | 1.04 | 1.24 | 1.97 | 3.37 | .08 | 4.08 |
| Buffalo, N. Y. | 3.53 | 1.80 | 2.11 | 2.33 | 6.90 | 1.95 | 5.32 | 1.77 | 2.86 | 2.70 | 1.66 | .08 | 4.73 |
| Canton, N. Y. | 3.34 | 1.82 | 2.55 | 2.22 | 5.64 | 5.21 | 3.81 | 1.68 | 4.90 | 2.61 | 3.42 | .65 | 3.73 |
| Trenton, N. J. | 3.41 | 1.74 | 1.99 | .96 | 5.30 | .74 | 3.09 | .92 | .34 | .81 | 2.35 | .20 | 3.97 |
| Pittsburgh, Pa. | 2.36 | 3.07 | 2.84 | 2.31 | 5.27 | 3.08 | 5.37 | 1.48 | 2.25 | 1.02 | 1.05 | .12 | 4.09 |
| Scranton, Pa. | 2.91 | 1.05 | 1.13 | .91 | 6.07 | 3.25 | 3.94 | 2.02 | 2.78 | 3.56 | 2.42 | .08 | 2.93 |
| Cincinnati, Ohio | 2.32 | 3.59 | 2.36 | 1.81 | 2.79 | 2.68 | 0.51 | 1.76 | 2.72 | 1.23 | .92 | 1.7 | 4.24 |
| Cleveland, Ohio | 2.73 | 2.39 | 1.77 | 2.19 | 5.09 | 2.11 | 3.17 | 2.57 | 2.91 | 1.58 | 1.72 | .68 | 3.38 |
| Evansville, Ind. | 3.10 | 2.75 | 1.53 | 2.05 | 3.05 | 2.49 | 8.40 | 1.65 | 2.03 | 2.12 | 3.78 | .15 | 6.25 |
| Indianapolis, Ind. | 2.71 | 1.67 | 1.73 | 1.47 | 3.96 | 5.88 | 1.98 | 1.70 | 1.78 | 1.78 | 3.25 | .79 | 4.19 |
| Chicago, Ill. | 2.55 | 2.89 | .40 | 3.88 | 3.96 | 2.94 | 6.41 | 1.57 | 3.26 | 3.40 | 4.57 | .84 | 3.72 |
| Peoria, Ill. | 2.57 | 2.15 | .55 | 2.93 | 2.23 | .97 | 2.12 | 1.93 | 2.97 | 2.02 | 3.85 | 1.27 | 2.49 |
| Grand Rapids, Mich. | 2.54 | 2.72 | .60 | 3.73 | 4.57 | 3.50 | 3.91 | 1.82 | 3.61 | 2.87 | 3.30 | .23 | 3.52 |
| Marquette, Mich. | 3.19 | 1.03 | 2.67 | 4.89 | 2.96 | 3.91 | 3.26 | 1.82 | 1.29 | 1.74 | 2.70 | .34 | 2.44 |
| Madison, Wis. | 2.42 | 3.09 | .48 | 2.97 | 3.08 | 3.13 | 6.95 | 1.90 | 3.79 | .65 | 2.12 | .22 | 1.92 |
| Duluth, Minn. | 2.74 | 1.14 | 3.08 | 1.13 | 2.83 | 2.18 | 2.71 | 4.10 | .70 | .56 | .46 | 1.63 | 1.59 |
| St. Paul, Minn. | 2.34 | 1.88 | 1.59 | 1.26 | 1.68 | 2.61 | 1.91 | 1.85 | .48 | 1.08 | 2.00 | .76 | .83 |
| Des Moines, Iowa | 2.68 | 3.57 | .43 | 2.11 | .92 | 3.81 | 2.20 | 1.89 | 1.51 | 3.41 | 1.10 | .77 | 3.22 |
| Dubuque, Iowa | 2.68 | 2.88 | 2.03 | 3.32 | 1.87 | 2.85 | 6.22 | 2.18 | 3.43 | .72 | 1.07 | .43 | 2.67 |
| St. Louis, Mo. | 2.41 | 7.45 | .90 | 1.64 | 1.87 | 3.63 | 8.52 | 2.36 | 1.45 | 1.74 | 3.74 | .30 | 4.32 |
| Springfield, Mo. | 2.80 | 2.84 | 2.56 | 1.24 | .31 | 2.72 | 11.94 | 4.09 | 2.55 | 1.60 | 4.79 | .85 | 2.86 |
| Bismarck, N. Dak. | 1.03 | .79 | 1.52 | .18 | .21 | .28 | .98 | .26 | 1.58 | .63 | 1.03 | .02 | .55 |
| Devils Lake, N. Dak. | 1.32 | 1.15 | .45 | .12 | .22 | .04 | .65 | .23 | 1.31 | .52 | 1.25 | .06 | 1.27 |
| Pierre, S. Dak. | .81 | 1.95 | 1.20 | .67 | .02 | .41 | 2.19 | 1.25 | 1.28 | .44 | .30 | 1.38 | .27 |
| North Platte, Nebr. | 1.15 | .92 | 1.07 | .81 | .32 | 1.43 | 1.30 | 1.29 | .92 | .14 | 1.77 | .95 | .76 |
| Omaha, Nebr. | 2.35 | 3.70 | .89 | 1.17 | .55 | 4.65 | 2.79 | 2.87 | 1.52 | 1.45 | .71 | .51 | 2.11 |
| Concordia, Kans. | 2.00 | 2.49 | 3.00 | 1.06 | .30 | 4.49 | 1.05 | 1.61 | .72 | 1.14 | 1.75 | .48 | 1.21 |
| Dodge City, Kans. | 1.40 | .43 | .81 | .79 | .07 | 1.67 | 1.01 | 3.58 | .23 | .45 | 3.82 | 1.68 | 1.20 |
| Iola, Kans. | 2.27 | 4.65 | 1.00 | 1.67 | .87 | 5.08 | 5.33 | 4.09 | .88 | 1.30 | 7.42 | 2.44 | 2.22 |
| Washington, D. C. | 3.09 | 1.65 | 3.72 | 1.76 | 4.81 | .86 | 3.64 | .40 | 1.35 | 1.41 | 1.36 | .44 | 4.86 |
| Lynchburg, Va. | 3.38 | 4.42 | 3.21 | 2.22 | 2.24 | .95 | 2.65 | .10 | 2.45 | 4.19 | 1.50 | 2.48 | 4.08 |
| Norfolk, Va. | 3.91 | 2.39 | 2.29 | 2.62 | 2.89 | .79 | 2.27 | .94 | 1.28 | 2.75 | 1.70 | .11 | 2.22 |
| Parkersburg, W. Va. | 2.44 | 2.91 | 2.64 | 2.53 | 4.77 | 3.19 | 5.37 | 1.40 | 1.97 | 5.73 | .82 | .25 | 5.97 |
| Charlotte, N. C. | 3.15 | 3.11 | 2.97 | 2.64 | 1.95 | 3.00 | 4.40 | .10 | 1.76 | 5.32 | 1.13 | .45 | 2.83 |
| Charleston, S. C. | 3.68 | 4.14 | 4.27 | 4.37 | .32 | 1.66 | .28 | .06 | 1.70 | 5.72 | 2.09 | 1.66 | 3.08 |
| Atlanta, Ga. | 2.34 | 6.14 | 6.45 | 2.11 | 1.60 | 5.04 | 5.04 | .54 | 2.85 | 3.48 | 1.59 | .90 | 4.55 |
| Thomasville, Ga. | 3.46 | 2.17 | 9.63 | 4.88 | .35 | 1.65 | .43 | .23 | 1.68 | 4.76 | 1.38 | 2.05 | 5.38 |
| Jacksonville, Fla. | 5.06 | 2.34 | 5.45 | 4.77 | .38 | .97 | 1.81 | .11 | 6.37 | 8.84 | 4.75 | 8.08 | 3.13 |
| Miami, Fla. | 8.96 | 6.92 | 11.65 | 5.03 | 2.11 | 4.82 | 3.73 | 5.04 | 18.20 | 15.85 | 2.77 | 25.02 | 1.12 |
| Memphis, Tenn. | 2.74 | 1.81 | 3.02 | 2.28 | 1.72 | 2.57 | 10.13 | 2.68 | 1.40 | .89 | 2.74 | .09 | 8.72 |
| Nashville, Tenn. | 2.48 | 2.80 | .42 | 2.67 | 2.25 | 3.44 | 8.35 | 2.75 | 2.93 | .75 | 1.23 | .03 | 6.90 |
| Birmingham, Ala. | 2.34 | 2.52 | 3.57 | .83 | 1.83 | 10.84 | 2.31 | .54 | 1.94 | 1.81 | 1.00 | .00 | 6.19 |
| Mobile, Ala. | 3.18 | .75 | 4.53 | 2.52 | .70 | 10.57 | 8.53 | 4.65 | 1.42 | 4.61 | 5.64 | .31 | 5.35 |
| New Orleans, La. | 2.93 | 2.63 | 12.07 | 8.51 | .71 | 11.07 | 4.21 | 3.59 | 1.85 | 3.25 | 2.25 | T. | 7.90 |
| Shreveport, La. | 3.18 | .32 | 1.95 | 2.17 | 2.13 | 4.25 | 11.75 | 2.89 | .03 | .45 | 2.43 | T. | 5.86 |
| Amarillo, Tex. | 1.71 | 4.46 | 1.55 | 2.90 | .34 | 2.47 | .67 | 1.87 | .28 | .23 | 7.34 | .86 | 3.35 |
| Brownsville, Tex. | 3.22 | 2.58 | .82 | 2.23 | T. | 3.37 | 4.52 | 3.56 | 1.90 | .74 | 5.45 | 5.12 | 3.99 |
| El Paso, Tex. | .95 | .80 | .18 | 1.07 | T. | 1.03 | .97 | .57 | .11 | .35 | .58 | .24 | .79 |
| Fort Worth, Tex. | 2.06 | .28 | .58 | 1.59 | .17 | 3.31 | 9.44 | 6.52 | .31 | 2.33 | 6.05 | T. | 3.77 |
| Galveston, Tex. | 4.18 | 2.95 | 2.81 | .99 | 1.49 | 2.78 | 8.30 | 7.92 | 3.83 | 4.78 | 3.11 | .06 | 1.34 |
| San Antonio, Tex. | 1.49 | 5.78 | 1.11 | 2.57 | .48 | 4.05 | 8.66 | 2.85 | 1.02 | 3.55 | 1.39 | .52 | 2.33 |
| Oklahoma City, Okla. | 1.81 | 1.50 | 2.84 | 1.73 | .02 | 5.31 | 8.12 | 7.38 | .18 | 4.30 | 9.64 | .38 | 3.12 |
| Little Rock, Ark. | 2.55 | 1.47 | 2.19 | 2.92 | 2.08 | 4.14 | 15.29 | 3.23 | .14 | .77 | 1.00 | .06 | 6.73 |
| Harve, Mont. | .50 | 2.82 | .42 | 1.01 | .38 | 1.05 | .75 | 1.25 | .16 | .09 | .71 | .40 | .64 |
| Kalispell, Mont. | 1.17 | 3.40 | .34 | .62 | .54 | .91 | 1.05 | 1.25 | 1.15 | 1.05 | .55 | .32 | .99 |
| Cheyenne, Wyo. | .72 | 1.29 | 1.11 | 1.55 | .39 | .68 | 1.67 | .96 | .06 | .23 | 2.83 | 2.25 | 3.51 |
| Sheridan, Wyo. | 1.02 | .65 | .43 | 2.85 | 1.77 | .51 | 2.87 | 1.19 | .24 | 1.35 | 1.72 | 2.07 | 3.20 |
| Pueblo, Colo. | .70 | 1.66 | .41 | .71 | .51 | .14 | .30 | .91 | 1.21 | .19 | 2.75 | .51 | .66 |
| Santa Fe, N. Mex. | 1.07 | 2.40 | .04 | 2.76 | .19 | 2.73 | 1.82 | 1.42 | .98 | .24 | 2.43 | .30 | 2.09 |
| Phoenix, Ariz. | .35 | 2.30 | T. | .65 | T. | .52 | .26 | .46 | .11 | T. | .22 | .30 | .92 |
| Modena, Utah | .82 | .30 | .07 | 2.18 | 0 | .69 | .63 | 2.40 | 1.97 | .37 | .10 | .41 | 2.25 |
| Salt Lake City, Utah | 1.40 | 2.61 | .01 | 2.45 | .08 | 1.13 | 2.52 | 3.57 | 1.29 | .66 | 2.18 | 1.87 | .73 |
| Winnemucca, Nev. | .45 | .63 | .06 | 1.42 | T. | 1.45 | .88 | .52 | .06 | 3.11 | 1.05 | .46 | 1.46 |
| Boise, Idaho | .28 | 1.40 | .21 | .64 | T. | 1.38 | 1.41 | 2.34 | .16 | .52 | 2.73 | 1.50 | 2.16 |
| Seattle, Wash. | 2.67 | 4.37 | 3.00 | 1.18 | .16 | 3.46 | 1.59 | 4.19 | 3.01 | 2.37 | 2.05 | 5.08 | .28 |
| Walla Walla, Wash. | 1.47 | 1.99 | .99 | .38 | .01 | 1.53 | 1.95 | 1.65 | 1.20 | .89 | 3.11 | 1.35 | .17 |
| Portland, Oreg. | 3.28 | 3.47 | 1.98 | 1.26 | .03 | .47 | 1.43 | 3.61 | 2.78 | 4.70 | 1.61 | 5.50 | .02 |
| Roseburg, Oreg. | 2.61 | 3.56 | .94 | .49 | .02 | 1.18 | 2.28 | 3.78 | 2.13 | 3.50 | 3.40 | 10.46 | .05 |
| Eureka, Calif. | 2.65 | 3.79 | .79 | .47 | 0 | 1.00 | .24 | 4.11 | 1.59 | 3.38 | 2.55 | 6.84 | .95 |
| Fresno, Calif. | .72 | .26 | 0 | 1.16 | 0 | .11 | .29 | .84 | T. | .52 | .37 | .64 | 1.79 |
| Los Angeles, Calif. | .77 | .81 | 0 | 2.71 | 0 | T. | .56 | .76 | .59 | .24 | .04 | .63 | .74 |
| Sacramento, Calif. | 1.04 | .82 | T. | .79 | T. | .40 | .01 | 1.29 | .80 | .72 | .58 | 2.10 | T. |
| San Diego, Calif. | .46 | 1.05 | 0 | .87 | .17 | .42 | 1.04 | .18 | .67 | .09 | .87 | .35 | 3.67 |
| San Francisco, Calif. | 1.29 | .29 | .01 | .52 | 0 | .17 | .27 | 1.83 | .52 | 2.95 | .46 | 2.98 | .31 |

T=Trace, indicates an amount too small to measure.

¹ Normals are based on records of 20 or more years of observations.

TABLE 796.—*Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued*

| Station | Normal for Nov. | November total precipitation | | | | | | | | | | | |
|-----------------------|-----------------------|------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> |
| Greenville, Me. | 3.03 | 2.10 | 2.56 | 4.17 | 1.26 | 3.77 | 3.58 | 3.75 | 5.69 | 1.97 | 3.39 | 4.47 | 5.31 |
| Boston, Mass. | 4.10 | 2.72 | 2.14 | 1.67 | .59 | 1.20 | 5.36 | 5.46 | 6.19 | .84 | 2.78 | 1.93 | 3.66 |
| Buffalo, N. Y. | 3.35 | 1.81 | 1.86 | 1.53 | 1.17 | 1.43 | 1.38 | 4.30 | 3.77 | 1.08 | 2.74 | 3.90 | 3.26 |
| Canton, N. Y. | 3.41 | 2.31 | 1.25 | 1.63 | 1.74 | 2.34 | 1.13 | 4.45 | 2.67 | 1.66 | 3.84 | 2.94 | 4.06 |
| Trenton, N. J. | 3.43 | 1.62 | .96 | 1.31 | 1.02 | 1.85 | 3.10 | 2.14 | 2.83 | .62 | 2.09 | 1.58 | 4.63 |
| Pittsburgh, Pa. | 2.55 | 1.35 | 2.37 | 1.86 | .28 | 1.79 | 3.82 | 2.57 | 5.06 | 1.31 | 2.39 | 1.39 | 2.70 |
| Scranton, Pa. | 2.29 | 1.12 | 1.37 | 2.01 | .89 | 1.04 | 2.76 | 2.97 | 5.03 | .76 | 2.20 | 1.63 | 2.87 |
| Cincinnati, Ohio | 3.21 | 1.20 | 2.34 | 1.85 | .31 | 1.65 | 3.65 | 2.92 | 5.67 | 1.88 | 2.28 | 1.06 | 5.75 |
| Cleveland, Ohio | 2.75 | 1.34 | 1.84 | 2.35 | 1.37 | 1.77 | 1.31 | 2.25 | 3.93 | 1.37 | 2.64 | .91 | 3.60 |
| Evansville, Ind. | 4.11 | .65 | 3.40 | 1.11 | 2.19 | .98 | 3.73 | 1.38 | 9.24 | 1.64 | 3.54 | 1.04 | 4.83 |
| Indianapolis, Ind. | 3.52 | 1.45 | 3.05 | 1.73 | .12 | 1.73 | 3.27 | 2.12 | 8.91 | 2.32 | 2.04 | 1.75 | 5.13 |
| Chicago, Ill. | 2.60 | .33 | 2.03 | 2.11 | .56 | 2.65 | 2.38 | .92 | 3.51 | 2.66 | 1.46 | .86 | 2.57 |
| Peoria, Ill. | 2.64 | .20 | 2.29 | 1.88 | .07 | 3.18 | 2.31 | 1.22 | 3.43 | 3.67 | 1.37 | .52 | 2.70 |
| Grand Rapids, Mich. | 2.53 | 1.47 | 1.52 | 2.12 | 1.21 | 2.63 | 2.30 | 1.54 | 3.64 | 2.39 | 1.99 | 1.80 | 2.08 |
| Marquette, Mich. | 2.79 | 2.43 | 3.79 | 2.48 | 1.66 | 5.29 | 4.18 | 2.96 | 1.97 | 2.84 | 1.22 | 2.02 | .97 |
| Madison, Wis. | 1.80 | .70 | 1.12 | 1.69 | .30 | 1.17 | 2.25 | 1.83 | 1.55 | 3.14 | .68 | 2.59 | 1.16 |
| Duluth, Minn. | 1.58 | 1.15 | 3.27 | .09 | .09 | 1.94 | 3.86 | 1.40 | .70 | 3.57 | .63 | .47 | .70 |
| St. Paul, Minn. | 1.30 | .48 | 2.64 | .92 | .06 | 3.45 | 2.59 | 1.08 | 1.58 | 3.70 | .35 | .75 | .59 |
| Des Moines, Iowa. | 1.48 | .35 | 1.24 | 1.46 | .21 | 1.10 | 3.84 | 1.63 | .35 | 2.54 | .55 | .53 | .32 |
| Dubuque, Iowa. | 1.81 | .21 | 1.65 | 1.17 | .07 | 1.10 | 3.59 | 2.01 | .91 | 4.41 | 1.19 | .56 | 1.28 |
| St. Louis, Mo. | 2.88 | 1.53 | 1.97 | 2.53 | .78 | 2.73 | 2.08 | .56 | 4.43 | 2.36 | 1.90 | 1.53 | 4.09 |
| Springfield, Mo. | 2.64 | .71 | 2.66 | 2.88 | 2.61 | 3.90 | 4.49 | .64 | 2.46 | 4.14 | 3.47 | 1.71 | 2.05 |
| Bismarck, N. Dak. | .68 | .42 | .67 | .13 | .04 | .51 | .92 | .39 | .84 | 1.51 | .29 | .05 | .13 |
| Devils Lake, N. Dak. | .71 | .57 | .60 | .12 | .32 | .80 | 1.01 | .76 | .43 | 2.38 | .47 | .38 | .30 |
| Pierre, S. Dak. | .43 | T. | .84 | .08 | T. | .55 | 1.27 | .71 | .49 | 3.16 | .20 | .44 | .43 |
| North Platte, Nebr. | 1.06 | .03 | 1.51 | .73 | .12 | .89 | 2.83 | .04 | 2.35 | .45 | .08 | .37 | .07 |
| Omaha, Nebr. | 1.06 | .03 | 1.51 | .73 | .12 | .89 | 2.83 | .04 | 2.35 | .45 | .08 | .37 | .07 |
| Concordia, Kans. | .55 | T. | .99 | .77 | .07 | 1.24 | 1.71 | 1.47 | .08 | 2.05 | .61 | .38 | .70 |
| Dodge City, Kans. | .55 | T. | .08 | .03 | .58 | .37 | 1.11 | 1.13 | T. | .95 | .53 | .34 | 1.77 |
| Iola, Kans. | 1.38 | .43 | .31 | 3.03 | .05 | 2.89 | 2.12 | 1.35 | .13 | 3.01 | 1.59 | 2.24 | 3.30 |
| Washington, D. C. | 2.71 | 2.06 | .93 | 2.11 | .53 | 1.48 | 2.32 | 4.51 | 4.15 | .55 | 2.04 | 1.47 | 3.53 |
| Lynchburg, Va. | 2.79 | 2.31 | 1.06 | 1.52 | .25 | 1.26 | 2.48 | 7.14 | 1.65 | .19 | 1.98 | 1.45 | 2.68 |
| Norfolk, Va. | 2.72 | 2.62 | .87 | 1.34 | .59 | .77 | .20 | 3.64 | 1.70 | .44 | 1.95 | 2.00 | 1.97 |
| Parkersburg, W. Va. | 2.83 | .80 | 3.32 | 1.84 | .60 | 1.85 | 4.76 | 1.82 | 5.56 | .97 | 2.97 | 1.67 | 3.01 |
| Charlotte, N. C. | 2.86 | 2.45 | 1.96 | .36 | .75 | 3.23 | 1.02 | 4.95 | 4.02 | .92 | 3.09 | 1.37 | 3.37 |
| Charleston, S. C. | 2.87 | 2.34 | 1.65 | 1.11 | .31 | 2.34 | .23 | 3.07 | 1.82 | .10 | 1.79 | .72 | 3.09 |
| Atlanta, Ga. | 3.40 | 4.89 | 1.53 | 2.63 | 1.51 | 3.68 | 2.92 | 3.33 | 6.47 | 1.42 | 3.55 | .64 | 4.46 |
| Thomasville, Ga. | 2.64 | 1.89 | 1.67 | 1.87 | .63 | 3.38 | 3.40 | 3.69 | 3.11 | 1.10 | 2.87 | .32 | 5.84 |
| Jacksonville, Fla. | 2.19 | 3.87 | 1.07 | 2.76 | .23 | 3.26 | 1.06 | 5.38 | 2.27 | .58 | .06 | .32 | 1.51 |
| Miami, Fla. | 2.84 | 7.06 | 2.54 | 1.85 | .24 | .60 | 3.48 | 7.73 | 5.0 | 5.44 | .27 | 1.06 | 17.2 |
| Memphis, Tenn. | 4.59 | 2.05 | 7.05 | .86 | 1.14 | 2.75 | 7.75 | 1.32 | 4.59 | 3.50 | 3.08 | 2.94 | 3.80 |
| Nashville, Tenn. | 3.85 | 2.13 | 6.75 | 1.00 | .85 | 1.36 | 7.89 | 2.60 | 5.63 | 1.80 | 2.87 | 1.25 | 4.52 |
| Birmingham, Ala. | 3.39 | 2.28 | 3.64 | 2.61 | 1.55 | 5.25 | 4.01 | 2.45 | 2.14 | 2.59 | 5.50 | .01 | 3.41 |
| Mobile, Ala. | 3.74 | 10.23 | 3.32 | 2.61 | 1.43 | 7.14 | 4.58 | 1.68 | 3.79 | 3.98 | 4.33 | .06 | 4.38 |
| New Orleans, La. | 3.79 | 4.65 | 2.29 | .88 | .34 | 4.46 | 7.29 | 3.03 | 3.83 | 3.38 | 4.94 | .23 | 4.85 |
| Shreveport, La. | 4.08 | 3.61 | 4.14 | 2.54 | 1.14 | 4.13 | 4.68 | 2.15 | 1.52 | 2.01 | 3.19 | .33 | 4.95 |
| Amarillo, Tex. | 1.16 | T. | .18 | .40 | .59 | 1.16 | 1.26 | 1.33 | T. | 1.39 | 2.13 | 1.25 | .95 |
| Brownsville, Tex. | 2.06 | 5.13 | 1.4 | 1.39 | .29 | 2.16 | 2.34 | 2.42 | 1.22 | 3.67 | 3.34 | .08 | 1.75 |
| El Paso, Tex. | .59 | 1.13 | .01 | .52 | .04 | 1.04 | .93 | T. | .22 | .29 | .53 | .01 | .02 |
| Fort Worth, Tex. | 2.57 | 6.44 | .29 | 1.82 | 1.35 | 7.94 | 3.32 | 1.70 | 1.24 | 2.57 | 1.63 | 1.80 | 2.05 |
| Galveston, Tex. | 4.02 | 9.19 | 1.47 | 2.16 | .97 | 8.15 | 1.97 | 3.64 | 1.61 | 2.54 | 4.11 | 1.32 | 3.42 |
| San Antonio, Tex. | 1.78 | 3.24 | .29 | 2.14 | .75 | 2.53 | 1.56 | 2.95 | 1.17 | .98 | 4.21 | .96 | 1.44 |
| Oklahoma City, Okla. | 2.25 | .70 | 1.01 | 2.35 | .80 | 3.53 | 2.84 | 2.04 | 3.33 | 2.37 | 2.13 | 3.04 | 2.42 |
| Little Rock, Ark. | 4.59 | 2.36 | 5.63 | 2.12 | 2.07 | 3.11 | 8.21 | .88 | 3.89 | 2.07 | 2.59 | 2.54 | 5.23 |
| Hayes, Mont. | .77 | .24 | .12 | .46 | .02 | .53 | .90 | .07 | 1.09 | .54 | .17 | .67 | T. |
| Kalispell, Mont. | 1.90 | 1.58 | 1.69 | .80 | .51 | .23 | 1.35 | .43 | 2.39 | 1.06 | .89 | 1.61 | .47 |
| Cheyenne, Wyo. | .41 | .26 | .19 | .88 | .40 | .54 | 1.63 | .22 | 3.4 | 2.40 | .28 | .31 | 1.26 |
| Sheridan, Wyo. | .59 | .08 | 1.03 | .90 | .12 | .58 | 1.05 | .49 | 1.38 | 1.16 | .36 | .76 | .29 |
| Fueblo, Colo. | .37 | T. | .15 | .20 | .02 | .66 | .64 | .28 | .72 | 1.26 | .66 | .19 | 1.30 |
| Santa Fe, N. Mex. | .78 | T. | .61 | .06 | .26 | .63 | .75 | .14 | T. | 1.13 | .82 | .33 | .88 |
| Phoenix, Ariz. | .96 | 1.00 | .64 | 0 | 0 | 1.92 | 2.38 | T. | .04 | 1.04 | 2.84 | T. | .12 |
| Modena, Utah. | .60 | 0 | .64 | .07 | .16 | .30 | 1.12 | .10 | 1.18 | 1.00 | 1.02 | .44 | .48 |
| Salt Lake City, Utah. | 1.42 | .37 | 1.61 | .92 | 1.31 | 1.77 | .81 | 1.90 | 1.04 | 3.33 | 1.05 | 1.54 | 1.40 |
| Winnemucca, Nev. | .72 | .02 | .59 | .44 | .25 | .77 | .72 | 1.33 | .64 | .52 | .53 | .32 | .66 |
| Boise, Idaho. | .86 | .11 | 1.07 | 1.07 | 1.17 | .23 | 2.34 | 1.82 | 3.27 | 1.52 | 2.65 | .86 | 1.19 |
| Seattle, Wash. | 5.83 | 5.28 | 5.66 | 4.58 | 2.70 | 3.81 | 4.13 | 4.43 | 6.60 | 4.45 | 2.69 | 4.84 | 3.83 |
| Walla Walla, Wash. | 2.13 | 1.00 | 3.04 | 2.74 | 1.05 | 1.02 | 3.16 | 2.10 | 3.91 | .95 | 1.18 | 2.25 | .83 |
| Portland, Oreg. | 6.41 | 3.70 | 11.32 | 6.31 | 4.24 | 4.30 | 7.44 | 5.84 | 10.04 | 2.94 | 4.15 | 6.11 | 5.44 |
| Roseburg, Oreg. | 4.37 | 2.69 | 8.64 | 4.62 | 6.27 | 4.73 | 3.90 | 6.27 | 6.46 | 2.59 | 1.95 | 6.88 | 3.26 |
| Eureka, Calif. | 5.67 | 2.42 | 6.15 | 3.13 | 6.43 | 4.74 | 2.99 | 6.35 | 6.21 | 3.32 | 2.86 | 6.37 | 3.71 |
| Fresno, Calif. | 1.03 | .11 | .30 | .28 | .35 | 1.81 | .04 | .90 | .26 | .62 | .10 | .73 | .20 |
| Los Angeles, Calif. | 1.48 | .20 | 1.35 | .09 | .36 | 1.85 | .45 | 1.15 | .05 | 1.44 | .04 | .74 | .68 |
| Sacramento, Calif. | 2.15 | .47 | .83 | .49 | .25 | 1.84 | .36 | 3.39 | 1.09 | 3.03 | .62 | 1.59 | 1.13 |
| San Diego, Calif. | .83 | .86 | .73 | .05 | .08 | 1.91 | .43 | .19 | .30 | .75 | .16 | .55 | 1.16 |
| San Francisco, Calif. | 2.47 | .70 | .92 | 1.50 | .81 | 5.80 | .44 | 2.70 | 1.43 | 3.77 | .49 | 1.50 | 2.32 |

T=trace; indicates an amount too small to measure.

¹ Normals are based on records of 20 or more years of observations.

TABLE 796.—Precipitation: Normal¹ and total precipitation at selected points in the United States, 1914-1925—Continued

| Station | Normal for Dec. | December total precipitation | | | | | | | | | | | |
|-----------------------|-----------------|------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 |
| | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> |
| Greenville, Me. | 2.79 | 1.50 | 4.84 | 4.87 | 3.62 | 3.49 | 1.81 | 6.93 | 2.02 | 2.79 | 3.32 | 1.84 | 2.57 |
| Boston, Mass. | 3.41 | 3.46 | 3.94 | 3.00 | 2.56 | 3.21 | 1.63 | 3.89 | 2.35 | 3.01 | 4.99 | 1.48 | 5.20 |
| Buffalo, N. Y. | 3.37 | 3.49 | 4.09 | 3.37 | 3.93 | 2.41 | 1.96 | 3.36 | .86 | 3.23 | 3.00 | 3.49 | 2.31 |
| Canton, N. Y. | 3.59 | 2.15 | 4.29 | 2.53 | 1.76 | 2.79 | 1.12 | 5.41 | 1.60 | 1.03 | 2.51 | 1.82 | 2.53 |
| Trenton, N. J. | 3.16 | 4.64 | 4.44 | 4.87 | 1.55 | 3.86 | 2.94 | 6.25 | 1.85 | 3.46 | 3.94 | 2.60 | 1.65 |
| Pittsburgh, Pa. | 2.73 | 4.37 | 3.85 | 2.05 | 1.19 | 3.50 | 2.89 | 1.94 | 2.36 | 1.98 | 6.22 | 1.08 | 1.40 |
| Seranton, Pa. | 2.61 | 4.19 | 4.66 | 3.26 | 2.15 | 2.88 | 2.82 | 1.83 | 2.31 | 2.44 | 3.04 | 1.06 | 1.47 |
| Cincinnati, Ohio | 2.93 | 3.14 | 4.59 | 3.60 | 1.56 | 4.68 | 2.66 | 1.38 | 4.86 | 4.00 | 6.94 | 3.16 | .67 |
| Cleveland, Ohio | 2.58 | 1.57 | 1.75 | 2.06 | 1.41 | 1.58 | 1.32 | 1.64 | 1.75 | 2.45 | 4.50 | 3.58 | 1.45 |
| Evanston, Ind. | 3.83 | 3.62 | 6.97 | 4.66 | 2.12 | 5.83 | 1.86 | 3.86 | 1.58 | 5.94 | 6.43 | 3.80 | 1.06 |
| Indianapolis, Ind. | 3.04 | 3.37 | 5.15 | 2.50 | 1.10 | 6.19 | .85 | 3.27 | 3.27 | 4.45 | 5.60 | 5.83 | 1.09 |
| Chicago, Ill. | 2.07 | 2.33 | 1.31 | 2.58 | .88 | 3.24 | .70 | 3.33 | 4.63 | 1.21 | 1.96 | 1.90 | 1.21 |
| Peoria, Ill. | 2.37 | 1.81 | 1.66 | 1.75 | .63 | 2.80 | .30 | 1.87 | 2.91 | 1.38 | 2.21 | 2.40 | 1.12 |
| Grand Rapids, Mich. | 2.54 | 1.89 | 1.22 | 3.81 | .82 | 4.02 | 1.19 | 4.19 | 4.14 | 1.40 | 2.18 | 1.66 | 1.52 |
| Marquette, Mich. | 2.52 | .85 | 2.17 | 3.09 | 3.86 | 2.94 | 1.89 | 2.27 | 2.04 | 1.14 | 1.52 | 1.83 | 2.80 |
| Madison, Wis. | 1.77 | 1.76 | .64 | 1.24 | .45 | 2.19 | .93 | 3.33 | 2.73 | 1.23 | 2.12 | 1.16 | 1.79 |
| Duluth, Minn. | 1.22 | .30 | .87 | .38 | 1.07 | 2.03 | .30 | 1.07 | .69 | .90 | .82 | .79 | .66 |
| St. Paul, Minn. | 1.66 | .50 | .53 | 1.21 | .57 | 2.05 | .66 | .88 | .27 | .18 | .66 | 1.56 | .61 |
| Des Moines, Iowa | 1.31 | 1.25 | .65 | .65 | .58 | 1.35 | .93 | 1.38 | 4.60 | .25 | .61 | 1.62 | 1.67 |
| Dubuque, Iowa | 1.72 | 1.83 | .36 | .95 | .82 | 1.90 | .63 | .96 | 2.43 | .41 | .92 | 1.31 | 1.66 |
| St. Louis, Mo. | 2.23 | 2.23 | 3.34 | 2.16 | .78 | 2.69 | 1.22 | 2.41 | 2.89 | 4.98 | 3.30 | 4.63 | 1.46 |
| Springfield, Mo. | 2.67 | 2.90 | 3.21 | 2.07 | 1.18 | 2.97 | .44 | 1.84 | 1.92 | 2.07 | 2.92 | 4.21 | .91 |
| Bismarck, N. Dak. | .62 | .34 | .39 | 1.52 | .59 | 1.02 | .23 | .29 | .29 | .94 | .22 | .23 | .35 |
| Devils Lake, N. Dak. | .39 | .36 | .64 | .90 | .66 | .67 | .42 | .30 | .75 | .87 | .23 | .67 | .49 |
| Pierre, S. Dak. | .50 | .22 | .25 | .61 | .72 | 1.45 | .12 | .21 | .27 | .81 | .24 | .95 | .65 |
| North Platte, Nebr. | .47 | .87 | .82 | .42 | .27 | 1.31 | .32 | .60 | 1.4 | .01 | .39 | 1.81 | .64 |
| Omaha, Nebr. | .91 | 1.38 | .34 | .65 | .48 | .72 | .69 | .81 | .14 | .07 | .58 | 1.38 | 1.42 |
| Concordia, Kans. | .48 | 1.57 | .40 | .88 | .06 | 1.87 | .24 | .58 | .01 | T. | .17 | .33 | .88 |
| Dodge City, Kans. | .66 | .46 | .23 | .30 | .25 | 4.03 | .08 | .81 | .68 | T. | .43 | 1.13 | .65 |
| Iola, Kans. | .98 | .82 | 1.12 | .68 | .29 | 3.22 | .19 | .89 | .52 | .18 | 1.14 | 1.70 | .63 |
| Washington, D. C. | 3.16 | 4.49 | 2.80 | 4.03 | 1.47 | 4.65 | 3.32 | 3.15 | 1.95 | 3.48 | 2.80 | 2.98 | 1.07 |
| Lynchburg, Va. | 3.27 | 4.68 | 2.37 | 2.32 | 1.70 | 2.59 | 1.96 | 2.84 | 1.01 | 3.42 | 2.72 | 3.34 | 2.86 |
| Norfolk, Va. | 3.49 | 4.69 | 2.26 | 3.11 | 2.62 | 2.94 | 1.71 | 4.91 | 3.69 | 2.93 | .93 | 2.85 | 4.20 |
| Parkersburg, W. Va. | 2.77 | 4.75 | 5.24 | 3.48 | .90 | 4.23 | 4.07 | 1.68 | 4.30 | 4.13 | 5.36 | 2.49 | .57 |
| Charlotte, N. C. | 3.86 | 6.53 | 3.53 | 3.32 | 1.69 | 4.35 | 2.20 | 4.47 | 2.66 | 4.47 | 3.33 | 4.83 | 2.41 |
| Charleston, S. C. | 3.15 | 2.35 | 2.81 | 1.47 | 1.08 | 3.17 | 1.19 | 3.00 | .51 | 4.61 | 3.91 | 2.93 | 4.00 |
| Atlanta, Ga. | 4.54 | 5.31 | 9.07 | 6.57 | .89 | 5.46 | 12.94 | 4.36 | 1.79 | 6.20 | 5.60 | 6.39 | 2.46 |
| Thomasville, Ga. | 3.59 | 4.60 | 1.73 | 6.59 | 1.82 | 8.13 | 2.56 | 8.60 | 2.14 | 6.35 | 2.79 | 6.64 | 6.93 |
| Jacksonville, Fla. | 2.99 | 5.20 | 3.46 | 7.47 | 2.11 | 2.60 | 4.61 | 3.35 | 1.60 | 2.54 | 1.38 | 1.15 | 6.88 |
| Miami, Fla. | 2.00 | 4.43 | 2.00 | .25 | 1.46 | 4.11 | .85 | 1.72 | .23 | 1.19 | .46 | .32 | .68 |
| Memphis, Tenn. | 4.83 | 6.35 | 5.73 | 3.28 | 1.33 | 4.58 | 2.11 | 4.58 | 2.15 | 1.76 | 5.85 | 3.82 | .96 |
| Nashville, Tenn. | 3.82 | 5.06 | 6.44 | 4.29 | 1.46 | 5.56 | 3.28 | 2.99 | 1.73 | 2.69 | 4.32 | 3.56 | 1.10 |
| Birmingham, Ala. | 4.60 | 4.65 | 6.11 | 3.70 | 1.48 | 4.14 | 9.56 | 9.57 | 3.23 | 7.63 | 5.30 | 6.99 | 4.14 |
| Mobile, Ala. | 4.57 | 4.13 | 4.16 | 6.68 | 1.85 | 4.92 | 5.42 | 6.18 | 5.54 | 9.10 | 6.13 | 5.35 | 6.09 |
| New Orleans, La. | 4.46 | 3.99 | 5.07 | 7.17 | 2.16 | 8.46 | .83 | 8.70 | 3.49 | 7.01 | 4.37 | 6.72 | 3.58 |
| Shreveport, La. | 4.37 | 7.16 | 3.05 | 1.65 | 1.02 | 3.09 | 2.08 | 6.37 | 1.92 | 2.59 | 7.82 | 2.26 | 2.87 |
| Amarillo, Tex. | .53 | 1.17 | 0.13 | 0.88 | .04 | .25 | .50 | .64 | .06 | .10 | 1.11 | .63 | .37 |
| Brownsville, Tex. | 1.52 | 2.19 | 4.30 | .69 | .32 | 3.55 | 1.08 | .05 | .17 | .38 | 2.86 | 3.53 | 3.72 |
| El Paso, Tex. | .52 | 3.94 | .43 | .32 | 0 | .78 | .12 | T. | .15 | .09 | .93 | .05 | .27 |
| Fort Worth, Tex. | 1.84 | 4.40 | 1.99 | .11 | .05 | 4.08 | .44 | 1.31 | .34 | .06 | 4.68 | 1.23 | .04 |
| Galveston, Tex. | 3.73 | 4.48 | 5.69 | .79 | 1.00 | 3.46 | 2.02 | 6.49 | 2.76 | 2.56 | 7.84 | 5.33 | 2.63 |
| San Antonio, Tex. | 1.56 | 1.43 | 1.57 | .33 | T. | 3.61 | 2.05 | .16 | .23 | .10 | 4.29 | 2.31 | .29 |
| Oklahoma City, Okla. | 1.74 | 2.74 | 1.33 | 1.05 | .04 | .04 | .12 | 1.37 | 1.18 | .53 | 2.06 | 2.1 | .31 |
| Little Rock, Ark. | 2.64 | 6.83 | 5.37 | 2.17 | 1.24 | 7.95 | 2.34 | 6.99 | 2.88 | 3.38 | 4.70 | 1.88 | .96 |
| Havre, Mont. | .63 | .66 | .77 | 1.05 | 2.64 | .09 | .20 | 1.01 | .25 | .53 | .69 | 1.19 | .54 |
| Kalispell, Mont. | 1.85 | .40 | 2.00 | 1.70 | 4.78 | .87 | .91 | 1.28 | 1.16 | 1.50 | 1.55 | 2.49 | .98 |
| Cheyenne, Wyo. | .31 | .16 | .41 | .84 | .81 | .58 | 1.10 | .67 | 1.31 | .44 | .28 | .78 | 1.74 |
| Sheridan, Wyo. | .60 | .14 | .84 | 1.07 | 1.02 | .21 | .35 | .61 | .54 | 1.02 | .82 | 1.12 | 1.70 |
| Pueblo, Colo. | .46 | .59 | .35 | .23 | .03 | .92 | .59 | .38 | 1.12 | T. | .35 | .97 | .41 |
| Santa Fe, N. Mex. | .76 | 1.70 | .97 | .17 | .02 | 1.24 | .33 | .84 | .88 | .20 | .98 | 1.52 | .66 |
| Phoenix, Ariz. | .69 | 3.09 | 2.54 | .89 | 0 | 1.16 | .13 | T. | .87 | .28 | 2.28 | 1.16 | .40 |
| Modena, Utah | .58 | .46 | .80 | .67 | .20 | 2.01 | .40 | .25 | 2.14 | .61 | .41 | 1.14 | .28 |
| Balt Lake City, Utah | 1.53 | .39 | 1.71 | 2.64 | .38 | .52 | 1.38 | 1.88 | 2.29 | 2.92 | 3.85 | .83 | .55 |
| Winnemucca, Nev. | .99 | .87 | 1.22 | .26 | .05 | .50 | .94 | 1.17 | 1.84 | 1.91 | 1.02 | 1.85 | .90 |
| Boise, Idaho | 1.72 | .47 | 1.56 | 1.29 | 2.33 | .39 | 1.20 | 2.43 | .88 | 1.73 | .79 | 3.02 | 1.08 |
| Seattle, Wash. | 5.29 | 1.39 | 7.77 | 4.13 | 9.21 | 5.04 | 4.10 | 5.68 | 7.25 | 7.37 | 3.31 | 4.63 | 4.30 |
| Walla Walla, Wash. | 2.10 | .63 | 1.97 | 2.68 | 4.11 | 1.48 | 1.92 | 2.50 | 1.57 | 1.83 | 2.18 | 1.88 | 1.84 |
| Portland, Ore. | 6.90 | 2.56 | 8.73 | 3.81 | 14.23 | 3.13 | 4.78 | 8.32 | 3.09 | 9.43 | 6.25 | 4.44 | 5.16 |
| Roseburg, Ore. | 5.92 | 1.53 | 5.50 | 3.88 | 3.71 | 3.26 | 4.51 | 7.17 | 1.52 | 5.86 | 4.31 | 5.25 | 3.66 |
| Eureka, Calif. | 7.25 | 7.09 | 5.19 | 5.47 | 1.17 | 4.29 | 4.33 | 10.89 | 4.48 | 7.62 | 4.93 | 4.07 | 4.84 |
| Fresno, Calif. | 1.53 | 1.76 | 2.78 | 1.93 | .14 | 1.46 | .89 | 1.07 | 3.47 | 2.20 | .24 | 1.61 | 1.31 |
| Los Angeles, Calif. | 2.90 | 3.73 | 2.52 | 3.67 | .07 | 1.84 | 1.99 | 1.01 | 7.90 | 3.09 | .80 | 1.10 | 2.45 |
| Sacramento, Calif. | 3.58 | 3.44 | 4.42 | 3.73 | .45 | 1.70 | 2.22 | 4.32 | 8.81 | 6.12 | .94 | 8.63 | 1.80 |
| San Diego, Calif. | 1.82 | 2.21 | 2.60 | 1.14 | T. | 1.68 | .48 | .54 | 9.26 | 1.21 | 1.65 | 1.84 | 1.50 |
| San Francisco, Calif. | 4.24 | 5.49 | 6.42 | 4.79 | .72 | 2.62 | 3.21 | 7.48 | 6.89 | 7.77 | 1.91 | 7.87 | 1.01 |

T=Trace, indicates an amount too small to measure.
Weather Bureau.

¹ Normals are based on records of 20 or more years of observations.

TABLE 797.—Monthly and annual normal¹ precipitation in inches at selected points in the United States

| Station | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> | <i>In.</i> |
| Greenville, Me. | 2.85 | .75 | 3.78 | 2.78 | 3.47 | 3.69 | 4.24 | 3.80 | 4.17 | 3.36 | 3.03 | 2.79 | 40.69 |
| Boston, Mass. | 3.82 | 3.44 | 4.08 | 3.55 | 3.51 | 3.03 | 3.36 | 4.03 | 3.19 | 3.86 | 4.10 | 3.41 | 43.38 |
| Buffalo, N. Y. | 3.30 | 2.85 | 2.62 | 2.45 | 3.10 | 3.14 | 3.40 | 2.99 | 3.18 | 3.53 | 3.35 | 3.37 | 37.28 |
| Canton, N. Y. | 3.16 | 2.87 | 2.84 | 2.26 | 2.85 | 3.43 | 3.23 | 2.69 | 2.81 | 3.34 | 3.41 | 3.59 | 36.18 |
| Trenton, N. J. | 3.17 | 3.19 | 4.04 | 3.29 | 3.62 | 3.49 | 4.77 | 5.37 | 3.99 | 3.41 | 3.43 | 3.16 | 44.43 |
| Pittsburgh, Pa. | 2.87 | 2.66 | 3.01 | 2.90 | 3.30 | 3.89 | 4.42 | 3.18 | 2.48 | 2.36 | 2.55 | 2.73 | 36.95 |
| Scranton, Pa. | 2.80 | 2.72 | 3.12 | 2.65 | 3.44 | 3.57 | 4.83 | 4.25 | 2.86 | 2.91 | 2.29 | 2.61 | 37.06 |
| Cincinnati, Ohio | 3.38 | 3.24 | 3.64 | 2.95 | 3.52 | 3.98 | 3.54 | 3.33 | 3.51 | 2.32 | 3.21 | 2.93 | 38.33 |
| Cleveland, Ohio | 2.45 | 2.61 | 2.70 | 2.31 | 3.22 | 3.68 | 3.55 | 3.15 | 2.51 | 2.75 | 2.58 | 35.04 | |
| Evansville, Ind. | 3.69 | 3.06 | 4.00 | 3.46 | 3.43 | 4.17 | 3.81 | 3.24 | 2.66 | 3.10 | 4.11 | 3.63 | 43.16 |
| Indianapolis, Ind. | 2.81 | 3.08 | 4.01 | 3.47 | 3.94 | 4.31 | 4.13 | 3.33 | 3.05 | 2.79 | 3.52 | 3.04 | 41.48 |
| Chicago, Ill. | 2.00 | 2.16 | 2.55 | 2.88 | 3.37 | 3.66 | 3.64 | 2.88 | 3.02 | 2.55 | 2.50 | 2.07 | 33.28 |
| Peoria, Ill. | 2.20 | 2.69 | 2.96 | 3.28 | 4.26 | 4.30 | 2.97 | 2.93 | 3.12 | 2.57 | 2.64 | 2.37 | 36.29 |
| Grand Rapids, Mich. | 2.78 | 1.91 | 2.52 | 2.45 | 3.34 | 2.52 | 2.63 | 2.59 | 3.12 | 2.54 | 2.53 | 2.64 | 31.47 |
| Marquette, Mich. | 2.04 | 1.72 | 2.08 | 1.99 | 3.32 | 3.51 | 3.10 | 2.86 | 3.51 | 3.19 | 2.79 | 2.52 | 32.63 |
| Madison, Wis. | 1.56 | 1.47 | 2.21 | 2.38 | 3.62 | 4.10 | 3.99 | 3.21 | 3.18 | 2.42 | 1.90 | 1.77 | 31.71 |
| Duluth, Minn. | .98 | .99 | 1.55 | 2.14 | 3.47 | 4.53 | 3.65 | 3.53 | 3.55 | 2.74 | 1.58 | 1.22 | 28.93 |
| St. Paul, Minn. | .90 | .84 | 1.60 | 2.33 | 3.67 | 4.41 | 3.40 | 3.46 | 3.42 | 2.34 | 1.30 | 1.06 | 28.68 |
| Des Moines, Iowa. | 1.21 | 1.08 | 1.65 | 2.98 | 4.66 | 4.96 | 3.86 | 3.61 | 3.07 | 2.68 | 1.48 | 1.31 | 32.45 |
| Dubuque, Iowa. | 1.49 | 1.38 | 2.21 | 2.92 | 4.32 | 4.55 | 4.30 | 3.04 | 3.59 | 2.68 | 1.81 | 1.72 | 34.01 |
| St. Louis, Mo. | 2.27 | 2.75 | 3.43 | 3.52 | 4.24 | 4.47 | 3.43 | 2.66 | 2.92 | 2.41 | 2.88 | 2.23 | 37.29 |
| Springfield, Mo. | 2.66 | 2.27 | 4.07 | 3.86 | 5.55 | 5.19 | 4.79 | 4.31 | 3.76 | 2.80 | 2.64 | 2.67 | 44.67 |
| Bismarck, N. Dak. | .64 | .50 | 1.04 | 1.88 | 2.60 | 3.54 | 2.14 | 1.98 | 1.19 | 1.03 | .68 | .62 | 17.64 |
| Devils Lake, N. Dak. | .60 | .53 | 1.01 | 2.03 | 2.20 | 3.53 | 2.78 | 2.76 | 1.39 | 1.23 | .71 | .39 | 20.16 |
| Pierre, S. Dak. | .46 | .44 | 1.33 | 1.98 | 2.13 | 3.08 | 2.35 | 2.01 | 1.11 | .81 | .43 | .50 | 16.63 |
| North Platte, Nebr. | .47 | .40 | .87 | 2.15 | 3.06 | 3.25 | 2.98 | 2.46 | 1.50 | 1.15 | .40 | .47 | 18.86 |
| Omaha, Nebr. | .65 | .76 | 1.39 | 3.01 | 4.50 | 5.05 | 4.33 | 3.62 | 3.08 | 2.35 | 1.06 | .91 | 39.65 |
| Concordia, Kans. | .72 | .75 | 1.48 | 2.42 | 4.70 | 4.97 | 3.62 | 2.81 | 2.58 | 2.00 | .94 | .48 | 27.47 |
| Dodge City, Kans. | .47 | .71 | 1.88 | 1.67 | 3.34 | 3.32 | 3.38 | 2.59 | 1.77 | 1.40 | .55 | .56 | 20.84 |
| Lola, Kans. | .98 | 1.11 | 2.35 | 2.79 | 5.05 | 4.73 | 3.92 | 3.47 | 3.55 | 2.27 | 1.38 | .93 | 32.33 |
| Washington, D. C. | 3.37 | 3.42 | 3.85 | 3.25 | 3.83 | 4.18 | 4.65 | 4.40 | 3.59 | 3.09 | 2.71 | 3.16 | 43.60 |
| Lynchburg, Va. | 3.72 | 3.49 | 3.81 | 3.17 | 3.99 | 3.89 | 4.03 | 4.25 | 3.63 | 3.38 | 2.79 | 3.27 | 43.42 |
| Norfolk, Va. | 3.37 | 3.75 | 4.28 | 2.79 | 4.07 | 4.33 | 5.80 | 5.97 | 4.06 | 3.91 | 2.72 | 3.49 | 49.64 |
| Parkersburg, W. Va. | 3.19 | 3.24 | 3.82 | 3.91 | 3.46 | 4.65 | 4.66 | 3.53 | 2.72 | 2.44 | 2.83 | 2.77 | 40.22 |
| Charlotte, N. C. | 4.29 | 4.39 | 4.57 | 3.44 | 3.92 | 4.46 | 5.49 | 5.55 | 3.22 | 3.15 | 2.88 | 3.86 | 49.20 |
| Charleston, S. C. | 3.45 | 3.41 | 3.72 | 2.99 | 3.47 | 5.39 | 7.26 | 6.97 | 5.46 | 3.93 | 2.87 | 3.15 | 52.47 |
| Atlanta, Ga. | 5.31 | 4.65 | 5.78 | 3.63 | 3.09 | 3.88 | 4.73 | 4.48 | 3.55 | 2.34 | 3.40 | 4.54 | 49.66 |
| Thomasville, Ga. | 4.13 | 4.48 | 5.09 | 3.65 | 4.01 | 4.72 | 5.32 | 5.03 | 4.23 | 3.46 | 2.64 | 3.69 | 50.47 |
| Jacksonville, Fla. | 3.12 | 3.43 | 3.52 | 3.72 | 4.25 | 5.53 | 6.20 | 6.21 | 6.08 | 5.06 | 2.19 | 2.69 | 53.25 |
| Miami, Fla. | 2.73 | 2.13 | 2.61 | 3.33 | 6.48 | 7.13 | 6.17 | 6.42 | 8.72 | 8.96 | 2.64 | 2.00 | 58.63 |
| Memphis, Tenn. | 5.21 | 4.35 | 5.77 | 4.83 | 4.54 | 4.97 | 3.51 | 3.20 | 3.05 | 2.74 | 4.59 | 4.38 | 50.34 |
| Nashville, Tenn. | 4.85 | 4.32 | 5.44 | 3.36 | 3.50 | 4.37 | 3.35 | 3.47 | 3.68 | 2.48 | 3.85 | 3.62 | 48.49 |
| Birmingham, Ala. | 5.32 | 4.75 | 5.76 | 3.67 | 3.09 | 3.88 | 4.70 | 4.48 | 3.50 | 2.34 | 3.39 | 4.60 | 49.48 |
| Mobile, Ala. | 4.85 | 5.36 | 7.17 | 4.35 | 4.00 | 5.95 | 7.04 | 6.81 | 5.02 | 3.18 | 3.74 | 4.57 | 62.04 |
| New Orleans, La. | 4.63 | 4.47 | 5.30 | 4.91 | 3.88 | 6.16 | 6.47 | 6.61 | 4.81 | 2.93 | 3.79 | 4.46 | 57.42 |
| Shreveport, La. | 4.42 | 3.61 | 4.52 | 4.58 | 4.16 | 3.58 | 3.72 | 2.24 | 3.22 | 3.18 | 4.08 | 4.37 | 45.58 |
| Amarillo, Tex. | .60 | .88 | .65 | 1.72 | 3.67 | 2.99 | 3.17 | 2.81 | 2.36 | 1.71 | 1.16 | .83 | 22.55 |
| Brownsville, Tex. | 1.35 | 1.27 | 1.23 | 1.33 | 2.22 | 2.37 | 1.88 | 2.59 | 5.42 | 3.22 | 2.06 | 1.52 | 26.46 |
| El Paso, Tex. | .51 | .46 | .38 | .23 | .35 | .55 | 2.13 | 1.72 | 1.45 | .95 | .69 | .52 | 9.84 |
| Fort Worth, Tex. | 1.51 | 1.52 | 2.18 | 4.12 | 4.36 | 3.08 | 2.57 | 2.72 | 2.46 | 2.69 | 2.57 | 1.84 | 31.62 |
| Galveston, Tex. | 3.62 | 3.10 | 2.90 | 3.13 | 3.23 | 4.75 | 3.98 | 5.01 | 5.41 | 4.18 | 4.02 | 3.73 | 47.66 |
| San Antonio, Tex. | 1.68 | 1.78 | 1.68 | 2.94 | 2.96 | 3.11 | 2.22 | 2.69 | 2.94 | 1.49 | 1.78 | 1.56 | 28.83 |
| Oklahoma City, Okla. | 1.34 | .98 | 2.38 | 2.89 | 5.75 | 3.07 | 3.65 | 3.17 | 3.75 | 4.81 | 2.25 | 1.74 | 31.69 |
| Little Rock, Ark. | 4.70 | 4.18 | 4.44 | 4.51 | 5.10 | 4.09 | 3.99 | 3.65 | 3.26 | 2.55 | 4.50 | 4.24 | 49.80 |
| Havre, Mont. | .69 | .46 | 1.48 | 1.01 | 2.09 | 2.82 | 1.92 | 1.26 | 1.03 | .50 | .77 | .63 | 13.67 |
| Kalispell, Mont. | 1.59 | 1.46 | 1.08 | 1.06 | 2.03 | 1.74 | .84 | .89 | 1.33 | 1.17 | 1.90 | 1.85 | 16.94 |
| Cheyenne, Wyo. | .40 | .56 | .95 | 1.85 | 2.43 | 1.57 | 1.90 | 1.47 | .94 | .72 | .41 | .31 | 13.60 |
| Sheridan, Wyo. | .90 | .74 | 1.22 | 1.67 | 2.68 | 1.90 | 1.04 | .73 | 1.34 | 1.02 | .59 | .60 | 14.43 |
| Pueblo, Colo. | .35 | .47 | .86 | 1.43 | 1.68 | 1.47 | 1.97 | 1.57 | .82 | .70 | .37 | .46 | 11.95 |
| Santa Fe, N. Mex. | .69 | .84 | .73 | .86 | 1.11 | 1.04 | 2.71 | 2.36 | 1.64 | 1.07 | .78 | .76 | 14.49 |
| Phoenix, Ariz. | 1.17 | .69 | .49 | .43 | .03 | .12 | 1.07 | .96 | 1.01 | .35 | .66 | .69 | 7.87 |
| Modena, Utah | 7.73 | 1.20 | 1.30 | .79 | .87 | .40 | 1.26 | 1.83 | 1.12 | .82 | .60 | .58 | 11.50 |
| Salt Lake City, Utah | 1.35 | 1.38 | 2.00 | 2.26 | 1.95 | .77 | .54 | .78 | .85 | 1.40 | 1.42 | 1.33 | 16.03 |
| Winnemucca, Nev. | 1.04 | .98 | .95 | .88 | 1.03 | .64 | .17 | .17 | .34 | .52 | .74 | .99 | 8.40 |
| Boise, Idaho. | 1.59 | 1.42 | 1.44 | 1.18 | 1.29 | .88 | .16 | .41 | 1.28 | .96 | 1.72 | 1.21 | 12.71 |
| Seattle, Wash. | 4.84 | 3.77 | 2.88 | 2.38 | 1.97 | 1.40 | .67 | .51 | 1.77 | 2.67 | 5.83 | 5.29 | 34.07 |
| Walla Walla, Wash. | 2.01 | 1.58 | 1.89 | 1.70 | 1.83 | 1.19 | .39 | .45 | .93 | 1.47 | 2.13 | 2.10 | 17.67 |
| Portland, Oreg. | 6.59 | 4.52 | 4.66 | 3.02 | 2.23 | 1.64 | .62 | .63 | 1.84 | 3.28 | 6.41 | 6.90 | 43.24 |
| Roseburg, Oreg. | 6.70 | 4.56 | 3.98 | 2.48 | 2.05 | 1.07 | .32 | .33 | 1.04 | 2.61 | 4.37 | 5.92 | 34.43 |
| Eureka, Calif. | 7.63 | 7.03 | 6.97 | 2.93 | 2.54 | 1.06 | .11 | .10 | 1.11 | 2.65 | 5.67 | 7.25 | 46.05 |
| Fresno, Calif. | 1.60 | 1.33 | 1.76 | .71 | .63 | .10 | .00 | .00 | .27 | .72 | 1.93 | 1.53 | 9.98 |
| Los Angeles, Calif. | 2.84 | 2.91 | 3.00 | 1.13 | .48 | .07 | .00 | .00 | .06 | .77 | 1.48 | 2.20 | 15.64 |
| Sacramento, Calif. | 3.69 | 3.14 | 3.01 | 2.00 | .98 | .15 | .00 | .01 | .39 | 1.04 | 2.15 | 3.83 | 28.69 |
| San Diego, Calif. | 2.00 | 1.96 | 1.70 | .74 | .41 | .03 | .00 | .00 | .06 | .46 | .83 | 1.82 | 10.01 |
| San Francisco, Calif. | 4.33 | 3.70 | 3.14 | 1.82 | .81 | .17 | .01 | .00 | .29 | 1.29 | 2.47 | 4.24 | 22.27 |

Weather Bureau.

¹ Normals are based on records of 20 or more years of observations.

TABLE 798.—Frost, killing: Dates of, with length of growing season

| Station | Spring frosts | | Autumn frosts | | Length of growing season between average dates of killing frost |
|-----------------------|------------------------------|------------------------------------|--------------------------------|--|---|
| | Latest date of killing frost | Average date of last killing frost | Earliest date of killing frost | Average date of earliest killing frost | |
| | | | | | Days |
| Greenville, Me. | June 23 | May 30 | Aug. 26 | Sept. 14 | 107 |
| Boston, Mass. | May 16 | Apr. 14 | Sept. 26 | Oct. 24 | 163 |
| Buffalo, N. Y. | May 23 | Apr. 26 | Sept. 23 | Oct. 19 | 176 |
| Canton, N. Y. | June 2 | May 8 | Sept. 11 | Sept. 28 | 143 |
| Trenton, N. J. | May 17 | Apr. 20 | Sept. 22 | Oct. 19 | 182 |
| Pittsburgh, Pa. | May 29 | Apr. 21 | Sept. 25 | Oct. 22 | 184 |
| Scranton, Pa. | May 10 | Apr. 20 | Sept. 14 | Oct. 13 | 170 |
| Cincinnati, Ohio | Apr. 26 | Apr. 14 | Sept. 30 | Oct. 26 | 194 |
| Cleveland, Ohio | May 21 | Apr. 15 | Oct. 2 | Nov. 2 | 201 |
| Evansville, Ind. | Apr. 26 | Apr. 6 | Sept. 30 | Oct. 27 | 204 |
| Indianapolis, Ind. | May 25 | Apr. 16 | Sept. 21 | Oct. 19 | 186 |
| Chicago, Ill. | May 23 | Apr. 18 | Sept. 20 | Oct. 18 | 183 |
| Peoria, Ill. | May 11 | Apr. 15 | Sept. 30 | Oct. 19 | 186 |
| Grand Rapids, Mich. | May 28 | Apr. 28 | Sept. 23 | Oct. 17 | 172 |
| Marquette, Mich. | June 6 | May 13 | Aug. 23 | Oct. 9 | 149 |
| Madison, Wis. | May 25 | Apr. 25 | Sept. 16 | Oct. 17 | 175 |
| Duluth, Minn. | June 14 | May 7 | Sept. 10 | Oct. 4 | 150 |
| St. Paul, Minn. | May 23 | Apr. 25 | Sept. 20 | Oct. 8 | 166 |
| Des Moines, Iowa | May 31 | Apr. 21 | Sept. 13 | Oct. 10 | 172 |
| Dubuque, Iowa | May 21 | Apr. 20 | Sept. 27 | Oct. 15 | 178 |
| St. Louis, Mo. | May 22 | Apr. 4 | Sept. 30 | Oct. 28 | 206 |
| Springfield, Mo. | May 19 | Apr. 14 | do. | Oct. 21 | 190 |
| Bismarck, N. Dak. | June 7 | May 11 | Aug. 23 | Sept. 20 | 132 |
| Devils Lake, N. Dak. | do. | May 16 | Aug. 8 | Sept. 19 | 126 |
| Pierre, S. Dak. | May 19 | Apr. 30 | Sept. 12 | Oct. 5 | 158 |
| North Platte, Nebr. | May 24 | May 1 | Sept. 10 | Sept. 30 | 152 |
| Omaha, Nebr. | May 19 | Apr. 15 | Sept. 18 | Oct. 13 | 181 |
| Concordia, Kans. | do. | Apr. 17 | Sept. 20 | Oct. 17 | 183 |
| Dodge City, Kans. | May 27 | Apr. 21 | Sept. 23 | Oct. 21 | 183 |
| Iola, Kans. | May 4 | Apr. 7 | Sept. 26 | Oct. 23 | 199 |
| Washington, D. C. | May 12 | Apr. 8 | Oct. 2 | Oct. 20 | 195 |
| Lynchburg, Va. | May 7 | Apr. 28 | do. | Oct. 27 | 182 |
| Norfolk, Va. | Apr. 26 | Mar. 25 | Oct. 11 | Nov. 17 | 237 |
| Parkersburg, W. Va. | May 22 | Apr. 16 | Oct. 1 | Oct. 16 | 183 |
| Charlotte, N. C. | Apr. 26 | Mar. 28 | Oct. 8 | Nov. 5 | 222 |
| Charleston, S. C. | Apr. 2 | Feb. 20 | Nov. 8 | Dec. 10 | 293 |
| Atlanta, Ga. | Apr. 17 | Mar. 31 | Oct. 11 | Nov. 7 | 221 |
| Thomasville, Ga. | Apr. 26 | Mar. 14 | Oct. 21 | Nov. 15 | 216 |
| Jacksonville, Fla. | Apr. 10 | Feb. 16 | Nov. 12 | Dec. 6 | 293 |
| Miami, Fla. | Feb. 19 | (¹) | Dec. 26 | (¹) | (¹) |
| Memphis, Tenn. | Apr. 25 | Mar. 22 | Oct. 2 | Nov. 3 | 226 |
| Nashville, Tenn. | Apr. 24 | Apr. 2 | Oct. 8 | Oct. 27 | 208 |
| Birmingham, Ala. | Apr. 17 | Mar. 16 | Oct. 21 | Nov. 9 | 236 |
| Mobile, Ala. | Apr. 6 | Feb. 17 | Oct. 31 | Dec. 5 | 291 |
| New Orleans, La. | Mar. 27 | Jan. 25 | Nov. 11 | Dec. 16 | 325 |
| Shreveport, La. | Apr. 9 | Mar. 6 | Oct. 20 | Nov. 10 | 249 |
| Amarillo, Tex. | May 23 | Apr. 17 | Sept. 22 | Oct. 29 | 195 |
| Brownsville, Tex. | Mar. 8 | Jan. 28 | Nov. 15 | Dec. 22 | 328 |
| El Paso, Tex. | Apr. 26 | Mar. 14 | Oct. 27 | Nov. 15 | 246 |
| Fort Worth, Tex. | Apr. 9 | Mar. 11 | Oct. 22 | Nov. 12 | 246 |
| Galveston, Tex. | Mar. 1 | Jan. 19 | Nov. 16 | Dec. 26 | 341 |
| San Antonio, Tex. | Apr. 5 | Feb. 24 | Oct. 30 | Nov. 28 | 277 |
| Oklahoma City, Okla. | Apr. 30 | Mar. 31 | Oct. 7 | Nov. 2 | 216 |
| Little Rock, Ark. | Apr. 26 | Mar. 18 | Oct. 22 | Nov. 14 | 240 |
| Havre, Mont. | June 6 | May 16 | Aug. 25 | Sept. 19 | 126 |
| Kalspell, Mont. | June 7 | May 6 | Sept. 10 | Oct. 2 | 126 |
| Cheyenne, Wyo. | June 13 | May 30 | Aug. 25 | Sept. 19 | 122 |
| Sheridan, Wyo. | June 6 | do. | do. | Sept. 20 | 123 |
| Pueblo, Colo. | June 2 | Apr. 27 | Sept. 12 | Oct. 8 | 164 |
| Santa Fe, N. Mex. | May 18 | Apr. 25 | Sept. 25 | Oct. 18 | 177 |
| Phoenix, Ariz. | Mar. 31 | Feb. 18 | Nov. 5 | Dec. 3 | 290 |
| Modena, Utah | July 3 | May 23 | Sept. 5 | Sept. 26 | 126 |
| Salt Lake City, Utah | June 18 | Apr. 20 | Sept. 22 | Oct. 20 | 188 |
| Winnemucca, Nev. | June 22 | May 18 | Aug. 22 | Sept. 26 | 138 |
| Boise, Idaho | June 16 | Apr. 27 | Sept. 11 | Oct. 12 | 167 |
| Seattle, Wash. | May 10 | Mar. 17 | Oct. 18 | Nov. 21 | 249 |
| Walla Walla, Wash. | Apr. 28 | Mar. 30 | Sept. 28 | Nov. 5 | 220 |
| Portland, Oreg. | May 2 | Mar. 18 | Oct. 13 | Nov. 19 | 288 |
| Bozaburg, Oreg. | May 24 | Apr. 14 | Sept. 24 | Nov. 12 | 212 |
| Bureka, Calif. | Apr. 7 | Feb. 8 | Nov. 11 | Nov. 25 | 291 |
| Fresno, Calif. | Apr. 14 | Feb. 22 | Oct. 31 | Dec. 2 | 283 |
| Los Angeles, Calif. | Feb. 17 | (¹) | Nov. 3 | (¹) | (¹) |
| Sacramento, Calif. | May 7 | Feb. 19 | Nov. 11 | Nov. 29 | 283 |
| San Diego, Calif. | Jan. 20 | (¹) | Dec. 26 | (¹) | (¹) |
| San Francisco, Calif. | Mar. 27 | Jan. 25 | Dec. 4 | Dec. 10 | 319 |

Weather Bureau; periods ranging from 30 to 51 years.

¹ Frosts do not occur every year.

TABLE 799.—Normal hourly wind velocity in miles at selected points in the United States¹

| Station | Elevation of anemometer above ground | January | February | March | April | May | June | July | August | September | October | November | December | Annual |
|-----------------------|--|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|--------|
| Portland, Me. | 117 | 9 | 9 | 10 | 9 | 9 | 8 | 8 | 7 | 8 | 8 | 9 | 9 | 8 |
| Boston, Mass. | 188 | 12 | 12 | 12 | 11 | 10 | 9 | 9 | 8 | 9 | 10 | 11 | 11 | 10 |
| Buffalo, N. Y. | 280 | 16 | 16 | 14 | 13 | 11 | 10 | 10 | 10 | 11 | 13 | 16 | 16 | 13 |
| Canton, N. Y. | 61 | 12 | 12 | 13 | 12 | 11 | 9 | 9 | 8 | 9 | 10 | 12 | 11 | 11 |
| Trenton, N. J. | 183 | 13 | 13 | 14 | 13 | 11 | 10 | 10 | 9 | 10 | 10 | 12 | 12 | 11 |
| Pittsburgh, Pa. | 410 | 12 | 13 | 13 | 12 | 10 | 9 | 9 | 8 | 9 | 10 | 12 | 12 | 11 |
| Scranton, Pa. | 119 | 9 | 8 | 8 | 8 | 7 | 6 | 6 | 6 | 6 | 7 | 8 | 8 | 7 |
| Cincinnati, Ohio | 51 | 8 | 9 | 9 | 8 | 7 | 6 | 6 | 5 | 6 | 6 | 7 | 8 | 7 |
| Cleveland, Ohio | 201 | 14 | 14 | 13 | 12 | 11 | 10 | 9 | 9 | 11 | 12 | 14 | 14 | 12 |
| Evansville, Ind. | 175 | 10 | 10 | 10 | 10 | 8 | 7 | 7 | 6 | 7 | 7 | 9 | 9 | 8 |
| Indianapolis, Ind. | 230 | 12 | 12 | 12 | 12 | 10 | 9 | 8 | 8 | 9 | 10 | 11 | 12 | 10 |
| Chicago, Ill. | 310 | 16 | 16 | 17 | 17 | 15 | 13 | 12 | 12 | 14 | 15 | 16 | 16 | 15 |
| Peoria, Ill. | 45 | 9 | 9 | 10 | 10 | 8 | 6 | 5 | 5 | 6 | 7 | 8 | 8 | 7 |
| Grand Rapids, Mich. | 87 | 9 | 9 | 9 | 9 | 8 | 7 | 7 | 6 | 7 | 7 | 8 | 8 | 7 |
| Marquette, Mich. | 111 | 11 | 11 | 11 | 11 | 10 | 8 | 8 | 8 | 9 | 11 | 12 | 11 | 10 |
| Madison, Wis. | 78 | 10 | 11 | 11 | 11 | 10 | 8 | 8 | 8 | 9 | 10 | 11 | 11 | 10 |
| Duluth, Minn. | 47 | 14 | 14 | 14 | 14 | 13 | 12 | 11 | 11 | 12 | 14 | 14 | 14 | 13 |
| St. Paul, Minn. | 261 | 12 | 12 | 13 | 13 | 12 | 10 | 10 | 9 | 10 | 12 | 12 | 12 | 11 |
| Des Moines, Iowa | 97 | 8 | 8 | 9 | 10 | 8 | 7 | 6 | 6 | 7 | 7 | 8 | 8 | 8 |
| Dubuque, Iowa | 96 | 6 | 7 | 7 | 8 | 6 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |
| St. Louis, Mo. | 303 | 12 | 12 | 13 | 12 | 11 | 10 | 9 | 8 | 9 | 10 | 12 | 12 | 11 |
| Springfield, Mo. | 104 | 11 | 12 | 12 | 12 | 10 | 9 | 8 | 8 | 9 | 10 | 11 | 11 | 10 |
| Blsmarck, N. Dak. | 57 | 9 | 9 | 10 | 12 | 11 | 10 | 9 | 9 | 10 | 10 | 9 | 9 | 10 |
| Devils Lake, N. Dak. | 44 | 11 | 12 | 13 | 13 | 12 | 11 | 9 | 9 | 10 | 11 | 11 | 11 | 11 |
| Pierre, S. Dak. | 75 | 8 | 9 | 11 | 12 | 11 | 10 | 9 | 9 | 9 | 8 | 8 | 8 | 9 |
| North Platte, Nebr. | 51 | 8 | 9 | 10 | 12 | 11 | 10 | 9 | 8 | 9 | 9 | 8 | 8 | 9 |
| Omaha, Nebr. | 122 | 9 | 10 | 10 | 10 | 9 | 8 | 6 | 7 | 8 | 8 | 11 | 9 | 9 |
| Concordia, Kans. | 58 | 8 | 8 | 9 | 10 | 9 | 7 | 6 | 7 | 8 | 7 | 7 | 7 | 8 |
| Dodge City, Kans. | 51 | 10 | 11 | 13 | 14 | 13 | 12 | 11 | 10 | 11 | 11 | 10 | 10 | 11 |
| Iola, Kans. | 50 | 8 | 9 | 10 | 9 | 8 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 8 |
| Washington, D. C. | 85 | 7 | 8 | 8 | 8 | 7 | 6 | 5 | 5 | 5 | 6 | 7 | 7 | 7 |
| Lynchburg, Va. | 183 | 5 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| Norfolk, Va. | 205 | 10 | 11 | 11 | 11 | 9 | 9 | 8 | 8 | 8 | 9 | 10 | 10 | 10 |
| Parkersburg, W. Va. | 84 | 7 | 7 | 7 | 7 | 5 | 4 | 4 | 4 | 4 | 5 | 6 | 6 | 6 |
| Charlotte, N. C. | 62 | 7 | 7 | 8 | 7 | 6 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |
| Charleston, S. C. | 92 | 11 | 11 | 11 | 12 | 11 | 10 | 10 | 11 | 11 | 11 | 10 | 10 | 11 |
| Atlanta, Ga. | 216 | 12 | 12 | 12 | 11 | 9 | 8 | 8 | 8 | 9 | 10 | 11 | 12 | 10 |
| Thomasville, Ga. | 58 | 6 | 6 | 6 | 5 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 |
| Jacksonville, Fla. | 245 | 8 | 9 | 9 | 9 | 8 | 8 | 8 | 7 | 8 | 9 | 8 | 8 | 8 |
| Miami, Fla. | 79 | 9 | 9 | 10 | 10 | 9 | 8 | 7 | 8 | 8 | 9 | 11 | 8 | 9 |
| Memphis, Tenn. | 97 | 10 | 10 | 10 | 10 | 8 | 7 | 7 | 6 | 7 | 7 | 8 | 9 | 8 |
| Nashville, Tenn. | 191 | 10 | 11 | 12 | 11 | 9 | 8 | 7 | 7 | 7 | 8 | 9 | 10 | 9 |
| Birmingham, Ala. | 48 | 8 | 9 | 9 | 8 | 6 | 6 | 5 | 5 | 6 | 6 | 7 | 7 | 7 |
| Mobile, Ala. | 161 | 8 | 8 | 9 | 9 | 8 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
| New Orleans, La. | 84 | 9 | 9 | 9 | 9 | 8 | 7 | 6 | 6 | 7 | 8 | 8 | 8 | 8 |
| Shreveport, La. | 93 | 8 | 8 | 8 | 7 | 6 | 6 | 5 | 5 | 6 | 6 | 7 | 7 | 7 |
| Amarillo, Tex. | 49 | 13 | 14 | 15 | 16 | 14 | 14 | 12 | 11 | 13 | 13 | 12 | 12 | 13 |
| Brownsville, Tex. | 44 | 8 | 9 | 9 | 10 | 8 | 7 | 7 | 6 | 6 | 6 | 7 | 8 | 8 |
| El Paso, Tex. | 133 | 10 | 12 | 13 | 13 | 13 | 11 | 10 | 9 | 9 | 10 | 10 | 10 | 11 |
| Fort Worth, Tex. | 114 | 11 | 12 | 13 | 12 | 11 | 11 | 10 | 9 | 9 | 10 | 10 | 10 | 11 |
| Galveston, Tex. | 114 | 12 | 12 | 12 | 12 | 11 | 10 | 9 | 8 | 10 | 10 | 11 | 11 | 11 |
| San Antonio, Tex. | 132 | 8 | 8 | 9 | 9 | 8 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 8 |
| Oklahoma City, Okla. | 47 | 13 | 14 | 15 | 15 | 13 | 12 | 10 | 11 | 12 | 12 | 12 | 12 | 12 |
| Little Rock, Ark. | 144 | 10 | 10 | 11 | 10 | 9 | 7 | 7 | 7 | 7 | 8 | 9 | 9 | 9 |
| Havre, Mont. | 44 | 10 | 9 | 10 | 10 | 10 | 9 | 8 | 7 | 8 | 8 | 10 | 10 | 9 |
| Kalispell, Mont. | 56 | 4 | 4 | 5 | 6 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 5 |
| Cheyenne, Wyo. | 101 | 14 | 13 | 13 | 12 | 11 | 10 | 9 | 8 | 9 | 10 | 12 | 12 | 11 |
| Sheridan, Wyo. | 47 | 5 | 5 | 7 | 8 | 8 | 6 | 5 | 5 | 5 | 6 | 5 | 5 | 6 |
| Pueblo, Colo. | 86 | 7 | 7 | 8 | 8 | 8 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 |
| Santa Fe, N. Mex. | 53 | 7 | 8 | 8 | 8 | 8 | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 |
| Phoenix, Ariz. | 32 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 5 |
| Modena, Utah | 43 | 9 | 10 | 11 | 12 | 12 | 12 | 11 | 11 | 10 | 9 | 9 | 9 | 10 |
| Salt Lake City, Utah | 203 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 6 | 6 | 7 |
| Winnemucca, Nev. | 56 | 8 | 9 | 9 | 9 | 8 | 8 | 8 | 7 | 7 | 7 | 8 | 8 | 8 |
| Boise, Idaho | 86 | 5 | 5 | 6 | 6 | 6 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 5 |
| Seattle, Wash. | 250 | 9 | 8 | 9 | 8 | 8 | 7 | 6 | 6 | 7 | 7 | 8 | 8 | 7 |
| Walla Walla, Wash. | 65 | 6 | 6 | 7 | 7 | 6 | 6 | 6 | 5 | 5 | 5 | 6 | 6 | 6 |
| Portland, Oreg. | 106 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 6 | 6 | 6 |
| Roseburg, Oreg. | 57 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 |
| Eureka, Calif. | 89 | 7 | 7 | 8 | 8 | 8 | 8 | 7 | 5 | 5 | 5 | 6 | 6 | 7 |
| Fresno, Calif. | 98 | 4 | 5 | 6 | 7 | 8 | 8 | 7 | 7 | 6 | 5 | 4 | 4 | 5 |
| Los Angeles, Calif. | 191 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 5 |
| Sacramento, Calif. | 117 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 8 | 7 | 7 | 7 | 8 |
| San Diego, Calif. | 70 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 6 |
| San Francisco, Calif. | 243 | 7 | 8 | 9 | 10 | 11 | 13 | 13 | 12 | 10 | 8 | 7 | 7 | 10 |

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¹ Normals are based on records of 15 or more years of observations.

TABLE 800.—Normal¹ monthly and annual percentages of possible sunshine at selected points in the United States

| Station | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual |
|-----------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|--------|
| Portland, Me. | 54 | 60 | 59 | 56 | 58 | 61 | 64 | 63 | 62 | 56 | 47 | 50 | 58 |
| Boston, Mass. | 49 | 58 | 57 | 55 | 59 | 63 | 64 | 63 | 62 | 56 | 48 | 48 | 57 |
| Buffalo, N. Y. | 28 | 40 | 49 | 52 | 57 | 64 | 66 | 63 | 60 | 47 | 30 | 23 | 48 |
| Canton, N. Y. | 37 | 47 | 52 | 48 | 55 | 61 | 63 | 60 | 54 | 41 | 28 | 29 | 48 |
| Trenton, N. J. | 49 | 54 | 61 | 56 | 59 | 60 | 60 | 63 | 65 | 60 | 55 | 48 | 58 |
| Pittsburgh, Pa. | 31 | 36 | 45 | 47 | 56 | 61 | 63 | 61 | 63 | 56 | 40 | 29 | 49 |
| Harrisburg, Pa. | 45 | 52 | 55 | 56 | 60 | 62 | 64 | 61 | 63 | 57 | 49 | 44 | 56 |
| Cincinnati, Ohio | 41 | 46 | 49 | 56 | 63 | 70 | 72 | 70 | 70 | 64 | 50 | 39 | 58 |
| Cleveland, Ohio | 29 | 34 | 45 | 49 | 58 | 65 | 68 | 64 | 62 | 52 | 31 | 23 | 48 |
| Evansville, Ind. | 47 | 50 | 57 | 62 | 72 | 74 | 80 | 74 | 74 | 66 | 59 | 46 | 63 |
| Indianapolis, Ind. | 42 | 47 | 48 | 53 | 60 | 66 | 70 | 66 | 67 | 61 | 52 | 40 | 56 |
| Chicago, Ill. | 45 | 51 | 54 | 59 | 64 | 71 | 73 | 70 | 65 | 60 | 47 | 41 | 58 |
| Peoria, Ill. | 42 | 51 | 59 | 60 | 66 | 73 | 76 | 71 | 67 | 62 | 55 | 47 | 61 |
| Grand Rapids, Mich. | 28 | 37 | 49 | 51 | 58 | 63 | 71 | 67 | 59 | 49 | 32 | 23 | 49 |
| Marquette, Mich. | 37 | 45 | 52 | 53 | 55 | 61 | 64 | 57 | 49 | 37 | 23 | 28 | 47 |
| Madison, Wis. | 44 | 51 | 53 | 52 | 57 | 64 | 69 | 64 | 59 | 52 | 41 | 37 | 54 |
| Duluth, Minn. | 47 | 58 | 60 | 58 | 56 | 61 | 63 | 61 | 56 | 45 | 39 | 41 | 54 |
| St. Paul, Minn. | 49 | 56 | 55 | 58 | 57 | 62 | 70 | 66 | 60 | 53 | 44 | 41 | 56 |
| Des Moines, Iowa | 53 | 56 | 56 | 58 | 61 | 66 | 73 | 71 | 63 | 63 | 54 | 50 | 60 |
| Dubuque, Iowa | 49 | 53 | 53 | 57 | 58 | 64 | 70 | 64 | 59 | 55 | 46 | 42 | 56 |
| St. Louis, Mo. | 49 | 51 | 55 | 58 | 64 | 69 | 71 | 68 | 68 | 65 | 46 | 46 | 60 |
| Springfield, Mo. | 50 | 57 | 58 | 60 | 62 | 67 | 74 | 64 | 71 | 63 | 60 | 50 | 61 |
| Bismarck, N. Dak. | 53 | 58 | 56 | 58 | 58 | 62 | 71 | 69 | 62 | 60 | 52 | 45 | 59 |
| Devils Lake, N. Dak. | 57 | 65 | 61 | 62 | 57 | 60 | 68 | 65 | 58 | 54 | 47 | 45 | 59 |
| Huron, S. Dak. | 62 | 64 | 66 | 62 | 63 | 75 | 81 | 78 | 73 | 71 | 64 | 57 | 68 |
| North Platte, Nebr. | 55 | 57 | 57 | 56 | 62 | 68 | 75 | 69 | 65 | 63 | 55 | 52 | 61 |
| Omaha, Nebr. | 60 | 63 | 69 | 65 | 68 | 77 | 82 | 80 | 75 | 71 | 68 | 58 | 70 |
| Concordia, Kans. | 65 | 66 | 66 | 66 | 65 | 71 | 74 | 77 | 73 | 75 | 71 | 67 | 70 |
| Dodge City, Kans. | 56 | 60 | 61 | 60 | 64 | 70 | 78 | 73 | 69 | 65 | 62 | 54 | 64 |
| Iola, Kans. | 46 | 54 | 54 | 58 | 61 | 62 | 64 | 61 | 63 | 61 | 56 | 51 | 58 |
| Washington, D. C. | 45 | 53 | 59 | 62 | 67 | 65 | 70 | 66 | 66 | 64 | 57 | 45 | 60 |
| Lynchburg, Va. | 50 | 56 | 58 | 60 | 62 | 60 | 63 | 62 | 62 | 63 | 62 | 50 | 59 |
| Norfolk, Va. | 30 | 37 | 42 | 48 | 55 | 58 | 62 | 57 | 59 | 52 | 37 | 27 | 47 |
| Parkersburg, W. Va. | 50 | 56 | 62 | 65 | 71 | 67 | 62 | 61 | 66 | 65 | 66 | 52 | 62 |
| Charlotte, N. C. | 58 | 58 | 65 | 71 | 71 | 69 | 63 | 63 | 66 | 66 | 69 | 55 | 65 |
| Charleston, S. C. | 47 | 53 | 56 | 64 | 68 | 69 | 60 | 58 | 66 | 65 | 63 | 47 | 60 |
| Atlanta, Ga. | 53 | 54 | 63 | 66 | 67 | 65 | 56 | 58 | 59 | 62 | 64 | 51 | 60 |
| Thomasville, Ga. | 56 | 57 | 67 | 73 | 71 | 65 | 63 | 63 | 60 | 56 | 62 | 52 | 62 |
| Jacksonville, Fla. | 64 | 69 | 72 | 72 | 66 | 81 | 66 | 70 | 64 | 60 | 60 | 62 | 68 |
| Miami, Fla. | 46 | 54 | 58 | 65 | 67 | 73 | 73 | 72 | 72 | 70 | 62 | 45 | 63 |
| Memphis, Tenn. | 43 | 47 | 53 | 61 | 67 | 69 | 70 | 69 | 70 | 65 | 57 | 42 | 59 |
| Nashville, Tenn. | 45 | 51 | 58 | 62 | 64 | 68 | 61 | 64 | 68 | 67 | 63 | 43 | 60 |
| Birmingham, Ala. | 50 | 56 | 62 | 73 | 71 | 68 | 60 | 62 | 64 | 66 | 57 | 47 | 61 |
| Mobile, Ala. | 48 | 50 | 57 | 60 | 66 | 60 | 54 | 54 | 61 | 64 | 56 | 46 | 56 |
| New Orleans, La. | 76 | 77 | 80 | 79 | 80 | 85 | 81 | 82 | 80 | 78 | 78 | 76 | 79 |
| Amarillo, Tex. | 51 | 55 | 58 | 59 | 67 | 74 | 72 | 69 | 70 | 70 | 60 | 46 | 63 |
| Houston, Tex. | 74 | 79 | 83 | 87 | 89 | 89 | 79 | 77 | 81 | 84 | 78 | 75 | 81 |
| El Paso, Tex. | 55 | 63 | 67 | 69 | 72 | 73 | 86 | 79 | 82 | 68 | 69 | 61 | 70 |
| Fort Worth, Tex. | 52 | 53 | 57 | 62 | 70 | 78 | 74 | 70 | 69 | 77 | 66 | 53 | 65 |
| Galveston, Tex. | 51 | 53 | 57 | 57 | 62 | 71 | 73 | 75 | 71 | 67 | 62 | 52 | 62 |
| San Antonio, Tex. | 55 | 60 | 60 | 62 | 63 | 71 | 76 | 77 | 73 | 67 | 64 | 59 | 66 |
| Oklahoma City, Okla. | 46 | 53 | 56 | 62 | 65 | 71 | 70 | 71 | 72 | 70 | 60 | 48 | 62 |
| Little Rock, Ark. | 43 | 53 | 56 | 56 | 55 | 64 | 73 | 70 | 60 | 46 | 47 | 42 | 55 |
| Haure, Mont. | 29 | 41 | 50 | 56 | 52 | 60 | 73 | 68 | 59 | 51 | 30 | 22 | 49 |
| Kalispell, Mont. | 64 | 64 | 64 | 60 | 58 | 67 | 69 | 69 | 67 | 67 | 65 | 63 | 65 |
| Cheyenne, Wyo. | 56 | 62 | 64 | 58 | 60 | 68 | 71 | 69 | 62 | 54 | 52 | 53 | 61 |
| Sheridan, Wyo. | 77 | 77 | 74 | 69 | 71 | 76 | 74 | 74 | 79 | 78 | 76 | 77 | 75 |
| Pueblo, Colo. | 72 | 72 | 72 | 74 | 75 | 79 | 67 | 70 | 77 | 79 | 77 | 74 | 74 |
| Santa Fe, N. Mex. | 72 | 77 | 80 | 87 | 91 | 88 | 82 | 88 | 89 | 89 | 83 | 77 | 84 |
| Phoenix, Ariz. | 64 | 65 | 66 | 69 | 74 | 86 | 75 | 76 | 80 | 80 | 72 | 63 | 72 |
| Modena, Utah | 45 | 48 | 54 | 62 | 66 | 77 | 78 | 76 | 68 | 68 | 58 | 44 | 63 |
| Salt Lake City, Utah | 56 | 60 | 67 | 74 | 77 | 85 | 91 | 92 | 86 | 79 | 65 | 53 | 74 |
| Winnemucca, Nev. | 38 | 48 | 57 | 66 | 71 | 79 | 87 | 86 | 79 | 69 | 50 | 40 | 64 |
| Boise, Idaho | 25 | 35 | 44 | 51 | 51 | 54 | 63 | 59 | 48 | 33 | 21 | 21 | 42 |
| Beattie, Wash. | 26 | 34 | 53 | 64 | 67 | 74 | 85 | 84 | 71 | 61 | 34 | 20 | 56 |
| Walla Walla, Wash. | 25 | 32 | 39 | 47 | 50 | 56 | 70 | 66 | 52 | 43 | 26 | 23 | 44 |
| Portland, Ore. | 42 | 50 | 55 | 60 | 63 | 67 | 79 | 81 | 74 | 65 | 46 | 36 | 60 |
| Baker, Ore. | 37 | 39 | 43 | 51 | 51 | 53 | 44 | 40 | 47 | 45 | 39 | 40 | 44 |
| Eureka, Calif. | 44 | 60 | 64 | 82 | 87 | 94 | 96 | 97 | 90 | 87 | 70 | 47 | 76 |
| Fresno, Calif. | 67 | 68 | 67 | 69 | 62 | 71 | 77 | 79 | 77 | 76 | 77 | 73 | 72 |
| Los Angeles, Calif. | 46 | 56 | 65 | 80 | 81 | 89 | 96 | 96 | 89 | 82 | 64 | 44 | 74 |
| Sacramento, Calif. | 67 | 67 | 66 | 69 | 58 | 62 | 67 | 72 | 72 | 73 | 76 | 74 | 68 |
| San Diego, Calif. | 52 | 54 | 59 | 70 | 70 | 75 | 69 | 63 | 70 | 69 | 60 | 54 | 64 |
| San Francisco, Calif. | | | | | | | | | | | | | |

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¹ Normals are based on records of 15 or more years of observations.

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